

Research Article

Regional Economic Differences and Coordinated Development Based on Panel Data Model

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The imbalance of the regional economy is not only a problem that cannot be ignored in the process of regional development but also an inevitable problem. This problem will be affected not only by its own development but also by government intervention. Since the reform and opening-up, China's economy has been growing rapidly. At the same time, the problem of regional economic imbalance is also extremely prominent. Jiangxi Province is close to the developed areas in the East, and its economy is also developing rapidly. At the same time, Jiangxi Province also shows an increasingly serious problem of regional economic imbalance. Therefore, the author proposes to study the problem of regional economic disequilibrium in Jiangxi Province to provide reliable suggestions for the development of the economy of Jiangxi Province. To analyze the regional economic differences among several prefecture-level cities in Jiangxi Province, we first calculate the standard deviation of GDP per capita and the population-weighted coefficient of variation in Jiangxi Province and then perform the geographical decomposition and industrial decomposition to obtain the Taylor index and Gini coefficient. Finally, qualitative and quantitative analyses were conducted to calculate the magnitude of each index factor on the economic growth of the north and south regions of Jiangxi Province, and corresponding countermeasure suggestions were proposed based on the research results. The results show that the research results of this paper are beneficial to the countermeasures for the coordinated development of the regional economy in Jiangxi Province.

1. Introduction

Regional economic structure refers to the internal economic, technological, institutional, and other organizational relations and quantitative relations among economic units in a region. It is one of the important factors affecting regional economic growth [1]. It determines the basic mode of regional resource allocation. In terms of time, since the founding of new China, China's regional economic development strategy has experienced two transformation stages balanced development unbalanced development and then coordinated development [2]. China is dependent highly on government spending and exports to improve its economic growth by 8.1% from 2.2% growth observed in 2020 [2, 34]. Accordingly, in terms of space, the focus of China's economic development has gone through several stages:

from the coast to the mainland, then from the mainland to the coast, and then to the coordinated development of the East, middle, and West. Gradually narrowing the regional economic gap and realizing regional coordinated development is not only the inevitable trend of the evolution of regional structure but also a long-term task that can be completed through sustained efforts [3]. The faster the speed of technological progress, the faster is the improvement of regional economic development level and the faster the optimization of regional economic structure. Any economic activity will be influenced by spiritual culture and ideas [4]. Only by cultivating a region's characteristic regional culture, changing ideas, broadening horizons, and brainstorming can we effectively promote the development and progress of the regional economy. In short, a reasonable regional structure should promote the free flow, optimal allocation, and

coordinated development of regional resource elements on the basis of fully exploring regional advantages and potential, form an interdependent, mutually promoting, cooperative, and benign interactive regional structure system of the national economy, and realize the best economic, social, and ecological benefits of the system as a whole [5]. The main factors affecting the evolution of the regional economy are shown in Figure 1. These factors are derived on the basis of review of various studies pertaining to economic growth analysis. As an example, the study in [31, 36] highlighted the various factors that contribute towards the evolution of regional economic structure in China. The factors identified were establishment of education and health infrastructure, development of land reforms, decentralized planning, and existence of small enterprises.

Since scholars have studied regional economies, regional economic differences have been an unavoidable and ever-present problem and have also attracted much attention [6]. It is an objective phenomenon that regional economic disparities are unavoidable because different regions have different conditions, and a certain degree of regional disparities will help each region to develop its own advantages, promote the overall coordinated development of the regional economy, and optimize resource allocation [7]. Once this degree of regional differences exceeds a certain threshold, it will produce a variety of negative phenomena; this negative phenomenon has a great negative impact on the development of the economy and more serious will affect the harmony and stability of society, which is a problem that we must pay attention to in the long term. Jiangxi Province has a superior geographical location [8]. It is adjacent to the Yangtze River Delta, the Pearl River Delta, and the southern Fujian Delta, and it itself is in the Pan-Pearl River Delta region. Only Jiangxi Province has such a special geographical location in China. In recent years, the development of Jiangxi Province is also advancing steadily, with a high growth rate. Compared with the whole country, the overall economic development trend of Jiangxi Province is better, but it should be noted that there will still be a downward trend over time. Due to its own factors, Jiangxi Province has been showing a development pattern of high in the north and low in the south. The development level of Jiangxi Province mainly presents a cluster distribution, which is an economic system with the central city as the growth pole and the rapid development of surrounding counties. For example, the overall development of Nanchang and Xinyu is better [9]. Not only the central city develops better, but also the surrounding counties develop faster. In other regions, the development of central cities is generally slow, and the development of surrounding counties is also slow.

This paper will study the evolution process of regional economic differences in Jiangxi Province in recent years, analyze its deep-seated reasons, and help Jiangxi Province develop its economy better. At the same time, how to develop the economy in a sustainable and coordinated way is an important issue in the field of the regional economy [10]. Therefore, the ultimate purpose of this paper is to make the overall regional economy of Jiangxi Province develop in a coordinated way and give full play to the unique role of

each part. Firstly, this paper introduces the current situation of economic development in Jiangxi Province and the temporal and spatial evolution characteristics of differences, highlights the development status of various departments and industries in Jiangxi Province, and emphatically analyzes the disparity between various industries in Jiangxi Province through the Gini coefficient and Theil index. Finally, from the analysis of various development situations in Jiangxi Province, the sustainable output capacity of economic development in Jiangxi Province is insufficient and the sustainable development capacity is weak. In the study of regional economic differences in Jiangxi Province, this paper mainly adopts the combination of quantitative analysis and qualitative analysis and adopts empirical analysis.

The organization of the paper is as follows: Section 2 discusses the related studies, Section 3 presents the design of the application model, Section 4 explains the experimental analysis and results and Section 5 collates the conclusion of the study conducted.

2. Related Work

2.1. Regional Economic Development Model. The regional economic development model was first put forward abroad. In recent years, China has set off a research upsurge in regional economics. Foreign development models have been introduced to China. Combined with China's national conditions, the economic development model suitable for China is put forward [11]. A schematic representation of the regional economic development model is shown in Figure 2.

The first model is the gradient nudge model. The development state of the regional economy depends on the development state of leading industries, which are mainly characterized by strong innovation ability. The gradient transition model also has some limitations [12]. As a regional economic uneven development model, there is a fatalistic tendency from a static point of view. From a dynamic point of view, since the diffusion effect is much lower than the sum of the polarization effect and the reverberation effect, it will instead widen the development gap between regions [13]. The second is the growth pole model. In the case of nonuniform space, economic growth first appears at some growth points or growth poles with different levels of innovation and then spreads outward through different channels, which has different effects on the whole economic space [14]. The main driving force of economic development comes from innovation, and the source of innovation always tends to be the leading industry in the economy. Leading industries have the characteristics of high innovation ability, high relevance, and high growth and are highly related to regional economic growth [15]. The growth pole can be transmitted from large to small level by level through the dominance effect, chain effect, and multiplier effect, and finally realizes the balanced development of the economy. The industrial cluster model is believed to be the main reason for the rapid prosperity of industrial cluster theory in economics in the United States and other Western countries. The model believes that a large number of relevant enterprises, social organizations, and institutions are

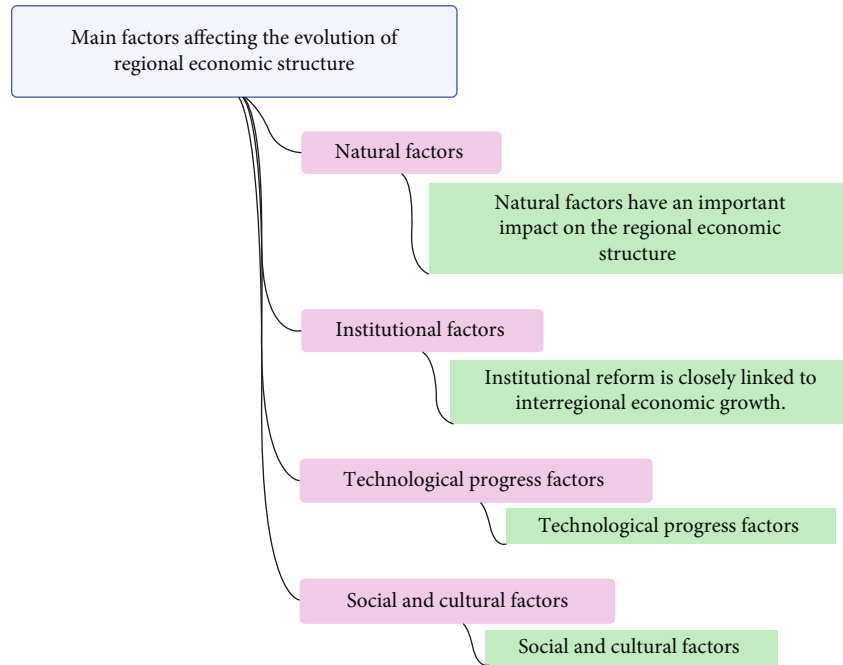


FIGURE 1: The main factors affecting the evolution of the regional economic structure.

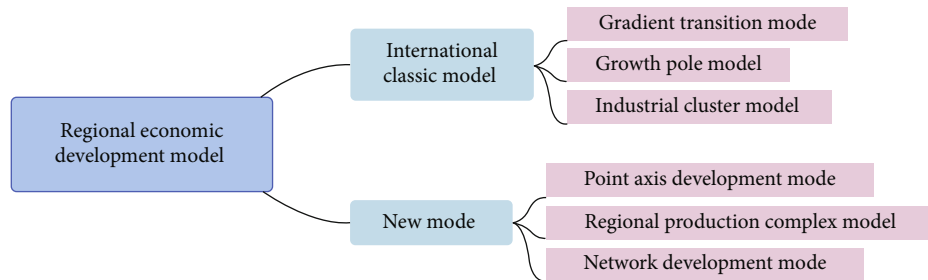


FIGURE 2: Schematic representation of the regional economic development model.

concentrated in space through professional social networks and form interactive mechanisms and path dependence based on innovation, cooperation, and competition, which is the basis of regional economic development [16]. In the context of common industry culture, the economic network relationship based on trust between people has greatly reduced transaction costs, improved production efficiency, and effectively maintained market order. Good cooperation and competition mechanism have laid a foundation for the innovation and diffusion of knowledge and technology and constantly realize product innovation [17]. The leading industry is judged and selected by the market according to the industrial market competitiveness, and the industrial competitiveness comes from production cost, product differentiation based on quality, regional marketing, and market competitive advantage [18]. The industrial cluster model is a new regional economic development model, which is an innovation of the regional economic development model under the background of economic globalization.

The researcher proposed a new model in accordance with our national situation. The content of the growth pole model includes two aspects. Looking at the various indus-

tries and sectors in the region, growth is not at the same rate in every industry and sector during the regional development process but at different times [19]. The momentum of growth tends to be relatively concentrated in the leading and innovative industries and then ripples out to other industries and sectors. In terms of space, such industries and enterprises do not develop in all places at the same time but are concentrated in some urban centers, first developed and then spread to the periphery. This industrial center, which concentrates on leading industries and innovative enterprises, is the regional growth pole [20]. According to the point axis development model, the industry is always concentrated in the advantageous location of a few cities or enterprises with better conditions. With the development of the economy, industrial points are gradually increasing [21]. Due to the exchange of production factors, transportation lines, power supply lines, and water supply lines need to be connected with each other, which form an axis. The regional production complex model advocates the formation of leading regional industries or leading industrial clusters based on the development of leading regional resources [22]. At the same time, focus on the leading industries,

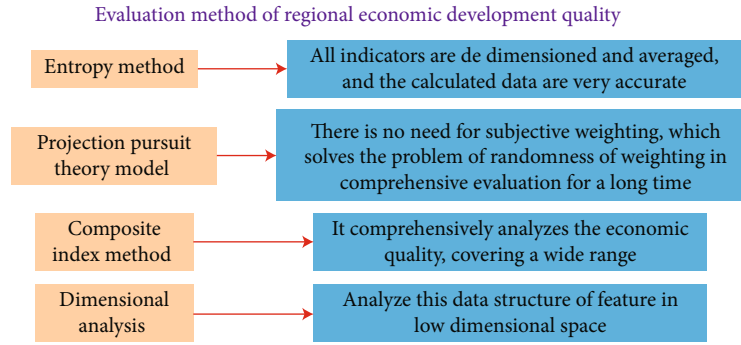


FIGURE 3: Regional economic development quality evaluation methods.

develop their forward related or backward related industries accordingly, comprehensively develop and utilize other natural resources, and strengthen infrastructure construction [23, 35]. The essence of a production complex is to build an economic core area with high industrial relevance, closed circulation, and efficient use of resources in a small area as a regional economic development model.

2.2. Evaluation Method of Regional Economic Development Quality. The quality of economic development refers to the advantages and disadvantages of the national economic development of a country or region in a certain period of time, that is, the coordination state within the economy and between economy, society, and environment [24]. Economic development is a multidimensional concept, not only in terms of the growth of material wealth but also a pursuit of high-level value realization, and no single indicator can make a comprehensive and accurate evaluation of the quality of economic development. The traditional economic growth theory mainly discusses the power and source of economic growth and how to achieve quantitative economic growth while ignoring the research on the quality of economic development [25]. At this stage of research on the quality of economic development, there are different understandings and interpretations of this concept in academic circles according to different research contents, research perspectives, and research methods. However, the more consistent view is that the quality of economic development and the quantity of economic growth are inconsistent, and the pursuit of the quantity of economic growth does not mean the improvement of the quality of economic development [26]. Regional economic development quality evaluation methods mainly include the entropy method, projection tracing theory model, comprehensive index method, and dimensional analysis method, as shown in Figure 3.

High-quality economic growth should be a comprehensive economic growth that integrates high input-output efficiency, reasonable structural layout, and large development potential and does not affect the sustainable development of environmental resources, a high degree of national sharing of the fruits of economic growth, and rapid economic development [27]. From the existing research literature, many scholars choose the entropy method to measure various indicators affecting the quality of economic develop-

ment. The entropy method is used to weigh each index and calculate the weight of each index, so as to measure the quality index of economic development. The research shows that the structure of economic growth, resources and environment, and people's life have the greatest impact [28]. The advantage of the entropy method is that all indexes are dimensionally averaged, and the calculated data are very accurate, but the disadvantage is that the amount of calculation is relatively large. Projection tracing technology uses computer technology to project high-dimensional data onto a low-dimensional subspace by some weighted combination to establish a reasonable indicator function and determine the optimal value of the indicator based on this function to find the best projection reflecting the original high-dimensional data structure or data features [29]. Then, this data structure or features are analyzed in the low-dimensional space for the purpose of studying and analyzing the high-dimensional data structure and features. It can also be seen from the analysis that the advantage of the projection pursuit comprehensive evaluation method is that it does not need subjective weighting and solves the problem of the randomness of weighting in a comprehensive evaluation for a long time [30]. The comprehensive index method is to determine the weight and deal with the index dimensionless. The composite index method provides a more comprehensive analysis of economic quality and covers a wider range of areas.

3. Design of Application Model

3.1. Difference Measure and Index Decomposition Method. Research experts used qualitative analysis methods in their previous research on China's regional economy, but with the progress of the times, they gradually turned to research methods and more quantitative research. For example, the method often used in regional economic research in China is measuring the imbalance of the regional economy with statistical indicators. This method includes standard deviation, range, coefficient of variation, Theil index, Gini coefficient, concentration index, and Cui Wang index. In this paper, the commonly used standard deviation, weighted coefficient of variation, Theil index and its decomposition to region, and Gini coefficient and its decomposition to the industry are selected. The Theil index is a statistical metrics

which is used to measure economic inequality and economic phenomenon of a region. The Gini coefficient, which is also termed as Gini index, measures the statistical dispersion relevant to income inequality and wealth inequality for a nation or a social group. The Theil and Gini indices are used to analyze the income and wealth distribution of a region. Various studies have been conducted wherein the Theil and Gini indices have been used to perform economic analysis. As an example, the study in [32] analyzed the present distribution of physicians in 31 administrative regions of China wherein the Theil and Gini indices were used [32, 33].

The formula used to measure the absolute error of the regional economy is a standard deviation index [32, 33].

$$S = \sqrt{\frac{1}{n} \sum_{i=1}^n (y_i - \bar{y})^2}. \quad (1)$$

The index can avoid the impact of the coefficient of variation of population size on the regional economy and make the population size consistent with the regional economic differences, which is the biggest advantage of the index. The population-weighted coefficient of variation is an indicator used to measure the relative difference between different species. The formula is as follows.

$$C_{wv} = \frac{1}{y} \sqrt{\sum_{i=1}^n \left[(y_i - \bar{y})^2 \frac{p_i}{p} \right]}. \quad (2)$$

There are two ways to calculate the Theil index: one is obtained by weighting the population weight; the other is obtained by weighting the income weight. The Theil index chosen in this paper is obtained by weighting the population weight, and the formula is as follows.

$$L = \sum_{i=1}^n p_i \log \left(\frac{p_i}{Y_i} \right). \quad (3)$$

The Gini coefficient is obtained by economist Gini according to the Lorenz curve. It is mainly used by research experts to quantitatively measure the degree of income difference, and it is also commonly used to evaluate residents' income differences. The Gini coefficient will increase with the continuous expansion of regional economic differences. The Gini coefficient is essentially a ratio, with values ranging from 0 to 1. The smaller the value, the more uniform the distribution of wealth among social members. To decompose the economic differences from the regional scale, the decomposition technology of statistical indicators is better and more practical than the regression analysis method. Among many statistical indicators, the decomposition method of the Theil index is more used. The Theil index can decompose the regional differences into two parts: intragroup differences and intergroup differences, which can clearly see the contribution of intragroup differences and intergroup differences to the overall differences. Therefore, in this paper, we choose the Theil index decomposition method to study the differences between several prefecture-level cities in Jiangxi

Province and the differences within each of them, and we can obtain the Theil index from the concept of entropy in information theory, which is calculated as follows [32, 33].

$$\text{Theil} = \frac{1}{n} \sum_{i=1}^n \frac{y_i}{\bar{y}} \ln \left(\frac{y_i}{\bar{y}} \right). \quad (4)$$

The decomposition expression for the Theil exponent can then be obtained.

$$\text{Theil} = T_b + T_w = \sum_{k=1}^K y_k \ln \left(\frac{y_k}{n_k/n} \right) + \sum_{k=1}^K y_k \sum_{l \in g_k} \frac{y_l}{y_k} \ln \left(\frac{y_l/y_k}{1/n_k} \right). \quad (5)$$

The differences between regions and within regions have the following expressions, respectively.

$$T_b = \sum_{k=1}^K y_k \ln \left(\frac{y_k}{n_k/n} \right), \quad (6)$$

$$T_w = \sum_{k=1}^K y_k \sum_{l \in g_k} \frac{y_l}{y_k} \ln \left(\frac{y_l/y_k}{1/n_k} \right).$$

Therefore, the imbalance of the overall level of regional economic development can be divided into two parts: intraregional and interregional differences. The basic idea of the Gini coefficient decomposition of industrial structure is as follows.

$$G_j = 1 + \frac{1}{N} - \frac{1}{N^2 y_j} (y_{j1} + 2y_{j2} + 3y_{j3} + \dots + ny_{jn}). \quad (7)$$

Therefore, the Gini coefficient and regional economic difference should be a positive correlation. Finally, we then decompose the variation of differences into industrial composition, i.e., into structural effect, synthesis effect, and concentration effect, in order to find the intrinsic factors that cause regional economic differences. The relevant mathematical expressions are as follows.

$$\Delta G = \sum_{j=1}^3 a_{j+1} G_{j+1} - \sum_{j=1}^3 a_j G_j = \sum_{j=1}^3 (a_{j+1} G_{j+1} - a_j G_j). \quad (8)$$

Therefore, concentration-effect and structure effect is the changes in the total Gini coefficient caused by the changes in industrial concentration and industrial structure, respectively. The combined effect is the change in the total Gini coefficient caused by the change in industrial concentration together with the change in structural industries and the combined effect with a relatively low contribution we usually do not consider.

3.2. Panel Data Model. The spatial panel data model is a model that captures spatial interaction and the passage of time through spatial units. It is widely used in various

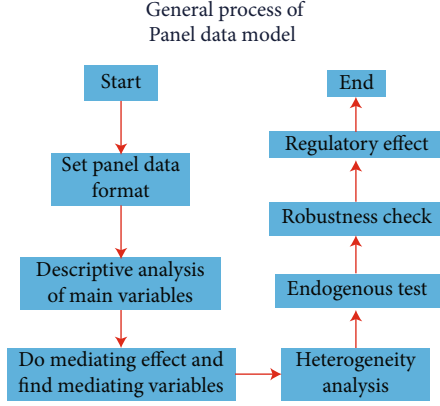


FIGURE 4: The algorithm flow of the panel data model.

statistical analyses. It has broad application prospects in the fields of geography, economy, ecological environment, and so on. It also plays a significant role in many different industries. The algorithm flow of the panel data model is shown in Figure 4.

The general spatial panel data model equation is as follows.

$$\begin{cases} y_t = X_t\beta + \rho W_n y_t + \mu_t, \\ \mu_t = \lambda M_n \mu_t + \varepsilon_t, t = 1, 2, \dots, T. \end{cases} \quad (9)$$

In spatial econometric models, observations are associated with specific locations in space, usually involving time series observation data with multiple spatial units. The structure of the interaction between each pair of spatial elements can be expressed by a spatial weight matrix. If variable selection and parameter estimation are combined, the objective function of the model can be changed to

$$\arg \min_{\beta} \left\{ \|Y - X\beta\|^2 + \lambda \sum_{j=1}^p p_{\lambda}(|\beta_j|) \right\}. \quad (10)$$

We study the variable selection problem for the spatial panel autoregressive model, assuming n spatial units and T time periods, and we consider the following model:

$$y_t = \rho W_n y_t + X_t \beta + \varepsilon_t, t = 1, 2, \dots, T. \quad (11)$$

The expression of the log-likelihood function of the model is as follows.

$$\tilde{f} = -\frac{nT}{2} (\ln(2\pi) + 1) - \frac{nT}{2} \ln(\hat{\sigma}^2) + \ln |A_{nT}(\rho)|. \quad (12)$$

The variable selection is better when it follows the standard normal distribution. As the sample size increases, the results become better for each scenario. When the spatial autoregressive coefficient is small, the effect on the dependent variable becomes smaller, and the accuracy of coefficient estimation increases. In order to obtain a sparse

estimate of the coefficients, the expression of the penalized objective function at this point is as follows.

$$\tilde{\beta} = \arg \min_{\beta} \left\{ (\bar{Y} - \bar{X}\beta)' (\bar{Y} - \bar{X}\beta) + \sum_{j=1}^k \lambda_{nT} \omega_j |\beta_j| \right\}. \quad (13)$$

The existing research is more about the parameter estimation of the spatial panel data model and the variable selection of the cross-sectional spatial data model, while the relevant literature on the variable selection of the spatial panel data model is less. This paper investigates the variable selection of spatial panel data models and demonstrates that the method has good properties in the problems of variable selection and parameter estimation for both spatial panel autoregressive models and spatial panel error models.

4. Experiments and Results

This chapter is mainly divided into two parts, which, respectively, introduces the overall development status of regional economy in Jiangxi Province and analyzes the temporal evolution of regional economic differences in Jiangxi Province. For the time-series evolution analysis of regional economic disparities in Jiangxi Province, the author chose data from 2016 to 2021 for the standard deviation, population-weighted coefficient of variation, Theil's index, and Gini coefficient. The focus is on, first, the decomposition of the formation of regional differences in Jiangxi Province using the Theil index in order to understand the degree of regional contribution to the formation of overall differences. Second, the Gini coefficient is used to decompose the industries in the formation of regional economic differences in order to understand the contribution of the three major industries to the regional economic differences in Jiangxi Province. By the formula given in the previous section and the principle, we can get the total Theil index and intraregional and interregional Theil index of Jiangxi Province (as Table 1), in order to facilitate the observation of the trend toward making Figure 5.

As can be seen from the trend chart, the regional economic differences in Jiangxi Province have experienced a development process of first expanding, then narrowing, and finally then regional stabilization. The change trend of the overall difference in Jiangxi Province is roughly the same as that in the northern region of Jiangxi Province. The main reason is that the internal difference in the northern region of Jiangxi Province accounts for the vast majority of the overall difference in Jiangxi Province, which plays a guiding role in the trend of the overall difference. It can be seen that there are great internal differences in the northern region of Jiangxi Province, while there are almost no internal differences in the southern region; that is, there is a serious unbalanced development in the northern region with fast development speed, while the southern region with slow development speed is relatively average. From this, we can draw a conclusion that, in terms of the situation of each city, the development of the northern region is seriously

TABLE 1: Theil index and contribution rate of Jiangxi Province.

Years	Total difference	North			South	
		Difference	Contribution rate (%)	Difference	Contribution rate (%)	
2016	0.293	0.252	86.067	0.00129	0.441	
2017	0.311	0.268	86.181	0.00149	0.477	
2018	0.318	0.273	85.986	0.00235	0.737	
2019	0.335	0.287	85.727	0.00200	0.595	
2020	0.378	0.325	86.111	0.00157	0.414	
2021	0.389	0.336	86.230	0.00221	0.568	

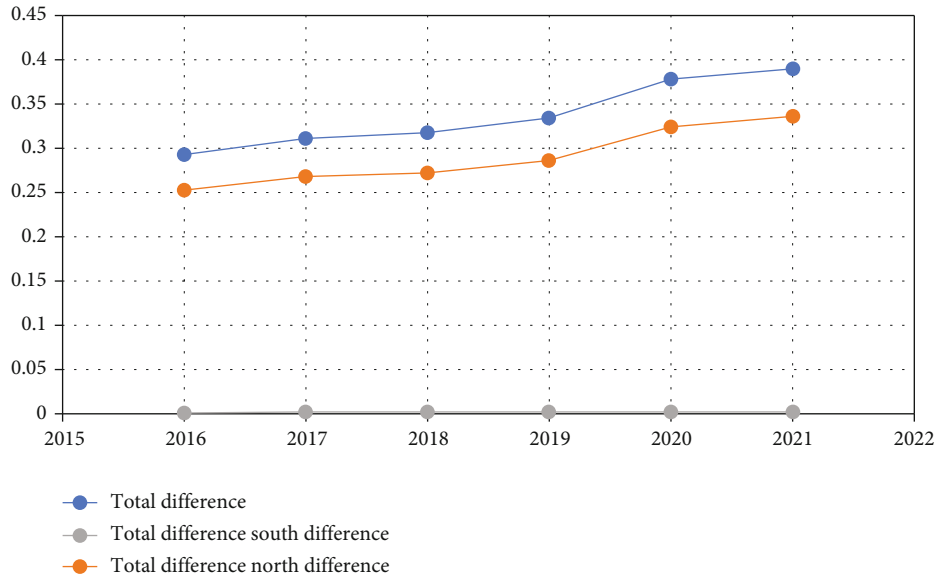


FIGURE 5: Trend chart of Jiangxi Theil index.

unbalanced, the internal difference is great, the internal development of the southern region is generally backward, and the internal difference is small. If the average value of each city in the northern region is put aside, the difference between the northern and southern regions is also great. Subsequently, the Gini coefficients of the three major industries in Jiangxi Province and the total Gini coefficient were calculated by the method and principle of calculating the Gini coefficient in the previous section, and the contribution of each industry to the total Gini coefficient was calculated. The average value and structural changes in the per capita output value of three industries in Jiangxi municipalities are shown in Tables 2 and 3.

It can be seen that the contribution of various industries to the overall difference of regional economy is not only affected by the regional gap but also related to the industrial added value. This also shows that the gap between the tertiary industry regions in Jiangxi Province is decreasing year by year. Although the proportion of primary industry is declining, the gap between regions is widening. Due to the large proportion of the secondary industry, it plays a guiding role in the regional economic differences in Jiangxi Province; that is, the overall differences will change with the trend of the differences in the secondary industry. As can be seen

from the provincial Gini coefficient, the overall economic development of Jiangxi Province is at a more average stage, and the Gini coefficient has been maintained at about 0.3. However, in terms of development trend, the Gini coefficient still has the tendency to further expand. The panel data model takes into account the cross-sectional data and time series data at the same time, that is, the regional and spatial analysis in time factors and the two-dimensional structure data in time factors. The model can not only show the development law of individual data but also the change law caused by time factors. This special function of panel data can remove individual heterogeneity and make up for the lack of variables in a very short time. Histogram of the proportion of each industrial structure is shown in Figure 6.

In the data used in this section, it is necessary to analyze each index factor to judge whether the data used conforms to the model and whether it is necessary to take pairs to eliminate multicollinearity. In order to determine the correct model that can be used, it is necessary to conduct redundant fixed effect test. Based on the regression results of panel data, this paper analyzes and compares the impact of various variables on the economic growth of various regions in Jiangxi Province and investigates the impact of various factors on the economic development of Jiangxi Province.

TABLE 2: Per capita output value and structural changes in the three industries.

Years	Per capita output value of various industries			The proportion of each industrial structure		
	Primary industry	Secondary industry	Tertiary industry	Primary industry	Secondary industry	Tertiary industry
2016	1557	3669	2871	18.98	45.19	35.83
2017	1693	4462	3286	17.37	46.65	35.98
2018	1818	5366	3615	15.61	49.11	35.28
2019	2080	6525	4028	14.56	51.31	34.13
2020	2419	8108	5373	14.09	53.01	32.90
2021	2488	8875	5971	13.77	52.44	33.79

TABLE 3: Per capita output value and structural changes in the three industries.

Years	Gini coefficient of each industry			Contribution rate of Gini coefficient of each industry		
	Primary industry	Secondary industry	Tertiary industry	Primary industry	Secondary industry	Tertiary industry
2016	0.3232	0.3155	0.3493	32.72	31.93	35.35
2017	0.3080	0.3155	0.3429	31.87	32.65	35.48
2018	0.3050	0.3082	0.3466	31.78	32.11	36.11
2019	0.3100	0.2740	0.3552	33.01	29.17	37.82
2020	0.3052	0.2669	0.3483	33.15	29.01	37.84
2021	0.3079	0.2726	0.3365	33.58	29.73	36.69

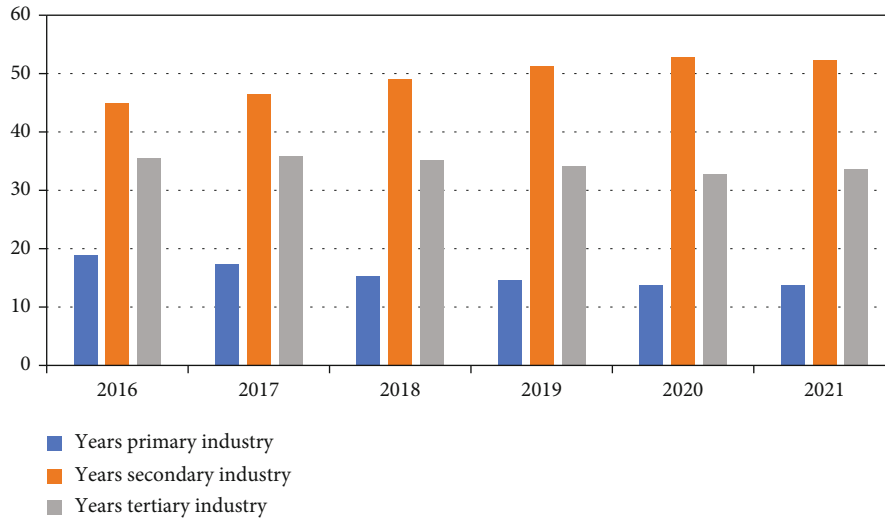


FIGURE 6: Histogram of the proportion of each industrial structure.

5. Conclusion

At present, China’s research on regional economic development has made a lot of achievements in both theoretical and empirical aspects. Although the research on the coordinated development of regional economy in China began much later than that in foreign countries, this does not affect the influx of Chinese researchers into the wave of studying China’s regional economy. However, there are some limitations. The perspective on the quality of economic development is limited, which is not enough to cover all the contents of economic development. The comprehensive evaluation index system of economic development quality still has some one-sidedness and subjectivity. The existing comprehensive evaluation model cannot effectively examine

the coordination of the quality of economic development, resulting in the unreliability of the research results. So we proposed to study the problem of regional economic disequilibrium in Jiangxi Province to provide reliable suggestions for the development of the economy of Jiangxi Province. The results show that the research results of this paper are beneficial to the countermeasures for the coordinated development of the regional economy in Jiangxi Province.

The formation of regional economic differences will occur in the development process of any regional economy. We should treat this problem objectively and fairly. We cannot evaluate the regional political achievements unfairly because of the imbalance of economic development in some regions. There are many factors in the emergence of regional

economic differences. These factors help in the improving of social and income indicators. Presently, the economic differences in Jiangxi Province are characterized by the large economic differences between the north and the south and the internal solutions in the north, and the internal differences in the north have already exceeded the north-south differences. It is worth mentioning that the north-south differences in Jiangxi Province are decreasing. Therefore, the government needs to scientifically adjust the regional industrial structure of Jiangxi Province to address the uneven distribution of industries in backward regions and promote coordinated development, strengthen regional economic and financial cooperation and capital flow, and vigorously develop the regional economy. The future work of the study could include mean squared error estimation and calculation of bootstrap-based confidence intervals.

Data Availability

The datasets used during the current study are available from the corresponding author on reasonable request.

Conflicts of Interest

The authors declare that they have no conflict of interest.

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