

Analysis on the Penetration and Potential of Foreign Direct Investment in Ethnic Provinces and Regions of China

Liu Xiuling¹, Zhu Ruixue^{2,*}

International Business College, Dalian Minzu University, Dalian, China

*Corresponding author: oh-snow@dlmu.edu.cn

Received August 05, 2023; Revised September 06, 2023; Accepted September 13, 2023

Abstract With the reform and opening up, the utilization of foreign direct investment (FDI) in ethnic provinces and regions of China has started and continued to develop, but its development speed is slower than the national average. The economic penetration and capital penetration of FDI in ethnic provinces and regions are lower than the national level, indicating that FDI in ethnic provinces and regions has not been able to play its due guiding role in its economy and investment. The average performance index of FDI in ethnic provinces and regions is also lower than that of the country, indicating that the potential of FDI has not been fully realized. The construction of the "the Belt and Road" will profoundly change the location disadvantage of ethnic areas and greatly improve the investment environment of ethnic provinces and regions. Ethnic provinces and regions need to take a series of measures to attract high-quality FDI and thus to accelerate the development of the open economy.

Keywords: ethnic provinces and regions, foreign direct investment (FDI), economic penetration, capital penetration, potential index

Cite This Article: Liu Xiuling, and Zhu Ruixue, "Analysis on the Penetration and Potential of Foreign Direct Investment in Ethnic Provinces and Regions of China." International Journal of Econometrics and Financial Management, vol. 11, no. 1 (2023): 29-34. doi: 10.12691/ijefm-11-1-4.

1. Introduction

The economic development of ethnic provinces and regions of China needs a large amount of capital. Under the circumstances that it is difficult to form their own industrial capital, active, reasonable and effective absorbing and utilizing foreign direct investment (FDI) is conducive to promoting economic system reform in ethnic regions, improving its market economy mechanism, fully leveraging resource advantages, and optimizing industrial structure. Therefore, it is of great significance for the economic development of ethnic provinces and regions.

2. Utilization of Foreign Direct Investment in Ethnic Provinces and Regions

Ethnic provinces and regions of China refer to the five autonomous regions of Inner Mongolia, Ningxia, Xinjiang, Tibet, and Guangxi, as well as the three multi-ethnic provinces of Qinghai, Guizhou, and Yunnan. Although these eight ethnic provinces and regions of China have experienced rapid economic development in recent years, their scale and level of foreign direct investment are

relatively low. Ethnic provinces and regions have their own excellent natural endowments and great potential of characteristic resources, which can become advantages in attracting foreign direct investment. However, compared with developed coastal provinces in the eastern part of China, the economic development level of ethnic provinces is relatively low, their market economy is not yet perfect, the economic openness is not enough, and their economic foundation is weak, which has caused ethnic provinces to lag behind the eastern coastal areas in utilizing FDI for a long time [1].

With the reform and opening up, the utilization of foreign direct investment in ethnic provinces and regions of China has started and continued to develop, but its development speed is slower than the national average level and shows a phased pattern [2].

The first phase, from the beginning of reform and opening up to 2000, is the primary stage. The actual utilization of foreign direct investment in the eight ethnic provinces and regions had always been at a relatively low level for a long time, ranging from less than 100 million US dollars to 1.25 billion US dollars, as shown in Figure 1 and Figure 2. Since the amount of FDI in Tibet was so small, its statistics were not recorded. Among the eight ethnic regions, Guangxi had the highest actual utilization amount of FDI, accounting for over 60% for a long time, which played an important role. Between 1991 and 1995, Guangxi absorbed a total of 2.58 billion US dollars in

foreign direct investment, accounting for 64.5% of the total in ethnic regions. Between 1996 and 2000, Guangxi absorbed a total of 3.59 billion US dollars, accounting for 66.8% of the total in ethnic regions.

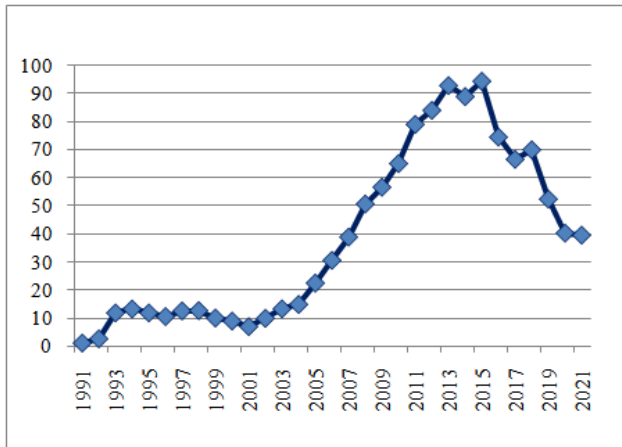


Figure 1. Total actual FDI of ethnic regions (1991–2021) (in 100 million USD)

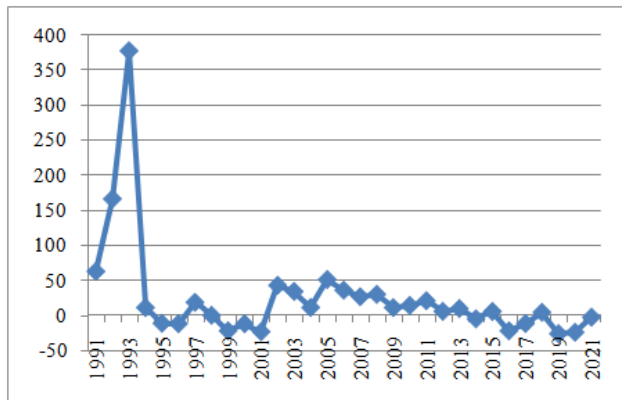


Figure 2. Year-on-year changes in the total actual FDI of ethnic regions (1991–2021) (in 100 percent)

The second phase, from 2001 to 2015, is the accelerated development stage. In 2000, China implemented the "Western Region Development" strategy, which led to rapid economic development in the western areas of the country. Located in the western areas, the ethnic provinces and regions' utilization of foreign direct investment has been accelerating since 2002. In 2002, their FDI increased by 43.4% compared to 2001. The utilization of FDI in ethnic regions has entered a period of rapid development, reaching 9.4 billion US dollars in 2015. Among them, the amount of foreign direct investment utilized by Inner Mongolia increased the most rapidly. Its actual FDI amount was up to 228 million US dollars in 2002, more than doubled compared to the previous year. In 2005, it increased to 1.186 billion dollars from 627 million dollars in 2004, almost doubled.

During the period of 2001–2005, Inner Mongolia Autonomous Region attracted a total of 2.518 billion dollars of foreign direct investment, accounting for 37.8% of the total amount of ethnic regions, while Guangxi utilized 1.932 billion dollars in the same period, accounting for only 29%. From 2006 to 2010, the FDI absorbed by Inner Mongolia totaled 12.91 billion US dollars, accounting for 53.6% of the total in ethnic regions.

During 2011–2015, the percentage declined a little, and Inner Mongolia utilized FDI of 19.78 billion US dollars, accounting for 46.7% of the total in ethnic regions. In 2013, the actual amount of FDI of Inner Mongolia reached a record high of 4.645 billion US dollars, and then it declined in the following two years, and reached 3.37 billion US dollars in 2015.

Since 2011, another ethnic province with rapid growth of FDI is Yunnan, which increased from 2.154 billion dollars in 2011 to 2.99 billion dollars in 2015. From 2011 to 2015, the total amount of foreign direct investment actually utilized by Yunnan was 10.537 billion dollars, accounting for 23.9% of total of ethnic regions. During the same period, the FDI of Guangxi totaled 5.186 billion dollars, accounting for 11.8%, less than half of that of Yunnan.

The third phase, from 2016 to now, is the declining stage. Affected by the global economic downturn, the amount of foreign direct investment attracted by ethnic regions declined since 2016, from over 9.4 billion dollars in 2016 to less than 4 billion dollars in 2021. Among them, Inner Mongolia experienced the fastest decline, dropping from the highest year of 3.97 billion dollars in 2015 to 320 million dollars in 2021.

3. Analysis of the Penetration of Foreign Direct Investment in Ethnic Provinces and Regions

In measuring the degree of FDI utilization, on the one hand, it depends on the proportion of FDI attracted by a region in the country, and on the other hand, it also depends on the degree of FDI penetration [3]. FDI penetration is generally measured by two indicators, namely "economic penetration" (the ratio of FDI to GDP) and "capital penetration" (the ratio of FDI to total investment). The "economic penetration" reflects the proportion of FDI attracted by a region to the total economic output of the region; and the "capital penetration" reflects the proportion of FDI in the investment structure of the region.

3.1. Analysis of the Economic Penetration of Foreign Direct Investment

From 2011 to 2021, the economic penetration of foreign direct investment in ethnic regions showed a fluctuating decline, with the highest being 1.33% in 2011 and the lowest being 0.27% in 2021.

Given that 2015 was the peak year for attracting foreign direct investment in ethnic regions, we use data of year 2015 and year 2021 to analyze the economic penetration index of FDI in various ethnic provinces and regions, i.e. the ratio of actual FDI to GDP in ethnic regions, which is shown in Table 1 and Figure 3. From the proportion of FDI absorbed by various ethnic provinces (regions) in 2015 to the GDP of that year, the penetration of FDI in various ethnic provinces and regions into the local economy can be seen. In comparison, in 2015, Yunnan's FDI economic penetration index was the highest, reaching 1.35%; the lowest was 0.14% of Qinghai. Except for

Yunnan, which was higher than the national average(1.21%), all other seven ethnic provinces and regions were lower than the national average.

Table 1. List of FDI economic penetration index of ethnic regions of China from 2011 to 2021 (in 100 million yuan, %)

	F	G	F/G
2011	522	39221	1.33
2012	454	148958	0.3
2013	482	57203	0.84
2014	450	68636	0.65
2015	554	73331	0.76
2016	680	81952	0.83
2017	682	90587	0.75
2018	899	90276	0.99
2019	302	87230	0.35
2020	278	90090	0.31
2021	251	93248	0.27

Source: Calculated according to the Statistical Yearbook of ethnic provinces and autonomous regions over the years.

Note: F in the table represents the actual investment amount of FDI; G represents the investment amount of fixed assets; the conversion rate of FDI amount is based on the USD buying rate at the end of December of that year.

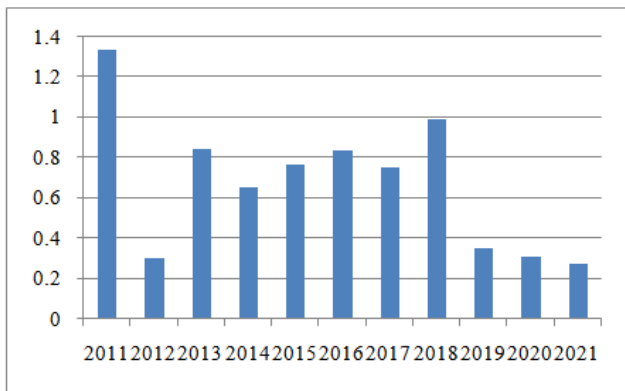


Figure 3. FDI Economic Penetration Index of Ethnic regions of China (2011-2021)

Table 2. economic penetration(EP) of FDI of ethnic provinces in 2015 and 2021 and its comparison with the national average (in 100 million yuan, %)

	2015			2021		
	FDI	GDP	EP	FDI	GDP	EP
Inner Mongolia	208.49	18033	1.16	20.4	20514	0.1
Xinjiang	28.03	9325	0.3	34.56	15984	0.22
Guangxi	106.54	16803	0.63	105.33	24741	0.43
Ningxia	23.57	2912	0.81	18.68	4522	0.41
Tibet	5.88	1026	0.57	--	2080	--
Yunnan	184.99	13718	1.35	56.62	27147	0.21
Qinghai	3.4	2417	0.14	0.21	3347	0.006
Guizhou	35.2	10503	0.34	15.17	19586	0.08
total	596.1	74737	0.8	250.95	117921	0.21
China	8199.47	676708	1.21	11493.6	1143670	1.01

Source: Statistical Bulletin of Economic and Social Development of various ethnic provinces in relevant years.

The economic penetration of foreign direct investment in ethnic provinces and regions in 2021 was lower than that in 2015. The highest was 0.43% of Guangxi in 2021,

and the lowest was 0.006% of Qinghai, except that there was no data of Tibet.

As for the national average level of the economic penetration of FDI, it was 1.21% and 1.01% respectively in 2015 and 2021, while in ethnic provinces and regions, it was only 0.8% and 0.21%. It can be seen that the absorption of FDI by ethnic provinces and regions has insufficient impact on the economy, and FDI has not been able to play its part in driving the economy. And the gap of the FDI economic penetration index between the ethnic regions and the whole country has been widening in recent years(See Table 2 and Figure 4).

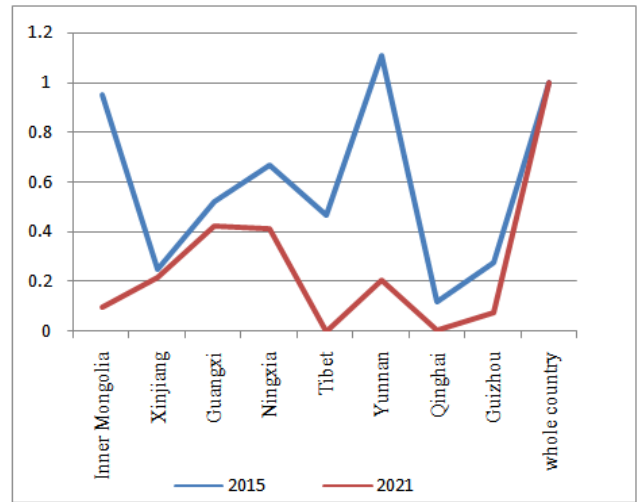


Figure 4. Comparison diagram of FDI economic penetration of ethnic provinces in 2015 and 2021

3.2. Analysis of the Capital Penetration of Foreign Direct Investment

The investment penetration of FDI of ethnic provinces and regions in 2015, i.e., the ratio of actual FDI to fixed asset investment, is shown in Table 3 and Figure 5. From the proportion of FDI absorbed by various ethnic provinces and regions in 2015 to the fixed asset investment of that year, we can see the penetration of FDI in various ethnic provinces and regions to local investment. In 2015, the investment penetration of FDI in Inner Mongolia was the highest, reaching 1.58%; the second was Yunnan, which was 1.49%; and the lowest was 0.11% of Qinghai. Except for Inner Mongolia and Yunnan, which were higher than the national average (1.46%), the other six ethnic provinces were lower than the national average, and much lower than Guangdong's 5.54%.

From the perspective of FDI investment penetration index in ethnic provinces and regions in 2021, except for Xinjiang, which was 2.57% and much higher than 0.27% of 2015, other ethnic provinces and regions were lower than the level of 2015.

Compared with the national level of 1.46% and 2.11% respectively in 2015 and 2021, the average of ethnic regions was only 0.86% and 0.26%, far lower than the national average. From this it can be seen that the absorption of FDI by various ethnic provinces and regions has insufficient impact on local investment, and FDI has not been able to play its part in investment. This is neither

conducive to industrial upgrading, nor to the diversification of investment in ethnic provinces and regions, and also bad for the development of open economy of ethnic regions [4].

Table 3. Capital Penetration (CP) of FDI of ethnic provinces in 2015 and 2021 and its comparison with the national average (in 100 million yuan,%)

	2015			2021		
	FDI	FAI	CP	FDI	FAI	CP
Inner Mongolia	208.49	13825	1.58	20.4	11926	0.17
Xinjiang	28.03	10729	0.27	34.56	1342	2.57
Guangxi	106.54	16228	0.69	105.33	26876	0.39
Ningxia	23.57	3533	0.7	18.68	4312	0.43
Tibet	5.88	1344	0.46	--	1994	--
Yunnan	184.99	13069	1.49	56.62	24926	0.23
Qinghai	3.4	3267	0.11	0.21	3743	0.006
Guizhou	35.2	10677	0.35	15.17	18129	0.08
total	596.1	72672	0.86	250.95	93248	0.26
China	8199.47	562000	1.46	11493.6	544547	2.11

Source: Statistical Bulletin of Economic and Social Development of various ethnic provinces in relevant years.

Note: IFA in the table represents fixed assets investment.

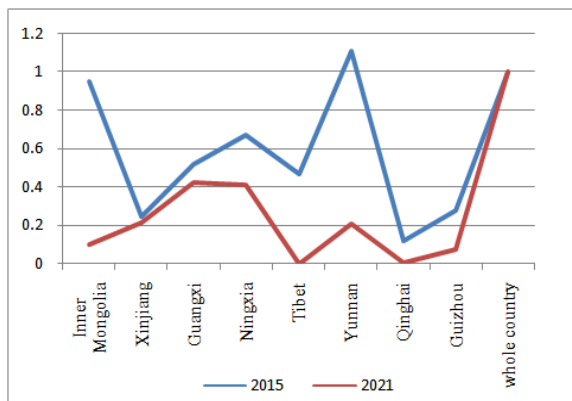


Figure 5. Comparison diagram of capital penetration of FDI of ethnic provinces in 2015 and 2021

4. Analysis of the Potential of Ethnic Provinces and Regions in Utilizing Foreign Direct Investment

The performance index of FDI is to show the potential of a region in absorbing FDI, so it is also called the potential index of utilizing foreign direct investment.

The performance index(IND) for attracting FDI in a region(i) refers to the ratio of the inflow of FDI in the region to the national FDI inflow over a certain period of time, divided by the ratio of the region's GDP to the total national GDP. The mathematical formula is:

$$IND_i = \frac{FDI_i / FDI_n}{GDP_i / GDP_n}$$

If the index is 1, it indicates that the proportion of FDI in the region to the country is equal to the proportion of its GDP in the country, which means it is of the national average level; If the index is greater than 1, it indicates that the region has absorbed more FDI, which is higher

than the national average; If the index is below 1, the FDI absorption level of the region is lower than the national average.

Table 4. The performance index(IND) of FDI of ethnic regions in 2015 and 2021 and its comparison with the national level (in 100 million yuan,%)

	2015			2021		
	FDI	GDP	IND _i	FDI	GDP	IND _i
Inner Mongolia	208.49	18033	0.95	20.4	20514	0.099
Xinjiang	28.03	9325	0.25	34.56	15984	0.215
Guangxi	106.54	16803	0.52	105.33	24741	0.424
Ningxia	23.57	2912	0.67	18.68	4522	0.411
Tibet	5.88	1026	0.47	--	2080	--
Yunnan	184.99	13718	1.11	56.62	27147	0.208
Qinghai	3.4	2417	0.12	0.21	3347	0.006
Guizhou	35.2	10503	0.28	15.17	19586	0.077
total	596.1	74737	0.66	250.95	117921	0.212
China	8199.47	676708	1	11493.6	1143670	1

Source: Statistical Bulletin of Economic and Social Development of various ethnic provinces in relevant years.

We analyze the potential of foreign direct investment in ethnic regions using peak data of year 2015 and the latest data of 2021. The potential index of FDI in ethnic provinces and regions in 2015, namely the performance index(IND) of FDI, is shown in Table 4 and Figure 6. By comparison, in 2015, Yunnan had the highest IND, reaching 1.11, which shows it unleashed its economic competitiveness and potential of absorbing FDI; the next was Inner Mongolia, which was 0.95; and the lowest was 0.12 of Qinghai. Except for Yunnan, the other seven ethnic provinces and regions have not achieved their expected level.

In 2021, the FDI potential index of various ethnic provinces and regions was lower than that of 2015. The total FDI potential index of ethnic regions in 2015 and 2021 were both lower than 1, with only 0.212 in 2021. This shows that the performance of various ethnic provinces and regions in absorbing FDI is relatively low, and their potential of utilizing FDI has not been fully exerted. Therefore, we should increase the efforts of ethnic provinces and regions in absorbing FDI, take measures to improve business environment and the development level of open economy of ethnic provinces and regions, and promote the upgrading of industrial structure by attracting external capital [5].

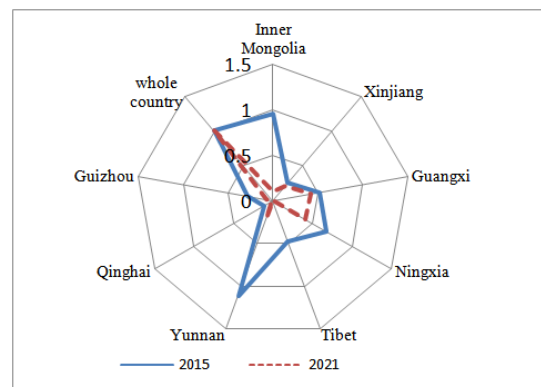


Figure 6. Comparison diagram of FDI potential index of ethnic provinces in 2015 and 2021

5. Countermeasures for Promoting the Utilization of Foreign Direct Investment in Ethnic Provinces and Regions

Ethnic provinces and regions are located at the core areas or key hubs of the "the Belt and Road", and the "the Belt and Road" initiative provides unprecedented development opportunities for them to achieve leapfrog development. The construction of the "the Belt and Road" will profoundly change the location disadvantage of the ethnic provinces and regions, and greatly improve the investment environment of them. Ethnic regions need to overcome the obstacles and difficulties of market economy imperfection, relatively unitary economic sectors, weak economic foundation, low level of science and technology, and low level of education, seize the opportunity of the "the Belt and Road", give play to its advantages, meet challenges, improve the investment environment, attract high-quality foreign direct investment, and accelerate the development of open economy [6].

5.1. To Strengthen the Construction of Soft Investment Environment

The degree to which positive effects such as industrial driving effect, job creation opportunities, and innovation ability cultivation generated by foreign direct investment in the recipient area will be translated into reality is closely related to the construction of the soft investment environment of the area. Ethnic provinces and regions need to effectively adopt and formulate targeted policies and measures in areas such as finance, taxation, and government services, in order to build a good soft investment environment.

5.1.1. A Sound Market Economy System Should Be Cultivated

The primary factor to attract foreign direct investment is to have a sound market economy system. Ethnic provinces and regions should speed up the establishment and improvement of the market economy mechanism, and gradually make the market operation transit from policy guidance to market self-regulation, from the domestic economic involvement to the "the Belt and Road" construction and participating in global value chains based on international division of labor.

5.1.2. Laws, Regulations, and Law Enforcement Systems Should be Improved

Ethnic provinces and regions should comply with laws and regulations, strengthen publicity of laws, strictly implement relevant national economic laws and regulations concerning foreign affairs, improve the transparency of law enforcement, and maintain the consistency and stability of policies and regulations. Ethnic provinces and regions should also sort out local policies, laws and regulations that do not meet the needs of the development of open economy as soon as possible, and speed up the formulation of local laws and regulations

in accordance with relevant national laws and regulations and international practices.

5.1.3. Government Service Awareness Should Be Enhanced and Government Administrative Efficiency Should be Improved

Governments of ethnic provinces and regions should reduce their management hierarchies and make all management systems and policies transparent; and establish an open, fair, and just government management structure and a clean administrative service mechanism to create a competitive market environment for foreign direct investment. On the basis of comprehensively cleaning up various unreasonable fees, reasonable fee items and fee standards shall be published in the form of regulations, and fee-collecting institutions shall be supervised in accordance with the law. In addition, a good living, education, and medical environment is also an important component of soft environment that attracts foreign direct investment.

5.2. To Choose an Attractive "Growth Pole" for Foreign Direct Investment

Based on the perspective that industrial clusters have become a key factor in attracting foreign investment, a competitive strategy for attracting FDI for ethnic provinces is to choose regional "growth poles" that are attractive to foreign direct investment. These "growth poles" could be resources, locations, industries, etc. Ethnic provinces and regions can select suitable ones to attract foreign direct investment.

5.2.1. To Attract Foreign Direct Investment with Distinctive Resource Advantages

Ethnic provinces and regions should utilize their unique resources and industries to promote industrial agglomeration and create an atmosphere of actively attracting foreign investment. For example, ethnic provinces and regions have abundant and distinctive resources such as minerals, energy, animal husbandry, and traditional Chinese medicine, etc., all of which could be utilized to attract foreign direct investment and establish a circular economy system [7].

5.2.2. To Attract Foreign Direct Investment by Building Industrial Parks with Favorable Investment Environment

The economy of ethnic provinces and regions has a low degree of export-orientation and weak international competitiveness, and a benign interactive industrial chain has not yet formed. Based on the "pole-axis theory" of regional development, ethnic provinces can adopt the "pole-axis development model" to cultivate regional economic growth poles with strong radiative driving effects, and promote the positive interaction between FDI and local economic development. Industrial parks are the main carrier and way for ethnic provinces to form industrial clustering, which has been well proven by the development process of industrial clusters abroad and in eastern China. Ethnic provinces could start from national-level Industrial parks and provincial-level industrial parks

with better conditions, improve the investment environment of the parks, focus on the industrial goals of the parks, increase the efforts to attract foreign direct investment, and form a "microclimate" for attracting investment in the park and industrial cluster effect, before radiating and expanding to the surrounding areas.

5.2.3. To Give Full Play to The Leading and Driving Role of Central Cities

Ethnic provinces and regions should focus on central cities, and cultivate and expand a group of key industrial zones with great development potential and strong carrying capacity. Based on the actual situations of the central cities, ethnic provinces and regions should carry out reasonable planning, optimize industrial layout, promote the development of industrial clusters, leverage the scale effect of clusters, and thereby improve the driving capacity of economic radiation. Based on the central cities of ethnic provinces and regions and industrial bases with certain strength, industrial cluster development models can be constructed in line with the local actual situation.

5.3. To Vigorously Develop Modern Service Industry Clusters

Based on the protection of the precious and fragile ecological environment of ethnic provinces and regions, ethnic provinces and regions are not suitable for rapidly developing the secondary sector of the economy. Instead, they can choose an opening order different from that of the developed eastern regions, and vigorously develop the modern service industry.

Since the reform and opening up, the utilization of foreign direct investment in the eastern coastal areas of China has followed a sequence of industries from manufacturing to services. Ethnic provinces can develop in an opposite direction, prioritize opening up the service industry, accelerate the improvement of the service industry investment environment in ethnic provinces, attract foreign direct investment in the service industry, and create a more attractive investment environment for further attracting high-quality foreign direct investment.

First of all, we should fully rely on the infrastructure advantages of coastal, riverside and border areas of ethnic provinces and regions, strengthen the construction of logistics information platforms, vigorously develop the logistics industry, cultivate brand logistics enterprises, support a number of large logistics enterprises with strong strength, leverage the construction of the "the Belt and Road", form an international multimodal logistics network system through transnational strategic alliances, and promote the formation of a transnational logistics market. Second, we should vigorously develop a number of information service industries, such as cross-border e-commerce, international exhibition, information & consulting, distance education, telemedicine, etc. We should use "Internet+" to transform the traditional service industry, promote new marketing and service methods

combined with the Internet, improve the operation quality and efficiency of the service industry, and build a modern international trade system. Thirdly, we should pay attention to the inheritance and protection of ethnic cultures, support cross-border cultural exchanges, and vigorously develop the ethnic cultural industry. Fourthly, we should improve the tourism service environment, develop cross-border tourism industry, and increase cross-border tourism cooperation.

5.4. To Focus on Developing Low-Carbon Industrial Clusters

Most ethnic provinces and regions are resource rich areas, but their natural ecological environment is fragile. Facing a series of resource and environmental problems, ethnic provinces and regions must effectively promote the development of low-carbon industrial clusters. This involves selecting several low-carbon industrial clusters and conducting pilot projects on circular economy, establishing development plans and investment targets and requirements for low-carbon industrial clusters park, and strictly implementing park environmental regulations. The circular economy parks need to establish a material and energy recycling network within the area to achieve circular economy production and operation. We should implement clean and green production, develop resource conservation and ecological environmental protection industries, strengthen the recycling and utilization of waste materials, improve comprehensive pollution control, promote energy-saving and emission reduction technologies, etc.

ACKNOWLEDGEMENTS

This research is supported by the National Social Science Foundation of China (20BMZ101).

References

- [1] Ping Xinqiao. Attracting Foreign Investment in Ethnic Minority Areas: History, Current Situation and Reasons for Backwardness [J]. Comparison of Economic and Social Systems, 2014 (3).
- [2] He Aihong. Reflections on the Utilization of Foreign Capital in China's Ethnic Areas [J]. Journal of Northwest University for Nationalities (Philosophy and Social Sciences Edition), 2007 (3).
- [3] Zhang Jian. Renewing Ideas, Seizing Opportunities, Actively Utilizing Foreign Capital to Promote the Development of Ethnic Areas [J]. Financial Research, 2011 (22).
- [4] Yang Haiyan. Foreign Capital Utilization and Capital Formation in Ethnic Areas [J]. Inner Mongolia Social Sciences (Chinese Version), 2005 (9).
- [5] Chen Bin, Shang Maomao. Ideas and Countermeasures of Guangxi's Utilization of Foreign Capital under the New Pattern of "Double Circulation" [J]. Market Forum, 2021 (11).
- [6] Zhang Jian, Guizhou's Utilization of Foreign Capital Jumps to a New Level [J]. Foreign Investment in China, 2016 (7).
- [7] Tao Kai. Empirical Analysis of the Interaction between Foreign Investment and Per Capita Income in Xinjiang [J]. Foreign Trade and Economic Cooperation, 2014 (10).

