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Retraction

Retracted: Development Model of China's Regional Economic Cooperation Based on Network Analysis and Multimedia Data Visualization

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

(1) Discrepancies in scope
(2) Discrepancies in the description of the research reported
(3) Discrepancies between the availability of data and the research described
(4) Inappropriate citations
(5) Incoherent, meaningless and/or irrelevant content included in the article
(6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

[1] F. Du, "Development Model of China's Regional Economic Cooperation Based on Network Analysis and Multimedia Data Visualization," *Advances in Multimedia*, vol. 2021, Article ID 4266363, 7 pages, 2021.

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Research Article

Development Model of China's Regional Economic Cooperation Based on Network Analysis and Multimedia Data Visualization

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As for the problem of large amount and complex structure of network forum data, we analyze the means of data visualization and association analysis, explain the specific interpretation of association rules, explain the feelings and objectives of multimedia data visualization, and explain the corresponding technical application. This paper uses the relevant theories of new economic geography to analyze and compare China's unique economic development. In particular, it studies the development and changes of the World Trade Organization. Through the results, it can be seen that, after China's accession to the WTO, the industrial location coefficient shows a downward trend, and the change of economic differences is slow.

1. Introduction

With the rapid development of networks such as the World Wide Web and social relations network in recent years, more and more network resources are obtained, which makes it impossible for us to sort out these resources according to previous means and technologies [1, 2]. The forum has become an important part of the network, with the characteristics of low threshold and strong convergence [3, 4]. In the twenty-first century, people have more needs for relationships in data. In the past, simple visualization functions can no longer meet people's needs. Visualization has slowly developed from singleness to interactive fields such as relational data mining, human-machine interaction, and computer graphics [5, 6]. The data mining function can enable people to find useful resources in a large number of resources. Therefore, the combination of data mining function and visualization can obtain effective and fast methods in massive data. The combination of these two technologies can better mine and manage large databases [7, 8].

Using the new economic geography method and the analysis model frame of mainstream economics can better explain the previous concept of production space location and give a corresponding way to the new trade concept and the new added concept. After analyzing and evaluating the basic concepts and technologies of new economic geography, this paper makes a special study on the situation of regional development in China and obtains the differences of regional development in new economic geography through analysis, which plays a role in promoting regional balanced development.

2. Multimedia Data Visualization

2.1. Related Definitions of Association Rules and Multimedia Data Visualization

2.1.1. Web Forum Data. Internet bulletin boards are also called BBS (bulletin board system) forum which is a place for the public to express their opinions and exchange ideas. Compared with the visualization requirements' dataset in other fields [9, 10], it has the following characteristics:

(1) Large amount of data: the number of forums is increasing. The forum is divided into several sections. There are thousands of posts under the section, and there are many replies to the more popular posts. Because the general forum has more than one million users, the overall amount of data is very large.

(2) In the data hierarchy general forum, the information is hierarchically configured, and the hierarchical model is shown in Figure 1.

(3) High dialogue: at the forum, express opinions through contributions. Anyone can read the published content at any time. An invitation often leads to thousands of replies. There is a flexible communication mechanism between communicators and recipients. Network groups with different interests can also share information, discuss, and get mutual recognition in different network forum spaces [4, 11].

2.1.2. Data Visualization Definition. Data visualization can clearly and effectively transmit communication information through graphical means based on data attribute characteristics and can more easily understand the content represented by data. Different datasets have different characteristics. By selecting appropriate display methods and technologies, the purpose of better showing the structural characteristics of the data itself can be achieved [12].

2.1.3. Related Definitions of Association Rules. The form of relevant rules is simple, which is helpful for people to find the relationship between data and many other interesting models and use relevant rules to mine the relationship in network forum data. The definition of relevant rules must be given first.

Definition 1. Let $I = \{I_1, I_2, \ldots, I_m\}$ be the attribute set of the post, called item. Given a database d that stores a large amount of network forum data, where each post t is the corresponding dataset of items, which meets $T \subseteq I$, and each post has an identifier, called TID. X is a subset of I. If $X \subseteq T$, t contains X; if the number of elements of X is k, X can be called a k-itemset.

Definition 2. When setting $X \subseteq I$, $Y \subseteq I$, and $X \cap Y = \varnothing$, such as $X \Longrightarrow Y$, the comprehensive form of Y is called an association rule, where X is the predecessor set of the rule and Y is the postevent set of the rule, including the set of X items. Thread T is also likely to contain Y itemsets. If c% the posts containing X also contain Y, then the confidence of the rule $X \Longrightarrow Y$ is c%; if there are s% posts in D that contains $X \cup Y$, then the support of the rule $X \Longrightarrow Y$ is s%, where the calculation expressions are as follows: (1) support $(X \Longrightarrow Y) = P(X \cup V)$ and (2) confidence $(X \Longrightarrow Y) = P(X \mid Y)$.

2.2. The Goal of Data Visualization in Web Forums. For the traditional visualization model, the data visualization of network forum based on correlation analysis needs to achieve the following objectives:

2.2.1. Web Forum Data Visualization. Due to the large amount of data in the forum, if all information is displayed at one time, the interface will be confused and repeated, and the desired visualization effect cannot be achieved. The amount of data to be calculated is relatively large, and the execution time of the system may become longer [13].

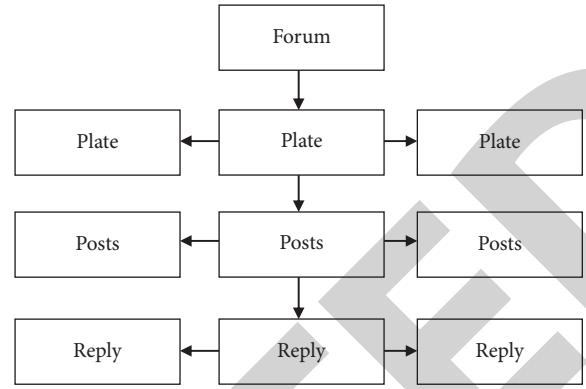

Figure 1: Hierarchical model of network forum data.

2.2.2. Appropriate Interaction. Design relevant rules and interaction with data. When users are interested in a rule, they can find the corresponding dataset in the drill bit below to understand the details of the data. You can also roll up and return to the relevant rule interface.

2.2.3. Quickly Master and Understand the Theme of Data under Association Rules. Topic mining can quickly find the main ideas and topics in the dataset so that analysts can quickly and reasonably screen and filter relevant rules and select meaningful rules that people need.

2.3. Implementation Framework of Multimedia Data Visualization Technology Based on Correlation Analysis. The multimedia data visualization technology of correlation analysis implements the framework shown in Figure 2.

3. New Economic Geography and Industrial Agglomeration

3.1. New Economic Geography. New economic geography has four most important characteristics. (1) This theory is a general equilibrium model of spatial economics, which is the most important feature of the difference between traditional geographical theory and economic geography. (2) The increase of remuneration at the level of a single manufacturer leads to incomplete competition in the market structure. (3) Transportation cost is an important reason for the problem. (4) Regional mobility of consumers and other factors are a prerequisite for intensification [14].

New economic geography mainly has three dynamic models. This paper analyzes the regional economic differences by establishing the center-periphery model of China's two regions.

3.2. Center-Periphery Model

3.2.1. Model Assumptions

(1) There are only two regions in an economy, region 1 (eastern region) and region 2 (the central and western region); only two products are produced:

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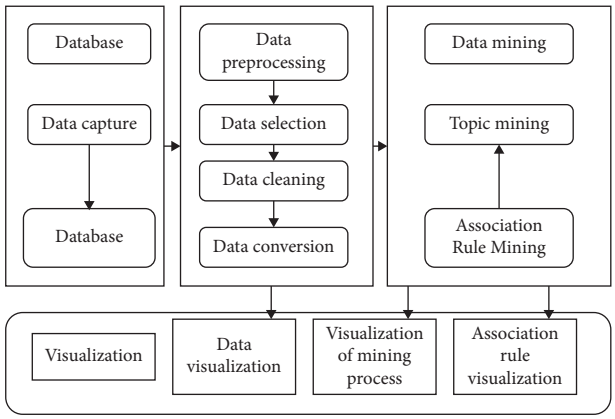

Figure 2: Multimedia data visualization technology framework of correlation analysis.

agricultural products and manufactured products; there is only one factor of production: labor.

(2) Agricultural products are homogeneous, and agricultural production has constant returns to scale and perfect competition; manufactured goods include many differentiated products, and there is a market structure with increasing returns to scale and monopolistic competition. Farmers specialize in the production of agricultural products, and workers specialize in the production of manufactured goods.

(3) There is no transportation cost for agricultural products, and there is transportation cost for manufactured products. This transportation cost adopts Samuelson's "Iceberg Cost" model.

(4) Everyone has the same hobby in the economy. The function is in the form of glass. There are many potential differences in manufacturing. Each product can only be produced in one place. The production function adopts the CES type.

(5) Farmers are equally distributed in the two regions. Workers can flow freely in the two areas, and the direction of workers' flow flows from low-wage areas to high-wage areas.

3.2.2. Model Function. The instantaneous equilibrium of the center-periphery model can be described by the following 8 equations:

$$
\begin{aligned}
y_1 &= \mu\lambda\omega_1 + \frac{1-\mu}{2},\\
y_2 &= \mu(1-\lambda)\omega_2 + \frac{1-\mu}{2},\\
G_1 &= \left[\lambda\omega_1^{1-\sigma} + (1-\lambda)(\omega_2\tau)^{1-\sigma}\right]^{1/1-\sigma},\\
G_2 &= \left[\lambda(\omega_1\tau)^{1-\sigma} + (1-\lambda)\left(\omega_2^{1-\sigma}\right)\right]^{1/1-\sigma},\\
\omega_1 &= \left[y_1 G_1^{\sigma-1} + yG_2^{\sigma-1}\tau^{1-\sigma}\right]^{1/\sigma},\\
\omega_2 &= \left[y_1 G_1^{\sigma-1}\tau^{1-\sigma} + yG_2^{\sigma-1}\right]^{1/\sigma},\\
\widetilde{\omega}_1 &= \omega_1 G_1^{-\mu},\\
\widetilde{\omega}_2 &= \omega_2 G_2^{-\mu},
\end{aligned}
\tag{1}
$$

where y_1 is the income of area 1; y_2 is the income of area 2; the share of workers in λ area 1; μ is the share of workers in the total labor force; σ is the elasticity of demand for differential products; ω_1 is the nominal wage of area 1; and ω_2 is the nominal wage of area 2. The actual wage in area 1; the actual salary in X2 area 2; the price index of G1 area 1; the price index of G2 area 2; each unit of τ reaches the destination only.

Next, we will analyze how the symmetric equilibrium collapses, that is, when regions 1 and 2 reach an equilibrium state (the actual wages of regions 1 and 2 are equal), if a small number of workers in region 1 or region 2 migrate to another region, whether such activities will eventually form a center-periphery model. We need to differentiate $\omega_1-\omega_2$ in the vicinity of the symmetrical equilibrium, that is, the equilibrium differential $D(\omega_1-\omega_2)/d\lambda$.

In the equilibrium state, we know the values of all endogenous variables in the model. $\lambda = 1/2$; $y_1 = y_2 = 1/2$; $\omega_1 = \omega_2 = 1$; $G_1^{1-\sigma} = G_2^{1-\sigma} = [1+\tau^{1-\sigma}/2]$.

After transformation, we can get

$$
\frac{d\omega}{d\lambda} = 2ZG^{-\mu}\left(\frac{1-\rho}{\rho}\right)\left[\frac{\mu(1+\rho) - Z\left(\mu^2+\rho\right)}{1-\mu Z(1-\rho) - \rho Z^2}\right]. \tag{2}
$$

However,

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$$Z = \frac{\left[1 - \tau^{1-\omega}\right]}{\left[1 + \tau^{1+\sigma}\right]} = \frac{\left[1 - \tau^{1-\sigma}\right]}{2G^{1-\sigma}}. \quad (3)$$

In the case of negative $d\omega/d\lambda$, the symmetric equilibrium is stable; otherwise, it is unstable. The acquisition value of Z is between 0 (free trade) and 1 (self-sufficiency), and ρ and μ are less than 1. So, the denominator is positive. When Z approaches zero, the molecule is positive. Therefore, the sign of the expression $d\omega/d\lambda$ is positive. I got the first conclusion.

Conclusion 1. When the generalized transmission cost is close to zero, the symmetric equilibrium is unstable, and the system perturbation finally forms the center-periphery model. In other words, with the reduction of transportation costs, it is conducive to the formation of industrial integration. As a result of industrial agglomeration, the economic development of each region is different.

When $Z = 1$ (that is, the transportation cost is infinite), the $\rho < \mu$ molecule is positive, and vice versa. Appropriate $\rho < \mu$ symmetrical equilibrium is unstable.

Conclusion 2. When the transportation cost in the broad sense is large enough, the manufacturing industry is evenly distributed in the two regions and cannot form an integration phenomenon.

The expression of the mutation point τ can be obtained from the following equation:

$$\frac{\rho}{\tau^{1-\rho}} = \frac{(\rho + \mu)(1 + \mu)}{(\rho - \mu)(1 - \mu)}. \quad (4)$$

The variation point can be seen from the above formula. τ value is μ. The greater the income elasticity of manufacturing products, the more favorable the increase of returns to scale and the greater the income of enterprises. This is the source of industrial agglomeration. The result is as follows.

Conclusion 3. The greater the income elasticity of manufacturing products in a region, the more conducive to the formation of industrial integration. The result of concentration will inevitably bring about the gap of regional economic development.

From the above formula, we can also see that the τ value of the mutation point decreases with the increase of ρ. If the degree of product differentiation is higher, and the price of the product rises more, then ρ will be correspondingly lower, and a strong forward and backward connection will be produced.

Conclusion 4. The greater the degree of product differentiation is, the easier it is to form forward and backward links and the easier it is to form centers. At the same time, regional differences are inevitable.

4. Empirical and Result Analysis

This paper uses industrial Gini coefficient to measure industrial integration. The following calculations are carried out in this paper:

(1) Calculate the nearly three years of China's accession to the World Trade Organization in turn. The location Gini coefficients of 19 industries in the three years before joining the World Trade Organization and the three years after joining the World Trade Organization are calculated, respectively. It includes 29 administrative divisions. The results are shown in Tables 1 and 2.

(2) The top four provinces and their proportions are calculated, respectively, for the industrial production whose Gini coefficient exceeds the average value of the industrial Gini coefficient in the three years before China's accession to the World Trade Organization. We can see the degree of spatial integration of these industries and the changes in the main concentrated provinces, cities, and regions. Please refer to Tables 3 and 4 for the results.

From Table 1, we can analyze the following:

(1) Since China's reform and opening up, the Gini coefficient of many domestic industries is basically increasing.

(2) The first three industries in which the Gini coefficient exceeds the average value of the Gini coefficient of each industry in the same period are resource industries. Therefore, regional integration can basically be explained by the theory of resource quality advantages. The analysis of the regional distribution of the following four industries is shown in Table 3.

From Table 3, we can get the following:

(1) The integration of the electronic and communication equipment manufacturing industry and instrument and office supplies manufacturing industry began to improve. The gathering areas have a certain industrial foundation and turn to large local markets and low trade cost areas.

(2) As a capital-intensive industry with high income elasticity, the concentration of the chemical fiber industry has increased significantly after the reform and opening up. The concentration area has expanded from the area close to the origin of raw materials (Shengli Oilfield in Shandong Province and Daqing Oilfield in Liaoning Province) to the area of product demand.

(3) The above three industries tend to regions with significant local market demand, which fully proves Krugman's local market theory.

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Table 1: Gini coefficient and change rate of industry ranking in representative years before China's accession to the World Trade Organization.

Industry	2009	2014	2017	Change rate (%)
Food manufacturing	0.219	0.252	0.239	16.1
Beverage manufacturing	0.26	0.234	0.255	3.1
Tobacco processing industry	0.44	0.642	0.621	25.1
Textile industry	0.231	0.285	0.272	25.1
Paper and printing industry	0.183	0.207	0.176	19.1
Petroleum coke industry	0.424	0.427	0.394	−3.8
Chemical raw materials and chemical products' manufacturing	0.165	0.155	0.163	6.6
Pharmaceutical industry	0.175	0.187	0.183	12.7
Chemical fiber	0.367	0.367	0.346	−2
Rubber products	0.183	0.26	0.286	70.4
Plastics	0.248	0.292	0.272	16
Building materials and other nonmetallic products	0.166	0.209	0.22	439.1
Ferrous metals	0.354	0.393	0.395	16.3
Metalware	0.132	0.148	0.156	31.4
Machinery industry	0.128	0.178	0.211	87.2
Transportation equipment manufacturing	0.318	0.31	0.317	31.3
Electrical machinery manufacturing	0.202	0.23	0.243	29.1
Electronic and communication equipment manufacturing industry	0.333	0.464	0.491	54.7
Instruments, meters, and cultural office supplies machinery manufacturing products	0.279	0.297	0.393	49
Mean value	0.257	0.291	0.296	22

Table 2: Gini coefficient and its change rate of zoning in representative years after China's accession to the World Trade Organization.

Industry	0.493	0.491	35.2	0.358	326.11	10.9
Food processing	0.393	0.348	1.389	0.227	0.351	−4.7
Food manufacturing	0.407	0.399	1.475	0.277	0.369	8
Beverage manufacturing	0.56	0.595	1.689	0.482	0.725	−20.5
Tobacco processing industry	0.436	317.12	34.2	317	0.449	−5.3
Textile industry	0.289	0.29	1.361	0.163	0.355	−32.3
Papermaking and paper products industry	31.13	0.459	327.2	0.325	0.492	−13.8
Petroleum coke industry	0.211	0.47	1.603	0.16	0.32	−71.9
Chemical raw materials and chemical products manufacturing	0.286	0.272	1.364	0.157	0.341	−30.9
Pharmaceutical manufacturing	0.611	0.574	1.652	0.462	0.494	21.4
Chemical fiber manufacturing	0.323	0.312	1.396	0.193	0.312	−3.35
Nonmetallic mineral manufacturing	0.571	0.605	1.667	0.464	0.509	17.3
Ferrous metal smelting and rolling processing industry	0.423	0.419	1.533	0.308	0.504	−216.9
Nonferrous metal smelting and rolling processing industry	0.359	0.36	1.388	0.219	0.362	−11.9
Metal products industry	0.264	0.352	1.442	0.203	0.385	−25.1
General machinery manufacturing	13.13	0.244	1.391	0.148	0.402	−48.2
Proprietary equipment manufacturing	0.341	0.354	1.449	0.231	0.429	−26.5
Transportation equipment manufacturing	0.404	0.379	1.466	0.266	0.377	0.73
Electrical machinery and equipment manufacturing	0.634	0.584	1.672	0.48	0.577	3.88
Electronic machinery and equipment manufacturing	0.565	0.535	1.64	0.43	0.528	288.1
Instruments, meters, and cultural office supplies machinery manufacturing products	0.416	0.408	1.489	0.2873	0.433	−9.9
Average Gini coefficient of industry location	0.493	0.491	35.2	0.358	326.11	10.9

Table 3: Industry ranking distribution of Gini coefficient of zoning exceeding the average value of Gini coefficient of the whole industry (%).

Industry	2016		2018		2020	
Transportation equipment manufacturing	Jilin	8.79	Jilin	9.67	Jilin	9.49
	Shanghai	834.2	Hubei	10.56	Hubei	9.69
	Liaoning	10.33	Jiangsu	11.72	Jiangsu	11.38
	Hubei	13	Shanghai	13.07	Shanghai	15.8
	Total	38.1	Total	41.44	Total	42.78

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Table 3: Continued.

Industry	2016		2018		2020	
Electronic and communication equipment manufacturing (Sichuan 6.36, Beijing 5.92, and Tianjin 7.77)		1.2		1.2		1.2
	Shanghai	834.2	Shanghai	110.2	Shanghai	9.67
	Guangdong	14.1	Jiangsu	124.2	Jiangsu	12.9
	Jiangsu	20.6	Guangdong	304.2	Guangdong	33.8
	Total	48.2	Total	60.6	Total	61.8
Instrument and culture office supplies machinery manufacturing industry	Zhejiang	9.93	Zhejiang	9.26	Zhejiang	74.2
	Sichuan	10.35	Shanghai	1405.2	Jiangsu	13.7
	Jiangsu	13.4	Guangdong	18.4	Shanghai	15.4
	Shanghai	15.9	Jiangsu	20.9	Guangdong	29.9
	Total	45.9	Total	60.2	Total	63.9
Chemical fiber	Shandong	7.97	Zhejiang	10.08	Zhejiang	12.01
	Shanghai	8.11	Guangdong	11.2	Guangdong	1236.2
	Liaoning	8.34	Shanghai	1940.2	Shanghai	17.42
	Jiangsu	14.38	Jiangsu	27.36	Jiangsu	24.06
	Total	35.2	Total	65.6	Total	63.45

Table 4: Industry ranking distribution of Gini coefficient greater than the average Gini coefficient of the whole industry after China's accession to the World Trade Organization (%).

Industry	2011		2015	
Food processing	Shandong	219.2	Shandong	29.1
	Jiangsu	10.9	Henan	9.6
	Guangdong	9.6	Guangdong	8.2
	Henan	8.8	Jiangsu	8.1
	Total	48.8	Total	51.2
Textile industry	Jiangsu	25.2	Jiangsu	239.2
	Zhejiang	18.1	Zhejiang	232.2
	Shandong	13.6	Shandong	18.7
	Guangdong	11.5	Guangdong	9.96
	Total	65	Total	74.5
Chemical fiber	Jiangsu	24.5	Zhejiang	38.1
	Shanghai	189.2	Jiangsu	302.2
	Zhejiang	14.9	Shandong	6.84
	Shandong	10.4	Fujian	6.22
	Total	66.3	Total	779.2
Electronic machinery and equipment manufacturing	Guangdong	33.2	Guangdong	37.6
	Jiangsu	13.7	Jiangsu	20.7
	Beijing	112.2	Shanghai	13.9
	Shanghai	11.5	Beijing	7.77
	Total	67.2	Total	76.4
Instrumentation and cultural office	Guangdong	36.6	Guangdong	34.6
	Jiangsu	16.5	Jiangsu	17.6
	Shanghai	115.2	Zhejiang	12
	Zhejiang	11.2	Shanghai	11.2
	Total	73.4	Total	709.2

Next, it analyzes the changes of industrial accumulation after China's entry into the World Trade Organization.

From Table 3, we can get the following:

(1) After joining the World Trade Organization, the Gini coefficient among industries has decreased

(2) After joining the World Trade Organization, the Gini coefficient of the industry decreases, and the regional economic imbalance slows down

(3) After joining the World Trade Organization, the industries whose Gini coefficient exceeds the average value of Gini coefficient of all industries include the food processing industry, tobacco processing industry, textile industry, petroleum coke industry, chemical fiber manufacturing industry, ferrous metal smelting and steel rolling processing industry, electronic machinery and equipment manufacturing industry, and machinery manufacturing industry with instruments and cultural affairs supplies

Secondly, it analyzes the geographical distribution of industries other than resource industries whose Gini coefficient exceeds the average Gini coefficient of the industry.

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From Table 4, the highly integrated industries are almost located in eastern cities such as Guangdong, Jiangsu, Zhejiang, and Shanghai.

After the reform and opening up and before joining the World Trade Organization, due to the breaking of the existing rigid planned economic system, the transaction cost decreased significantly, and the integration of various industries increased significantly. The eastern coastal areas have a good foundation for economic development, dense population, and large local market demand. In addition, due to the special economic policies of the state for some cities in the eastern coastal areas, the cost of participating in international trade in these areas is lower than that in the central and western regions. These factors regard the eastern coastal area as the destination of industrial agglomeration. The eastern coastal area took the lead in developing into a "city." This area of the center will also be continuously strengthened through forward and backward contacts. Wages and income levels in the eastern region have been rising, and the economic gap between regions has been increasing.

5. Conclusions

For the rapid development of the market, the industry is still in a state of rapid progress when it is gathered in special regions. Therefore, in a certain period of time in the future, it is possible for the regional economy to be in an unbalanced state. In fact, the unbalanced economic development in a special period is also a law of economy. It is necessary to analyze whether the regional natural conditions are different and the geographical location is different, the objective situation of population distribution, the development period, and the change of natural environment. The differences of economic development in each region are analyzed, and their misunderstanding of regional economic development is removed.

Data Availability

The data used to support the findings of this study are available upon request to the author.

Conflicts of Interest

The author declares no conflicts of interest.

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References

[1] R. Basile, A. Parteka, and R. Pittiglio, "Export diversification and economic development: a dynamic spatial data analysis," *Review of International Economics*, vol. 26, no. 3, pp. 634–650, 2018.

[2] H. T. Abdulkarim, C. L. Sansom, K. Patchigolla, and P. King, "Statistical and economic analysis of solar radiation and climatic data for the development of solar pv system in Nigeria," *Energy Report*, vol. 6, pp. 309–316, 2020.

[3] Y. Yang and X. Zheng, "The necessity of economy and management majors transdisciplinary comprehensive practice training by vbse in local undergraduate university," *Journal of Jilin Agricultural Science and Technology University*, vol. 166, pp. 144–149, 2015.

[4] J. Klomp and Jeroen, "Economic development and natural disasters: a satellite data analysis," *Global Environmental Change*, vol. 36, pp. 67–88, 2016.

[5] K. Andrea, H. Luise, B. Klaus et al., "Deep-sea mining: potential environmental, legal, economic, and societal implications-an interdisciplinary research," *Integrated Environmental Assessment and Management*, vol. 2, no. 5, pp. 101–104, 2018.

[6] K. M. Sandeep, V. Maheshwari, J. Prabhu, M. Prasanna, and R. Jothikumar, "Social economic impact of covid-19 outbreak in India," *International Journal of Pervasive Computing and Communications*, vol. 23, no. 5, pp. 159–173, 2020, ahead-of-print(ahead-of-print).

[7] T. A. Yakushina, "Municipal-private partnership in the management system for the development of a single-industry city," *Economics Profession Business*, no. 4, pp. 118–122, 2020.

[8] I. Bryzhan, V. Chevhanova, O. Hryhoryeva, and L. Svystun, "Approaches to Forecasting Demography Trends in the Management of Integrated Area Development," *Economy and Forecasting*, 2020.

[9] A. Gilkina, "Graphical method of financial analysis as effective instrument for real economy's financial management," *Upravlenie*, vol. 3, no. 4, pp. 10–17, 2015.

[10] I. Peryt, "Economic essence of households as participants of entrepreneurial activities," *The Economic Discourse*, no. 3, pp. 66–74, 2019.

[11] L. Charfeddine and Z. Mrabet, "The impact of economic development and social-political factors on ecological footprint: a panel data analysis for 15 mena countries," *Renewable and Sustainable Energy Reviews*, vol. 76, pp. 138–154, 2017.

[12] R. Freimane and S. Bāliņa, "Research and development expenditures and economic growth in the eu: a panel data analysis," *Economics and Business*, vol. 29, no. 1, pp. 5–11, 2016.

[13] O. Tasseven, "The relationship between economic development and female labor force participation rate: a panel data analysis," *Springer International Publishing*, vol. 5, no. 9, p. 1, 2017.

[14] R. Suphanchaimat, V. Sornsrivichai, S. Limwattananon, and P. Thammawijaya, "Economic development and road traffic injuries and fatalities in Thailand: an application of spatial panel data analysis, 2012-2016," *BMC Public Health*, vol. 19, no. 1, p. 1449, 2019.

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