



## Cross-Cultural Coupled Development of Exhibition Industry and Rural Tourism in Henan Province Amidst the New Urbanization Landscape

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**Abstract.** Developing the exhibition industry and improving the function of tourism are essential components of revitalizing rural areas. There are apparent contradictions between industrial development and the exhibition industry in rural development. Rural tourism can effectively promote the coordinated operation of the two major systems of the rural sector, namely the exhibition industry. It plays a vital role in promoting the development of the rural sector, increasing non-agricultural income, improving the environment, building communities, and improving management. We must combine the "rural tourism law" with the exhibition industry to develop rural tourism and create a high-quality exhibition industry. This document uses the COMS method to link rural tourism and the expo industry closely. Based on the correlation and coordination theory, the system theory, the sustainable development of Henan, and the selection of research areas. According to the information provided by the government website, this document establishes an index system for measuring and analyzing rural tourism and development levels. The influencing factors, index correlation, and coupling coordination mechanisms of industrial development and the optimization of the exhibition industry provide strategic suggestions for realizing Henan's rural tourism development and high-quality exhibition industry construction and promoting rural revitalization.

**Keywords:** Exhibition industry; Rural tourism; Tourism economy; Coupling mechanism; Cross-Cultural

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### 1 INTRODUCTION

Our country's tourism industry has thrived, and the total tourism economy has been rising, raising hot issues of common concern. Tourism resources are an essential basis for tourism development, and cultural resources are a necessary type of tourism resource [11]. Our country's long history

and culture have created rich cultural relics in various regions. These cultural resources have not only laid a solid cultural foundation for tourism development [25]. Tourism development may always stagnate in areas with profound cultural heritage and many cultural relics. However, the tourism economy may develop by leaps and bounds in some areas with fewer cultural relics. This series of phenomena is worth thinking about. Does the resource curse phenomenon in economics also appear in the cultural tourism industry? As one of the core elements of regional tourism development, what is the impact mechanism of regional culture on tourism economic development? How do you use the core element of culture to enhance the internal driving force of tourism development?

Henan is a highly enriched area of tourism resources in my country, and it is also a primary source of tourists and an area with a highly developed tourism economy [1]. During the evolution of historical civilization, a few distinctive regional cultures, such as Wu Culture, Chu-Han Culture, Haiyang Culture, and Jingling Culture, have been formed, accumulating rich and colorful cultural resources [4]. It is easy to find some interesting differences: in southern Henan, the Wu culture has distinct characteristics, but the three cities of Suzhou, Wuxi, and Changsha, in the same cultural region, are not in the development of tourism. Each has its own merits. Suzhou is rich in cultural resources and has a developed tourism economy; Changzhou has relatively few cultural relics, and the tourism industry is still growing strongly. What needs to be clarified is that Xuzhou, which has many cultural relics, has been tepid in developing the tourism industry for many years [23].

The development of exhibition tourism in various parts of the country differs, ranging from small cities to provinces and regions. The difference in tourism's economic growth is evident [14]. For example, Shanxi Province is one of the provinces with the most extended history in my country. It has world heritage sites such as the Wutai Mountain Buddhist Building Complex, Yun Gang Grottoes, and Pingyao Ancient City. Its above-ground cultural relic resources account for more than the national ones. Excellent and colorful, it is known as the "theme park" of Chinese civilization and the "museum" of ancient oriental art. However, its tourism development needs to catch up. The annual tourism economy only accounts for national tourism and requires more cultural resources. Shenzhen alone's yearly tourism revenue exceeds 100 million yuan [26].

Similarly, Shenzhen has actively created themed cultural tourism through cultural innovation, and the tourism economy has developed rapidly. The same situation also happened in Henan Province. Suzhou City, the representative of Wu culture, and Xuzhou City, the representative of Chu and Han culture, also have rich cultural heritage. Still, the exhibition and tourism economies are quite different [22] across the river in terms of urban history and cultural relics. However, driven by cultural innovation in recent years, the tourism economy has overtaken Yangzhou for many years. Of course, culture cannot represent the tourism economy. Therefore, as an essential resource base for regional tourism development, how to effectively develop and utilize cultural resources and coupling mice's functions has become a key topic.

Under the new urbanization background, it is of great significance for the cultural industry, tourism, and economic development of Henan Province to discuss the development of mice and rural tourism in Henan Province.

## 2 RELATED WORKS

Tourism is internationally recognized as an effective means to narrow regional differences. However, the tourism industry also needs more balanced development due to the influence of factors such as tourism resource endowment, geographical location, traffic conditions, infrastructure, and regional socioeconomic comprehensive level. [18]and[6] studied the regional imbalance in regional tourism development nationally. After 2000, scholars began to reflect on the

reasons for the formation of differences. They became more focused on the research conclusions about the internal mechanism of forming regional tourism differences. For example, Fu Mu's research believes that factors such as the inertia of the industrial structure, unbalanced regional economic development policy, the policy orientation of giving priority to international tourism, the government's emphasis on tourism, and the improvement of basic service facilities and location are factors that cause tourism. The main reasons for the difference in development are [19],[20]. Through the establishment of regression model analysis, it was found that tourism resource endowment is one of the main factors affecting regional differences in tourism development in my country. It also played a significant role in forming differences in tourism development. Tourism is a complex and giant system. Scholars have yet to reach a clear research conclusion on the internal mechanisms that affect the unbalanced development of the tourism economy. In this context, from the perspective of a single culture, it discusses its impact on regional tourism development and its role in the formation of regional tourism development differences [21].

[10] believes that "cultural coupling" reminds people to consider the influence of cultural factors and the difference in values when studying economic, political, and other social phenomena. In recent years, domestic scholars have begun to pay attention to the impact of "cultural coupling" on their respective disciplines. Ma Yanking believes that cultural coupling in psychological research is like a cultural revolution parallel to the cognitive revolution, which has had a comprehensive and profound impact on the development of psychology. [15] believed that the translation thought of "cultural coupling" promoted the development of translation studies. The "cultural coupling" in contemporary geographic research has brought a new way of thinking to the research of geography and culture, and cultural geography has become a new direction of Western geographic research. [12] believes that cultural coupling embodies and further stimulates the reconstruction of economic geography and has become the object of attention both inside and outside academia. Within academia, cultural studies has become a major interdisciplinary field. Suddenly, it became ubiquitous; it was even argued that cultural coupling somehow rescued economic geography from its moribund, tiresome situation. [5] believes that the essence of the so-called coupling refers to the reasonable adjustment or remodeling of rural, regional elements in "production-life ecology" [16],[13].

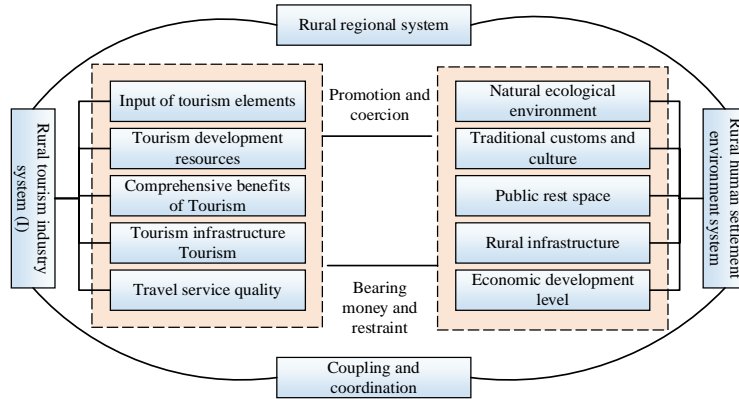
To sum up, the coupling of exhibition culture should become an essential perspective of attention in the background of the continuous deepening of tourism theory research.

### 3 COUPLING THEORETICAL MODEL

Coordination is a benign relationship between system elements that reflects cooperation and peaceful interaction between system elements and is also the concentrated embodiment and guarantee of the sustainable development of this gentle interaction [3]. The essential characteristics of the system are integrity, connection, hierarchy, timing, and adaptability. This study regards rural tourism and exhibition culture as two major systems. Coupling the two systems involves the interaction of various elements in the system. It identifies the influencing factors and degree of correlation between rural tourism and exhibition culture and optimizes the system's internal structure.

The countryside is an essential spatial carrier for human survival and development and a space where materials, economy, culture, and population gather. The two systems of industry and environment interact and influence each other within the countryside. The two's coupling state determines the countryside's future development direction [9]. An excellent rural exhibition culture provides development elements such as economic support, policy support, resource supply, and human participation in the tourism industry. Reasonable development factors Adjustment and configuration can optimize the rural exhibition culture, promote its protection and optimization,

and form a coupled and interactive spiral structure [2]. However, the excessive development intensity of the change and reorganization of various elements in the space can easily negatively affect the rural ecology and exhibition culture and pressure the exhibition culture, resulting in ecological damage, environmental pollution, landscape fragmentation, cultural gene fracture, etc. A series of questions, as shown in Figure 1.



**Figure 1:** The relationship between the rural tourism industry and exhibition culture.

### 3.1 Construction of the Coupling Coordination Degree Model

The coupling coordination degree can better evaluate the coupling relationship between rural tourism industry and rural exhibition culture, as shown in Equation 1:

$$T = a(x) + \beta(y) \tag{1}$$

$$D = \sqrt{CT} \tag{2}$$

$$C = \left\{ \frac{f(x) \times g(y) \times h(z)}{[\frac{f(x)+g(y)+h(z)}{3}]^3} \right\}^{\frac{1}{3}} \tag{3}$$

At this point, the lowest level indicates that the system and its components are independent, and there is no organizational development. In the three systems, to judge the level of coordinated development, the coordination level model is a manifestation:

$$D = \sqrt{C \times T}, T = \alpha f(x) \times \beta g(y) \times \gamma h(z) \tag{4}$$

In addition to the cooperative agenda, this document divides the joint into five stages. As shown in Table 1.

<i>Serial number:</i>	<i>Coupling co-scheduling interval</i>	<i>Coordination level</i>
1	(0-0.2)	Moderate disorder
2	(0.2-0.4)	Near disorder
3	(0.4-0.6)	Primary coordination
4	(0.6-0.8)	Intermediate coordination
5	(0.8-1)	Good coordination

**Table 1:** Classification standard of coupling coordination degree.

Among them, the positive and negative indicators are shown in Equation:

Positive indicators:

$$B_{ij} = \frac{(x_i - \min X_j)}{(\max X - \min X_j)} + 0.01 \quad (5)$$

Negative indicator:

$$B_{ij} = \frac{(\max X_j - x_{ij})}{(X_j - \min X_{ij})} + 0.01 \quad (6)$$

The coupling concept proposed in this section refers to a phenomenon in which two systems with similar functions and elements interact, influence, and develop collaboratively, including benign and non-benign coupling. The coupling degree value can describe the degree to which the two systems influence each other, that is, the degree to which the coupling of the two systems develops, and even the situation in which the two systems inhibit the development of each other.

### 3.2 Classification of the Types of Integration of Exhibition Cultural Industry and Tourism Industry

The coupling degree C between the cultural and tourism industries in 2019-2021 is calculated using the abovementioned formula. The coupling degree can reflect the closeness of the relationship between the cultural and tourism sectors in the development process. The coupling degree C can be used to evaluate the degree of orderliness of each element within the two industrial systems after mutual influence. It can be seen from the table that the overall level of the coupling degree C between the cultural industry and the tourism industry is high from 2019 to 2021, with an average value of 0.9614, indicating that the degree of correlation between the development of the cultural sector and the tourism industry is at a high level. From the perspective of development trend, the coupling degree C from 2019 to 2021 shows an inverted "V" trend of rising first and then falling. This indicates that although the cultural industry and the tourism industry have a strong interaction and close development relationship during this period, the stability of this coupling development between the two sectors is insufficient, and a relatively sufficient and stable coupling development mechanism has not been formed, which will lead to large fluctuations in the coupling degree. As shown in Table 2 below.

<i>Coordination level</i>	<i>Coordination degree ranges</i>
<i>Extreme disorder</i>	<i>0-0.09</i>
<i>Serious disorders</i>	<i>0.02-0.23</i>
<i>Moderate disorder</i>	<i>0.12-0.42</i>
<i>Mild disorder</i>	<i>0.1-0.51</i>
<i>Moribund disorders</i>	<i>0.24-0.38</i>
<i>Barely coordinated</i>	<i>0.26-0.97</i>
<i>Primary coordination</i>	<i>0.31-0.31</i>
<i>Intermediate coordination</i>	<i>0.07-0.62</i>
<i>Good coordination</i>	<i>0.11-0.77</i>
<i>Quality coordination</i>	<i>0.22-1.42</i>

**Table 2:** Classification of industrial integration coordination degree.

## 4 METHODS

Its advantages are that it can effectively transmit data information and differences in evaluation indicators, and the evaluation process is relatively transparent. Data speaks, ignoring the experience and knowledge of decision-makers, and sometimes unreasonable weight coefficients appear. Considering the advantages and disadvantages of various methods.

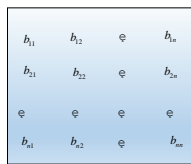
### 4.1 Data Extraction and Judgment

This study distributed 50 questionnaires on culture and tourism to experts, scholars, and doctoral students in colleges and universities in Henan Province, and 43 were returned. The calibration value of the relative importance of experts generally takes five grades, such as 1, 3, 5, 7, and 9, between adjacent levels. As shown in Table 3.

<i>Two elements of relative importance</i>	<i>Extremely important</i>	<i>The significant multi</i>	<i>Important</i>	<i>Slightly more significant</i>	<i>Of equal importance</i>	<i>Slightly less important</i>	<i>Unimportance</i>	<i>Not significant</i>	<i>Extremely unimportant</i>
<i>Calibrated values</i>	9	7	5	3	1	1/3	1/5	1/7	1/9

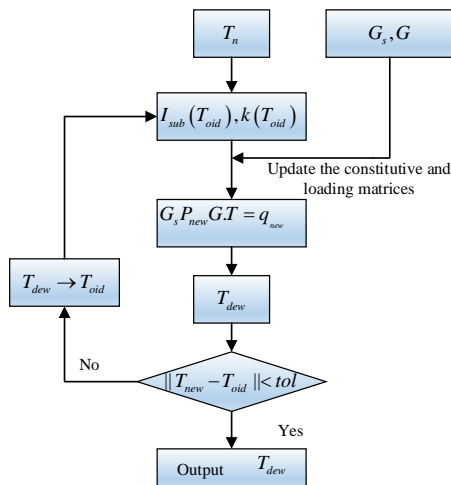
**Table 3:** Indicator weight table.

Then, as shown in Figure 2, according to the numerical adjustment, the evaluation indicators are relatively important organizations managed by the matrix.



**Figure 2:** Example of judgment matrix.

The specific calculation steps are shown in Figure 3:



**Figure 3:** Flowchart of the coupling algorithm.

The judgment of the tourism industry and environmental development model can be determined based on the comparison between the tourism industry development level score  $f(y)$  and the exhibition culture optimization level score  $g(y)$ , as shown in Figure 4.

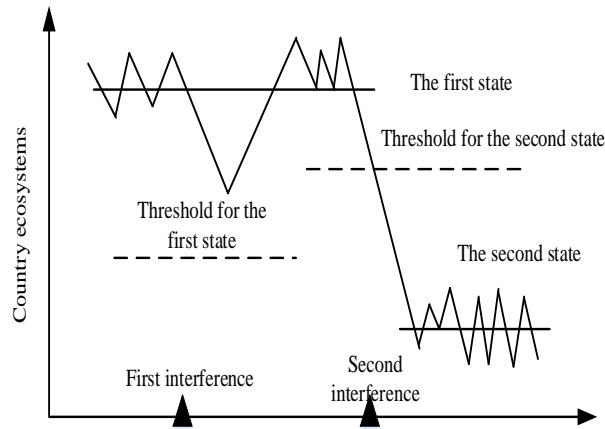


Figure 4: Coupling state threshold diagram.

#### 4.2 Grey Relational Model Calculation

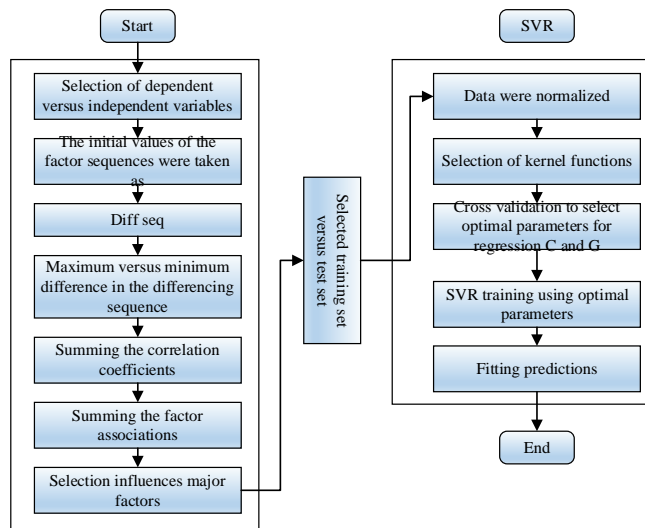
The maximum and minimum values in the absolute difference are calculated as follows:

$$\begin{aligned}
 M &= \max_i \max_j \Delta_{ij}(k) \\
 M &= \max \{ \max_j \Delta_{ij}(2009), \max_j \Delta_{ij}(2010), \dots, \max_j \Delta_{ij}(2018) \} \\
 m &= \min_j \min \Delta_{ij}(k) \\
 m &= \min \{ \min_j \Delta_{ij}(2009), \min_j \Delta_{ij}(2010), \dots, \min_j \Delta_{ij}(2018) \}
 \end{aligned} \tag{7}$$

The gray correlation degree is divided as shown in Table 4:

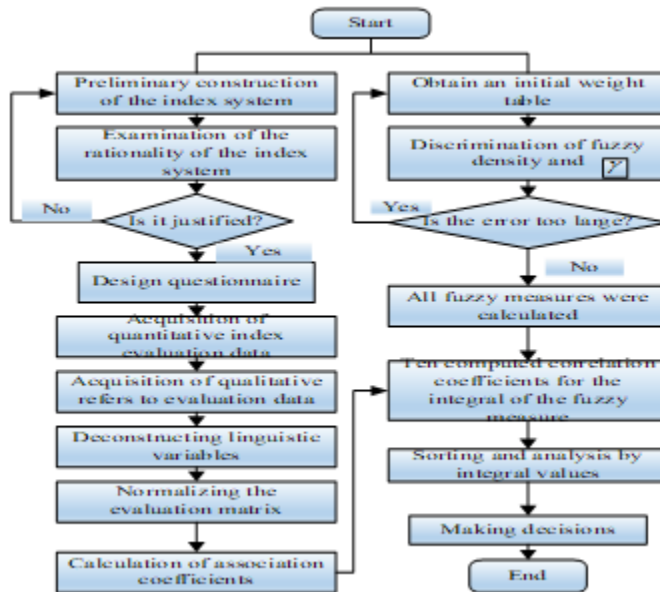
Sequence	$\gamma_{ij}$	Degree of Association
1	(0-0.31)	Weak
2	(0.31-0.45)	In
3	(0.45-0.65)	Strong
4	(0.65-1)	Extremely strong

Calculate the average value of rows and columns according to the gray relation matrix. Its algorithm flow is shown in Figure 5:



**Figure 5:** Analysis of coupling situation based on grey relational degree.

The first part explains the principles and contents of the comprehensive evaluation index system for conferences, exhibitions, cultural industries, and tourism. Rationality and operability. Therefore, this chapter refers to the above principles and selects projects that reflect the cultural industry and tourism development level in Henan Province. An index that measures the degree of integration of two sectors. Its model-fitting situation is shown in Figure 6:



**Figure 6:** A model fitting algorithm based on exhibition culture.



This article uses the most scientific and rational cosmic weight method to determine the body mass index. According to the above formula, this paper combines the data of the cultural industry and tourism index of Henan Province from 2019 to 2021, then calculates the universe and difference coefficient of each index, and finally calculates the weighted value of each index to obtain objective results. The calculation results are shown in Table 5:

<i>Coupled system</i>	<i>Indicator names</i>	<i>Entropy</i>	<i>Coefficient of difference</i>	<i>Weight</i>
<i>Tourism industry system</i>	<i>Domestic reception for tourist numbers</i>	<i>0.8392</i>	<i>0.1608</i>	<i>0.0368</i>
	<i>Number of tourist entries</i>	<i>0.9194</i>	<i>0.0806</i>	<i>0.0186</i>
	<i>Revenue from domestic tourism</i>	<i>0.8302</i>	<i>0.1698</i>	<i>0.0391</i>
	<i>Foreign revenue from tourism</i>	<i>0.7194</i>	<i>0.2808</i>	<i>0.0644</i>
	<i>Number of classes and attractions</i>	<i>0.8921</i>	<i>0.1082</i>	<i>0.0249</i>
	<i>Number of travel agencies</i>	<i>0.7612</i>	<i>0.2391</i>	<i>0.0548</i>
	<i>Number of stars rated hotels</i>	<i>0.9043</i>	<i>0.0959</i>	<i>0.0221</i>
	<i>Star Hotel total room number</i>	<i>0.8788</i>	<i>0.1215</i>	<i>0.0279</i>
	<i>Tourism revenue as a share of GDP</i>	<i>0.8586</i>	<i>0.1516</i>	<i>0.0325</i>
	<i>Star hotel's total annual operating revenue</i>	<i>0.9157</i>	<i>0.0845</i>	<i>0.0194</i>
	<i>Number of residential catering industry practitioners</i>	<i>0.9315</i>	<i>0.0687</i>	<i>0.0158</i>

**Table 5:** The body mass index of the integration and coordination system of the cultural display industry and tourism industry in Henan province.

## 5 CASE STUDY

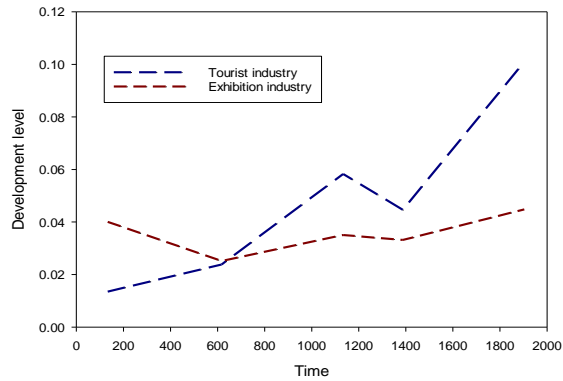
Calculate the weight of the previous section to understand the impact and contribution of each indicator on the cultural industry and the tourism development process. Therefore, this section will discuss the relationship between the cultural sector and the cultural industry from 2019 to 2021. The overall development level of tourism. According to the above formula, the following results can be obtained, as shown in Table 6:

<i>Years</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>
<i>Comprehensive</i>	<i>0.0148</i>	<i>0.0195</i>	<i>0.0252</i>	<i>0.0414</i>	<i>0.0589</i>	<i>0.0462</i>	<i>0.0758</i>	<i>0.1056</i>
<i>The level of comprehensive development of the culture industry</i>	<i>0.0391</i>	<i>0.0236</i>	<i>0.0341</i>	<i>0.0364</i>	<i>0.0464</i>	<i>0.1082</i>	<i>0.1592</i>	<i>0.1674</i>

**Table 6:** Summary of the comprehensive conference, exhibition, cultural industry, and tourism development.

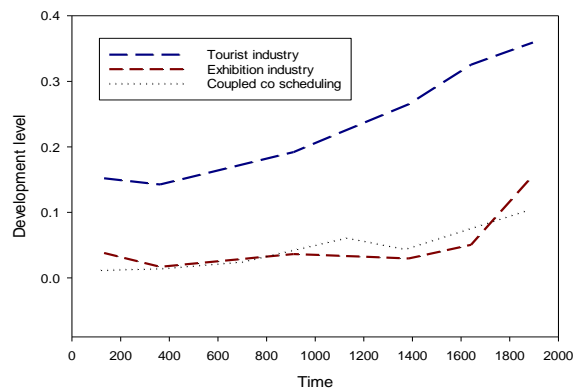
The following table shows significant differences in the Expo industry's inclusive development of culture and tourism from 2019 to 2021. First, the initial value of the two industries is relatively high. In the first year, 2014, the inclusive development level of the tourism industry was 0.0147,

and the inclusive development level of the exhibition and cultural sector was 0.0390, almost three times the tourism level. This shows that the development level of Henan in grade one is higher than that of tourism. Second, the development rate from 2019 to 2021 is the inclusive development level of the cultural industry, at 32.13% per year. As shown in Figure 7,.



**Figure 7:** The line chart of the trend change of the comprehensive development level.

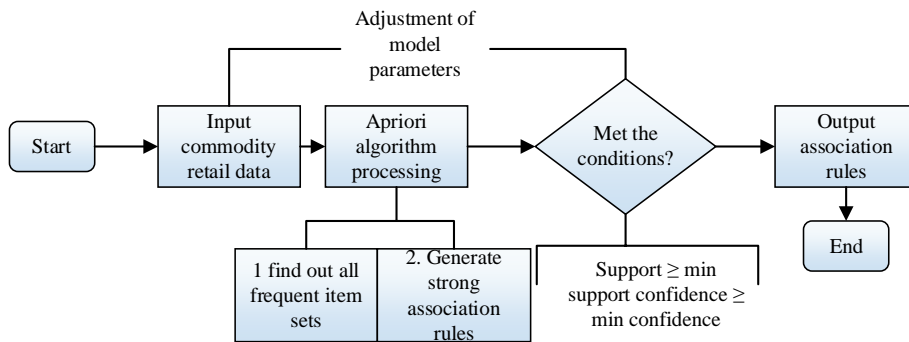
As seen from Figure 8, the boundary between the cultural and tourism industries is getting broader. The underdeveloped development of tourism and the simultaneous development of the cultural sector restrict the coordinated development between culture and tourism. These are also the main reasons the cultural industry cannot fully integrate into development.



**Figure 8:** Line chart of variation trend of coupling coordination degree D.

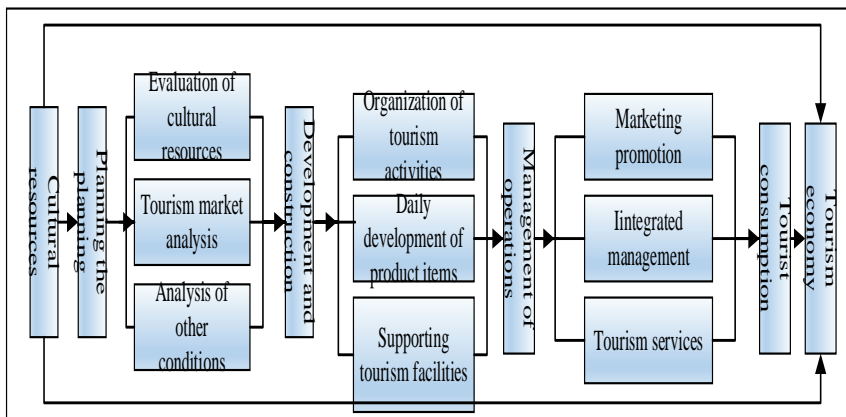
At this time, showing a broken line from a broken line. The slope changes significantly. Therefore, if the development level of an industry in the two systems is ahead of that of the other sector, the two industries will need more integration and coordinated development in the process of integration and coordination.

The model parameter adjustment and replacement are shown in Figure 9:



**Figure 9:** Algorithm model parameter adjustment.

Regional cultural resources form tourism economic benefits through tourism development and utilization, and its role path is shown in Figure 10.



**Figure 10:** Function path of cultural resources.

The empirical results show that cultural resources are not tourism products, and the development of tourism's economic function needs specific packaging and transformation. The transformation of cultural resources into tourism resources is the only way to develop tourism. Dynamic systems engineering involves protection, development, operation, and management. Planning is an essential prerequisite for the development of regional cultural resources. The value of cultural tourism resources and tourism market potential are evaluated through planning, and the direction of regional cultural resource development is determined. Tourism products are a type of tourism product. Development and construction is the transformation process of tourism resources, including product construction, supporting facility construction, tourism activity organization, and other operational links. The development and construction achievements are the material basis for tourism development and directly affect the tourism experience. Cultural resources management is a follow-up link to attract tourists through publicity and promotion and the provision of management and services. Tourists can obtain a high-quality tourism experience, complete the consumption of tourism products, and finally form an economic income from tourism [8].

To develop tourism and utilize regional cultural resources, it is necessary to evaluate their comprehensive strength not only from a large number of regional cultural resources but also from the perspectives of quantity, grade, type, and resource combination. Cultural resources have great potential. The quality and type of cultural resources determine the attraction of cultural resources in the tourism market, which is the key to developing cultural resources and tourism. The combination of cultural resources affects the acquisition of cultural resources and their compatibility with other tourism products. Competitiveness and cooperation. Of course, the advantages of cultural resources in this region cannot fully reflect the advantages of tourism products and can not obtain the best economic benefits. The development of the regional tourism economy also depends on the transfer of resources and external factors. Its product development model is shown in Figure 11.

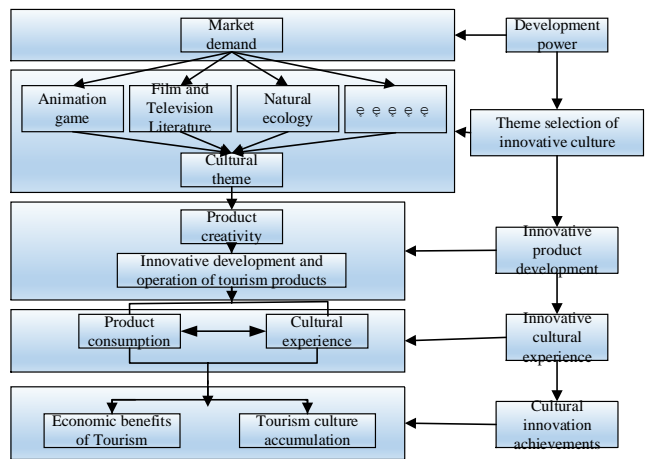


Figure 11: Tourism coupling product development model.

6 CONCLUSION

Culture is one of the core elements and essential driving forces of regional tourism development. In the current era of significant cultural development and prosperity and the rise of tourism as a national and regional strategy, practical problems in tourism and cultural industry development must be urgently solved. For example, in this document, Henan Province is based on the evaluation and analysis of the richness of regional cultural resources and tourism, the differences in economic development, the measurement of regional cultural resources and tourism, economic integration, the exploration of regional cultural resources, and the economic characteristics of tourism. From the perspective of regional tourism development, based on the resources of regional cultural funds and fully considering the number, type, and level of resources and the development potential of tourism, 13 specific resource indicators have been set up at the level of the four countries. The index system of rich regional cultural resources has been evaluated. The empirical research on evaluating cultural resource abundance in prefectures and cities in Henan Province shows that the evaluation index system is scientific and universal and can provide methods and a basis for regional cultural resource evaluation and tourism development decision-making. Integrating cross-cultural elements within exhibitions and tourism fosters mutual understanding and appreciation, promoting cultural exchange and dialogue. Engaging local communities, nurturing their involvement, and ensuring their representation in development strategies are critical facets of sustainable growth while preserving the essence of Henan's unique cultural identity.

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## REFERENCE

- [1] Chang, Y.; Kou, M.: Big Data Analysis of Demand for Power Supply Service in Urbanization Development of Tourism Industry in Shaanxi Province, IOP Conference Series: Earth and Environmental Science, 440(3), 2020, 032076 (8pp). <https://doi.org/10.1088/1755-1315/440/3/032076>
- [2] Chen, G.; Huang, Y.; Pang, M.; Huang, Y.; Liu, B.; Zhao, X.: et al. Nutrient Accumulation Characteristics of Facility Soils with Different Planting Years in Lateritic Red Soil Region of Guangxi, Asian Agricultural Research, 14(5), 2022, 4.
- [3] Chen, R.: Current Development Situations and Countermeasures of Edible Fungus Industry in Heilongjiang Province in the Context of Rural Revitalization, Asian Agricultural Research, 12(8), 2020, 4.
- [4] Dongwen.; GENG.; Fuling.; Kong.; Haijuan.; Zhang.: Survey Report on Accelerating Development of Modern Vegetable Industry in Zibo City, Shandong Province, Asian Agricultural Research, 12(8), 2020, 3.
- [5] Fan, X.; Liu, Y.; Dai, M.: Research on Improving Strategy of Technology Innovation Capability of Equipment Manufacturing Industry in Liaoning Province, Journal of Physics Conference Series, 1885(2), 2021, 022004. <https://doi.org/10.1088/1742-6596/1885/2/022004>
- [6] He, J.; Tu, X.: On Sustainable Development of Low-Carbon Tourism in Jiangxi Province, Journal of Physics: Conference Series, 1549(2), 2020, 022134 (5). <https://doi.org/10.1088/1742-6596/1549/2/022134>
- [7] Jingchun, Z.; Jiaming, S.; Weishi, Z.; Zifan, L.: Multi-View Underwater Image Enhancement Method Via Embedded Fusion Mechanism, Engineering Applications of Artificial Intelligence, 121, 2023, 105946. <https://doi.org/10.1016/j.engappai.2023.105946>
- [8] Li, C.; Ju, P.: Coupling Coordinative Degree Analysis of Cultural and Creative Industry and Tourism Industry Under the Background of Cultural and Tourism Integration, Journal of Service Science and Management, 13(1), 2020, 97-117. <https://doi.org/10.4236/jssm.2020.131007>
- [9] Li, J.; Zhao, F.; Zhan, W.; Li, Z.; Zou, L.; Zhao, Q.: Challenges for the Application of Bacteriophages as Effective Antibacterial Agents in the Food Industry, Journal of the science of food and agriculture, 102(2), 2022, 461-471. <https://doi.org/10.1002/jsfa.11505>
- [10] Liang, C.; Liu, J.; Xue, X.; Anwar, F.; Cao, L.: Countermeasures to Achieve High-Quality Development of Dairy Industry in Xinjiang: A Case Study of Tianrun Dairy Industry, Asian Agricultural Research, 14(5), 2022, 5.
- [11] Liao, L.; Zeng, L.; Geng, B.: Study on the Coupling Mechanism of Social Interaction and Rural Tourism Practitioners Sustainable Participation, IOP Conference Series: Earth and Environmental Science, 657(1), 2021, 012055 (5). <https://doi.org/10.1088/1755-1315/657/1/012055>
- [12] Lin, M. J.: Evaluation of the Role of Rural Tourism Industry in Promoting Economic Transformation Based on Intelligent Svm Classification Algorithm, Journal of Physics: Conference Series, 1533(3), 2020, 032039 (5). <https://doi.org/10.1088/1742-6596/1533/3/032039>
- [13] Liu, K.; Sun, X. Q.: Research on the Development and Innovation of Animation Industry in Jilin Province in the Internet Big Data Era, IOP Conference Series: Earth and Environmental Science, 619(1), 2020, 012073 (7). <https://doi.org/10.1088/1755-1315/619/1/012073>
- [14] Parid, M.; Hasibuan, S.: Mapping and Development Strategy of Small and Medium Food Industry in the Province of Jakarta, Journal of Computational and Theoretical Nanoscience, 17(2/3), 2020, 950-956. <https://doi.org/10.1166/jctn.2020.8748>

- [15] Pavlova, M. B.; Mikhaylova, V. V.: Influence of the Industry on Traditional Economy: in the Context of Social and Economic Development of Rural Territories (on the Example of the Village of Iyengar of Neryungrinsky District of the Republic of Sakha (Yakutia)), IOP Conference Series: Earth and Environmental Science, 459(6), 2020, 062036 (11). <https://doi.org/10.1088/1755-1315/459/6/062036>
- [16] Runqing.; Chen.: Current Development Situations and Countermeasures of Edible Fungus Industry in Heilongjiang Province in the Context of Rural Revitalization, Asian Agricultural Research, 12(08), 2020, 17-20.
- [17] Tang, W.; Zhu, J.: Informality and Rural Industry: Rethinking the Impacts of e-Commerce on Rural Development in China, Journal of Rural Studies, 75, 2020, 20-29. <https://doi.org/10.1016/j.jrurstud.2020.02.010>
- [18] Wang, M.; Wang, F.: Research on Innovation and Development of Modern Leisure Agriculture and Rural Tourism in Beipiao, Modern Economy, 11(9), 2020, 1544-1551. <https://doi.org/10.4236/me.2020.119110>
- [19] Wang, S.; Sun, L.; Shan, Y.; Han, H.: Current Situation and Countermeasures of PlatycodonGrandiflorus Industry Development in Shandong Province, Asian Agricultural Research, 14(5), 2022, 3.
- [20] Wu, F.; Zhu, G.; Yu, Y.; Sun, J.: Safety Risks and Countermeasures of Chemical Industry Park in Henan Province, IOP Conference Series Earth and Environmental Science, 680(1), 2021, 012124. <https://doi.org/10.1088/1755-1315/680/1/012124>
- [21] Xiao, J.; Guo, S.: Analysis on the Coordinated Development of Marine Economy and Ecological Environment Coupling in Guangdong Province, Journal of Physics Conference Series, 1774(1), 2021, 012011. <https://doi.org/10.1088/1742-6596/1774/1/012011>
- [22] Xie, N.: Coupling of Urbanization and the Development of the Marine Tourism Industry: An Exploratory Study, Journal of Coastal Research, 106(1), 2020, 213. <https://doi.org/10.2112/SI106-050.1>
- [23] Zeng, C.; Shao, X.; Liu, R.; Yao, Y.; Li, Y.; Hou, M. et al. Coating-Derived Vocs Emission Characteristics and Environmental Impacts from the Furniture Industry in Guangdong Province, Huan jingkexue= Huanjingkexue, 42(10), 2021, 4641-4649.
- [24] Zheng, G. H.; Jiang, D. F.; Luan, Y. F.; Yao, Y.: Gis-Based Spatial Differentiation of Ethnic Minority Villages in Guizhou Province, China, Journal of Mountain Science, 19(4), 2022, 987-1000. <https://doi.org/10.1007/s11629-020-6627-9>
- [25] Zhou, H.; Tao, W.; Kelei, S.; Chunjong, Z.: Towards High Accuracy Pedestrian Detection on Edge GPUs Sensors 22(16), 2022, 5980. <https://doi.org/10.3390/s22165980>
- [26] Zhou, X.; Chen, W.: The Impact of Informatization on the Relationship Between the Tourism Industry and Regional Economic Development, Sustainability, 13(16), 2021, 9399. <https://doi.org/10.3390/su13169399>