



Article

How Does the Integration of Cultural Tourism Industry Affect Rural Revitalization? The Mediating Effect of New Urbanization

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Abstract: The development and integration of industries have promoted economic growth and gradually become an important perspective to understand the country's modernized construction. The cultural industry and the tourism industry are naturally coupled, which is an important part of the process of industrial integration. In addition, the country's drive towards modernization needs to improve the overall level of industrial integration, and rural revitalization is one of the key links to this. Therefore, to explore the relationship between the integration of cultural tourism industry and rural revitalization, this study collected the panel data of 31 provincial-level regions in China from 2005 to 2021. Based on the entropy method and the coupling coordination degree model, this study constructs an evaluation index system, including cultural industry, tourism industry, the integration of cultural tourism industry, new urbanization, and rural revitalization, and obtains the comprehensive scores of each. Furthermore, the study discusses the path selection and future development direction of rural revitalization through the integration of a cultural tourism industry. The conclusions are drawn as follows: (1) The development of the cultural and tourism industries can significantly promote the development of new urbanization and rural revitalization; (2) the integration of cultural tourism industry has a positive effect on rural revitalization; (3) new urbanization plays a partial mediating role in the relationship between the integration of cultural tourism industry and rural revitalization; (4) new urbanization has a masking effect on the influence of the integration of cultural tourism industry on rural revitalization; and (5) the extent of these effects varies by region. Finally, this study not only deepens the understanding of rural revitalization from the perspective of industrial development and integration, but also provides an empirical basis for the country, local governments, and enterprises to promote rural revitalization.

Keywords: the integration of cultural tourism industry; new urbanization; rural revitalization; entropy method; coupling coordination degree model



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1. Introduction

With the development of the global economy, many developing, and even developed, countries are beginning to face frequent rural problems, including rural exodus [1], environmental pollution, and relative poverty [2,3]. With these new situations, promoting rural development has become the inevitable choice to achieve both national and common prosperity [4]. In this context, China has put forward the "rural revitalization strategy", which is based on the current situation of China's "agriculture, countryside, and farmers" and aims to solve the problem of unbalanced and inadequate development in China in the new era [1].

The rural revitalization strategy was first put forward at the 19th National Congress of the Communist Party of China in 2017. It highlighted the importance of agriculture, countryside, and farmers in people's livelihood. In 2018, China issued the No.1 Central Document, which laid out detailed plans for further implementing the rural revitalization

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strategy. Thus, the implementation framework of the rural revitalization strategy was formally established. In the following four years, the Chinese government introduced specific construction plans for rural vitalization, such as the implementation of the responsibility system and the management of subsidy funds. The "four major construction projects and eight major projects" of the rural revitalization strategy had been preliminarily established.

The rural revitalization strategy is a long-term task in China's modernization construction, including industrial prosperity, ecological livability, rural civilization, effective governance, and affluent life [5]. Among them, industrial prosperity is the basis for implementing the rural revitalization strategy [6]. Cultivating and building a sustainable industrial structure can help to better carry out rural construction in various aspects, such as the ecological environment and social atmosphere. At present, the relationship between industrial development and rural revitalization has received extensive attention from scholars. Studies have explored the relationships between new energy industries [7], industrial transformation [8], industrial development mechanisms in minority areas [9], and rural revitalization. However, few studies have explored this from the perspective of industrial convergence.

Due to the urgency of the transformation and upgrading of the cultural and tourism industries, Chinese government has issued a series of policies to promote the integrated development of the cultural and tourism industries [10]. Meanwhile, in order to better coordinate the development of cultural undertakings, cultural industry, and tourism resources, the Chinese government reformed and optimized relevant government institutions in 2018. In addition, China is very concerned about the social impact of the integration of cultural tourism industry, especially the impact on rural revitalization. The integration of cultural tourism industry and rural revitalization have been jointly discussed at several important meetings in China. However, the academic community has paid less attention to this issue. Few studies have explored the relationship and influence mechanism of the cultural and tourism industries on rural revitalization [11]. Research on the impact of the integration of cultural tourism industry on rural revitalization is even rarer [12].

Existing literature and relevant practices show that "rural revitalization" has been attached great importance by China and has become one of the hot topics among scholars [1,13,14]. However, there is still a large research gap in the cultural and tourism industries, as well as in industrial integration and other aspects of this field [12]. Based on the above analysis, this study aims to explore the impact and mechanism of cultural tourism industry integration and rural revitalization, and further clarify the relationships between the cultural and tourism industries, industrial integration, new urbanization, and rural revitalization. In order to verify these inferences, this study will select the panel data of 31 provincial-level administrative regions in China from 2005 to 2021 as a sample, and will establish an evaluation index system. Then, based on the entropy method and the coupling coordination degree model, combined with data from China's National Bureau of Statistics, this study will calculate a comprehensive score for each variable. Finally, according to these comprehensive scores, this study will explore the relationship between variables and further indicate the influence path of industrial integration and industrial development on rural revitalization.

Compared with the existing literature, the possible contributions of this study are as follows: (1) This study broadens the perspective of rural revitalization research. Specifically, based on the perspective of industrial integration and development, this study enriches the research on influencing factors of rural revitalization; (2) This study also explores the mediating role of new urbanization in the above process, enriching the research on the effects of the cultural and tourism industries and the integration of cultural tourism industry on rural revitalization; (3) Industrial integration, new urbanization, and rural revitalization are important components of China's modernization, but there is still a lack of systematic discussion on the relationships between them. The study put these three variables in a model and clarified the relationships between them, which provides empirical evidence for the national rural vitalization construction and provides some enlightenment for the promotion of rural vitalization development.

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The rest of this article is organized as follows: Section 2 presents the literature review. Section 3 makes a theoretical analysis and puts forward a research hypothesis. Section 4 describes the materials and methods. Section 5 presents the empirical test and analysis results. Finally, Section 6 describes the conclusions and discussion of the study.

2. Literature Review

2.1. Cultural Industry

The term "cultural industry" was first proposed by German scholars Horkheimer and Adorno [15], and refers to the standardization of popular cultural products. The original cultural industry has a negative meaning [16]. With the change in the international environment, the concept of cultural industry has become more neutral. The United Nations Educational, Scientific and Cultural Organization considered cultural industry to be knowledge- and laborintensive [17]. Due to the different level of social and cultural development, the definition and scope of cultural industry vary in different countries [16]. For example, the Chinese government defines cultural industry in its official documents as a collection of production activities that provide cultural products, and culture-related products, to the public, based on its own development stage [18]. In this definition, cultural industry includes six core areas: news information service, content creation and production, creative design, cultural communication, cultural investment and operation, news information service; and three culture-related areas: cultural service production and intermediary service, cultural equipment production, and cultural consumption terminal producers [19].

The most basic work of cultural industry research is to clarify its development status and future potential [20]. A study constructs the index system of the development factors of China's cultural industry from the macro level, including 15 internal factors and 8 external factors, forming a three-factor model of the development of the cultural industry [21]. Yang [22] focused on the subdivision of the cultural industry, such as the sports culture industry, and constructed evaluation indicators and a growth forecast model. In addition, there are also some studies on the construction of cultural industry policy evaluation systems [23]. However, on the whole, a complete cultural industry evaluation system has not been established [21]. In addition, the influence of cultural industry on the economy and on society is also an important subject of academic research. Shao et al. [24] found that budget allocations for the entertainment and cultural industries are crucial to ensuring environmental sustainability. Parameswara et al. [25] found, through interviews, that a cultural industry based on local wisdom can promote sustainable development of the region.

By combing related literature on cultural industry, it can be found that the existing research between cultural industry and rural revitalization mainly focuses on the qualitative level, without quantitative analysis. At the same time, most of the existing literature discusses the development of cultural industry in the context of national strategy [11], while there are few researches exploring the effect of cultural industry on the implementation of national strategy.

2.2. Tourism Industry

At present, the academic circle has not formed a clear definition of tourism industry. Some scholars believe that tourism and tourism industry are equivalent [26], while some scholars disagree with this view. For example, Nell's [27] view is that tourism is essentially a partially industrial process, consisting of several functional and spatially linked sectors. Meanwhile, tourism can also sustain the tourism industry.

The study of tourism industry mainly focuses on regional economic development and tourism industry cluster. In terms of regional economic development, the promoting effect of tourism industry on economic development has been confirmed by a large number of studies [28]. However, there is still no consensus on the impact of tourism industry development on regional economic disparities. Leatherman et al. [29] found that tourism industry development will expand the income distribution gap between regions.

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Zhang et al. [30] found that, in the context of China, the development of tourism industry can significantly narrow the income gap between urban and rural areas, thus contributing to the coordinated development of the regional economy. In terms of tourism industry clusters, some researchers built a potential index system of tourism industry clusters through macro, meso, and micro environmental analysis, and measured the potential of tourism destination. In addition, some scholars analyzed the development of tourism industry clusters [31] and their spillover effects [32] from the national level.

Although the research on tourism industry has been relatively mature, there are still gaps to be filled. Research on tourism industry and rural revitalization mainly focuses on the planning and development of the rural tourism industry, and puts forward suggestions on industrial upgrading and optimization paths. On the whole, the framework construction and influence path between the tourism industry and rural revitalization need to be explored.

2.3. The Integration of Cultural Tourism Industry

The term "integration" originated from Rosenberg's research on technological changes in the American machine tool industry [33]. Under the framework of evolutionary economics, Hacklin et al. [34] divided the integration process into four stages: knowledge, technology, application, and industry fusion. "Industrial integration" refers to the blurring of the boundary between different industries through the integration of value proposition, technology, and the market [35], which can promote the improvement of the status of different industries in the national economy. Industrial integration can be divided into the following two types: the first type refers to the merger of two different industries to form a new industry segment, replacing the previous market segment; the second type is the integration of originally different industries to form new inter-industry segments [36]. At present, most industrial integration belongs to the latter type [37], including the integration of cultural tourism industry.

The integration of cultural tourism industry is the tourismization of cultural industry and the culturalization of tourism industry. Based on market demand, it satisfies the growing cultural tourism needs of tourists [38]. The integration of cultural tourism industry is not the simple addition of the cultural and tourism industries' content, but a new mode of industrial development that deeply integrates ideas, functions, resources, industries, technologies, and other fields, under the guidance of theories such as industrial chain theory and industrial coupling theory. On the one hand, the integration of cultural tourism industry not only contributes to enhance cross-cultural communication [39] and people's cultural confidence [40], but also helps to form Chinese national community consciousness [41]. On the other hand, it is helpful to enhance the cultural connotation of tourism [42] and promote the transformation and upgrading of the tourism industry, so as to facilitate the high-quality development of tourism [43].

At present, the studies on integration of cultural tourism industry mainly focus on economic development and integration level. From the perspective of economic development, Li et al. [10] found that, during the COVID-19 pandemic, the development of digital economy could promote the integration of China's cultural tourism industry. Focusing on rural economic development, Qin [44] found that the integrated development of the cultural and tourism industries is a sustainable way to achieve the development of rural tourism economy. There are also some scholars from the level of integration who have carried out relevant research. For example, based on the data of Shandong Province measured by the DEA cross-efficiency model, Lu et al. [45] constructed an evaluation index system for the efficiency of cultural and tourism integration. In addition, based on the coupling coordination model, Li et al. [42] found that the main driving force of the coupling coordination between the cultural and tourism industries was the proportion of the added value of the cultural and creative industries in the city's GDP and tourism foreign exchange income.

In recent years, the path of rural revitalization, brought about by the cultural and tourism industries' integration, also began to attract academic attention. Wen et al. [46] constructed the logical structure diagram of the rural cultural tourism industry enabling

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rural revitalization and analyzed the driving force mechanism of rural cultural tourism. However, in general, the existing research on the integration of cultural tourism industry is still mainly theoretical research, lacking empirical consideration.

2.4. New Urbanization

As a new stage of urbanization development, new urbanization is an important strategy in the process of China's economic transformation [47]. At present, scholars have a relatively consistent understanding of the overall development direction of new urbanization, but its exact connotation is not very clear. For example, Shan et al. [48] put forward the concept of new urbanization from four perspectives: coping with the future, reflecting on tradition, learning from the international community, and governing the government. According to the study, the connotation of new urbanization is people's livelihood, sustainable development, and quality. Its core goal is to pursue equality, happiness, and transformation, while being green, healthy, and intensive. According to cultural capital theory, Li et al. [49] put forward four basic requirements for new urbanization, namely, "human nature", "intensive", "inclusive", and "sustainable". Liu et al. [50] pointed out that new urbanization focuses more on people than the economy, which is also a difference between new and traditional urbanization.

At present, the urban-rural gap and innovation are important research themes of new urbanization. For instance, by using the difference-in-difference model and the mediating effect model, Liu et al. [51] found that new urbanization can significantly reduce the urban-rural gap, and that the effect varies, depending on place and time. Chi et al. [52] also discussed the convergence path of the urban-rural income gap in the process of new urbanization. Moreover, existing research has explored the relationships between new urbanization, technological innovation [53], green innovation [54], financial innovation [55], and the urban innovative ecological system [56].

It is easy to see that the research on new urbanization still has deficiencies; on the one hand, research has not paid much attention to the development motive mechanism of new urbanization, and has not formed a comprehensive research framework. On the other hand, interdisciplinary analyses of new urbanization research are relatively few, and the research perspective is not rich enough.

2.5. Rural Revitalization

Rural revitalization is an important strategic deployment, focusing on agriculture, countryside, and farmers in China [57], which has a great impact on China and even the world [58]. The definition of the concept of rural revitalization is mainly based on the 20-character requirements put forward in the report of the 19th CPC National Congress. Specifically, rural revitalization refers to a comprehensive rural governance system in the process of rural development that focuses on the whole process of construction [59]. This system emphasizes not only the improvement of infrastructure [60], but also the protection of the environment [61] and the construction of rural style [62].

Studies on rural revitalization are mainly carried out from the perspectives of new urbanization [63–65] and industrial development [8,9,11]. In terms of new urbanization, Guo [64] found that new urbanization and rural revitalization can develop in tandem and boost economic growth. Further, Chen et al. [65] predicted five major trends of new urbanization and rural revitalization in the future, including: (1) a new type of urbanization, featuring two-way interaction between urban and rural areas; (2) integration between urban and rural areas; (3) stable urban-rural gap; (4) relatively narrow urban-rural gap; and (5) coordinated urban-rural governance. In addition, some scholars have discussed the coupling relationship between new urbanization and rural revitalization [63]. In terms of industry development, Jiang et al. [8] found that the industrial transformation of fishery could promote rural revitalization, to a certain extent. Meanwhile, some scholars have studied industrial development within the context of rural revitalization [7,11].

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Existing research has not conducted an in-depth exploration on the influence mechanism of rural revitalization. Moreover, the relationship between industry and rural revitalization is mainly analyzed at the qualitative level. Few studies have explored the relationship between industries, especially cultural and tourism industries, and rural revitalization from a quantitative perspective.

3. Theoretical Analysis

3.1. Analytical Framework

From the perspective of industrial development and integration, based on industrial integration theory, urban-rural differentiation theory, sustainable development theory, and industrial development theory, this study builds a logical framework for the interactive relationship between the cultural and tourism industries, the integration of cultural tourism industry, new urbanization, and rural revitalization.

Specifically, this study believes that the cultural and tourism industries and the integration of cultural tourism industry will promote the transfer of labor force and accelerate economic development in cities and towns. This will promote the improvement of urban infrastructure and environment, thus promoting the development of new urbanization. As the rural population gathers in towns, the decrease of the rural population will force the upgrading of rural industrial structures. In addition, when the development of new urbanization reaches a certain stage, the re-transfer of the labor force will also have a positive impact on rural revitalization. To sum up, the cultural and tourism industries and the integration of cultural tourism industry will accelerate the development of new urbanization, thus promoting rural revitalization. This study will conduct an in-depth analysis with the interaction logic shown in Figure 1.

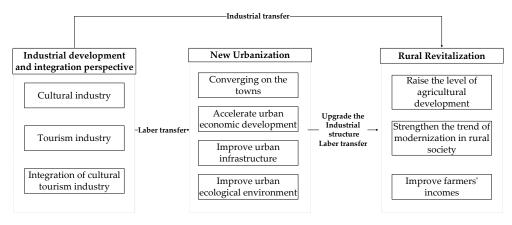


Figure 1. Interactive relationship logic.

3.2. The Influence of the Cultural and Tourism Industries, and the Integration of Cultural Tourism Industry, on New Urbanization

Industry, as the key to economic development, is an important driving force for the sustainable development of new urbanization [47]. Cultural industry plays an important role in upgrading other industries. Cultural industry can be highly integrated with other industries, due to its high permeability and compatibility, asset lightness, and low level of energy consumption. Exploring cultural resources in traditional industries can give full play to the promoting role of traditional culture in new urbanization construction [66]. The development process of new urbanization can be promoted through direct effects, such as cultural output, and indirect effects, such as technological innovation and institutional development [67]. At the same time, the cultural industry can not only produce high economic benefits, but also strong social benefits. The development of regional cultural industry plays an important role in maintaining the cultural memory of the city and improving the soft power of the local culture [21]. Based on the above analysis, this study proposes the following hypothesis:

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H1: Cultural industry has a positive impact on new urbanization.

Tourism industry is a cluster industry, which needs to build a relatively close horizontal and vertical connection with the primary, secondary, and tertiary industries, as well as the relevant national departments [68]. In addition, tourism industry attaches great importance to low-carbon environmental protection. With the continuous development of eco-tourism and low-carbon tourism, the low-carbon attribute of the tourism industry has been enhanced, to a large extent, in recent years, which is highly consistent with the "low pollution, low energy consumption and low emission" requirements of new urbanization [69]. At the same time, tourism industry is also densely populated. The development of tourism industry plays a strong, positive role in promoting population urbanization. Thus, this study proposes the following hypothesis:

H2: Tourism industry has a positive impact on new urbanization.

Cities are the most active spaces of cultural economy, and the urban population is the most important subject of cultural tourism. Taking the integration of cultural tourism industry as an important goal of new urbanization is conducive to the construction of new urbanization [70]. Moreover, the cultural and tourism industries are both industrial agglomeration industries. Their integration can link more related industries and form an industrial ecological chain, which can contribute to the transformation from urbanization to new urbanization [71]. At the same time, through the effective integration of local geographical advantages and historical and cultural resources, the integration of cultural tourism industry could help various cities form unique advantages, which is in line with the "regional differentiation" requirements of new urbanization. Therefore, this study proposes the following hypothesis:

H3: The integration of cultural tourism industry has a positive impact on new urbanization.

3.3. The Influence of the Cultural and Tourism Industries, and the Integration of Cultural Tourism Industry, on Rural Revitalization

Promoting the integration of "resources, capital and assets" is the key to cultivating the driving force of rural development and enhancing rural vitality, as well as being an important way to realize rural revitalization [72]. For villages with unique histories and culture, and areas where cultural industry has been initially developed, rural industrial development can be promoted by improving local infrastructure and enhancing the aesthetic value of rural farmland and housing [73]. Furthermore, the development of cultural industry not only helps to promote rural residents to start their own businesses and increases their employment opportunities, but also promotes the prosperity of rural culture and provides continuous impetus for rural economic construction and spiritual civilization construction. Thus, this study proposes the following hypothesis:

H4: Cultural industry has a positive impact on rural revitalization.

Tourism is often regarded as an important way to promote economic development, especially for "backward" rural areas, where there are no alternative revitalization options [74]. Indeed, tourism is considered a natural part of the socio-economic structure, alongside agriculture, in many rural areas [75]. In recent years, with the continuous enhancement of rural attractions, rural tourism has seen a rapid development. Promoting the development of regional tourism industry is conducive to enhancing local tourism resources, promoting the industrial upgrading of rural areas, and driving the economic development and infrastructure construction of rural areas. Besides, the low-pollution attribute of tourism industry may help to protect the ecological environment in rural areas, so as to better realize the ecological revitalization of rural areas [75]. Based on the above analysis, this study proposes the following hypothesis:

H5: *Tourism industry has a positive impact on rural revitalization.*

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Rural resources, such as geography, geology, economic and social development, and cultural deposits, are the basis for the integration of cultural tourism industry [76]. Rural revitalization should not only stimulate the economic vitality of rural areas, but also pay attention to the revival of rural multi-civilization [77]. On the one hand, the integration of culture tourism industry can promote rural economic transformation and industrial structural upgrading by integrating rural resources, thus forming rural economic and cultural communities and promoting rural value transformation, creation, and sharing [46]. On the other hand, if China's 5000 years of farming civilization is activated by tourism, it will be conducive to the protection and survival of the village style and the revitalization of rural culture. Therefore, this study proposes the following hypothesis:

H6: The integration of cultural tourism industry has a positive impact on rural revitalization.

3.4. The Role of New Urbanization in the Cultural and Tourism Industries, the Integration of Cultural Tourism Industry, and Rural Revitalization

As an important basis for rural revitalization, new urbanization can provide human, material, and financial support for the development of the primary industry, which provides a dynamic guarantee for the sustainable development of rural economy [64]. New urbanization can also accelerate the flow of factors and promote the effective allocation of factors between urban and rural areas. Therefore, new urbanization can narrow the urban-rural income gap and promote rural development [51]. In addition, in the process of promoting the construction of new urbanization, the development of regional industries will also affect the spiritual life of local residents and promote urban residents to carry out rural tourism and return excellent talents to their hometowns [78]. From the above analysis, it can be seen that the cultural and tourism industries and the integration of cultural tourism industry could promote new urbanization. In other words, the cultural and tourism industries and the integration of cultural tourism industry will not only directly affect rural revitalization, but also further promote rural revitalization by influencing new urbanization. Therefore, this study proposes the following hypotheses:

H7: New urbanization plays a mediating role between cultural industry and rural revitalization.

H8: New urbanization plays a mediating role between tourism industry and rural revitalization.

H9: New urbanization plays a mediating role between the integration of cultural tourism industry and rural revitalization.

The research framework and hypotheses of this study are shown in Figure 2.

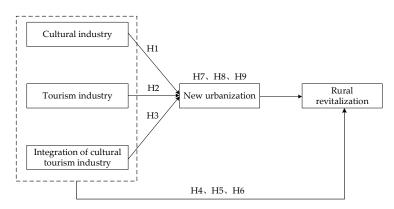


Figure 2. Research framework.

4. Materials and Methods

4.1. Data Sources

In 2005, the Chinese government proposed the construction of a new socialist countryside for the first time in the Outline Proposal of the Eleventh Five-Year Plan. As an important basis for rural revitalization, the construction of new countryside is closely

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related to rural revitalization in terms of objectives, contents, and system construction [79]. Therefore, this study takes a total of 17 years, from 2005 to 2021, as the time span, and selects 31 provinces, municipalities, and autonomous regions in China (excluding Hong Kong, Macao, and Taiwan) as the research samples, with a total of 527 observed values. The data came from the National Bureau of Statistics of China, the China Statistical Yearbook, and China Provincial Statistical Yearbooks. All indicator data are in the form of provincial panel data. Due to the absence of individual data in some years, this study uses the linear trend of adjacent points in SPSS software for interpolation to maintain data integrity.

4.2. Model Setting

According to the theoretical analysis of the relationships between the cultural and tourism industries, integration of cultural tourism industry, new urbanization, and rural revitalization, this study will carry out an empirical analysis and complete relevant verification from both the provincial and regional levels. Therefore, this study sets the following analysis model:

$$Rur = \alpha_0 + \alpha_1 Cil + \alpha_2 Til + \alpha_3 CT + \alpha_x Control_x + \varepsilon$$
 (1)

Rur, which stands for rural revitalization, is the explained variable. *Cil*, *Til*, and *CT*, representing cultural industry, tourism industry, and the integration of cultural tourism industry, respectively, are explanatory variables. Controls are all control variables. α_0 is a constant term. α_1 , α_2 , α_3 , and α_x are variable coefficients.

In addition, to analyze the influence path of the cultural and tourism industries and the integration of cultural tourism industry on rural revitalization, this study refers to the research of Gong et al. [80] and sets the following mediation effect models:

$$Urb = \beta_0 + \beta_1 Cil + \beta_2 Til + \beta_3 CT + \beta_x Control_x + \varepsilon$$
 (2)

$$Rur = \gamma_0 + \gamma_1 Cil + \gamma_2 Til + \gamma_3 CT + \gamma_4 Urb + \gamma_x Control_x + \varepsilon$$
 (3)

Urb, representing new urbanization, is the mediating variable. The control variables are consistent with Formula (1). In this part, the study focuses on the coefficients β_1 , β_2 , β_3 , γ_1 , γ_2 , γ_3 , and γ_4 . According to Formulas (2) and (3), if β_1 , β_2 , β_3 , and γ_4 are significant, it indicates that new urbanization has a mediating effect. That is, the cultural and tourism industries and the integration of cultural tourism industry will promote rural revitalization through new urbanization. If at least one of β_1 , β_2 , β_3 , and γ_4 is not significant, we will use the bootstrap method for the next test. Table 1 shows the primary variables and symbols for this study.

Table 1. Primary variables.

Classification	Variable	Symbol
Y	Rural revitalization	Rur
	Cultural industry	Cil
X	Tourism industry	Til
	Integration of cultural tourism industry	CT
M	New urbanization	Urb
	Innovation ability	Inv
	Degree of government intervention	Gov
Control	Average wage of employees in urban units	Uaw
	Railway operating distance	Rom
	Regional classification	place

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4.3. Variables and Data Selection

Based on previous studies [77], this study starts from the connotation of rural revitalization (*Rur*, explained variable) and constructs an evaluation index system of rural revitalization, under the premise of following objectivity and regularity. The system consists of three dimensions: industrial development, social development, and living standards.

This study adopts the comprehensive evaluation index system of cultural industry (*Cil*, explanatory variables) and tourism industry (*Til*, explanatory variables) established by Chen et al. [70]. Among them, the cultural industry is measured from three aspects: "foundation", "human capital", and "effect". The tourism industry is only measured from the two aspects of "foundation" and "effect". The interaction item of the comprehensive index of the cultural and tourism industries is regarded as the evaluation data of the integration of cultural tourism industry (*CT*, explanatory variables).

The measurement of new urbanization (*Urb*, mediating variable) mainly comes from the index system of Zhou et al. [81], which includes four dimensions: "population" (e.g., urbanization rate and urban population density), "economy" (e.g., level of economic development and economic structure), "society" (e.g., educational level and medical level), and "environment" (e.g., sewage treatment and household waste treatment).

Referring to related studies by Lin [82], Zhou [81], and Wang [83], the control variables of this study are as follows: (1) Innovation capability (*Inv*), measured by the number of domestic patent applications granted; (2) Government intervention (*Gov*), measured by the proportion of local general budget revenue in regional GDP; (3) The average wage of urban employees (*Uaw*); (4) Railway operating mileage (*Rom*); (5) Place (*place*), where 1, 2, and 3 represent eastern, central, and western regions, respectively; (6) Province (*id*); and (7)Year (*year*).

Table 2 shows the evaluation indicators of each variable.

Target Layer Criterion Layer		Index Layer
	Industrial development	Rural per capita mechanical power; Rural per capita electricity consumption; Fertilizer application rate; Pesticide application rate
Rural vitalization (Rur)	Social development	Population coverage of rural TV programs; Number of village doctors and health workers; Access to sanitary latrines in rural areas; Forest coverage
	Living standards	Per capita disposable income of rural residents; Consumption level of rural residents; The proportion of wage income in total income of rural residents; Engel coefficient of rural household
	Foundation	Number of museum collections; Number of public library establishments; Number of museum institutions; Number of performing arts organizations
Cultural industry (Cil)	Human capital	Number of employees of cultural relics protection and administration institutions; Number of employees of cultural market operating institutions
	Effect	The proportion of cultural funds in the general budget expenditure of local finance; Per capita appropriation for cultural programs; Cultural market operating institutions income; Museum attendance; Attendance at art performance venues
Tourism industry (Til)	Foundation	Number of star hotels; Number of travel agencies; Number of corporate enterprises in accommodation and catering industries; Number of employees in accommodation enterprises; Number of employees in catering enterprises
	Effect	Domestic tourism revenue; Foreign exchange earnings from international tourism; Number of domestic tourists; Reception of international tourists
	Population	Urbanization rate; Proportion of non-farm workers; Urban population density; Urban population employment
New urbanization (Urb)	Economy	Level of economic development; Economic structure; Financial level; Investment level
	Society	Educational level; Medical level; Resident living standard; Infrastructure construction
	Environment	Sewage treatment; Household waste treatment; Ecological basis

Table 2. Evaluation index systems.

4.4. Research Methods

In order to ensure the objectivity of index weight and minimize the influence of subjective factors, this study adopts entropy method, based on the panel data, to determine the weight of each index. Specifically, "entropy method" refers to the method of assigning weight to system indicators by calculating actual data, and then assigning weight according to the degree of data difference of each indicator. Indicators with a large relative change

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range will have a larger weight [83]. In the evaluation system, "m" represents the number of indicators, "n" represents the sample size, and "x" represents the value of index "j" in sample "i". The process of using entropy method to determine index weight is as follows:

Firstly, the unified dimension is processed through the normalization of indicators. As shown in Formulas (4) and (5), Formula (4) applies when " x_{ij} " is a positive indicator, and Formula (5) applies when " x_{ij} " is a negative indicator:

$$X_{ij} = \frac{x_{ij} - min(x_{ij})}{max(x_{ij}) - min(x_{ij})}$$

$$\tag{4}$$

$$X_{ij} = \frac{max(x_{ij}) - x_{ij}}{max(x_{ij}) - min(x_{ij})}$$
(5)

Secondly, Formula (6) is used to calculate the index weight matrix:

$$Y_{ij} = \frac{X_{ij}}{\sum_{i=1}^{n} X_{ij}} \tag{6}$$

Thirdly, Formula (7) is used to calculate index entropy:

$$\mathbf{e}_{i} = -\frac{1}{\ln(n)} \sum_{i=1}^{n} Y_{ij} \ln(Y_{ij})$$
(7)

Fourthly, the redundancy of information entropy is calculated using formula (8):

$$d_i = 1 - e_i \tag{8}$$

Fifthly, Formula (9) is used to calculate the weight of each indicator:

$$W_j = \frac{d_j}{\sum_{i=1}^m d_i} \tag{9}$$

Lastly, the development level index of each subsystem is calculated using Formula (10):

$$U_i = \sum_{i=1}^m W_{ij} X_{ij} \tag{10}$$

The degree of coupling can be used as an important basis for measuring the integration of cultural tourism industry [28,42]. It is easy for the traditional coupling coordination degree model to produce the phenomenon of "false coupling coordination" when the comprehensive level of two industries is low. However, the coupling coordination degree model is more objective, which can be used to reveal the real characteristics of coupling coordination between industries. The process of industrial integration is determined by the coupling coordination degree model, as follows:

Firstly, Formulas (11) and (12) are used to calculate the comprehensive evaluation function of two kinds of industries:

$$A(x) = \sum_{j=1}^{m} w_j M_{ij} \tag{11}$$

$$B(y) = \sum_{j=1}^{m} w_j N_{ij}$$
 (12)

Secondly, Formula (13) is used to calculate the coupling degree of two kinds of industries:

$$C = \sqrt{A(x) * B(y) / \left[(A(x) + B(y))^2 \right]}$$
 (13)

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Thirdly, Formula (14) is used to calculate the comprehensive evaluation index of the industry:

$$D = \alpha * A(x) + \beta * B(y)$$
 (14)

Among them, α and β are the corresponding weights of the two industries, respectively. According to relevant literature [84], this study sets the value as $\alpha = \beta = 0.5$.

Lastly, Formula (15) is used to calculate the coupling coordination degree between industries:

$$T = \sqrt{C * D} \tag{15}$$

Among them, the range of the "T" value is [0, 1], which represents the coupling coordination between industries. The greater the "T" value, the higher the degree of industrial integration.

5. Results and Analysis

5.1. Descriptive Statistics

Table 3 reports descriptive statistics for the main variables. It can be seen that the mean value of Rur is 0.274, the standard deviation is 0.122, and the range is 0.642. This shows that the rural revitalization level of 31 provinces, municipalities, and autonomous regions varies greatly. In addition, the mean value of Cil is 0.261, and the standard deviation is 0.123; the mean value of Cil is 0.222, and the standard deviation of Cil is 0.182; the mean value of Cil is 0.325, and the standard deviation of 0.101. This shows that the industrial development degree of 31 provinces, municipalities, and autonomous regions is different. On the whole, the sample data meet the requirement for subsequent analysis, which could reflect the basic characteristics of urban and rural development.

Variable	Mean Value	Median	Standard Deviation	Minimum Value	Maximum Value	Range
Cil	0.261	0.242	0.123	0.046	0.594	0.547
Til	0.222	0.174	0.182	0.005	0.961	0.956
CT	0.325	0.324	0.101	0.117	0.612	0.495
Urb	0.322	0.288	0.135	0.121	0.802	0.681
Rur	0.274	0.257	0.122	0.065	0.707	0.642
Inv	45,964	14,908	89,064	44	872,209	872,165
Gov	10.600	9.973	3.203	4.949	24.520	19.570
Uaw	59,184	53,471	31,600	15,370	194,651	179,281
Rom	0.348	0.320	0.220	0.020	1.420	1.400
place	1.935	2.000	0.841	1.000	3.000	2.000

5.2. Benchmark Regression

Table 4 reports the benchmark regression results of this study. Models (1), (2), and (3), respectively, show the influence of the cultural and tourism industries and the integration of cultural tourism industry on rural revitalization without adding control variables, while Models (4), (5), and (6), respectively, correspond to the regression situation after adding control variables. The results show that the coefficient of the cultural and tourism industries and the integration of cultural tourism industry is significantly positive at the level of 1%. It can be seen that the higher the level of the cultural and tourism industries and the integration of cultural tourism industry, the higher the level of rural revitalization. After adding control variables, the regression coefficient decreases obviously, which proves that the selection of control variables is effective. To sum up, the empirical results support Hypothesis 4, Hypothesis 5, and Hypothesis 6 of this study.

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				Rur		
	(1)	(2)	(3)	(4)	(5)	(6)
Cil	0.484 ***			0.403 ***		
	(11.02)			(13.78)		
Til		0.429 ***			0.314 ***	
		(16.97)			(14.88)	
CT			0.811 ***			0.665 ***
			(15.26)			(20.16)
Inv				-0.000000208 ***	-0.000000248 ***	-0.000000275 ***
				(-4.27)	(-4.68)	(-4.38)
Gov				0.00332	0.00113	0.000284
				(1.88)	(0.61)	(1.80)
Uaw				0.000000426	0.000000307	0.000000341
				(1.72)	(1.19)	(1.54)
Rom				-0.0544 **	-0.0478*	-0.0666 **
				(-3.38)	(-2.57)	(-3.53)
place				-0.0866 ***	-0.0717 ***	-0.0666 ***
-				(-15.44)	(-11.99)	(-11.94)
_cons	0.148 ***	0.179 ***	0.0106	0.305 ***	0.341 ***	0.172 ***

Table 4. Benchmark regression results.

(0.77)

527

0.451

(19.77)

527

0.608

5.3. Endogeneity Test

(52.47)

527

0.407

(14.17)

527

0.236

Ν

r2_a

The Hausman test can not only determine whether there is a concurrent correlation between explanatory variables and random disturbance terms, but can also test the endogeneity of the model itself and provide a reference for choosing fixed or random effects. In this study, the Hausman test is performed on the model. The test results show that the output P-value is less than 0.05, which means that the model has endogeneity problems and it is suitable to use the fixed-effect model for follow-up research. Therefore, the following study uses the instrumental variable method to mitigate the endogeneity between the two by two-stage regression.

(19.02)

527 0.611 (7.89)

527

0.668

First of all, this study takes the number of ethnic townships and precipitation as the instrumental variables of cultural industry, and the precipitation and elderly population dependency ratio as the instrumental variables of the integration of cultural tourism industry. The validity of instrumental variables is tested in the two-stage least squares (2SLS) regression. F statistics of the instruction variables of the cultural and tourism industries and the integration of cultural tourism industry are, respectively, 44.675, 65.108, and 89.580, all of which are much higher than 10 and pass the significance test of 1%. This indicates that the selected instrumental variables are highly correlated with endogenous explanatory variables, and there were no weak instrumental variables. Meanwhile, according to the test result of over-recognition, the P value of the instruction variables of the cultural and tourism industries and the integration of cultural tourism industry are, respectively, 0.407, 0.785, and 0.554, indicating that there is no over-recognition problem.

According to the regression results of instrumental variables of the cultural and tourism industries and the integration of cultural tourism industry in Table 5, the test results are consistent with the benchmark regression after the endogeneity problem is solved, indicating that the relationship is still robust after the endogeneity problem is controlled.

^{***, **} and * represent significant levels at 1%, 5%, and 10%, respectively.

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Table	5.	Instrument	al varia	hles	results

	Rur	(Cil)	Rui	(Til)	Rui	(CT)
	First Stage	Second Stage	First Stage	Second Stage	First Stage	Second Stag
Cil	0.8646 ***	0.865 ***				
	(0.094)	(0.094)				
Til	,	, ,	0.2176 ***	0.218 ***		
			(0.046)	(0.046)		
CT					0.4648 ***	0.465 ***
					(0.096)	(0.096)
Inv	-0.0000***	-0.000 ***	-0.0000 **	-0.000 **	-0.0000 **	-0.000 **
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Gov	0.0063 ***	0.006 ***	0.0010	0.001	0.0022 *	0.002 *
	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
Uaw	0.0000 ***	0.000 ***	0.0000 *	0.000 *	0.0000 **	0.000 **
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Rom	-0.0403 **	-0.040 **	-0.0536 ***	-0.054 ***	-0.0666 ***	-0.067***
	(0.018)	(0.018)	(0.016)	(0.016)	(0.015)	(0.015)
place	-0.0759***	-0.076 ***	-0.0792***	-0.079***	-0.0755 ***	-0.075 ***
_	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Constant	0.1234 ***	0.123 ***	0.3785 ***	0.378 ***	0.2599 ***	0.260 ***
	(0.042)	(0.042)	(0.025)	(0.025)	(0.045)	(0.045)
N	527	527	527	527	527	527
r^2	0.468	0.468	0.605	0.605	0.656	0.656

^{***, **} and * represent significant levels at 1%, 5%, and 10%, respectively.

5.4. Robustness Test

This study tests the robustness of the above results by replacing mediating variables. The replacement evaluation index system of new urbanization (see Table 6) is mainly derived from the index system of Sun [85]. All indicators are positive. The robustness test results are shown in Table 7.

Table 6. Evaluation index system of new urbanization (replace).

Target Layer	Criterion Layer	Index Layer
	Population	Urbanization rate; Urban population density; Proportion of employees in urban areas
	Economy	Per capita regional GDP; Urban housing investment
New urbanization	Coordination	Urban-rural income ratio; Ratio of consumption expenditure between urban and rural residents
(Reurb)	Ecological	Harmless treatment rate of household garbage; Urban sewage treatment rate
	Public services	Number of medical institution beds per 10,000 people; Urban gas penetration rate

As can be seen from Table 7, regression coefficients of the cultural and tourism industries are both significant at the level of 1%, with the same sign direction, indicating that both cultural industry and tourism industry have a significant positive impact on new urbanization. However, the regression coefficients of the integration of cultural tourism industry are not significant at the level of 10%, and the sign direction is positive. Based on the above analysis, it can be found that the empirical results of this study are robust.

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Table 7. Robustness test resul

	Urb (1)	Reurb (2)
Cil	0.386 ***	0.272 ***
	(5.81)	(4.10)
Til	0.154 **	0.116 *
	(3.32)	(2.55)
CT	0.0666	0.0539
	(0.41)	(0.34)
Inv	8.98×10^{-9}	-6.26×10^{-8}
	(0.22)	(-1.04)
Gov	0.0103 ***	0.00948 ***
	(5.75)	(4.40)
Uaw	0.00000607	0.000000424
	(1.94)	(1.15)
Rom	-0.0795 ***	-0.0669 **
	(-4.34)	(-3.41)
place	-0.0530 ***	-0.0101 **
_	(-18.77)	(-3.13)
_cons	0.149 **	0.175 ***
	(3.17)	(4.45)
N	527	527
r2_a	0.766	0.491

^{***, **} and * represent significant levels at 1%, 5%, and 10%, respectively.

5.5. Heterogeneity Test

Due to the typical non-equilibrium of our regional economy, there may be significant regional heterogeneity in the cultural and tourism industries and the integration of cultural tourism industry. Therefore, this study explores the influence of the cultural and tourism industries and the integration of cultural tourism industry on regional differences of rural revitalization from the perspective of three regions.

According to the usual regional division method, 12 provinces, municipalities, and autonomous regions, Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong, Guangxi, and Hainan, are classified as the eastern region; 9 provinces and autonomous regions, Shanxi, Inner Mongolia, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hubei, and Hunan, are classified as the central region; and 10 provinces, municipalities, and autonomous regions, Sichuan, Guizhou, Yunnan, Tibet, Shaanxi, Gansu, Ningxia, Qinghai, Xinjiang, and Chongqing, are classified as the western region. Among them, 1, 2, and 3 of the regional classification places represent the eastern, middle, and western regions, respectively. The heterogeneity test results are shown in Table 8.

According to Table 8, the influence of the cultural and tourism industries and the integration of cultural tourism industry on rural revitalization is different among regions. In terms of the influence of the cultural and tourism industries on rural revitalization, the influence coefficient of the eastern region is significantly negative at the significance level of 1%; the influence coefficient of the central region is significantly positive at the significance level of 5%; and the influence coefficient of the western region is not significant. This indicates that the cultural and tourism industries in the central region play a stronger role in promoting rural revitalization than those in the eastern and western regions. In terms of the influence of the integration of cultural tourism industry on rural revitalization, the influence coefficient of the integration of cultural tourism industry in the eastern region is significantly positive at the significance level of 1%; the influence coefficient of the integration of cultural tourism industry in the central region is significantly negative at the significance level of 10%; and the influence of the integration of cultural tourism industry in the western region is not significant. This shows that the order of priority of developing the integration of cultural tourism industry to help rural revitalization should be the eastern region, the western region, and then the middle region.

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lable 6. Helefogenetty test results	Table 8	Heterogeneity	test results.
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	Rur			
	(1)	(2)	(3)	
Cil	-0.964 ***	0.513 ***	-0.0938	
	(-5.92)	(2.69)	(-1.51)	
Til	-0.691 ***	0.807 **	0.187	
	(-9.14)	(2.79)	(1.45)	
CT	3.268 ***	-1.323 **	0.159	
	(9.82)	(-2.41)	(0.94)	
Inv	-0.00000118	-0.000000277	0.00000138 ***	
	(-1.41)	(-0.99)	(3.53)	
Gov	0.00798 ***	-0.0107 ***	-0.000633	
	(3.54)	(-5.24)	(-0.40)	
Uaw	-0.00000398	0.000000335	-8.26×10^{-8}	
	(-1.18)	(0.79)	(-0.44)	
Rom	-0.191 ***	0.0226	-0.0329	
	(-6.53)	(1.00)	(-1.13)	
_cons	-0.359 ***	0.494 ***	0.125 ***	
	(-5.18)	(5.81)	(5.11)	
N	204	153	170	
r^2 _a	0.596	0.355	0.580	

^{***} and ** represent significant levels at 1% and 5%, respectively.

5.6. Mechanism Analysis

The mediating effect test results of this study are shown in Table 9. According to Model (1), the influences of the cultural and tourism industries on new urbanization are both significantly positive at the significance level of 1%. Thus, Hypotheses 1 and 2 are confirmed. The influence of the integration of cultural tourism industry on new urbanization is not significant. So, Hypothesis 3 is rejected. Meanwhile, according to Model (2), it can be found that the coefficient of new urbanization impact on rural revitalization is 0.139, which is significant at a 1% significance level. This indicates that new urbanization plays an intermediary role in this process.

Based on the results of the benchmark regression and mediating effect test, it can be found that the direct and indirect effects of the cultural and tourism industries on rural revitalization are different, which indicates that there is a masking effect between cultural industry, tourism industry, and rural revitalization [86]. Through calculation, the absolute ratio of indirect effect to direct effect on cultural industry is 0.275, which is less than 1. This indicates that the masking effect of new urbanization has not changed the negative forecasting effect of cultural industry on rural revitalization. For the tourism industry, the absolute ratio of indirect effect and direct effect is 0.200, which is less than 1. This indicates that the masking effect of new urbanization has not changed the negative forecasting effect of tourism industry on rural revitalization. However, according to the baseline regression results, the impact of cultural industry and tourism industry on rural revitalization is significantly positive under the significance level of 1%. Therefore, there may be other intermediate variables with greater effect between cultural industry, tourism industry, and rural revitalization. On the whole, Hypothesis 7 and Hypothesis 8 are valid.

Since the integration of cultural tourism industry is not significant to new urbanization at the significance level of 10%, this study uses the bootstrap method to conduct an indepth analysis of the mediating effect of new urbanization on the relationship between the integration of cultural tourism industry and rural revitalization. According to the bootstrap test, the indirect effect of the integration of cultural tourism industry on rural revitalization is [0.00484, 0.14766] at a 95% confidence level, while the direct effect is [0.48896, 0.68869] at a 95% confidence level. This indicates that new urbanization plays a partial mediating role in the influence mechanism of the integration of cultural tourism industry on rural revitalization. Hypothesis 9 is, therefore, confirmed.

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Table 9	9.	Media	iting	test	results.	
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	Urb (1)	Rur (2)
Cil	0.386 ***	-0.195 ***
	(5.72)	(-2.87)
Til	0.154 ***	-0.107*
	(3.45)	(-2.26)
CT	0.0666	0.941 ***
	(0.50)	(7.81)
Inv	8.98×10^{-9}	-0.000000239 ***
	(0.14)	(-3.03)
Gov	0.0103 ***	0.00127
	(8.65)	(0.96)
Uaw	0.000000607 ***	0.00000201
	(4.26)	(1.02)
Rom	-0.0795 ***	-0.0650 ***
	(-5.23)	(-3.89)
place	-0.0530 ***	-0.0565 ***
1	(-14.73)	(-12.54)
Urb	,	0.139 ***
		(2.90)
_cons	0.149 ***	0.116 ***
	(5.18)	(3.84)
N	527	527
r^2_a	0.766	0.675

^{***} and * represent significant levels at 1% and 10%, respectively.

6. Conclusions and Discussion

6.1. Conclusions

Based on panel data from 31 provinces, municipalities, and autonomous regions in China from 2005 to 2021, this study explores the impact of cultural industry, tourism industry, and the integration of cultural tourism industry on rural revitalization, as well as the role of new urbanization in this impact mechanism. The conclusions are as follows:

Firstly, this study confirms the positive impact of cultural industry and tourism industry on new urbanization and rural revitalization, which echoes the qualitative research of Zhang [87]. This study also finds that the integration of cultural tourism industry has a significant positive impact on rural revitalization, but has no significant impact on new urbanization. This has enriched the empirical research, which is based on the framework of cultural and tourism industry integration and rural revitalization established by Wen [46].

Secondly, it is found that new urbanization has a masking effect in the influence path of cultural and tourism industries on rural revitalization. New urbanization plays a partial mediating role in the impact of the integration of cultural tourism industry on rural revitalization. According to the above analysis, in addition to new urbanization, there may be a more influential mediating variable in the path of the cultural and tourism industries affecting rural revitalization, which offsets the negative direct impact of cultural industry and tourism industry on rural revitalization, together with new urbanization.

Thirdly, regional heterogeneity analysis shows that cultural industry, tourism industry, and the integration of cultural tourism industry have different impacts on rural revitalization in different regions, which echoes the call of Cen et al. [88], who explored the influential factors of rural revitalization from samples of more provinces with different levels of development. Specifically, the development of the cultural and tourism industries in the central region have a stronger positive impact on rural revitalization, while the integration of cultural tourism industry will inhibit the development of rural revitalization. The development of cultural industry and tourism industry in the eastern region is not conducive to rural revitalization, and the integration of cultural tourism industry has a more significant positive impact on rural revitalization. Cultural industry, tourism industry,

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and the integration of cultural tourism industry in western China has no significant impact on rural revitalization.

6.2. Discussion

The effectiveness of the implementation of the rural revitalization strategy directly affects whether the problems of "agriculture, rural areas and farmers" can be effectively solved, and a scientific and effective evaluation index system of rural revitalization is the basic guarantee for promoting the implementation of this strategy. This study built an evaluation index system for rural revitalization and discussed the impact of industrial development on it, providing the following implications for relevant policy practice:

First of all, at the national level, China should strengthen the overall layout and planning of rural revitalization, improving its strategic framework. On the one hand, the study shows that, as the largest developing country in the world, China's spatial planning has the problem of unbalanced regional development, due to the lack of a unified spatial planning system and superior laws [89]. Therefore, it is necessary to carry out targeted, strategic deployment, according to the level of rural revitalization in each region, and to formulate different, phased rural revitalization goals, according to the regional development situation. On the other hand, the Chinese government should, through policy support or other means, encourage the effective allocation of resources related to the cultural and tourism industries and the integration of cultural tourism industry in the eastern and western regions, so as to strengthen exchanges and cooperation between regions. In addition, the Chinese government also needs to improve the institutional framework for new urbanization. Through the organic combination of the new urbanization strategy and the rural revitalization strategy, the level of rural revitalization will be improved.

Secondly, at the local level, provincial governments should always follow the principle of adapting to local conditions when setting and implementing rural revitalization plans, and formulate strategies based on the local industrial level and the development of new urbanization. For the economically developed areas in the east, people's spiritual needs are increasing, and the demand for culture and tourism is also increasing [90]. Therefore, priority should be given to the separate development of cultural and tourism industries. On the basis of the full development of the two major industries, it should be considered whether to promote the integration of industrial development. For regions with average economic development level in central China, cultural tourism can be carried out in combination with local historical and cultural heritage [91]. The local government should allocate more financial funds to enterprises related to the integration of cultural tourism industry, so as to promote rural revitalization. For the underdeveloped areas in western China, when formulating rural revitalization strategies, local governments should focus on attracting foreign tourists and developing rural tourism. It should be noted that, in the development of the cultural and tourism industries, and in the integration of cultural tourism industry, we should pay attention to the protection of the local ecological environment and enhance the level of rural revitalization in the coordinated development of agriculture and tourism.

Finally, at the enterprise level, cultural and tourism enterprises in the central and western regions should find and seize opportunities in a timely manner. On the one hand, enterprises can dig deeply into the local historical and cultural deposits and carry out tourism development according to the needs of tourists. Enterprises need to actively promote the integrated development model of cultural and tourism industries, such as heritage tourism, film and television tourism, and festival tourism, avoiding homogenization and shallow cultural mining in the development process, and improving the quality of cultural and tourism industry integration. On the other hand, in the process of cultural and tourism industry integration, enterprises should enhance their own sense of responsibility and social responsibility throughout the integration of cultural tourism industry. Enterprises should pay attention to the protection of the local ecological environment [92] and the improvement of residents' happiness of life, promoting the construction of new urbanization and the development of rural revitalization.

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6.3. Limitations and Future Research

This study reveals the evolution path and mechanism of rural revitalization and obtains some valuable conclusions, but there are still some limitations.

Firstly, there are many ways to determine the index weight; this study only uses the objective evaluation of the entropy method. In future research, we will consider the combination of subjective and objective evaluation and make a comparative study of multiple evaluation methods.

Secondly, since the rural revitalization strategy is based on the countryside, future research should refocus the research object to the village level from a micro perspective, and combine the village-level rural development planning and national-level spatial planning to provide reference for solving the practical problems of "agriculture, rural areas and farmers".

Thirdly, this study only explores the mediating role of new urbanization in affecting rural revitalization, which means that some important factors affecting rural revitalization may be ignored. Future research should further explore the complex relationship between relevant factors from other perspectives.

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