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Assessment on the innovative development of an ancient village from the perspective of holistic governance: A case study of six ancient villages in China

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Innovative development has been a favorite subject of social governance with the aim of helping the modernization and transformation of the governance system and governance capacity for rural revitalization in China. Therefore, an evaluation indicator system is introduced to estimate the innovative development of an ancient village from the perspective of holistic governance. The factor characteristics of 11 indicators are verified statistically via the methods of factor analysis, resistance diagnosis, and structural equation modeling by using data on six ancient villages in Yixian County (China). It finds that 1) the dominant impact factors between factor analysis and resistance diagnosis have the characteristics of identity; and 2) the relative importance of "four-dimensional linkage" is different and feasible. The finding is conducive to understanding the concept of "harmony, cooperation and convergence," and some strategies are proposed as follows: Highlighting the demand orientation of "good" life; creating a social pattern of "co-construction, co-governance and sharing"; optimizing the organization coordination of "multi-dimensional linkage"; and sticking to the development background of "original taste."

KEYWORDS

holistic governance, ancient village, factor analysis, resistance diagnosis, structural equation modeling, Yixian County (China)

Introduction

As an important narrative concept of social governance, holistic governance originated from the UK in the middle and late 1990s. According to the the opinions of Hicks and Den Levy, it is a substitution for new public administration or "government re-engineering" to realize the innovative development of traditional closed regulation and fragmented governance in the mid-1970s (Richards and David, 2003; Zhu H. W., 2011). Furthermore, so as to better realize the alternative intention of holistic governance, the new governance model based on modern information technology is used to conduct the decentralized coordination, incentive integration, and competitive optimization of governance objects and provide "seamless rather than fragmented public services to

the public" (Zhu, 2008; Crona and Parker, 2012; Evers and Jonoski, 2016; Gao, 2018; Zou and Xu, 2018).

As for a Chinese ancient village, which refers to the village built in a certain historical period before the Republic of China, it serves people up to now and is a kind of residential environment place formed in a unique natural and social environment (Hou and Shao, 2014). This kind of Chinese ancient village is either the economic, cultural, and political center in history, or the birthplace of transportation fortress or civilization, or the residence of ancient celebrities, officials, or businessmen, or the religious holy land of ethnic minorities (Tian and Wang, 2007). Otherwise, as a kind of architectural environment and architectural style, its village location has not changed much and its aborigines still retains there, as well as their original ecological production and life style with distinct regional characteristics (Zhu and Zhou, 2002; Liu and Ling, 2021). In essence, this kind of Chinese ancient village is a regional space of cultural heritage with high material and intangible forms, and also a space-time carrier of certain historical significance, cultural characteristics, and artistic values (Cao and Gu, 2015). Simultaneously, it also means a material carrier of the village originated in the "ancient" while the corresponding culture undoubtedly belongs to the "present" (Wang and Wu, 2008; Li et al., 2013). To some extent, it not only refers to some famous ancient buildings, but also the overall charm of the village (Xia, 2017).

Therefore, ancient village holistic governance (China) here refers to the innovative development of governance narratives with the help of modern information technology. This kind of innovative development means a governance narrative of effective coordination, integration, trust, and cooperation among multiple subjects led by government agencies through full cooperation, consistent objectives, and mutual reinforcement of execution means in the process of protection, development, and utilization of Chinese ancient villages. Furthermore, the kind of innovative development is full of uncertainty to avoid the traditional closed regulation and fragmented governance. If the uncertainty is to be avoided and precise governance wants to be realized in the whole process, it is an unavoidable problem to identify its cause mechanism and changing rules, and clarify the direction of "good" governance. Therefore, the innovative development dilemma of ancient village holistic governance in Yixian County (China) will be analyzed via empirical research. Also, based on the development commonness, its characteristic development can be realized.

Material and methods

Case study

According to the statistics, until 2018, 1,598 villages were on the list of Chinese ancient villages. Furthermore, the ecological aesthetic values, namely, realization of the harmony symbiosis of TABLE 1 Case study of the six ancient villages.

Name of town	Name of ancient village				
Biyang town	Baishan lichuan village				
Biyang town	Chiling village				
Hongcun town	Jiangcun village				
Hongcun town	Hengduan village				
Yuting town	Taoyuan village				
Xidi town	Gefeng-shang village				

form, love, voice, and taste between nature and man, are disappearing rapidly (Zhu Y. Z., 2011). It is extremely unfavorable to the protection and utilization of excellent Chinese traditional culture. Therefore, promoting the strategy of rural revitalization in the new era, especially the development of ancient villages, becomes the core task of China's harmonious society construction.

Yixian County (China) is in the southern part of Anhui Province, and is located between longitudes 117° 38′ 30″ to 118° 6" (east to west) and latitudes 29° 47′ to 30° 11′ 30" (north to south). Its area is 47.8 km long (north to south) and 44 km wide (east to west), approximately 857.8182 km². The county founded during the Qin dynasty (221 BC) is one of the cradles of an ancient hub based on Huizhou merchants and Huizhou culture, and is also an important representative of international tourism and cultural demonstration areas.

Therefore, in order to verify the innovative development of ancient village holistic governance and optimize the ecological aesthetic value, the tourism development value, and the historical and cultural value in Yixian County (China), the case study on six ancient villages is selected in Table 1.

Construction of the satisfaction indicator system

In view of the current research purview, the realization of "subject linkage" through cross-organizational cooperation and the achievement of "object linkage" through the coordination of multi-dimensional governance elements within an organization are valued (Wang, 2011; Tian and Huang, 2015). After all, through "multi-dimensional linkage," the connection and integration of complex social ecosystem and dynamic organizational system can be optimized (Jan et al., 2014; Primmer et al., 2015). Therefore, holistic governance based on "linkage" is the core element to achieve the attributes of being holistic, cooperative, and dynamic, and is an important measure to accelerate the modernization transformation of national governance systems and governance capacity (Tan, 2014; Han and Shan, 2015; Lu and Liu, 2017). Additionally, early warning

and intervention are also valued to strengthen holistic governance through modern governance means and technologies (Poplawska et al., 2017; Xu, 2017; Yang, 2017; Zhang, 2017; Sharma-wallace et al., 2018; Wang and Ran, 2018; Men and Wang, 2019). Then, the feasibility, vulnerability, and uncertainty of "complex linkage" can be identified accurately, and the level of efficient "linkage" governance can be improved effectively.

Therefore, the following "linkage" model of ancient village holistic governance is constructed.

1) Dependent variable: Satisfaction of ancient village holistic governance

The satisfaction of ancient village holistic governance aims to realize the modernization transformation of the governance system and governance capacity for the ancient village revitalization in China. Also, the innovative development of efficient governance through accurate identification and scientific evaluation can be effectively improved.

Therefore, in this study, the dependent variable of "satisfaction of ancient village holistic governance" is defined as Y_0 , and several independent variables are included as follows, such as "Top-down mechanism linkage" (X_1) , "Intraorganizational cooperation linkage" (X_2) , "Inter-organizational cooperation linkage" (X_3) , and "Pluralistic demand satisfaction linkage" (X_4) . Furthermore, it is supposed that they have a positive correlation with Y_0 .

2) Independent variable (a): "Top-down mechanism linkage"

The "top-down mechanism linkage" means that there are different focuses on vertical responsibility arrangement among behavior subjects, and then common decisions and actions are adopted to realize common development (Yan and Han, 2017; Jing and Wang, 2018). It involves three aspects here, including "top-level design," "rule of law construction," and "community governance participation." From the perspective of the first one, the overall layout and the integration process should be valued, and the strategic presupposition of sustainable development needs to be emphasized. After all, the action guide formulated by relevant departments is the power source of governance and the institutional guarantee of supervision. From the perspective of the second one, the legislative protection of ancient villages should be attached, and the protection, development, and utilization of ancient villages should be valued through the completion of existing laws and regulations. From the perspective of the third one, the status and role of these institutions and mechanisms should be cherished. In other words, it is important to perfect the participation mechanisms among new economic organizations, community autonomous organizations, and other behavior subjects.

 Independent variable (b): "Intra-organizational cooperation linkage"

The "intra-organizational cooperation linkage" refers to the realization of factor flow and industry transfer based on different comparative advantages to promote the innovative development of holistic governance to a new level (Chen and Chen, 2012). It involves four aspects here, such as the "ancient village resource," "tourism development," "land circulation," and "ecological construction." From the perspective of the first one, the integration and linkage of ancient village resources should be attached, such as ancient architectural complexes, "paradise" artistic conception, landscape pattern, soundscape perception, and sketching-based tourism. Furthermore, the environmental situation, namely, "mountain as the skeleton, water as the blood," should be emphasized. From the perspective of the second one, the identification and evaluation of these things should be cherished, such as the tourism resource development value of ancient villages, the assessment of the completeness and maturity of the development industry chain, and the perceived measurement of subjective satisfaction. From the perspective of the third one, the integrity and the un-alterability of land use should be valued, and the improvement of income should be expanded. From the perspective of the fourth one, the ancient village is one of the ecological memories of Chinese ancient culture, so the development of the "antique" and "authentic" should be highlighted, and the activation and utilization of "three states" culture (materialization, institutionalization, and internationalization) should be cherished. Then, it is possible to avoid the conflict caused by the development of ecological species and environment degradation.

 Independent variable (c): "Inter-organizational cooperation linkage"

The "inter-organizational cooperation linkage" refers to the establishment of a mechanism of mutual recognition and orderly transmission among independent organizations through communication, cooperation, and complementary advantages to achieve all-round development (Yu et al., 2014; Ren, 2017; Li, 2020). It mainly involves the organization's integration of humanities, economy, and ecology. On the one hand, the improvement of the cultural atmosphere from the perspective of "good life" and the integration of "nature and man" should be valued, as well as the integration of economic development and ecological protection. Otherwise, the discussion on the mechanism integration of the humanistic ecosystem and natural ecosystem should also be emphasized from the perspective of sustainable development. On the other hand, its development cannot be separated from the existence of humanistic groups and economic organizations. After all, considering the balance concept of "internal and external," the existence of such groups and organizations can not only create a

Dependent variable	Potential variable	Observation indicator	Variable	Score	
"Satisfaction of ancient village holistic governance" (Y0)	"Top-down mechanism linkage" (X1)	The top-level design	X11	"Very dissatisfied" = "1" "Dissatisfied" = "3" "General" = "5" "Satisfied " = "7" "Very satisfied" = "9"	
		The rule of law construction	X12		
		The community governance participation	X13		
	"Intra-organizational cooperation linkage" (X2)	The ancient village resource	X21		
		The tourism development	X22		
		The land circulation	X23		
		The ecological construction	X24		
	"Inter-organizational cooperation linkage" (X3)	The fit between humanistic and ecological organizational activities	X31		
		The fit between economic and ecological organizational activities	X32		
	"Pluralistic demand satisfaction linkage" (X4)	The public facility completeness	X41		
		The public service completeness	X42		

TABLE 2 Indicator operation assignment table.

considerable economic value for ancient villages, but also promote the survival of the cultural atmosphere.

5) Independent variable (*d*): "Pluralistic demand satisfaction linkage"

The "pluralistic demand satisfaction linkage" refers to a mechanism for pooling available resources (including authority) to improve the completeness of public facilities and public services. It is believed that the improvement of public facilities and services is the important joint point of ancient village revitalization in the new era. To some extent, only when the public facilities and services of ancient villages can meet the requirements of ancient village revitalization in the new era, as well as the production and living needs of the people, will they be enthusiastic in the protection of ancient villages as well as the development and utilization of ancient villages.

How can it be done? The primary issue is to clarify the linkage logic between public facilities and public services. After all, only by perfecting the public facilities, the quality public services for the public can be provided. Otherwise, only by constantly improving the quality and standards of public services, public facilities can be further improved. Additionally, as for the public facilities and services in ancient villages, not only the needs of people in ancient villages should be considered, but also the practical demands of tourists should be valued. After all, if the "pluralistic demand satisfaction linkage" cannot be achieved, then the real situation of the protection, development, and interests of ancient villages cannot be formed, and the development of ancient villages will not be continued.

Research hypothesis

Based on the aforementioned analysis, the independent variables and dependent variables required for the study are obtained and the following hypotheses are formed:

- 1) Hypothesis H1: The "top-down mechanism linkage" is defined as variable X_I , and the indicators of its partial satisfaction are given in Table 2. Later, it is supposed that X_I is positively correlated with Y_0 through its three observation indicators.
- 2) Hypothesis H2: The "intra-organizational cooperation linkage" is defined as variable X_2 , and the indicators of its partial satisfaction are given in Table 2. Then, it is supposed that X_2 is positively correlated with Y_0 through its four observation indicators.
- 3) Hypothesis H3: The "inter-organizational cooperation linkage" is defined as variable X_3 , and the indicators of its partial satisfaction are given in Table 2. Later, it is supposed that X_3 is positively correlated with Y_0 through its two observation indicators.

X1	1 X2		X3			X4					
a = 1.801	a = 1.801 , b = 13.126% a = 1.128 , b = 22.145% a		a = 1.072	a = 1.072 , b = 20.875%			a = 1.007 , b = 13.523%				
Factor	Load	Commonness	Factor	Load	Commonness	Factor	Load	Commonness	Factor	Load	Commonness
X11	0.667	0.601	X21	0.649	0.646	X31	0.761	0.661	X41	0.701	0.658
X12	0.739	0.689	X22	0.712	0.657	X32	0.672	0.647	X42	0.661	0.614
X13	0.735	0.619	X23	0.715	0.621	_			_		
_			X24	0.675	0.613	_			_		
c = 69.669	9%										

TABLE 3 Indicators factor analysis.

Note: a is the eigenvalue of the factor, b is the contribution rate of the factor, and c is the cumulative contribution rate of the factor.

4) Hypothesis H4: The "pluralistic demand satisfaction linkage" is defined as variable X_4 , and the indicators of its partial satisfaction are given in Table 2. Later, it is supposed that X_4 is positively correlated with Y_0 through its two observation indicators.

Furthermore, specific operational descriptions of relevant dependent variables, potential variables, and their observed indicators are shown in Table 2.

Data collection

Considering the investigation of the content and the actual situation of the objects, the principle of sampling design is employed during the preliminary investigation and the selection of a study method. Furthermore, stratified multi-stage unequal probability sampling accompanied by simple random sampling is also applied. Additionally, six ancient villages were selected for the case study. In each ancient village, ten college village official students, ten other village cadres, and twenty villagers are invited via equal probability sampling; the Delphi expert consulting team with 240 experts is formed; and then, a total of 240 expert consultation forms are issued in the field survey. After the validity test and the elimination of invalid responses, 240 questionnaires are used for the analysis.

According to the *KMO* and *Bartlett* tests of *SPSS* 19.0 data packets, the *KMO* value is 0.752, greater than 0.6. The *Sig.* value is 0.000, less than 0.05. These observation indicators have certain validity and reliability.

Results and analysis

Factor analysis

The characteristic value, the contribution rate, and the cumulative contribution rate of eleven factors from four dimensions are mainly estimated by factor analysis, and then the load and commonness of eleven indicators are given in Table 3.

In Table 3, the characteristic value is greater than 1 and the cumulative contribution rate reaches 69.669%, which is representative. The minimum load of eleven indicators is 0.649, the maximum load is 0.761, and the commonness is not less than 0.6. The fitting degree is good and the correlation is significant, which provides the reliability and validity guarantee for the following analysis. Furthermore, X_{12} , X_{23} , X_{31} , and X_{41} are the largest weights in their respective dimensions, and the weights of X_{13} and X_{22} also have important reference significance. Additionally, through factor analysis, the load and common degree of specific observation indicators are determined and the logical correlations between each observation indicator and their holistic governance effect are clarified.

Resistance diagnosis

Later, the resistance situation of each observed indicator will be observed by the following resistance diagnosis model, and specific results are given *via* Formulas 1–4 (shown in Table 4).

$$F_j = W_r \cdot W_j. \tag{1}$$

$$I_{ij} = 1 - Z_{ij}.$$
 (2)

$$\mathbf{Y}_{ij} = \left(F_j \cdot I_{ij} / \sum_{j=1}^n F_j \cdot I_{ij} \right) \cdot 100\%.$$
(3)

$$Y_r = \sum Y_{ij}.$$
 (4)

Here, F_j is the contribution degree, I_{ij} is the deviation degree, Z_{ij} is the standard value of the indicator, W_j represents the weight of a single indicator, W_r represents the dimension weight of the indicator, and Y_{ij} and Y_r represent the resistance value of a single indicator and the indicator of each criterion layer, respectively.

In Table 4, X_{12} , X_{23} , X_{31} , and X_{41} are also the biggest resistance factors in their respective dimensions. Considering the focus development of ancient villages and the resistance condition of other indicators, the resistance influence of X_{13} and X_{22} cannot be ignored. Furthermore, the primary and secondary relationships of resistance indicators and the strength of resistance value are confirmed, and the resistance

Dimension	First order		Second order		Third order		Fourth order	
	Dindicator	Resistance value (%)						
X ₁	X ₁₂	29.3	X ₁₃	26.5	X11	22.9		
X_2	X ₂₃	29.1	X ₂₂	25.2	X ₂₄	19.1	X ₂₁	16.3
X_3	X ₃₁	27.1	X ₃₂	20.7				
X_4	X_{41}	27.8	X_{42}	20.1				

TABLE 4 Main resistance factors and resistance values.

Note: Resistance value is percentage.

TABLE 5 Path parameter estimation.

<i>Path→Influence</i>	Estimate	C.R	Р
$X_1 \rightarrow Y_0$	0.726	2.251	0.003
$X_2 \rightarrow Y_0$	0.595	2.167	0.002
$X_3 \rightarrow Y_0$	0.655	2.085	0.007
$X_4 \rightarrow Y_0$	0.673	2.117	0.001

magnitude and its ranking of each observation indicator are clarified in their respective dimensions.

Structural equation modeling

Next, the overall development situation of six ancient villages will be evaluated by structural equation modeling (*SEM*) as follows:

First, *SEM* is constructed according to the applicable ideas of its initial model and the following principles: 1) X_1 , X_2 , X_3 , and X_4 are taken as potential variables; 2) the indicators X_{11} , X_{12} , X_{13} , X_{21} , X_{22} , X_{31} , X_{32} , X_{41} , and X_{42} are the initial observation variables; 3) four relational hypotheses are taken as the verification objects; and 4) the model is based on the data obtained from the case study.

Second, according to the idea of *SEM*, it is indispensable to verify the relationship among model variables and compare them with the reference standards. In other words, it is necessary to correct the model parameters that do not fit the standards until the indicator parameters fit the requirements of *SEM*. After the modification, all the indicators are within the acceptable range and the *SEM* fits well.

Finally, the path parameter estimation function of *AMOS17.0* is used to estimate the final modified path parameters of *SEM*, and the results are given (shown in Table 5).

In Table 5, the verification of statistical value *C.R* (higher than the standard value 1.96) and the probability value *P* of the minimum impossible event (lower than the standard value 0.05) pass the parametric test. It means that the model path

construction is reasonable and effective, and the specific path relationship hypothesis mentioned previously is valid. Furthermore, it can be found that there are problems of matching degree between the initial data and the ideal data of *SEM*, although these values are within the bounds of valid models. It also indicates that there is a gap between the actual condition of potential variables and the standard value of the model. It means that the realistic conditions of some potential variables have the improved and ascend space. Additionally, it can be known that the estimated value of X_1 , X_4 , X_3 , and X_2 is decreasing in turn.

Discussion

Through the research mentioned previously, the following results are as follows: 1) The fitting degree among indicators is good and the correlation is significant, which can provide the reliability and validity guarantee for the subsequent analysis; 2) the resistance magnitude of each indicator (explanatory variable) and the resistance ranking in their respective dimensions are calculated, which provide the quantitative parameters for the accurate positioning and scientific intervention in the process of holistic governance; and 3) the relative importance of the four paths via the method of *SEM* can be clarified, which can estimate the overall effects and clarify the focus development.

Furthermore, the following views on the innovative development of ancient village holistic governance in Yixian County (China) are gradually formed as follows:

 There is no doubt that the dominant impact factors between factor analysis and resistance diagnosis have the characteristics of identity

First, "The land circulation" and "The tourism development" are the two indicators of the largest weights in the dimension of "intra-organizational cooperation linkage." Therefore, in the first one, the policy should be activated, especially the "separation of three rights" (Niu, 2020). Also, not only can the ownership, contractingright, and management right of land in ancient villages be received, but also their respective functions can be realized. It is helpful for those who are suitable for scale operations to realize the scale operation, and it is also beneficial for those who are suitable for characteristic development to realize the personalized circulation (Dong, 2019). Meanwhile, in the other one, the development value of ancient village tourism resources must be fully recognized, the systematic planning must be attached, and the development of characteristics must be highlighted (Zhang et al., 2001). In other words, not only the tourism development industry chain should be completed, but also its development status should be assessed timely and accurately (Geng and Shao, 2020). More importantly, the potential to seizing the opportunities should be tapped and the development needs to be led.

Second, "The fit between humanistic and ecological organizational activities" is of great importance in the dimension of "intra-organizational cooperation linkage." Humanistic organizations are important carriers for inheriting the historical culture, characteristic culture, and customs of ancient villages. If humanistic activities can be effectively matched with the public welfare activities of ecological organizations, not only the ancient villages can have the beauty of antiquity, but also make them livable. However, how to improve the fit between the two? The following strategies are necessary (Liu and Zuo, 2018; He et al., 2019; Shao et al., 2019): 1) A platform should be built for people with insight to have a stage to express themselves and show the charm of ancient villages; 2) talents should be cultivated and attracted. Also, not only should the general public willing be made to participate in related activities, but also experts and scholars who can lead the trend; 3) the "industry-university-research" integrated governance should be cherished. In order to realize the combination of humanistic organizational activities and ecological organizational activities, feasible paths need to be discussed by experts and scholars. Therefore, an objective interest space needs to be formed for the existence and development of economic organizations. Also, a productionlearning space can be innovated for the demand-seekers.

Third, "The public facility completeness" is one of the highest weights in the dimension of "pluralistic demand satisfaction linkage." In other words, in order to meet the increasing needs of the people for a good life, the demand-oriented development of ancient villages should be strengthened. After all, ancient village revitalization is an important part of "rural revitalization." Furthermore, as a part of "rural revitalization," the public facilities of ancient villages should be improved. Only public facilities can be perfected, and public services can be provided for the ancient villages. Then, more foreign tourists will be attracted. Specifically speaking, the following points should be focused (Tang, 2014; Lu and Wu, 2017; Lin et al., 2018): 1) the basic living facilities should be improved, so that the villagers have no worries about food, clothing, housing, transportation, healthcare, education, and pension. Also, the happiness index will be improved generally; 2) the capacity of ancient villages to develop tolerance should be expanded. Then, not only can the growing daily needs of local villagers be met, but also tourists with a high-quality and comfortable experience space can be provided; and 3) the spatial production capacity of ancient villages should be improved under the influence of excellent traditional cultural education and ecological civilization, so as to better meet the new needs of villagers and tourists.

Finally, "The rule of law construction" and "The community governance participation" are of the highest weights in the dimension of "Top-down mechanism linkage." At present, the legal system and the state system are the core contents of the Chinese theoretical system and the theoretical cornerstone of the system's confidence. Therefore, in the first one, not only the rule of law system should be perfected according to the existing laws and regulations, but also the civilization of the rule of virtue should be improved (Shen, 2008; Geng and Shao, 2015; Fan, 2017). Furthermore, people should be educated, edified, constrained, and developed with excellent Chinese traditional culture and the ecological concept of ancient villages. In the other one, the participation mechanism of multiple subjects should be improved to achieve the modern requirements of the governance system and management ability. Furthermore, the ancient village democracy should be implemented earnestly at the grassroots level, namely, the autonomy concept of villagers on "participation in elections, participation in decision-making, participation in management, and participation in supervision" (Gui and Tang, 2016; Xiong and Xia, 2016; Cui, 2018).

2) The relative importance of "four-dimensional linkage" is different and feasible

By comparing the estimates of four potential impact variables via the method of SEM, it can be known that the influence of four dimensions of "top-down mechanism linkage," "pluralistic demand satisfaction linkage," "inter-organizational cooperation linkage," and "intra-organizational cooperation linkage" is decreasing in turn. It means that the development priorities should be identified and the overall situation should be attached during the process of "four-dimensional linkage" of ancient village holistic governance. Furthermore, it is found that there is much room for the improvement of ancient villages. It means that the dilemma of protection and development, avoiding the shackles of development and utilization, and tapping the power source of "creative transformation and innovative development" should be faced during the process of "four-dimensional linkage." Additionally, the "four-dimensional linkage" and even "multidimensional linkage" should actively respond to the strategy of "rural revitalization" in the new era and the leading of "creative transformation and innovative development of Chinese excellent traditional culture." Also, the construction of ecological civilization will be in the spotlight, the livelihood projects will be focused, and the happiness index will be improved during the process of "fourdimensional linkage."

In order to break the development shackles of "fourdimensional linkage," the governance concepts of "harmony, cooperation and convergence" should be chosen to deal with the improvements and ascend space during the innovative development of ancient village holistic governance as follows:

First, in terms of the governance concept of "harmony," the governance paradigm of a community with a shared future for human ecology should be created. Only by paying sufficient attention to the human resources and natural resources of ancient villages, the "good governance" of harmonious coexistence can be realized between human and nature (Shi, 2019). Furthermore, the governance concept of "harmony" is inseparable from the integration of ecological civilization construction with humanistic and economic organizations. After all, without the addition of a humanistic atmosphere, the development of ancient villages will lose the soul and root of culture (Liu, 2020). Additionally, if the ancient villages cannot adapt to the needs of social and economic development (Wu and Huang, 2020), they will gradually decline and even die out.

Second, in terms of the governance concept of "cooperation," the governance narrative of "benefiting the people" and "the unity of nature and man" should be in the spotlight (Chen, 2020). In the process of ancient village holistic governance, the rational utilization and effective protection of Chinese excellent ancient cultural and historical remains should be emphasized. In other words, not only the "ancient taste" and "original taste" should be highlighted, but also the overall requirements of rural revitalization should be adapted to the development of "thriving industry, ecological livable, rural culture, effective governance and rich life." Therefore, while protecting the ecological environment and developing an excellent traditional culture, the villagers' "beautiful type" demand orientation and their participation should be emphasized (Shen, 2021), and the public services and facilities should be improved. Then, a solid material foundation and institutional guarantee can be provided for rural revitalization.

Finally, in terms of the governance concept of "convergence," the three strategies of "convergence" should be implemented (Chen and Xie, 2019), such as converging people's hearts, converging the wealth of the world, and converging the spirit of heaven and earth. For example, in order to achieve the innovative development of ancient villages with "coconstruction," the participation of villagers, cultural organizations, and economic organizations must be insisted under the leadership of government organizations. Only in this way can the goal of "co-construction" be realized by multiple participation. Furthermore, there is no denying that people and organizations are the indispensable elements of ancient village holistic governance, but the effective integration and full utilization of various resources in ancient villages are also the indispensable objective elements of "co-governance." Additionally, only when the humanistic resources and natural resources of ancient villages are properly developed and reasonably protected can the "sharing" goal of a "good" life be realized.

3) It is inevitable to continuously improve the innovative development of ancient village holistic governance (China).

The constraint mechanism of ancient village holistic governance (China) is mainly explored from the perspective of "four-dimensional linkage." The research results and conclusions are of great significance for better understanding the "ancient village revitalization" and the "creative transformation and innovative development of Chinese excellent traditional culture," and are beneficial to realize the modernization transformation of the governance system and governance capacity for the ancient village revitalization in China. However, this study is mainly carried out from the perspective of six micro cases. In the future, the content of this study should be further enriched from the different levels of ancient village (China), and then the innovative development of ancient village holistic governance (China) can be improved.

Furthermore, a general applicability problem of the "fourdimensional linkage" of holistic governance should be proposed. After all, the case in Yixian County (China) is only used to verify the research hypothesis. Whether it is applicable to other types of ancient villages in China remains to be further tested. Therefore, comparative research should be carried out in different types of ancient villages in the future.

Finally, this article is a static case study of Yixian County (China). Therefore, the heterogeneous effects of influencing factors of different types in different development cycle stages should be fully considered in the innovative development of ancient village holistic governance (China) based on the characteristics of "harmony, cooperation and convergence" by a longitudinal research method in the future.

Conclusion

Based on the aforementioned research study, the knowledge focus to realize the innovative development of ancient village holistic governance in the new era should be formed as follows:

- Highlighting the demand orientation of the "good" life. The responsibility of "ancient village revitalization" and "creative transformation and innovative development of Chinese excellent traditional culture" should be realized through holistic governance. Then, on the premise of satisfying the growing "good" life of people, "ancient village revitalization" can be combined for common development.
- 2) Creating a new pattern of social governance featuring "coconstruction, co-governance and sharing." Modern information technology means should be used to help the construction of the system and mechanism led by government agencies, and the achievement of "co-construction" of multiple coordination and trust. Then, the intention of "co-governance" can be realized among the subjects, even the subject and the

target group, based on the realization of the interest maintenance and the benefit coordination of cooperative institutions. Furthermore, the production and "sharing" of new public values should be realized by creating a supply paradigm of seamless and non-separated services.

- 3) Optimizing the organization coordination of "multi-dimensional linkage." The "horizontal and vertical" linkage development should be in the spotlight, such as multiple governance elements and multi-dimensional governance activities. And then, the governance system, such as "decentralization leads to concentration, parts lead to integration, and fragmentation leads to integration" can be realized, and the effectiveness of organization work can be improved.
- 4) Sticking to the development background of "original taste." The "original taste" here refers to the worship of nature and the pursuit of harmony and stability. In other words, it is supposed to "respect nature, comply with nature, protect nature and use nature." Under the premise of adhering to the "original taste" development background, the harmonious development of social humanistic environment and natural ecological environment, as well as the political and economic environment can be realized. Then, a new community with a shared future can be built.

Data availability statement

The original contributions presented in the study are included in the article/Supplementary Material; further inquiries can be directed to the corresponding author.

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Author contributions

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Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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