

Analysis and Comprehensive Evaluation Research on Influencing Factors of Regional Economic Vitality-Take Provinces and Cities in China as Examples

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Abstract: Regional economic vitality is a key motive for regional economic development, and its influencing factors and development level has increasingly attracted attention of all sectors of society. Taking various provinces and cities across the country as examples, this article first applies the multiple regression method to learn the main factors of regional economic vitality, and concludes that the main factors of regional economic vitality include enterprise factors, investment factors, intelligence factors and technological factors, among which technological factors are the most important active factor, investment factors are the most important input factor, enterprise factors are the most important carrier and the intelligence factors are the most important action factor. Secondly, we use the main influencing factors of regional economic vitality as an indicator system, apply fuzzy comprehensive evaluation approach to conduct a related evaluation on regional economic vitality, and conclude that the overall average level of regional economic vitality in our country is relatively low, the economic vitality of most provinces and cities in China is at a relatively low level, except three provinces at a high level including Guangdong, Jiangsu and Shandong, meanwhile, there are huge gaps among economic vitality of various provinces and cities across the country, showing obvious imbalances. Therefore, to achieve high-quality development of China's economy, a series of measures should be taken to improve the overall vitality of regional economy in our country based on the principle of overall optimization and fairness.

1. Introduction

In modern world, economic vitality is an extremely important issue. The official organization defines economic vitality as: the ability of an area to attract economic competitiveness and resilience of private companies and public utility companies. Economic vitality area discovers and seize the opportunity to improve the happiness and health of residents anytime and anywhere; encourage and organize regional residents and companies to actively innovate and struggle in the region with high quality. Therefore, economic vitality is a key indicator to measure the economic and social status of a region and the future development trend. Meanwhile, economic vitality has been closely watched by various countries. In November 2016, Vice Chairman of Federal Reserve, Fisher pointed out that the decline in economic vitality was an important influence for the slow growth of productivity in the United States after the international financial crisis in 2008, and it was also one of the medium and long-term challenges facing the United States. [1]

Economy in China has entered a critical period of transition and development under new normal, the economic growth rate has gradually transitioned from high-speed growth to medium-low growth, the GDP growth rate has changed from 10.6% in 2010 to 6.1% in 2019, the power source of the company continues to be enriched. The report pointed out that economy in our country has high-quality development, and the vitality of economic development is an important factor and linking sector of high-quality development, while the differences of economic vitality among various regions are caused by the unevenness of regional economic development objectively. Therefore, how to enrich and improve the factors of the regional economy and maintain a relatively high level of vigor of the regional economy of our country is particularly important at this stage.

Theoretically, when previous scholars carried out the research on regional economic vitality (REV), they usually chose measurement indicators from certain aspects that affect REV, and

separately used each indicator directly for empirical analysis, or assigned subjective weights to indicators for empirical analysis, only a few scholars would deal with the regional vitality impacted indicators comprehensively, which, on the one hand, results in the insufficiently comprehensive selection of impacted indicators and it fails to measure economic vitality of regions comprehensively; on the other hand, causes insufficiently convincing empirical results, because the impacted indicators applied to empirical analysis lack scientificity and comprehensiveness. Therefore, we construct a relatively scientific and focused measurement index through analyzing the main influencing factors of region vitality systematically based on the previous research results, and adopt a multiple regression model for empirical analysis of influencing factors, and use fuzzy comprehensive evaluation model on synthetical evaluation of regional economic vigor on the basis of this indicator.

2. Model Hypothesis

From the overview of economic vitality, it can be seen that the research on REV is relatively complicated. For this reason, the following assumptions exist in the establishment of the research model in this paper:

1. Economic vitality is rich in connotation, complex and diverse. Therefore, drawing on the research foundation of scholars from all over the world, and considering its comprehensive characteristics, the GDP value is used as a comprehensive indicator to measure the vitality of the regional economy.

2. From a macroeconomic perspective, the economic development factors of any region are based on factors such as manpower, investment, technology, etc. The most important and most active factor is the enterprise factor that affects the vitality of the regional economy. For this reason, the multiple regression model will focus on four factors including corporate factors, investment factors, intelligence factors and technological factors, among which each indicator reflects the basic status of REV reasonably. Meanwhile, the fuzzy comprehensive evaluation model of the regional economy vigor is also based on these indicators, applying the Delphi expert experience method to determine the weight of each indicator for comprehensive evaluation, and the weight of each indicator is also basically scientific and reasonable.

3. Data is the basis of all analysis and research, which should be true and effective. Therefore, all the analytical data are based on statistical data in 2018, and all of them originate from “China Statistical Yearbook”(http://www.stats.gov.cn).

3. Analysis of Influencing Factors Based on Multi-Regression Model

There are many factors influencing REV, covering all links and elements in economic development, and the vitality characteristics of different regions are different. Therefore, when analyzing the influence factors of regional economic vigor, it is necessary to distinguish the primary and secondary influencing factors, and conduct a research based on analyzing the main influencing factors.

3.1 Establishment of Multi-Regression Model

Multiple regression model explore the linear relationship between Y and X. Suggested that there are p independent variables that affect the dependent variable, which are X_1, X_2, \dots, X_p , where each X and Y conform to a linear relationship and $E_\varepsilon=0$, $D_\varepsilon=\delta^2$. A p-ary linear regression model can be defined as follows:

$$\begin{cases} Y = \beta_0 + \beta_1 X_1 + \dots + \beta_p X_p + \varepsilon \\ E_\varepsilon = 0, D_\varepsilon = \delta^2 \end{cases}$$

Where parameters β_0, \dots, β_p are partial regression coefficient, independent variables X_1, \dots, X_p are regression variable and the equation if regression function of Y to X_1, \dots, X_p .

The GDP value of different cities in 2008 expressing the economy vitality is taken as the dependent variable(Y), define influencing factors including enterprise factors, investment factors, intelligence factors, science and technology factors as dependent variable(X), where survival number of enterprises (Number of enterprises registered and established and still exist from 2009 to 2018) throughout our country in 2008(X_1) is chosen as index of enterprise factors choose; the whole society's investment in fixed assets of (X_2) in 2018 is chosen as index of investment factors; the number of people with bachelor's degree or above in all provinces and cities across the country (X_3) in 2018 is chosen as the index of intelligence factors; two scientific and technological factor indicators are selected, which are number of research and experimental development (R&D) personnel in research and development institutions of provinces and cities across the country(X_4) and internal expenditure of R&D funds of R&D institutions in provinces and cities across the country(X_5) in 2018.

3.2 Solution of Model Parameter

Using SPSS software, a multivariate linear regression model is fitted by least square method, and the summary of the model is shown in Table 4.1. The regression coefficient test of the model is shown in Table 4.2.

Table 1 Summary of Multivariate Linear Regression Model

Multiple correlation coefficient R	Determination coefficient R^2	Adjusted	F statistics	Significance P
0.995	0.990	0.988	495.890	0.000

It can be seen from Table 4.1 that $R=0.995$ which indicates that there is a good linear correlation between influence factors and economic vigor, and it is more suitable to use multiple linear regression model for quantitative analysis. $R^2=0.990$ denotes that the model fits the data well. F statistic is 495.890, $P<0.001$ indicates that the fitted multivariate linear regression equation is statistically significant at 95% confidence level.

Table 2 Partial Regression Coefficient Test

GDP(Y)	Unstandardized bias regression coefficient	Standardized bias regression coefficient	Significance P value
Constant	292.176	0	0.814
Enterprise survival number (X_1)	69.515	0.233	0.004
the whole society's investment in fixed assets of (X_2)	0.452	0.295	0.000
Number of people with bachelor degree or above (X_3)	2.924	0.161	0.018
Number of R&D personnel(X_4)	-0.206	-0.182	0.000
Internal expenditure of R&D(X_5)	15.248	0.475	0.000

It can be seen in Table 4.2 that the P values of the partial regression coefficients of the influencing factors are all less than 0.05, indicating that at 95% confidence level, it can be considered that the partial regression coefficient is not 0, so the partial regression coefficient is statistically significant.

The regression model that can be obtained by multivariate linear regression analysis:

$$Y=292.176+69.515*X_1+0.452*X_2+2.924*X_3-0.206*X_4+15.248*X_5$$

3.3 Analysis of Model Results

From the above calculation and analysis, we can get the multiple linear regression fitting curve of the economic vigor of the provinces and cities in the country, as shown in fig 4.1:

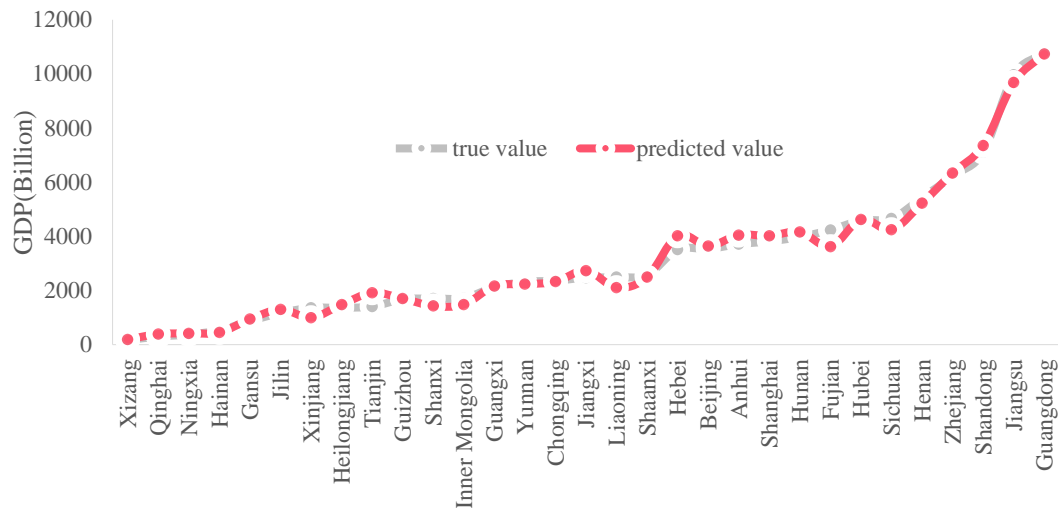


Fig.1 Multiple Linear Regression Fitting Curve of Economic Vitality of Provinces and Cities in China

From the fitting curve, we can see that the multivariate linear fitting state is relatively perfect, which basically reflects the economic vitality of the provinces and cities in the country comprehensively. Among the standardized partial regression coefficients of various influencing factors, the maximum regression coefficient of internal expenditure of R&D institutions is 0.475, which indicates that scientific and technological factors have a positive impact for economic vitality, especially the input of science and technology, and the provision of more and more new scientific and technological products will inject new vitality into the REV. The regression coefficient of fixed assets investment in the whole society is 0.295, which further shows that the investment factor is very important, and the attractiveness of capital indicates an important factor determining whether economy of a region has vitality. The regression coefficient of the survival number of enterprises is 0.233, which shows the importance of enterprise factors as the carrier of REV, and the state of enterprises' survival is an important symbol which directly reflects whether regional economy has vitality. The regression coefficient of the number of people with bachelor's degree or above is 0.161, which shows that whether a regional economy is dynamic or not depends on whether it is attractive and cohesive to talents, and the intelligence factor reflects the labor force level of a region. The last factor index: the regression coefficient of the number of Redd personnel in research and development institutions is -0.182, whose absolute value is not small and even higher than the regression coefficient of the number of people with bachelor's degree or above, this indicates that professional and technical personnel also are important, and the number of such personnel is crucial to REV.

4. Comprehensive Evaluation Research Based on Fuzzy Comprehensive Evaluation Model

From the analysis of the influence factors of our topic, we can conclude that the main factors affecting REV are enterprise factors, investment factors, intelligence factors and scientific and technological factors, and we conduct a comprehensive evaluation study on the economic vigor of various cities across the country by utilizing the fuzzy comprehensive evaluation model based on the above four factors with the development of economy in our country.

4.1 Establishment of Fuzzy Comprehensive Evaluation Model

Fuzzy comprehensive evaluation method analyzes and evaluates fuzzy systems by applying fuzzy transformation principles. As a complex system, the economic vitality system has many uncertain factors which is difficult to simply analyze quantitatively, while fuzzy comprehensive evaluation method can effectively solve the degree of influence of diversified factors on the results of economic vitality, and relatively objectively reflect the actual situation of REV.

Firstly, determine the basic index system for comprehensive evaluation, U_i ($i=1, 2, 3, 4, 5$). According to the four factors and five indicators from the analysis of influencing factors of region economic vitality (Table 1), we finalize basic indicators for comprehensive evaluation, they are number of surviving enterprises in all provinces and cities nationwide in 2018, the whole society's fixed asset investment in 2018, number of people with bachelor degree or above in various provinces and cities nationwide in 2018, number of research and experimental development (R&D) personnel in R&D institutions across the country in 2018 and internal expenditures of R&D in various provinces and cities nationwide in 2018 respectively.

Table 3 Comprehensive Evaluation Index System of Rev

Comprehensive evaluation	Concrete Evaluation Index
Region economic vitality	U_1 Surviving number of enterprises
	U_2 Fixed asset investment in the whole society
	U_3 Number of bachelor degree or above
	U_4 Number of research and experimental development (R&D) personnel in research and development institutions
	U_5 Internal expenditures of research and experimental development (R&D) funds of research and development institutions

Secondly, standardize and normalize each indicator U_i ($i=1,2,3,4,5$). Consider that each evaluation index is a positive index, normalize them according to the following formulas, the bigger U_i is, the better:

$$U_i = \frac{x_i - x_i(\min)}{x_i(\max) - x_i(\min)}$$

Thirdly, utilize Delphi expert experience method to determine the weight $W_i = \{W_1, W_2, \dots, W_5\}$. After consulting 8 economic experts, the average weight of each indicator is obtained $W_i = \{0.23, 0.30, 0.16, 0.10, 0.21\}$.

Fourthly, the synthetic evaluation scores of the economy vigor of the entire country are obtained through the following comprehensive evaluation calculation formula (Table 2 and Fig.1)

$$V = \sum_{i=1}^n W_i * U_i$$

Fifthly, according to the five-division method, the comprehensive level of REV is divided into five levels: “strong”, “less strong”, “average”, “less weak”, and “weak”, the corresponding evaluation set is $\{1-0.8, 0.8-0.6, 0.6-0.4, 0.4-0.2, 0.2-0\}$, and systhetic evaluation ranking of the economy vigor of the entire country is obtained finally (Table 2).

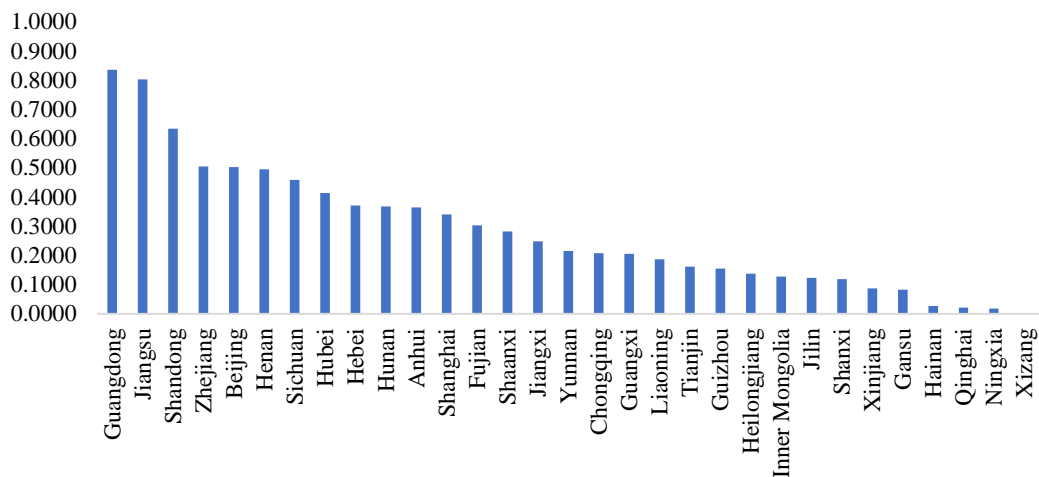


Fig.2 Fuzzy Comprehensive Evaluation of the Economic Vitality of China

Table 4 Fuzzy Comprehensive Evaluation Scores and Ranking Tables for Economy Vigor of the Entire Country

Provinces&C ities	Enterprise factors		Investment factors		Intelligence factors		Technological factors				Comprehens ive evaluation		Evaluati ons
	Scor es	Ran ks	Scor es	Ran ks	Scor es	Ran ks	Scor es	Ran ks	Scor es	Ran ks	Scor es	Ran ks	
Guangdong	1.00 00	1	0.77 82	4	0.89 58	3	0.18 96	6	1.00 00	1	0.83 57	1	Strong
Jiangsu	0.63 50	2	1.00 00	1	0.90 94	2	0.22 85	5	0.89 69	2	0.80 28	2	
Shandong	0.57 34	3	0.88 90	2	0.77 36	4	0.10 86	9	0.48 17	6	0.63 44	3	Less strong
Zhejiang	0.43 94	4	0.61 84	8	0.60 56	6	0.08 24	13	0.53 83	4	0.50 48	4	Average
Beijing	0.26 98	9	0.09 82	24	1.00 00	1	1.00 00	1	0.72 05	3	0.50 28	5	
Henan	0.33 74	6	0.87 49	3	0.56 41	8	0.11 27	8	0.25 49	9	0.49 51	6	
Sichuan	0.27 97	8	0.63 31	9	0.71 09	5	0.32 48	2	0.28 01	8	0.45 93	7	
Hubei	0.23 83	12	0.65 93	5	0.53 90	9	0.10 35	10	0.30 82	7	0.41 39	8	
Hebei	0.30 96	7	0.62 49	7	0.41 77	13	0.07 43	14	0.18 18	13	0.37 11	9	
Hunan	0.17 69	13	0.64 24	6	0.47 55	10	0.05 72	18	0.25 30	10	0.36 83	10	
Anhui	0.25 89	10	0.59 03	10	0.42 65	12	0.09 16	11	0.24 23	11	0.36 49	11	Less weak
Shanghai	0.36 43	5	0.10 34	23	0.58 47	7	0.28 64	3	0.49 13	5	0.34 02	12	
Fujian	0.23 98	11	0.51 04	11	0.24 84	22	0.04 38	22	0.24 22	12	0.30 33	13	
Shaanxi	0.16 03	15	0.43 60	12	0.31 06	19	0.25 90	4	0.18 75	14	0.28 26	14	
Jiangxi	0.14 36	18	0.43 32	13	0.34 69	14	0.04 62	21	0.12 28	18	0.24 89	15	
Yunnan	0.13 03	20	0.36 54	15	0.34 53	15	0.06 12	16	0.06 97	19	0.21 56	16	
Chongqing	0.15 25	16	0.31 07	16	0.24 93	21	0.08 38	12	0.15 04	16	0.20 81	17	
Guangxi	0.14 99	17	0.39 98	14	0.22 71	24	0.03 78	24	0.05 26	21	0.20 56	18	
Liaoning	0.16 78	14	0.08 47	26	0.47 55	10	0.12 28	7	0.16 29	15	0.18 66	19	weak
Tianjin	0.08 94	23	0.17 45	18	0.31 70	18	0.07 43	14	0.14 82	17	0.16 22	20	
Guizhou	0.13 85	19	0.28 08	17	0.16 16	27	0.03 34	25	0.04 54	25	0.15 48	21	
Heilongjiang	0.08 92	24	0.16 36	19	0.33 20	16	0.05 23	20	0.04 60	24	0.13 76	22	
Inner Mongolia	0.08 56	26	0.15 10	21	0.31 48	17	0.02 57	27	0.04 64	23	0.12 77	23	
Jilin	0.09 11	22	0.16 13	20	0.23 61	23	0.06 67	17	0.04 66	22	0.12 36	24	
Shanxi	0.11 82	21	0.08 53	25	0.30 78	20	0.04 03	23	0.06 04	20	0.11 87	25	
Xinjiang	0.06 07	27	0.12 55	22	0.17 87	26	0.02 68	26	0.01 93	27	0.08 69	26	
Gansu	0.08 85	25	0.06 76	27	0.18 86	25	0.05 26	19	0.03 42	26	0.08 33	27	

Hainan	0.03 58	28	0.02 20	29	0.05 74	28	0.01 40	28	0.00 83	29	0.02 71	28	
Qinghai	0.00 80	30	0.03 96	28	0.03 61	30	0.00 39	29	0.00 52	30	0.02 10	29	
Ningxia	0.02 03	29	0.01 08	30	0.03 87	29	0.00 02	30	0.01 62	28	0.01 75	30	
Tibet	0.00 00	31	0.00 00	31	0.00 00	31	0.00 00	31	0.00 00	31	0.00 00	31	

4.2 Analysis of Model Results

From the results of the comprehensive evaluation of REV, we can conclude that the average level of REV in my country is low, and the average score of the comprehensive evaluation of various provinces and cities is 0.2840, except for the three provinces and cities of Guangdong, Jiangsu, and Shandong which are relatively strong, the economy vigor of most regions in the country (more than two-thirds) is at a relatively low level (Fig. 2). The economic vitality of various provinces and cities across the country is quite different, and the REV is obviously uneven. From the analysis of the country's four major economic regions, the provinces and cities in the "strong" and "less strong" regions with a comprehensive evaluation score greater than 0.6 are all located in the eastern region, provinces and cities in the "average" and "less weak" regions with a comprehensive evaluation score greater than 0.2 are most located in the central region, while provinces and cities in the "weak" regions with a comprehensive evaluation score less than 0.2 are most located in the western and northeastern regions, therefore, REV further shows obvious imbalanced distribution characteristics.

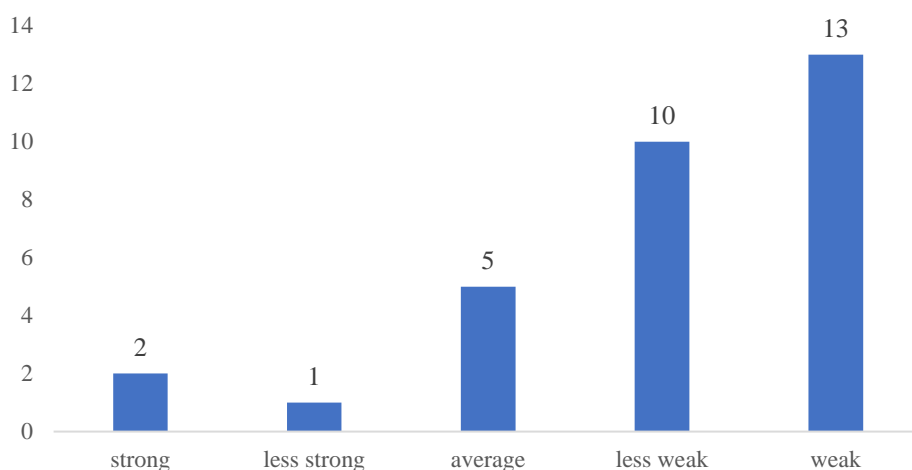


Fig.3 The Number of Comprehensive Evaluation Grade Distributions of Economic Vitality in Various Provinces and Cities Nationwide

Firstly, the synthetic evaluation of economy vigor of Guangdong and Jiangsu is 0.8357 and 0.8028, ranking first and second in the country so that their comprehensive evaluation belongs to the "strong" area, both of their evaluation indicators of REV are ranked in the top six in the country, and all aspects are very advantageous obviously. So, only by balancing the development of enterprises, investment, talents, science and technology and other influencing factors in various provinces and cities, and striving to reach a higher level respectively, can we improve the comprehensive level of REV and reach the "strong" region. Secondly, the comprehensive evaluation of Shandong's economic vitality is 0.6344, ranking third in China. As a "strong" region, the evaluation indicators of REV such as enterprise, investment and intelligence factors are at a strong level, but there is a certain gap in scientific and technological factors compared with Guangdong and Jiangsu. Therefore, only by eliminating this weak link can we quickly improve the REV. Thirdly, the comprehensive evaluation of economic vitality of Zhejiang, Beijing, Henan, Sichuan and Hubei ranges from 0.4 to 0.6 so that the comprehensive evaluation belongs to "average" regions. Among the five impact evaluation indicators of REV, three to four indicators are

at the national average level. Although most of the influencing factors in these regions are balanced, they are not fully comprehensive, which in turn leads to a decline in overall economic vitality. Fourthly, the comprehensive evaluation of economic vitality of Hebei, Hunan, Anhui, Shanghai, Fujian, Shaanxi, Jiangxi, Yunnan, Chongqing and Guangxi ranges from 0.2 to 0.4 so that the comprehensive evaluation belongs to “less weak” areas. Only one or two evaluation indicators in these areas are at the medium development level, while other evaluation indicators are at the weak development level. The development of these areas is obviously unbalanced, which causes overall economic vitality is obviously insufficient. Finally, the comprehensive evaluation of economic vitality of Liaoning, Tianjin, Guizhou, Heilongjiang, Inner Mongolia, Jilin, Shanxi, Xinjiang, Gansu, Hainan, Qinghai, Ningxia and Tibet is lower than 0.2 so that the comprehensive evaluation belongs to “weak” regions. There are great weaknesses in all aspects of REV in these regions, and the overall economic vitality needs to be greatly improved.

After years of development, China’s economy has entered a stage during which the development is of high-quality, and the economic development of various regions has shown a certain degree of vitality. The eastern coastal area has accumulated a certain economic foundation by virtue of its location advantages and policy advantages. Various factors of REV have been greatly improved, and the advantages of various influencing factors are obvious; After the “central region revitalization plan” in recent years, various factors of REV have been improved, but the advantages of overall influencing factors are not prominent; Although China has implemented the strategy of “western development” and “revitalizing the northeast” in recent years, the effect is not very obvious, and the basis of influencing factors of REV is weak. Therefore, on the one hand, we should continue to optimize and adjust the economic vigor’s factors of areas in the eastern and central regions and implement the optimization improvement strategy; On the other hand, for the economic vitality of provinces and cities in the western region and Northeast China, we should continue to make great efforts to increase basic investment, constantly strengthen the foundation and consolidate the foundation, fundamentally change the weak links, achieve steady improvement, and finally eliminate the imbalance between REV and realize the overall improvement of REV.

5. Model Evaluation

We utilize the method combining the multiple regression model and the fuzzy comprehensive evaluation model to analyze the influencing factors and synthetic evaluation research on the REV. For the two models in the process of construction, the following preliminary experiences are obtained respectively:

5.1 Multi-Regression Model

The multiple linear regression model better simulates the quantitative relationship between REV and various influencing factors, and the state of the fitting curve is relatively perfect, which is statistically significant. However, considering the complexity and comprehensiveness of the affecting factors of regional economic vigor, considering the time issue and the difficulty of obtaining data, we only conducts regression analysis of main influencing factors of data in 2018, future research will expand the analysis of diversified influencing factors , and carry out longer time sequence in-depth analysis, and the final analysis effect will be more objective and true.

5.2 Fuzzy Comprehensive Evaluation Model

This model comprehensively deals with the main influencing factors of REV through quantitative methods, and better evaluates the comprehensive level of REV of the entire country. However, considering the continuously updating REV, constantly changing influencing factors, as well as factors such as time issues and the difficulty of obtaining data, we only conducts a fuzzy comprehensive evaluation study on the data of various provinces and cities across the country in 2018, which is relatively a static quantitative analysis. Future research will conduct dynamic comprehensive evaluation on the basis of expanding new influencing factors, and the final research effect will be more scientific and reasonable.

6. Conclusions and Suggestions

We use model methods to analyze and comprehensively evaluate the influencing factors of REV, and take various provinces and cities across the country as empirical cases. The following conclusions are preliminarily drawn and some relevant suggestions are made:

6.1 Analysis on the Influencing Factors of Rev

The influencing factors of REV are complex and diverse whose main influencing factors include corporate factors, investment factors, intelligence factors, and technological factors. Scientific and technological factors are the most active factors. The number of scientific and technological personnel and expenditure determine the level of REV; Investment factor is the most important input factor of REV; Enterprise factor is the foundation of REV and the main carrier of REV. The survival state of enterprises is an important symbol of the level of REV; Intelligence factor is an important action factor of REV, which directly reflects the attraction and cohesion of REV and represents the level of regional economic labor force. We can conclude that the importance of different factors affecting REV provides us with different development directions for improving the level of REV.

6.2 Research on Comprehensive Evaluation of Rev

The comprehensive evaluation study of REV shows that the overall average level of REV in China is relatively low. Except for Guangdong, Jiangsu, and Shandong, which are relatively strong, the level of economy vigor of most areas in the country (more than two-thirds) is at a relatively low level. At the same time, there are gigantic differences in the economic vitality of provinces and cities across the country, showing obvious imbalances. The economy vitality level of areas in the eastern region is mostly at a relatively high level, the economic vitality level of areas in the central region is mostly at a normal level, while the economic vitality level of areas in the western region and the northeastern area is mostly at the low level. The main reason lies in the economic vitality advantages of some developed provinces and cities with the help of location and policy leadership. In particular, the continuous concentration of technology, investment, enterprises and intellectual factors has finally led to the emergence of the uneven characteristics of the economy vigor of the whole country. Therefore, in order to fundamentally eliminate the imbalance of economic vitality, and to further enhance the overall vitality of economy in our country, and to realize the progress of our country's economy to a stage of high-quality development, a series of measures should be taken to improve our country's overall REV: First, increase the implementation of science and education to rejuvenate the country to provide inexhaustible impetus for enhancing the overall economic vitality of our country. On the one hand, it should be based on increasing its own investment, cultivating high-quality talents, and researching and developing new high-tech products; on the other hand, starting from a higher angle and vision, all kinds of high-quality talents should be introduced to actively participate in various fields. In the research and development business, implement the integrated cooperation of industry, university and research, cultivate a new and efficient talent team, and build the core competitiveness of REV. Second, increase all-round capital investment to provide a good guarantee system for enhancing the overall economic vitality of our country. On the one hand, we should attract funds from all aspects of society, increase investment in the real economy, expand the total amount of economic entities through continuous hematopoiesis, and gradually improve the life security system of residents in the whole society; On the other hand, we should increase the attraction of foreign direct investment, create a good capital operation environment, diversify and broaden the ways of capital utilization, and create the resource allocation of REV. Third, create a good business environment, increase the bearing of REV and the rapid growth of main enterprises. On the one hand, we should adopt all-round fiscal and tax policies to give priority to encouraging the rapid development of enterprises and expanding the main body of REV; On the other hand, we should encourage the whole people to start businesses, implement the strategy of driving large enterprises, form a number of enterprise clusters and build industrial clusters with REV. Fourth, increase the all-round implementation of the national regional

integration strategy and strengthen interregional cooperation and exchanges. The eastern region has implemented a gradient drive strategy to increase the rise of the central region, the development of the western region, and the revitalization of the northeast region. The mutual exchange and integration of funds, enterprises, industries, etc., create a characteristic vitality factor for the economic development of various regions, realize the rapid development of characteristic economic industries in each region, and further enhance the overall vitality of my country's economic development.

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