Impact of Rural Basic Human Capital Investment on Regional Development Ability

LI Chang-zhen[1]*, WANG Zhi-yuan[2]

1. School of Public Management, Guangxi University, Nanning 530004, China; 2. Department of Politics and Public Management, Guangxi Normal University for Nationalities, Chongzuo 532200, China

Abstract From the perspective of human resources development and regional economic cooperation, this paper expounds the basic conditions for socio-economic transformation and development in underdeveloped rural areas, and the ways to acquire basic human capital. On the basis of this, this paper further analyses the regional competitiveness difference arising from human capital difference, and proposes that we should solve this problem through sufficient supply of rural compulsory education.

Key words Rural basic human capital, Regional development ability, Supply of compulsory education, China

1 Analysis of rural residents' cultural quality and modernity in underdeveloped rural areas

In the process of transformation and development of underdeveloped rural areas from underdeveloped economy to developed economy, we need to have a series of conditions, including material conditions, such as rapidly formed and effectively used capital resources, the labour resources suitable for modern industrial development needs, the development of science and technology in advance, the modern management system compatible with modern industrial production modes, infrastructure building needing prior development, and so on. Human capital theory reveals that the determinant production factors improving welfare for the poor are not space, energy and arable land, but promotion of population quality and improvement of the level of knowledge. On the face of it, the basic conditions for socio-economic transformation in the remote areas include the following aspects.

1.1 The cultural quality of rural residents in underdeveloped rural areas Human is the core strength of regional socio-economic development. Human cultural quality and physical quality is the main momentum for regional development, and one of the main criteria of modernization of social development. Remote poor areas and remote mountainous areas, with large population base, are inhabited by ethnic minority nationality, characterized by high birth rate and high natural growth rate. These characteristics cannot be changed effectively in the short term , which will no doubt impact the improvement of the quality of Chinese. We select two indices of the average length of education enjoyed by people and illiteracy rate that can reflect cultural qualities of people, and conduct comparison among the eastern area, central area and western area, so as to illustrate the role of quality of the population in the economic and social development.

1.1.1 The average length of education enjoyed by people aged over 6. In terms of the average length of education enjoyed by people, in plain counties, there is slight difference among provinces in the eastern area, central area and western area, arranging from 7 to 8 years on the whole, aside from slightly short length in Anhui Province and slightly long length in Beijing City; in the hilly counties, there is slight difference among provinces in eastern provinces and central provinces, arranging from 7 to 8 years, apart from relatively short length of Anhui Province, while in western area, with the exception of Inner Mongolia (7.44 years), Guangxi (7.37 years), Xinjiang (7.25 years), greater than 7 years, the average length of education enjoyed by people in rest areas is less than 7 years; in the mountainous counties, only the average length of education enjoyed by people of Anhui Province (6.85 years) is less than 7 years in the eastern and central provinces, the average length of education enjoyed by people in the rest areas is less than 7 years, and the average length of education enjoyed by people in Tibet is only 2.81 years[1].

1.1.2 Comparison of illiteracy rate among people aged over 15. The average length of education enjoyed by people in western regions, especially in remote western mountainous areas, on the whole, is short, with high proportion of the illiterate and semiliterate, which is the prominent characteristic of the western population. The educational level constitution of population, namely the educational level distribution of population, reflects the cultural quality of people in this region. In 2001, among the people aged 15 and more than 15 in western regions, the illiterate and semiliterate account for 24.9%, while among the people aged 15 and more than 15 in China in the same period, the illiterate and semiliterate account for 15.78%, so we can find that the illiterate and semiliterate population in the western regions is more than the national average by 9 percentage points.

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* Corresponding author. E-mail: 337052204@qq.com

For remote poor rural areas and remote mountainous areas, this proportion is even higher.

As can be seen from the above analysis, the quality of people in remote rural areas is the key factor responsible for the backwardness. The essence of solving this problem is to popularize and promote the education in remote rural areas.

1.2 The modernity of rural residents in underdeveloped rural areas American social psychologist Inkeles made definition of modern people: citizenship awareness, sense of personal efficacy, independence and autonomy, accepting new experience and new ideas, having an interest in public affairs, and so on. These features of modernity are not innate, but the acquired educational experience, formed in experience in the modern organization working and contact with modern media. This is a process of gradual learning and adapting to modern society.

In the light of deep meaning of human modernity, it is not limited to general rapid development of economy and technology, but the profound transformation of civilization and culture, and fundamental transformation of human existence mode or behaviour model. In this sense, human must realize modernization, that is, human transforms from intrinsic, spontaneous passive subject in traditional agricultural society to free, conscious creative subject in modern industrial society. In other words, it is the transformation from intrinsic and spontaneous traditional subject by virtue of habits, traditions, customs, and emotions to free and conscious modern subject with self-autonomy, creativity, human spirit and technology rationality. These are especially important to people in remote areas.

Underdeveloped rural areas are away from the center of population, wealth and power. The difficulty of reaching and marginality expose these areas in economic and political edge, generally showing characteristics of poorness, backwardness, and closeness, so that the mountainous areas are placed in the forefront of economic poverty . Due to long-term accumulation of farming culture, occlusion of the natural environment and restrictions of " orderly-diversity pattern" in underdeveloped rural areas, the residents have dedicated preference and affection for traditional regional culture and lifestyle, but have instinct rejection and aversion to external culture, modern culture and urban lifestyle, which is obviously detrimental to the development of underdeveloped rural areas. After entering industrial society, the production conditions change dramatically. The industrial society, as an open society, is commercialized and market-oriented society. The logistics, flow of the people, information flow, technology flow and so on, need people to adapt to and accept them. The poverty culture stemming from the remoteness and closeness in remote areas, and aversion and repulsion to external culture, have been incompatible with openness, flexibility and other features of modern people, in conflict with the process of industrialization and urbanization, becoming stumbling block to socio-economic development.

In the long run, the western development and regional economic cooperation not only lack capital, but also education. Through education, people can continue to adapt to modern society, so as to become the people with modern traits, which is one of indispensable essential conditions for transformation and development in underdeveloped rural areas.

2 Formation and acquisition of basic human capital in underdeveloped rural areas

2.1 The surplus agricultural labour forces under dual economy The surplus agricultural labour forces in the remote western regions are often defined as such labour forces, who engage in agricultural work, and if they transfer out of the agricultural sector, it will not reduce total agricultural yield, that is, their marginal productivity of labour is equal to or close to 0. Lewis's economic development model under the condition of unlimited supply of labour forces, asserts that there is infinite supply of labour forces in the traditional agricultural sectors. On the one hand, relative to capital and land, the labour forces are surplus, and the marginal productivity of agricultural labour is 0 or negative; on the other hand, the agricultural workers' income can only maintain a minimum standard of living of labour. The labour productivity of modern industrial sector is high, and in face of low-wage level in agricultural sectors, as long as the wage offered by the industrial sector is slightly higher than the wage offered by agricultural sectors, they can get steady labour forces supply. As a result, the industrial sector expand incessantly due to constant supply of surplus agricultural labour forces, while the labour productivity of agriculture after outflow of surplus labour forces is promoted, and accordingly the farmers' income is increased, therefore, the entire economy can step into " turning point" of the agricultural sector stopping withdrawing the labour forces; agricultural labour is decreased to a certain extent, total agricultural output begins to decline, the supply of agricultural products is unable to meet the demand, and the prices will rise. Coupled with the withdrawal of surplus labour forces, agricultural workers' wages may rise. This will force the industrial sector to pay higher wages, and the accumulation capacity will reach this turning point. To this point, the modern industrial sector still needs the labour forces to pull out of the agricultural sectors. The feasible way is to promote technological advances in agriculture, enhance agricultural productivity, and increase surplus of agricultural products[2]. John Fei and Ranis model holds that there are initial differences on production and organization between the economic commercialization (modern) sector and non-commercialization (traditional) sectors. Relative to the fixed land, the rural population is too rich, and hence there is no labour forces market with clearing in the traditional sectors. This is the surplus economy of labour forces. The goal of development is to conduct continuous reallocation of labour forces, to eliminate surplus of labour forces. This requires the two sectors to jointly carry out investment and innovation, in order to achieve balanced growth, until all the hidden unemployed are forced out. When commercialization is completed, the wage equals the marginal product of labour. In the process of transformation of underdeveloped economy to developed economy, most of the rural residents engage in agricultural production in rural areas. When begin-

ning to grow toward modern economy, it often encounters population explosion, and the continuous population growth pressure in the given land leads to rich supply of labour forces. The key of the growth process is the allocation of labour forces from agriculture to non-agriculture. This is an important factor of structural change in the process of transformation from underdeveloped economy to developed economy.

The surplus agricultural labour forces in China's remote western regions still exist. In no sense mercurial, the land in underdeveloped western rural areas on the whole is meagre, the arable land area is limited, and a large number of rural surplus labour forces have become onerous burden, severely restricting the social and economic development in western regions, particularly in the western remote rural regions, bringing big obstacle to the transformation of economic growth pattern. If these surplus agricultural labour forces can not timely transfer to non-agricultural sector, agricultural sector, industrial sector and commercial sector (or the entity of modern agricultural framework integrating production, processing, and distribution), the labour productivity in agriculture can not be significantly improved, and the agriculture in the remote western regions can not enter into the modern period from the traditional stage[3]. Therefore, we should use development of human resources to promote the transfer of rural surplus labour forces in remote areas, and increase efforts to cultivate human capital, stabilize agricultural production, transform economic growth pattern, and use high quality of human resources to promote the development of township enterprises in underdeveloped rural areas and the industrialization of agriculture.

2.2 Formation and acquisition approaches of basic human capital in underdeveloped rural areas There is a large number of surplus agricultural labour forces in dual economy, which is a barrier to transformation of economic growth mode in underdeveloped rural areas. The process of timely transferring these surplus labour forces to non-agricultural sector, agricultural sector, industrial sector and commercial sector, in fact, is the process of formation and acquisition of basic human capital in underdeveloped economy.

In the infancy of large-scale industrialization, as the use of machines improves labour productivity, so the workers benefit from welfare of the output growth, and especially the physical fitness, operating skills, and basic knowledge of labour forces with primary level of human capital, are improved, so that the quality of labour forces and economic growth form a virtuous cycle mode. When the economy enters a certain stage, the contribution of level of human capital to economic growth gradually emerges. In general, the higher the educational level, the stronger the ability to judge and react. The labour forces who are educated get easier access to appropriate financial information than those who are not educated. The benefit stemming from this kind of advantage may, to some extent, belong to educated people. Or, receiving more education can increase income for the individual, and promote economic growth in a large measure for the entire region. If the education is for all labour forces in the whole region, then it raise the overall level of education, and increase the stock of basic human capital.

As the investment in human capital in underdeveloped rural areas has strong positive externality, investment in the individual human capital can promote socio-economic growth efficiency in entire region, which is so-called endogenous economic growth of regional economy. The policy effect of government is to increase human capital investment in education. In terms of underdeveloped rural areas, the investment in the primary and secondary education and culture for rural children is the most beneficial human capital investment. Adequate supply of compulsory education, can improve the level of education of all citizens, so that they master more production knowledge, technology and skills, which will help China to promote new technologies, new processes, new methods and so on. And fostering relatively consistent values and idea among all citizens, is the basis for the state to reduce transaction costs, maintain social stability, and successfully maximize the interests of the state. If the system of basic education system is perfect, then the state can successfully implement various policies to boost economic growth. On the contrary, various policies implemented by the state will need high system cost, impeding the economic growth. This growth of national economy is so, and so is the regional economic growth.

3 Analysis of regional development competitiveness under human capital difference

On the basis of context of China's economic development, Gu Zhaohui and other scholars, in terms of theory, explore the influence of human capital formation in the evolution and development of regional differences under the condition of monopolistic competition market, and establish regional economic difference model based on inter-generational human capital formation. Such study empirically confirms the economic development difference caused by the differences in human capital[4]. Gui Lezheng and other researchers, under the premise of the same number of human resources, conduct comparative research on differences of human capital operation in 6 central provinces and 5 eastern provinces, and conclude that the reason of differences in regional human capital operation mainly lies in the regional stock of human capital, use benefit of human resources and talent resources, regional economic and technological platforms, differences in the quality of human resources and talent resources, and so on[5].

This paper uses the regional competitiveness difference taking technological factor and human capital factor as support, to illustrate regional competitiveness differences caused by the differences in human capital.

3.1 Competitiveness status of taking technology factors as pillar Technological factor takes 4 support points for explanation, namely research and development expenditure, research and development personnel, technology management, and technological achievements output. In the period 1985 – 2005, in the eastern regions, the technological competitiveness was always steadily increasing. In the mid-1990s, its strength index basically was 2.04; after the mid-1990s, its strength in-

dex basically was 2.67; technological competitiveness factor was the best in 2004, with the strength index of 375; the average ranking of provinces in eastern regions was 10.0, all reaching the highest[6]. In 2004, in 4 support points of technological factor in eastern regions, scientific and technological achievements output has the strongest competitiveness, with strength index of 8.25 and an average ranking of 7.6, all the highest, which is the competitive advantage in eastern regions. The 2 factors of research and development expenditure, research and development personnel make good performance, with strength index of 2.67, ranking rather fore. It also becomes one of competitive advantages in eastern regions (Table 1).

Table 1 Competitiveness index of technology factors of 11 provinces in eastern regions of China[7]

	Research and development expenditure	Research and development personnel	Technology management	Technology achievements yield
Number of provinces with strong competitiveness	7	7	6	10
Number of provinces with sub-weak competitiveness	2	2	2	0
Number of provinces with extremely weak competitiveness	2	2	3	1
Strongness and sub-weakness index	2.67	2.67	2.33	11.00
Strongness and extreme weakness index	2.67	2.67	1.75	5.50
Strongness and weakness index	2.67	2.67	2.04	8.25
Average ranking of 11 provinces in eastern regions	10.30	10.40	12.10	7.60

The strength index of technological factor competitiveness in the western regions fails to reach the average level of 1.00 in 20 years, becoming the competitive disadvantage of the western regions. In 20 years, the strength index has fluctuated in 0.55 – 0.69 for 17 years, but it suddenly drops to 0.36 in 2003 and 2004. The technological competitiveness in this region achieves the best in 1996 and 1998. Its strength index is 0.69, reaching the highest ranking in the area. In 2004, in 4 support points of technological factor in the western regions, the strength index all was less than 1.00, becoming the absolute disadvantage to competition in the region, wherein the highest is technological management factor, with strength index of 0.92. Meanwhile, the average ranking of 4 support points is below 16. The top is technological management, with the average ranking of 19.5, but also below the national average (Table 2).

Table 2 Competitiveness index of technology factors of 12 provinces in western regions of China

	Research and development expenditure	Research and development personnel	Technology management	Technology achievements yield
Number of provinces with strong competitiveness	2	2	3	0
Number of provinces with sub-weak competitiveness	3	2	2	4
Number of provinces with extremely weak competitiveness	7	8	7	8
Strongness and sub-weakness index	0.75	1.00	1.33	0.20
Strongness and extreme weakness index	0.38	0.33	0.50	0.11
Strongness and weakness index	0.56	0.67	0.92	0.16
Average ranking of 12 provinces in western regions	21.20	21.70	19.50	23.00

3.2 Competitiveness status of taking human resources and life quality as pillar Human resources factors are to be explained through 3 indicators: employment and unemployment, educational characteristics, and quality of life. The competitiveness of human resources and quality of life in the eastern regions, in the period 2001 – 2005, although fluctuated, the strength index of this factor was 6.67 in 2003, with the average ranking of 6.4, reaching the highest. In 2005, in three factors of employment and unemployment, educational characteristics, and quality of life in the eastern regions, quality of life had the strongest competitiveness, with strength index of 3.0 and average ranking of 8.2, which was the competitive advantage. The performance of educational characteristic was good, with strength index of 3.0 and average ranking of 8.6, which was one of the competitive advantages in the eastern regions (Table 3).

In the western regions, the competitiveness of human resources and quality of life, in the period 2001 – 2005, was with low holistic level. In five years, the strength index never exceeded the national average of 1.00, fluctuating in 0.15 – 0.33, which became the disadvantage factor to competitiveness of the western regions. In 2004, it was the highest, with strength index of 0.33, with the average ranking of 21.9.

Table 3 Competitiveness index of human resources and life of 11 provinces in eastern regions of China

	Employment and unemployment	Educational characteristics	Life quality
Number of provinces with strong competitiveness	5	7	7
Number of provinces with sub-weak competitiveness	3	3	3
Number of provinces with extremely weak competitiveness	3	1	1
Strongness and sub-weakness index	1.50	2.00	2.00
Strongness and extreme weakness index	1.50	4.00	4.00
Strongness and weakness index	1.50	3.00	3.00
Average ranking of 11 provinces in eastern regions	15.0	8.60	8.20

Table 4 Competitiveness index of human resources and life of 12 provinces in western regions of China

	Employment and unemployment	Educational characteristics	Life quality
Number of provinces with strong competitiveness	4	0	1
Number of provinces with sub-weak competitiveness	4	3	6
Number of provinces with extremely weak competitiveness	4	9	5
Strongness and sub-weakness index	1.00	0.25	0.29
Strongness and extreme weakness index	1.50	0.10	0.33
Strongness and weakness index	1.00	0.18	0.31
Average ranking of 12 provinces in western regions	15.20	24.80	21.20

Meanwhile, in the western regions, strength index of human resources and quality of life in 2005 all never exceed 1.00, becoming the absolute disadvantage of competition. The highest is the support point of employment and unemployment, with the strength index of 1.00, and the poorest is the support point of educational characteristics, with strength index of 0.18. Meanwhile, the top in the average ranking of 3 support points is employment and unemployment, with the average ranking of 1.52, while the ranking of the rest two is below the national average. The competitiveness of human resources and quality of life in Guangxi is not high on the whole, ranking NO. 17 in 2005. Especially the performance of educational characteristics is common, in the absolute weakness position of competitiveness.

In the two determinant factors of regional competitiveness, the support point with strength index over 2.50 is the competitive advantage in this region, and the support point with strength index below 1.50 is the competitive disadvantage in this region. Through the above comparison, it can be seen that the comparison of absolute advantage and absolute disadvantage between competitiveness of the eastern regions and competitiveness of the western regions is prominent.

4 Countermeasures

In the light of momentum problem of development in underdeveloped rural areas, at present, in the academic world at home and abroad, there are mainly two kinds of views.

4.1 Endogenous views of development This view holds that in order to achieve economic and social development in the western underdeveloped regions, ultimately we need to rely on internal forces, namely view of endogenous development. View of endogenous development is divided into two kinds as follows. The first is input-output concept in neo-classical economics, which holds that the fundamental problem of the development of underdeveloped regions lies in improving agricultural yield, changing agricultural industrial structure, and realizing the agricultural industrialization management. In order to achieve this goal, we should increase factor inputs to agriculture, such as capital, technology, labour forces, land and so on; increase the labour incomes of urban residents and rural residents; channel capital inflows to the primary industry and the secondary industry, so as to improve productivity in underdeveloped regions and increase residents' income. The second is the view of new institutional economics. It holds that constrained by resource endowment such as natural conditions, the development potential of underdeveloped regions has already been depleted. Many support measures in underdeveloped regions of China are temporary solutions. In underdeveloped regions, especially in rural areas, the farmers' enthusiasm is difficult to be inspired, and expansion of urban and rural dual structure leads to the outflow of a large number of farmers, thereby the food security and rural stability are threatened. In this context, new institutional economics holds that the development potential in the underdeveloped regions is still great, and the key is that unreasonable system shackles the development of underdeveloped regions. To solve this problem, we must reform these systems, and promote the allocation efficiency of resources in underdeveloped regions. To realize property rights reform of land, large-scale and industrial-oriented business model, and so on, the key is to promoting the quality of the population in underdeveloped regions, developing education, and strengthening the endogenous development potential in underdeveloped regions.

4.2 Exogenous views of development This point of view opines that China's national condition determines the shortage of self-development potential in underdeveloped regions, and thus depending on self to develop is clearly impossible, and we must rely on external forces to promote the development of underdeveloped regions, namely the view of exogenous development. The first external force is industrialization. Accelerating the industrialization of underdeveloped regions, can promote employment. increase income of urban and rural residents, transfer a large number of rural labour forces, accelerate urbanization, accelerate the development of the tertiary industry, promote the industrialization and scale of agriculture, and finally achieve urban and rural integration. The second external force is the government. The government must bring vitality to underdeveloped regions through financial transfer and financial support, strengthen infrastructure building in underdeveloped regions, especially transportation and water conservancy construction, improve rural health care, pension security system in underdeveloped regions, increase educational inputs into remote rural areas, and provide better conditions for the development of underdeveloped regions. The third external force is the international market and foreign investment. With China's accession to the WTO and the international regional cooperation, the foreign markets open the door to other countries, so the underdeveloped regions should fully rely on their comparative advantage in labour-intensive industries, vigorously attract foreign investment, promote exports of agricultural products and stimulate rural development.

As far as we are concerned, endogenous development is the fundamental condition for economic and social development in underdeveloped rural areas. Exogenous development is necessary

(To page 50)

emphasis on industry and trade, so that the supply and marketing cooperatives may become the backbone of rural commercial services, the leading force for rural modern circulation and the motivating force of farmers' professional cooperation. Therefore, it is an unshirkable duty for supply and marketing cooperatives to enhance the management of farmers' professional cooperatives.

3.5 Establish scientific evaluation and incentive system to push forward healthy development of these cooperatives Farmers' professional cooperatives play an important role in increase of farmers' income and development of agriculture. Thus, government should establish incentive system for those cooperatives that really guide farmers to get rich, so as to achieve a sustainable development of those cooperatives. Meanwhile, government at grass-roots level should actively enlarge scale of farmers' professional cooperatives and push forward industrial development. Besides, it is required to vitalize such stock assets as rural land and forest land based on demands and strengths of farmers, and guide farmers to join in farmers' professional cooperatives through converting contractual management right of rural land and right of forest into shares. Furthermore, based on household contractual management and on the voluntary and democratic development principles, it is required for government at grass-roots level to establish and perfect all corresponding systems, urge farmers' professional cooperatives to operate in compliance with regulations and manage in accordance with systems, in the hope of building professional cooperatives closely connected with interests of farmers.

References

[1] LI P. Transformation of countryside governments' functions and development of farmers' cooperation organization in building a new countryside[J]. Chinese Public Administration, 2008(5): 81 – 83. (in Chinese).

[2] XIA Y. Farmers' specialized cooperative economic organizations in the development of the government behavior and related policy laws and regulations in China[J]. Management and Administration on Rural Cooperative, 2008(11): 17 – 22. (in Chinese).

[3] LI H. Introduction to the local government and farmers' specialized cooperative economic organization of the interactive relationship[J]. Journal of Liaoning Administration College, 2010(8): 13 – 16. (in Chinese).

[4] SHAN XY. Farmers' specialized cooperative economic organizations and governmental financial support[J]. Journal of Hunan College of Finance and Economics, 2008(5): 24 – 26. (in Chinese).

[5] WANG JY. Development of farmers' cooperative economic organizations and government actions[J]. Journal of Qingdao Agricultural University: Social Science, 2010(2): 19 – 23. (in Chinese).

[6] WANG F, GUO JC. Investigation and thoughts on the farmers' specialized cooperative economic organizations[J]. Asian Agriculture Research, 2009, 1(7):4 – 7, 24.

[7] HE P, YAO WC, HE BL. Study on the environment of farmers' specialized cooperative organizations[J]. Journal of Anhui Agricultural Sciences, 2010, 38(31): 17853 – 17856. (in Chinese).

[8] ZHANG PJ, ZHANG Y, HU JW, *et al*. Developing status of specialized farmers cooperatives——based on the investigation data of 162 villages in Sichuan Province, China[J]. Asian Agriculture Research, 2009, 1(8):15 – 19.

(From page 42)

condition for promoting self-development ability in underdeveloped rural areas, and the means to ease market constraints. Without further development of industrialization, there is no modernization of agriculture. In economic restructuring and development of remote rural areas, the decisive factor restricting economic restructuring and development is not only material capital or technology, but human capital, especially the formation and acquisition of basic human capital.

5 Conclusion

In underdeveloped western regions, particularly in remote rural areas, the resources of labour forces are rich, but the level of education is generally low. If the education is not perfect, the stock of human capital is low. Low quality leads to low labour productivity, insufficient division of labour, low wages, and unemployment. And it causes low incomes, caught in a vicious cycle of poverty again. According to Rosenstein Rodin's "big push" theory, the ultimate solution to the self-development issues in underdeveloped regions, we must break this vicious cycle, and increase the stock of human capital.

Long-term lagging of investment in education in underdeveloped western regions, results in low level of accumulation of human capital and small scale, which underlies the low-level self-development ability of underdeveloped regions.

Increasing investment in human capital, and especially increasing investment in rural education in underdeveloped regions, can increase accumulation of rural human capital, improve scientific and cultural quality of rural workers, and promote their employment competitiveness, to accelerate the pace of the transfer of rural surplus labour forces, improve labour productivity, improve the ability of self-development throughout the region, and enhance the regional competitiveness in regional cooperation.

References

[1] CHEN YJ. China mountain area development report[M]. Beijing: The Commercial Press, 2004: 163. (in Chinese).

[2] National Bureau of Statistics. The fifth national census in 2000[M]. Beijing: China Statistics Press, 2005: 59, 103. (in Chinese).

[3] LEWIS. Dual economy theory[M]. Beijing: Beijing Economic Press, 1989: 129. (in Chinese).

[4] CHEN L. Human resources development in western China[M]. Beijing: Central School of Communist Press, 2004: 139. (in Chinese).

[5] PENG CH, YANG KZ. Human capital and the regional economic differences in China[M]. Beijing: Xinhua Press, 2005: 162 – 166. (in Chinese).

[6] GUI LZ, LIU GX. The different comparison study on the regional human capital operation[J]. Journal of Wuhan Institute of Chemical Technology, 2007, 29(5): 7 – 9. (in Chinese).

[7] XIAO HY. China development report of regional competitiveness: 1985 – 2004[M]. Beijing: China Statistics Press, 2004: 146 – 158. (in Chinese).