



## Article The Study on the Performance Evaluation of Spatial Governance of Village and Town Business Communities

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Abstract: In order to study the performance evaluation of spatial governance of village and town business communities, this paper establishes a five-dimensional system: industrial upgrading (I), environmental renovation (E), life quality (L), humanistic characteristics (H), and governance of society (G) based on the PSR (pressure–state–response) model. In the study, twelve village and town business communities of different types in the Anji County of China are selected as empirical cases; field research and information interviews are conducted in each sample community; the constructed project libraries and constructed ledgers in the past three years are adopted. The GIS 10.2 software is used to draw a policy fund distribution map for spatial governance, compare and study the core characteristics of financial investment for spatial governance in each sample community, and reveal how important the application of the evaluation system is for its performance analysis. The "precise strategies" and "driving foundations" of the spatial governance of village and town business communities are summarized.

**Keywords:** business communities; spatial governance; performance analysis; PSR model; village and town

## 1. Introduction

As the urban era evolves, village and town business communities have undergone the evolutionary process of "bottom-up" spatial spontaneous growth and "top-down" policy-based driving. Many problems occur amid the transformation and development of village and town business communities, such as waste of resources and environmental pollution, low-density and disorderly use of land, homogenization of village and town industries, and frequent and unmanageable population movements. Therefore, in terms of the management and maintenance of village and town business communities, attention must be paid to spatial governance, because innovation in governance is the only solution to the difficulties amid the transformation.

Now, many studies have been conducted on the construction and development of village and town business communities, which are characterized by a long history and various types. Meanwhile, many outstanding fruits have been achieved in these studies, (e.g., Table 1). It is found from the practical governance experience of village and town communities in different countries that, different governance policy actions are adopted in different countries. For example, the way, in which the advancement is gradually made through classification and zoning, is adopted in the UK. The way, in which the environmental and economic synergy is promoted based on local conditions, is adopted in Germany. In South Korea, the government makes vigorous efforts to accelerate the revival of village and town communities. In Japan, the approach of cultivating characteristics based on local conditions is adopted. The ultimate goal of governance in each country is to develop the economy of village and town communities and enhance the vitality of



Citation: Zhu, X.; Shi, H.; Li, Z.; Zhong, Y.; Zhu, K. The Study on the Performance Evaluation of Spatial Governance of Village and Town Business Communities. *Systems* **2022**, *10*, 109. https://doi.org/10.3390/ systems10040109

Academic Editors: Jinan Fiaidhi, Aboul Ella Hassanien and Hye-jin Kim

Received: 29 June 2022 Accepted: 26 July 2022 Published: 29 July 2022

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**Copyright:** © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). these communities while maintaining well the local ecological resources and humanistic characteristics.

	Table 1. Governance	practices fc	or village aı	nd town (	communities	in each	country
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Time	Region	Governance Policy Action	Specific Measures
1950s	England	Settlements of in the center of villages and towns	Long-term renewal goals for village and town communities were set; the existing settlements for villages and towns were classified, and different planning policies were mapped out to guide differently. Planning methods were adopted to control the disorderly construction of residential and production buildings.
1960s	Germany	Renewal plan for village and town communities.	Local features were preserved, and traditional buildings were renewed. Rural characteristics were protected, and infrastructure in villages and towns was expanded. The ecosystem was preserved, the villages and towns and their surroundings were coordinated; the economy of the villages and towns was developed according to the local conditions.
1970s	Korea	"New village campaign"	Material, financial, and technical support was provided to villagers free of charge. Training institutions were established to train the backbone personnel for the "New Village Campaign". Measures and rules for the construction of individual village and town communities were made.
1970s	Japan	"Village building campaign"	The gap between urban and rural construction of living environment facilities was narrowed. Local resources were fully used. Communities with regional characteristics were built in village and town communities; residents participated in management, etc.
21st Century	China	"Rural revitalization"	Integrated development of urban and rural areas and harmonious coexistence of human beings and nature were pursued. Relevant measures were adjusted according to local conditions, and gradual progress was ensured. Structural reform on the supply side of agriculture was promoted. The innovative development of agriculture, forestry, animal husbandry, fishery, and seed industry was promoted. The overall development of rural undertakings was advanced. The improvement was made in water supply, power supply, information, and other infrastructure. Steady efforts were made to carry out rural living environmental renovation actions.

However, it is worth noting that the spatial governance of villages and towns is less likely to be discussed in developed countries of Europe and Asia like China. In the studies conducted in these countries, much attention is paid to the construction planning of villages and towns. In terms of research content, the spatial governance of village and town business communities is rarely involved in each country, and a unified evaluation index system of spatial governance performance has not been formed. From the perspective of research methods, the standard definition and theoretical framework of village and town business communities have not been clarified in academic circles, and there is no clear comprehensive performance evaluation method for spatial governance. This will inevitably lead to biased and skewed governance directions of village and town business communities and trigger environmental and social problems.

In the study, the PSR (pressure–state–response) model application is extended from industrial upgrading (I), environmental renovation (E), life quality (L), humanistic characteristics (H), and governance of society (G) to build a spatial governance evaluation system for village and town business communities. The spatial governance evaluation

system for village and town business communities is used to quantify the indexes of spatial governance of village and town business communities. The spatial governance characteristics and performance differences of village and town communities are generalized and analyzed according to different types, and the reasons for the differences in governance performance are analyzed. Based on the results of the empirical study, the measures are adopted to improve the spatial governance practices of village and town business communities from various aspects. A guide to sustainable spatial governance strategies is made from three aspects: development goals, implementation paths, and guarantee mechanisms.

We thus pursue two main contributions. (1) the theory of sustainable development is combined with the theory of specialized division of labor in government performance management. The PSR model is upgraded into the IELHG-PSR diamond model of spatial governance via the transformation of the sustainable development theory from one dimension to three dimensions, thus the "virtual reality" amid the analysis process of this theoretical tool is realized, providing a multidimensional perspective of the complex system, regional coordination, and type differentiation for the study on the spatial governance performance evaluation of village and town business communities. Therefore, the operational principles and barrier mechanisms of sustainable spatial governance of village and town business communities in Anji County, are analyzed from multiple perspectives, dynamically and in a comprehensive manner, providing differentiated paths for different types of spatial governance models for village and town business communities. (2) As the research direction of this article is relatively cutting-edge, the previous research data on the spatial governance of village and town business communities, are not sufficient, and are mostly based on qualitative descriptions. In the article, the study on spatial governance of village and town business communities is conducted based on the logical line of "experimental summary-model construction-case-based empirical evidence-strategy guidance". The characteristic experiences of typical village and town business communities at home and abroad are summarized on the basis of their spatial governance contents and models. Then, these experiences are applied into the construction of extension model for sustainable spatial governance in a targeted manner in the later part of the article. Based on 12 sample village and town business communities in Anji County, first-hand data about government's constructed projects and ledgers, and more, are adopted, and GIS10.2 is used to draw the map, thus spatially reflecting the visualization characteristics of governance capital investing degree, and proposing characteristic growth paths of village and town business communities of different types. On this basis, the connotation and depth of academic research on village and town business communities are enriched on the one hand, and such research plays a certain role in guiding the government's decision making in spatial governance on the other hand.

## 2. Literature Review

#### 2.1. Government Behavior

As an important part of the governance of society, the government's behaviors and characteristics directly impact the process of social development. There are various views on the meaning of government behaviors in academic circles, while a clear and unified view is yet to be identified. Some scholars believe that government behavior mainly refers to the policy process and government management, and the former includes government decisionmaking mechanism, implementation mechanism, feedback mechanism, etc., while some scholars hold that government behavior refers to all activities amid the government's public administration. It represents the external expression of the government's administrative power and function, as well as the public administrative activities serving the social citizens. From the perspective of political science, government behavior refers to the government's activities conducted to regulate economic and social life by various means in order to achieve the desired goals. It specifically means that the government and public officials manage the public affairs of society through the use of public power; the officials interact with the external environment and conduct some management behaviors for social public affairs.

#### 2.2. Performance Management

The theory of performance management can be extended to many disciplines such as management, sociology, economics, etc. It is an important thinking perspective and theoretical basis for the research on the improvement of spatial governance performance of village and town business communities.

Performance management, which was early developed on the basis of HR management performance assessment, took shape in the 1970s. It can be said that performance assessment plays a big part in performance management, but it also has obvious shortcomings. Actually, Spangenberg [1] recognized this problem in the first place, arguing that traditional performance assessment, as a relatively independent system, is usually disconnected from contextual factors such as organizational goal, organizational strategy, organizational culture, and organizational managerial commitment and support in an organization. In reality, these factors, however, have a significant impact on whether performance assessment can be effectively implemented. According to Pamenter, performance assessment plays an important role in employee motivation, while it leads to a lack of fairness in managers' evaluations of employees and poorly executed assessments due to its relatively subjective nature.

In the 1980s and 1990s, the theory of strategic human resource management saw further development, and correspondingly the issue of strategic performance management became an important topic of management theory research. At that time, performance management issues were mainly explored from the perspective of strategic objective implementation. According to Niclds [2], performance management mainly consists of four main principles: Firstly, goals, agreed by both managers and employees, must be set; secondly, the criteria for reaching the goals must be clearly measured, that is, the criteria measuring whether employees succeed in reaching the goals must be measured in public; thirdly, the goals themselves are flexible to some extent and should be adjusted in a timely manner according to the changes in the economy and workplace environment; fourthly, employees must see their managers not only as evaluators, but also as mentors who help them achieve success. Schneier and Beatty [3] argue that a performance management system should be a cyclical cycle that includes measuring and making standards; reaching agreements; planning; monitoring, helping, and controlling; evaluating; giving feedback; making personnel decisions, and then measuring and making standards. Richard Williams [4], a British scholar, described the performance management system as four phrases: defining performance goals and evaluating performance criteria, providing feedback on performance and helping employees remove obstacles and achieve performance goals, appraising and evaluating performance, and summarizing and distributing rewards. It is found that performance assessment is only one important part of performance management, and that the implication of performance management far and away exceeds the meaning of performance assessment. Performance is an established multidimensional vocabulary, whose specific expression varies from different dimensions. Overall, it can be seen as a work result, an individual behavior or organizational behavior, a competence, etc. Therefore, performance management is a complete system influenced by the skills of organizational members, the external environment, internal conditions, and motivational effects. The performance management is featured by the consistency of organizational and personal goals, with the focus on the coordination between individuals and the organization, and the pursuit of a "multi-win" effect. In performance management, the concept of "putting people first" is emphasized, reflecting the joint participation of managers and those who are managed. The core of the theory of performance management is the design of evaluation indexes, and scientific and reasonable performance evaluation indexes can help significantly improve governance performance. Based on the theory of performance management, the problems in spatial governance performance of village and town business communities are studied. On the one hand, the process elements of performance management and influencing factors need to be clarified. More importantly, on the other hand, the construction of a management mechanism, under which the government's spatial governance of village and town business communities are performed, is explored. In addition, reasonable goals are set for community management organizations, and an effective incentive and restraint mechanism is established to promote the self-development and self-improvement of managers and community residents through dynamic and regular performance evaluation. If so, a higher level of organizational performance in government spatial governance can be achieved through the application of performance results and the optimization of performance goals.

#### 2.3. The Governance of Village and Town Communities

According to the development process of these three community governance scopes, China's current development of spatial governance of village and town communities is in the process in which traditional villages evolve into small cities. It is emphasized that the "governance" here differs from pure government rule. Under the context of rapid rural development, power and responsibility are shifted away from the state. However, this does not mean partnerships of citizens or communities are allowed to move away from government programs altogether [5–7]. Marsden [8] explores the impact of rural differentiation in four specific development areas. It is argued that rural governance can better guide development. Unlike top-down and less sensitive policy models, it can better meet rural needs. The socioeconomic and demographic composition in urban areas is obviously different from that in rural areas. Thereby, the criteria for classifying urban and rural spaces in both rural and urban areas are of practical significance for local governance [9–11]. Valentino [12] explains rural governance from the perspective of institutional economics in terms of rural partnerships. Such partnerships are defined as a governance structure of equal property rights. Under such partnerships, interests can be distributed in an equal manner. Castro-Arce et al. [13] explore how social innovation initiatives drive grass-root governance and transformative development in rural areas. They propose five bridging roles and four critical factors facilitating success to optimize policy structures and improve governance. On this basis, Georgios et al. [14] propose that government structure fragmentation, regional networking, Chinese language communication in communities, and institutional organizational stability can promote social innovation governance. It is found from the previous comparative studies of rural areas in the EU that, social innovation governance is of great significance for spreading the new endogenous rural development agenda and revitalizing rural areas [15].

In terms of efficiency, public–private partnerships (PPPs) have become a popular tool for managing rural development in Europe to improve effectiveness in sustainable rural governance [16]. Communities are gradually becoming important participants in village policy making. The organization of communities influences people's experience and understanding of community, and more extensive rural governance [17,18]. Brown [19] argues that policies and programs with universal significance facilitate governance at the urban-rural interface. In response to inefficient rural governance led by spatial fragmentation and broad responsibilities, Balazs et al. [20], with the Hungarian government as an example, illustrate the paths for modern rural governance: centralization within local government and simplification of inter-community associations. Marquard makes the policy of rural governance more accurate by making the concept of land use and land consumption clearer [21]. Salman Khan et al. [22], in terms of the effectiveness of local and regional governance, introduce the concept of "internal power" to improve the efficiency of decentralization of state power. In practice, according to the EU's LEADER program presented as a rural diversification initiative, the third sector is mobilized to participate in local development decisions. However, it is noted in the program that the third sector really participates in the longer development [16,23,24]. In relevant studies, in-depth exploration is conducted in terms of influencing factors [25–27], subject characteristics [28–30], and implementation efficiency [31–33] of agricultural governance, but there is still a lack of

studies on community spatial governance, with typology and system construction as the study focuses, as shown in Table 2.

Table 2. Governance practices for village and town communities.

Time	Scholars	Main Contents
1988	Everett Rogers and Raber Burdge [34]	"The Transformation of Communities of Villages", an exhaustive study is conducted on the transformation and development of governance of village and town communities from the perspective of the territorial structure of these communities.
1998	Marsden et al. [35]	All states participate in governance in a bid to develop the economy of village and town communities. Thus, the vitality of the community can be further triggered, and meanwhile, the local ecological resources and humanistic characteristics are preserved and maintained well.
2008	Ye [36]	It is found from the practical experience of community governance in villages and towns of different countries that different countries have taken different approaches to governance policies.
2010	Ferdinand Tennies [37]	Points out that there are three types of community governance: families; rural areas, and small cities. Different government scopes, and a process of gradual upgrading are demonstrated here.
2013	Torre et al. [38]	Emerging rural activities will benefit rural spatial governance and that innovation in rural development is the multi-level, and multi-faceted one.
2016	Westerink [39]	Provides a new classification of spatial governance by boundary theory (institutional boundaries, social boundaries, and spatial boundaries).
2017	Agyemang [40]	Initially used spatial mapping of the urban-rural population continuum, transportation networks, built-up patterns, and GIS technology to depict urbanized areas, thus improving the existing spatial governance framework.
2018	Sielker [41]	The spatial governance is divided into three parts: policy, financial instruments and institutional instruments, all of which interact with each other.
2018	Asher et al. [42]	The "administratively remote" spatial organization is not conducive to public service and economic development, with all villages in India as samples.
2020	Ge et al. [43]	Land use transformation should be an important feature of rural transformational development, as well as a basis for rural spatial governance.
2021	Sun et al. [44]	Constructing a multi-scale governance system of "event-organization-ownership" to improve the implementation path of existing rural spatial governance.

As urbanization continues to be accelerated, changes in physical space have been triggered, while the existing spatial governance framework lags behind and cannot respond positively to the changing spatial structure. Additionally, in terms of spatial governance, the research focus is the construction planning of villages and towns. Thus, the governance direction of village and town business communities is biased and skewed, and thus environmental and social problems are triggered. This is mainly shown in the following two aspects:

- (1) It is found from the research content that, the field of construction planning of village and town communities is the only focus in the existing literature. The studies on spatial governance of village and town communities are less involved, and a unified evaluation index system of spatial governance performance has not come into being. The governance content and scope of village and town communities are very extensive. Therefore, when the research of the evaluation index system is carried out, a reasonable and comprehensive selection of social, economic, and political indexes is necessary. Through scientific methods, they need to be quantified and their weights need to be determined, thus an accurate assessment is made of the spatial governance performance of village and town business communities.
- (2) In terms of the research methodology, the standard definition and theoretical framework of village and town business communities have not been clarified in the academic world. There is no clear comprehensive performance evaluation approach for their spatial governance. It is necessary to further consider China's special national realities and real situations of its local villages and towns. Evaluation methods including hierarchical analysis, principal component analysis, gray correlation method, data envelopment analysis are used in a scientific and reasonable manner to make sure these methods "adapt to local conditions" and "adapt to time".

Thus, in the article, the theoretical bases involving governmental behavior theory and performance management theory, are used to lay the theoretical foundation and provide inspirations and references for the analysis and evaluation of spatial governance performance of village and town business communities in Anji County, Zhejiang Province. Through the application and extension of PSR (pressure-state-response) model, the spatial governance evaluation system of village and town business communities is constructed from the five-dimensional system including industrial upgrading (I), environmental improvement (E), life quality (L), humanistic characteristics (H), and governance of society (G). In the study, twelve business communities of different types in villages and towns of Anji County are selected as empirical cases; field studies and information interviews are conducted in each sample community; the constructed project libraries and constructed ledgers in the past three years are adopted. The GIS 10.2 software is used to draw a policy fund distribution map for spatial governance, compare and study the core characteristics of financial investment for spatial governance in each sample community, reveal how important the application of the evaluation system is for its performance analysis. Then, a scientific and reasonable analysis is made on the comprehensive performance, classification performance, IELHG five-dimension system (industrial upgrading, environmental renovation, life quality, humanistic characteristics, governance of society) and the reasons behind PSR coordination index difference for the sample spatial governance. The strengths and weaknesses of the spatial governance of the village and town business communities are revealed. The "precise strategies" and "driving foundations" of the spatial governance of village and town business communities are summarized.

## 3. Model Framework

## 3.1. IELHG-PSR Diamond Model of Spatial Governance

Delphi method, analytic hierarchy process, and PSR model are selected in the article for quantitative evaluation and analysis based on the research results of domestic and foreign academic circles in terms of the complexity and particularity of the spatial performance evaluation of village and town business communities. In order to achieve the goal of "making precise policy", the research method model is extended and applied.

The PSR (pressure–state–response) model includes three dimensions: (1). pressure dimension. The pressure refers to the human activity, consumption pattern, environmental resource consumption, etc. It directly impacts the "state" and "response". (2). State dimension. The state refers to the current situations and problems of the "economy, environment and society". Under the influence of pressure, it directly transmits information to the response, and helps it make decisions. (3). Response dimension. Response refers to the

extent to which human activity is concerned with the pressure and state and the measures taken. Considering the different levels of administrative units and the differences in the governance authority, and the gradual realization of the goal of sustainable development through the cycle of "action-feedback-action", the structural relationship between the systems is shown. The system structure of PSR model framework is shown in Figure 1.



Figure 1. System structure of PSR model framework.

Essentially speaking, government spatial governance means that the government leads multiple subjects in participating in the benign common governance. They jointly complete the management of public affairs, the supply of public services, the construction of public facilities, and the relief of social risks, to achieve the maximum benefits of spatial governance. Based on the three subsystems of "economy, environment and society", the final five system goals are industrial upgrading (I), environmental renovation (E), life quality (L), humanistic characteristics (H) and governance of society (G). They interact and influence each other in the system. Governance of society facilitates its orderly development as the very foundation of system development; environmental improvement protects and optimizes the overall ecological and regional environment; life quality improvement for residents meets their demand for a better life as the carrier of the system; realizing industrial upgrading and promoting economic growth are the material foundations of system development; preserving local humanistic characteristics and ensuring the inheritance of material and intangible cultural heritage act as the motivations for the continuation of the system.

Accordingly, the system of five dimensions is put into the PSR model for spatial governance of villages and towns. An extended model of sustainable development is established to reflect the collaboration, multi-party participation, and dynamic changes in the governance of village and town business communities-the IELHG-PSR diamond model (Figure 2). The model consists of a tetrahedron, and each axis of triangular coordinates represents the interaction between village and town business communities in a specific region; further, based on scientific maturity, systematization, practicality, and more, the IELHG-PSR diamond model-based evaluation system of sustainable spatial governance of village and town business communities is constructed in conjunction with the current data of the study.

## 3.2. Methodological Framework for the Performance Evaluation of Spatial Governance

The proposed framework for the performance evaluation of spatial governance of village and town business communities is illustrated in Figure 3 and it mainly consists of five stages. First, the IELHG-PSR diamond model of spatial governance is considered. Second, the validity of the evaluation system criteria is assessed by university professors, government officials, and senior engineers of design institutes, and then we further modify

the evaluation system criteria until the validity of criteria is satisfactory according to the feedback of experts. Third, the evaluation index system is initially constructed for sustainable spatial governance of village and town business communities, further work is carried out to identify and screen the indicators within the system. Additionally, the AHP is adopted to analyze the weights of each index. Fourth, the weights related to the spatial governance evaluation system of village and town business communities are determined, and quantitative work needs to be conducted in each index to match with the actual data for evaluation. A unified and balanced assignment is adopted to conduct the measurement. Based on experts' opinions, the final scores obtained in village and town business communities are divided into four echelons as a whole and the GIS 10.2 software is used to draw a distribution map for spatial governance. Finally, to quantitatively describe the sustainability of spatial governance of village and town business communities, the coordination function is used in the article to evaluate the developing relationships among these subsystems.



Figure 2. IELHG-PSR diamond model of spatial governance.



Figure 3. Methodological framework.

# 4. The Spatial Governance Evaluation System for Village and Town Business Communities

## 4.1. Sample and Data

Anji County, administered by Huzhou City, Zhejiang Province, is known as "the first bamboo town in China, the hometown of Chinese white tea, the hometown of Chinese chairs", with a county area of 1886 square kilometers, a registered population of 470,000, eight towns, three towns, four subdistrict offices, two-hundred and nine administrative villages (communities) and one state-level tourist resort, one province-level economic development zone, and one inter-provincial demonstration zone for industrial transfer. It is the birthplace of "beautiful countryside" and the pioneer of green development in China, as well as the first ecological county of China and the first county to win the UN-Habitat Scroll of Honor. In 2018, the GDP here was 40.432 billion yuan, a (year-on-year) increase of 8.3%; the total fiscal revenue was 8.008 billion yuan, an increase of 19.03%. The local fiscal revenue was 4.692 billion yuan, an increase of 18.73%.

A unique development path takes shape in Anji County in terms of industrial upgrading, urban and rural construction, and spatial governance. This path has been explored for over two decades in Anji County. In 2000, the government of Anji County put forward the strategy of "revitalizing the country by optimizing the ecological system". The environment began to be managed to boost ecological restoration. In 2008, the strategy of building "beautiful countryside, beautiful town, and beautiful county" was launched, representing a key move to upgrade the whole area to meet the standards. So far, a total of 188 administrative villages have been built up based on this strategy, including forty-four model villages, five model villages of operation, four model tourist belts, and five towns of modern styles, with a built-up area of 35 square kilometers. The basic industrial and economic development and socio-demographic profiles of each community are shown in Table 3.

No.	Name of Village and Town Communities	Town	Number of Households/Total Population (Households/ Person)	Land Area (km²)	GDP per Capita (2018)	Proportion of Tertiary Industry in GDP (2018)	Greening Coverage Rate of Built-Up Area
1	Tangpu Community	Dipu Subdistrict	486/1365	2	79,540	24.6%	41.5%
2	Chiwu Village	Xiaofeng Town	826/2760	18	59,473	53.6%	46.2%
3	Guishanchang Village	Xiaoyuan Subdistrict	901/3078	15	71,624	36.2%	43.7%
4	Zhangwu Village	Zhangwu Town	711/2432	12	31,322	68.9%	61.5%
5	Xilong Village Group	Xilong Town	726/2702	14	85,501	33.5%	64.2%
6	Jingwan Village	Meixi Town	680/2865	5	54,978	43.7%	66.1%
7	Gaoyu Village	Tianzihu Town	1518/5558	16	69,744	38.6%	44.9%
8	Xiaoshu Community Group	Meixi Town	2500/8600	15	64,978	44.3%	65.7%
9	Hanggai Village	Hanggai Town	876/3008	13	32,421	41.2%	62.8%
10	Port Village	Tianhuangping Town	813/2872	12	40,332	49.1%	61.4%
11	Baofu Village	Baofu Town	874/2650	10	41,429	57.4%	69.2%
12	Shanchuan Village	Shanchuan Town	403/1400	4	52,144	61.2%	65.7%

Table 3. Governance practices for village and town communities in each country.

## 4.2. Elements of the Evaluation System

In the article, the evaluation elements are selected via the IELHG-PSR diamond model of spatial governance of village and town business communities established above, based on the specific construction indexes in the "Construction Guide for Comprehensive Environmental Improvement of Small Towns" (2017), the "Guide for Beautiful Towns" (2019), and the "Pilot Work Program for the Construction of Future Communities" (2019) in Zhejiang Province. The selection of elements in this article is shown in Table 3.

## 4.3. Index Screening for Evaluation System

After the evaluation index system is initially constructed for sustainable spatial governance of village and town business communities, further work is carried out to identify and screen the indicators within the system. In the article, the Delphi method is adopted to screen the evaluation index system. A total of 48 evaluation indexes are initially selected (Table 4), covering, respectively, five aspects of the evaluation index system: industrial upgrading, environmental renovation, life quality, humanistic characteristics, and governance of society; expert consultation questionnaires are designed, and experts (including university professors, government officials, senior engineers of design institutes, etc.), are consulted and questionnaires are distributed to them in several project review meetings during the period of their temporary post. When an expert consultation is carried out on the indexes, they are ranked as "very unimportant" (9 points), "unimportant" (7 points), "average" (5 points), "important" (3 points), "very important" (1 point). The experts' "opinion concentration" is expressed by the arithmetic mean of the scores obtained from each index. The variation coefficient of the scores obtained from each index is used to express experts' "opinion coordination". The opinion concentration  $(K_i)$  and the coordination degree  $(G_i)$  are calculated as followed:

$$K_j = \frac{1}{K_j} \sum_{i=1}^{n_j} C_{ij} \, j = 1, \, 2, \dots, \, n$$

Pressure	State	Response		
Economic density, retail sales of per capita social consumer goods, etc.	The proportion of output of each industry in GDP, industry coordination, etc.	Rectification of existing inadequate industries; adjustment of industrial structure; optimization of business environment; cultivation of new businesses.		
Energy consumption per unit of GDP, ecological land fragmentation, etc.	Emissions of waste gas and wastewater per sq.km.; water quality of rivers and lakes.	Environmental improvement is deepened in a comprehensive manner; a modern transportation network is built; clean energy is used.		
Residential per capita land area; quality of built-up residential area.	Public green space per capita public green space area in built-up areas, indoor and outdoor cultural and sports facilities per capita.	The trade, culture and sports, learning and living, medical and health facilities are improved; the organic renewal is promoted for historical heritages, old communities, and ancient villages.		
Destruction rate of humanistic characteristics.	Characteristic culture and reservation of cultural relics.	The organic renewal is promoted for historical heritages, old communities, and ancient villages.		
Population density; incidence rate of criminal cases.	Community honor (civilization, peace, good governance, number of established communities in ecological villages), etc.	Improvement is witnessed in digital management and social governance system and capacity building of the town.		
	Pressure         Economic density, retail sales of per capita social consumer goods, etc.         Energy consumption per unit of GDP, ecological land fragmentation, etc.         Residential per capita land area; quality of built-up residential area.         Destruction rate of humanistic characteristics.         Population density; incidence rate of criminal cases.	PressureStateEconomic density, retail sales of per capita social consumer goods, etc.The proportion of output of each industry in GDP, industry coordination, etc.Energy consumption per unit of GDP, ecological land fragmentation, etc.Emissions of waste gas and wastewater per sq.km.; water quality of rivers and lakes.Residential per capita land area; quality of built-up residential area.Public green space per capita public green space area in built-up areas, indoor and outdoor cultural and sports facilities per capita.Destruction rate of humanistic characteristics.Characteristic culture and reservation of cultural relics.Population density; incidence rate of criminal cases.Community honor (civilization, peace, good governance, number of established communities in ecological villages), etc.		

## Table 4. Components of spatial governance evaluation based on IELHG-PSR.

In the formula:  $K_j$  represents the arithmetic mean of the scheme;  $n_j$  is the number of experts participating in the evaluation of scheme *j*.  $C_{ij}$  is value ascribed to scheme *j* by expert *i*. The larger  $K_j$  is, the greater the importance of the indicator is.

$$G_{j} = \frac{\sqrt{\frac{1}{n-1}\sum_{i=1}^{n} (X_{ij} - C_{j})^{2}}}{C_{i}} \ (j = 1, 2, 3, \dots, k)$$

In the formula:  $G_j$  shows the fluctuation degree of the expert's evaluation of the relative importance of scheme j, i.e., the opinion coordination degree. The smaller  $G_j$  is, the better the expert coordinate.

"Opinion concentration  $(K_j)$ " and "opinion coordination  $(G_j)$ " are integrated, and we can obtain the experts' scores on the index level as shown in Table 5.

**Table 5.** Preliminary indicators for sustainable spatial governance evaluation of village and town business communities.

<b>Objective Layer</b>	Criterion Layer	Element Layer	Indicator Layer
		Pressure	<ol> <li>Retail sales of social consumer goods per sq·km.</li> <li>GDP per capita</li> </ol>
	Industrial	Status	<ol> <li>The proportion of (output of) tertiary industry in GDP</li> <li>Coordination degree of industrial structure</li> <li>GDP and land use elasticity</li> </ol>
	upgrading	Response	<ol> <li>Remediation rate of "unsafe, disorderly, and illegal" enterprises</li> <li>Improvement of industrial park appearance</li> <li>Improvement of modern service industry</li> <li>Degree of integration between industry and town</li> <li>Business environment improvement</li> </ol>
		Pressure	<ol> <li>Energy consumption per unit of GDP</li> <li>Fragmentation degree of ecological land in built-up area</li> </ol>
Sustainable spatial governance of village and town business communities	Environmental improvement	Status	<ol> <li>Rate of reaching the standard for water quality in rivers and lakes</li> <li>Emission of waste gas/water/per sq.km.</li> <li>Percentage of high-energy-consuming enterprises in built-up area</li> <li>Road traffic accessibility in built-up area</li> </ol>
		Response	<ol> <li>Harmless treatment ratio for house refuse</li> <li>Regulation rate of traffic network and municipal facilities</li> <li>Efforts to demolish illegally constructed buildings</li> <li>Perfection of public service facilities layout</li> <li>Renewal degree of community's lighting renovation</li> <li>Number of the constructed public resource recycling centers</li> </ol>
		Pressure	<ol> <li>Per capita land area</li> <li>Overall living quality in the built-up area</li> <li>Per capita indoor and outdoor sports facilities</li> </ol>
		Status	<ol> <li>Per capita public green space area in built-up area</li> <li>Green coverage rate of built district</li> </ol>
	Life quality	Response	<ol> <li>Housing supply quality improvement rate</li> <li>Perfection of medical style facilities construction in business school</li> <li>Innovation and application of construction technology</li> <li>Enhancement degree of public travel sharing system</li> <li>Amount of construction of slow-moving greenways</li> </ol>

Objective Layer	Criterion Layer	Element Layer	Indicator Layer
	Humanistic characteristics	Pressure	33. Destruction rate of humanistic feature
		Status	34. Preservation degree of characteristic culture and heritage
			35. Number of traditional village cultural heritage protection construction
		Response	36. The number of organically renewed old neighborhoods
		Response	37. Investment amount of urban image publicity body
			36. Characteristic culture and reservation of cultural relics
			40 Incidence of criminal cases
		Pressure	41. Percentage of immigrant population in the community
			42. Population and land use elasticity index of villages and towns
	Social governance		43. Community honor acquirement index
		Status	44. Efforts to manage and maintain in community
		Response	<ol> <li>Perfection of long-term intelligent management mechanism</li> <li>Citizen literacy promotion degree</li> <li>Government service ability</li> <li>Improvement of social governance system construction</li> </ol>

Table 5. Cont.

Based on the opinions of experts and scholars, and with reference to the previous evaluation criteria, the indexes with opinion concentration of less than 6.2 and variation coefficient of above 0.2 are selected for elimination. The descriptions of some indicators are slightly adjusted with reference to the opinions. After the screening of two rounds, the following, Table 6, is finally derived for the evaluation index system of sustainable spatial governance of village and town business communities.

Table 6. Statistical table of opinion concentration and opinion coordination for each indicator.

	Indicator Name	Opinion Concentration	Opinion Coordination		Indicator Name	Opinion Concentration	Opinion Coordination
1.	Retail sales of per capita social consumer goods	7.5	0.19	25.	Per capita indoor and outdoor sports facilities	7.75	0.153
2.	GDP per capita	7.25	0.18	26.	Public green space per capita in built-up area	8	0.134
3.	Proportion of the (output) of tertiary sector in GDP	8	0.134	27.	Green coverage rate of built district	8.25	0.113
4.	Coordination degree of industrial structure	6.75	0.294	28.	Housing supply quality improvement rate	7.25	0.18
5.	GDP and land elasticity	7.5	0.19	29.	Perfection of medical style facilities construction in business school	8.5	0.11
6.	Remediation rate of "unsafe, disorderly and illegal" enterprises	8.25	0.113	30.	Innovation and application of construction technology	7.25	0.18
7.	Enhancement degree of landscape in industrial park	5	0.302	31.	Improvement of public travel sharing system	7.5	0.19
8.	Improvement degree of modern service industry	7.25	0.18	32.	Construction number of slow-moving greenways	6.75	0.28
9.	Industry-town integration promotion degree	7.75	0.153	33.	Destruction rate of human feature	6.5	0.22

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	Indicator Name	Opinion Concentration	Opinion Coordination		Indicator Name	Opinion Concentration	Opinion Coordination
10.	Perfection degree of business environment	6.5	0.22	34.	Characteristic culture and reservation of cultural relics	8.75	0.081
11.	Energy consumption per unit of GDP	8.25	0.113	35.	Number of traditional village cultural heritage protection construction	8	0.134
12.	Fragmentation degree of ecological land in built-up area	7.5	0.19	36.	Number of organically renewed old neighborhoods	7.75	0.153
13.	Rate of reaching the standard for water quality in rivers and lakes.	7.75	0.153	37.	Investment amount of urban image publicity body	7.25	0.18
14.	Waste gas/water emissions per sq.km.	8.75	0.081	38.	Enhancement rate of community cultural identity	5.25	0.26
15.	Proportion of high-energy-consuming enterprises in built-up area	4.25	0.499	39.	Population density	7.5	0.19
16.	Road traffic accessibility in built-up area	8	0.134	40.	Incidence of criminal cases	7.75	0.153
17.	Harmless treatment ratio for house refuse	8.25	0.113	41.	Proportion of immigrant population in the community	5	0.302
18.	Regulation rate of traffic network and municipal facilities	8.75	0.081	42.	Population and land elasticity index in villages and towns	6.75	0.28
19.	Efforts to demolish illegally constructed buildings	7.5	0.19	43.	Community honor acquirement index	7.75	0.153
20.	Perfection of public service facilities layout	7.75	0.153	44.	Efforts to manage and maintain in community	6.5	0.22
21.	Renewal degree of community's lighting renovations	5	0.302	45.	Perfection of long-term intelligent management mechanism	8	0.134
22.	Number of constructed public resource recycling centers	4.75	0.351	46.	Citizen literacy promotion degree	7.5	0.19
23.	Per capita land area	8	0.134	47.	Government service ability	8.25	0.113
24.	Overall residential quality of built-up area	6.5	0.22	48.	Improvement of social governance system construction	8	0.134

It is found from the results of the evaluation system based on expert scoring that, there is no big difference in the number of sub-indexes of the five major goals. It indicates that for the realization of sustainable development of spatial governance of village and town business communities, the five-dimensional goals should be developed in a balanced manner. Regional industrial upgrading, environmental renovation, and life quality have more sub-indexes. They are more important than humanistic characteristics, indicating that at this stage, the strategy of "focusing on the construction of hard basic goals with soft cultural goals as auxiliaries in terms of the elements of spatial governance in the whole area" is adopted for the government's spatial governance in the current stage.

## 4.4. Determination of Index Weights

The AHP and software YAAHP10.1 are adopted to analyze the weights of each index. The weights of each hierarchical judgment matrix are superimposed and multiplied to obtain the weight coefficients (Table 7).

Objective Layer A	Criterion Layer C	Element Layer H	Indicator Layer F
		Pressure (H1)	Economic density (F1) Retail sales of per capita social consumer goods (F2) GDP per capita (F3)
	Industrial upgrading (C1)	Status (H2)	Proportion of (output of) tertiary sector in GDP (F4) GDP and land elasticity (F5)
		Response (H3)	Remediation rate of "unsafe, disorderly and illegal" enterprises (F6) Improvement degree of modern service industry (F7) Industry-town integration promotion degree (F8)
		Pressure	Energy consumption per unit of GDP (F9)
	Environmental renovation (C2)	Status (H5)	Rate of reaching standard for water quality of rivers and lakes (F11) Waste gas/water emissions per sq. km. (F12) Road traffic accessibility in built-up area (F13) Harmless treatment ratio for house refuse (F14)
Village and town		Response (H6)	Regulation rate of traffic network and municipal facilities (F15) Efforts to demolish illegally constructed buildings (F16)
business communities Evaluation index system of sustainable spatial governance A1	Life quality (C3)	Pressure (H7) Status (H8)	Per capita land area (F18) Per capita indoor and outdoor sports facilities (F19) Public green space per capita in built-up area (F20) Green coverage rate of built district (F21) Housing supply quality improvement rate (F22)
		Response (H9)	Perfection of medical style facilities construction in business school (F23) Innovation and application of construction technology (F24) Improvement of public travel sharing system (F25)
	Humanistic characteristics (C4)	Status (H10)	Characteristic culture and reservation of cultural relics (F26)
		Response (H11)	Number of traditional village cultural heritage protection construction (F27) Number of organically renewed old neighborhoods (F28)
	Social governance	Pressure (H12) Status(H13)	Investment amount of urban image publicity body (F29) Population density (F30) Incidence of criminal cases (F31) Community honor acquirement index (F32)
	or governance of society (C5)	Response (H14)	Pertection of long-term intelligent management mechanism (F33) Citizen literacy promotion degree (F34) Government service ability (F35) Improvement of social governance system construction (F36)

**Table 7.** Evaluation index system of sustainable spatial governance of village and town business communities.

It is found from the weight coefficient table that, in the sustainable spatial governance of village and town business communities, environmental renovation is the most important one among the environmental improvement, life quality, industrial upgrading, governance of society and humanistic characteristics (the five-dimensional system), accounting for nearly one-fourth of the overall weight; humanistic characteristics play a small part, taking up only one-sixth of it.

## 4.5. Rating of Spatial Governance Performance of Village and Town Business Communities

After the weights related to the spatial governance evaluation system of village and town business communities are determined, quantitative work needs to be conducted in each index to match with the actual data for evaluation. Expert consultation, questionnaire survey, multiple comparisons, and other methods are adopted to finally determine the evaluation indexes. A unified and balanced assignment is adopted to conduct the measurement. Each index is divided into five levels I, II, III, IV, and V according to different criteria. These levels, respectively, have the assignments of 100, 80, 60, 40, and 20 (points). The specific assignment criteria are as followed in Table 8:

Criterion Layer C	Weight	Element Layer H	Weight	Indicator Layer F	Weights
		Desserves		Economic density (F1)	0.0218
		(LI1)	0.0627	Retail sales of per capita social consumer goods (F2)	0.0161
		(П1)		GDP per capita (F3)	0.0248
Industrial upgrading (C1)	0.2014	Status	0.0416	Proportion of (output of) tertiary sector in GDP (F4)	0.0251
	0.2014	(H2)	0.0416	GDP and land elasticity (F5)	0.0165
		Response	0.0071	Remediation rate of "unsafe, disorderly and illegal" enterprises (F6)	0.0381
		(H3)	0.0971	Improvement degree of modern service industry (F7)	0.0303
				Industry-town integration promotion degree (F8)	0.0287
		Pressure	0.0520	Energy consumption per unit of GDP (F9)	0.0296
		(H4)	0.0320	Fragmentation degree of ecological land in built-up area (F10)	0.0224
Environmontal		Status	0.0664	Rate of reaching standard for water quality of rivers and lakes (F11)	0.0210
renovation (C2)	0.2431	(H5)	0.0004	Waste gas/water emissions per sq.km. (F12)	0.0234
				Road traffic accessibility in built-up area (F13)	0.0220
		Response (H6)		Harmless treatment ratio for house refuse (F14)	0.0395
			0.1247	Regulation rate of traffic network and municipal facilities (F15)	0.0384
				Efforts to demolish illegally constructed buildings (F16)	0.0274
				Perfection of public service facilities layout (F17)	0.0194
		Pressure	0.0546	Per capita land area (F18)	0.0258
	0.2187	(H7) Status 2187 (H8)	0.00 10	Per capita indoor and outdoor sports facilities (F19)	0.0288
			0.0563	Public green space per capita in built-up area (F20)	0.0299
Life quality			0.0000	Green coverage rate of built district (F21)	0.0264
(C3)			0.1078	Housing supply quality improvement rate (F22)	0.0234
		Response (H9)		Perfection of medical style facilities construction in business school (F23)	0.0488
				Innovation and application of construction technology (F24)	0.0098
				Improvement of public travel sharing system (F25)	0.0258
Humanistic		Status (H10)	0.0347	Characteristic culture and reservation of cultural relics (F26)	0.0347
characteris- tics(C4)	0.1431	Response		Number of traditional village cultural heritage protection construction (F27)	0.0440
		(H11)	0.1084	Number of organically renewed old neighborhoods (F28)	0.0366
				Investment amount of urban image publicity body (F29)	0.0278
		Pressure	0.0412	Population density (F30)	0.0185
Governance of		(H12)	0.0413	Incidence of civil criminal cases (F31)	0.0228
	0.1937	Status 1937 (H13)	0.0583	Community honor acquirement index (F32)	0.0583
society (C5)		× /		Perfection of long-term intelligent management mechanism (F33)	0.0334
		Response	0.0041	Citizen literacy promotion degree (F34)	0.0139
		(H14)	0.0941	Government service ability (F35)	0.0278
				Enhancement degree of social governance system (F36)	0.0190

**Table 8.** Weighting table of evaluation system index for sustainable spatial governance of village and town business communities.

Based on the above index weights, the analytic hierarchy process (AHP) is used to establish the evaluation structure model for spatial governance of village and town communities. The scores are obtained by repeated calculation of weighted sums to obtain each score, and the final scores are based on the centesimal system.

Based on experts' opinions, the final scores obtained in village and town business communities are divided into four echelons as a whole, as shown in Table 9.

system construction

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## Table 9. Indicator quantification table.

			Evaluation Critoria						
<b>Evaluation Indicator</b>	100	80	Evaluation Criteria	40	20				
(F1) Economic density (10 thousand yuan/sg.)	Above 2500	2000-2500	1500-2000	1000-1500	1000 or less				
(F2) Retail sales of per capita social consumer	Above 1500	1200 1500	900 1200	600 900	600 or more				
goods (10 thousand yuan/sq.km.)	20 000	(0, 80,000	10 (0.000	20, 40,000	L				
(F3) GDP per capita (yuan/person.) (F4) Proportion of (output of) tertiary sector	80,000 or more	60-80,000	40-60,000	20-40,000	Less than 20,000				
in GDP	60% or more	50-60%	40-50%	30-40%	Less than 30%				
(F5) GDP and land elasticity	Above 10	8-10	6–8	4–6	Below 4				
disorderly and illegal" enterprises	More than 3000	2000-3000	1500-2000	1000-1500	1000 or less				
(10 thousand yuan)	More than 0000	2000 0000	1000 2000	1000 1000	1000 01 1000				
(F7) Industry-town integration	Township storage p	oarks are newly b	uilt; distribution and	other logistics serv	vices are improved;				
promotion degree	arranged according to the township departmental standing book.								
	Fyrests and government officials are invited to score and arrange the degree according to the								
(F8) Industry–town integration	interaction and int	egration of indus	stries and towns on ba	sis of the industria	al positioning and				
promotion degree	leading industry's p	promotion of inte	raction, integrity and	agglomeration of	industry and town.				
(F9) Energy consumption per unit of GDP	Below 0.01	0.01-0.1	0.1–0.2	0.2–0.3	Above 0.3				
in built-up area	based on relevant go	and	arrange the fragment	vernment officials	are invited to score				
(F11) Rate of reaching standard for water	100%	Above 05%		RE 00%	00 0E0/				
quality of rivers and lakes	100 %	Above 95%	90-93%	03-90 %	00-03 /0				
(F12) Waste gas/water emissions per sq.km.	Index data are co	mpiled based on	the assessment of the	Environmental Pr	otection Bureau.				
(F13) Koad traffic accessibility in built-up area (F14) Harmless treatment ratio for	Indicator data are	compiled accord	ing to the assessment	of the Traffic Man	agement Bureau.				
house refuse	Index data are	compiled based o	on the assessment of E	nvironmental Prot	tection Bureau.				
(F15) Regulation rate of traffic network and	Above 50 million	3500-5000	2500-3500	1000-2500	Below 1000				
municipal facilities	Above 50 million	3500-5000	2300-3300	1000-2000	Delow 1000				
(F16) Efforts to demolish illegally	Above 40	30-40	20-30	10-20	Below 10				
(F17) Perfection of public service		0.10	6.0		T (1 (				
facilities layout	More than 10	8-10	6–8	4-6	Less than 4				
(F18) Per capita land area	More than 50	35–50	25–35	15–25	Less than 15				
(F19) Per capita indoor and outdoor sports facilities ( $m^2$ /person)	More than 15	12–15	9–12	6–9	Less than 6				
(F20) Per capita public green space area in		20.25	25 20	20.25	20				
built–up area (m <sup>2</sup> /person)	More than 35	30–35	25-30	20-25	20				
(F21) Green coverage rate of built district	More than 60	50-60	40-50	30-40	Less than 30				
(F22) Housing supply quality	Very high	High	Moderate	Low	Very low				
(F23) Perfection of medical style facilities	V h : - h	TT: -1-	Madamata	T	¥71				
construction in business school	very nign	High	Moderate	Low	very low				
(F24) Innovation and application of	More than 5	4	3	2	1				
(F25) Improvement of public travel									
sharing system	More than 10	8–10	6–8	4–6	Less than 4				
(F26) Characteristic culture and reservation of	Very high	High	Moderate	Low	Verv low				
cultural relics (E27) Number of traditional willows sultural	Marathan	1.1.8.1	inouclute	2011	very ion				
heritage protection construction	10 million	800-1000	600-800	400-600	Below 400				
(F28) Number of organically renewed old	Mana than F	4	2	2	1				
neighborhoods	More than 5	4	3	Z	1				
(F29) Investment amount of urban image	More than	800-1000	600-800	400-600	Less than 400				
(F30) Population density (person/sg km)	More than 300	250-300	200-250	150-200	Less than 150				
(F31) Incidence of criminal cases	No occurrence	1-2	2-4	4-6	More than 6				
(F32) Community honor acquirement index	More than 5	4	3	2	1				
(F33) Perfection of long-term intelligent	Very high	High	Moderate	Low	Very low				
(F34) Citizen literacy promotion dogree	,	Coo ti	he Closeary of Indey '	Torms	,				
(F35) Government service ability	Very strong	Strong	Moderate	Weak	Very weak				
(F36) Improvement of social governance	Very high	High	Modorato	I ow	Very low				
system construction	very mgn	111511	modelate	LOW	very 10 W				

Under the pressure, villages and towns, at the end of a cycle, will witness changes in society, industry, environmental conditions, as well as life quality of the residents. A new state will be produced, and the pressure will be relieved. According to the connotation of sustainability, the spatial governance of village and town business communities is a process of dynamic and coordinated development of the three systems: pressure, state, and response. If one of them is unbalanced, the comprehensive spatial governance performance of village and town communities will be severely impacted, so the relationship of the three systems should be as followed: the industrial upgrading of village and town business communities improves residents' life quality, boosts humanistic characteristics, and optimizes social governance while being coordinated with environmental protection. This coordinated relationship is presented in the evaluation as followed: the pressure index, state index, and response index of each sample should be balanced with each other. To quantitatively describe the sustainability of spatial governance of village and town business communities, the coordination function is used in the article to evaluate the developing relationships among these three subsystems. The formula is as followed:

$$C = \frac{L+M+N}{\sqrt{L^2+M^2+N^2}}$$

*C* is the coordination index, and *L*, *M*, and *N* are the evaluation indexes of the pressure, state, and response systems, respectively. The closer the calculated indexes of pressure, state, and response systems are, the more coordinated the development of these three sample subsystems is.

## 5. Result

## 5.1. Presentation of Evaluated Scores in Spatial Governance Factors

After the objectives and methods of spatial governance evaluation of village and town business communities are clarified, the author went to each targeted business community in villages and towns of Anji County several times from April 2018 to December 2019 to conduct spatial governance research. A total of over four hundred copies of questionnaires about spatial governance satisfaction were distributed to residents of villages and towns. A total of 105 subjects (specifically including: 32 village cadres, and 33 community residents and villagers) were interviewed. Finally, first-hand research data are obtained, and the spatial governance capacity of each type of village and town business community is scored based on government work reports, statistical yearbooks, and standing book reports at the levels of county government and town government. Graded scoring table of spatial governance evaluation echelon for village and town business communities as followed (Table 10) and the results are scored as followed (Table 11):

**Table 10.** Graded scoring table of spatial governance evaluation echelon for village and town business communities.

	Spatial	Spatial Governance of Village and Town Communities							
Grade	Grade I	Grade II	Grade III	Grade IV					
Score	100-85	84–75	74–65	64–0					

Table 11. Scores of spatial governance performance evaluation factors for sample communities.

Score of Each Sample Community												
Indicator Factor	A-1 Guishan- chang	A-2 Chibu	A-3 Tongpu	B-1 Hangai	B-2 Gaoyu	B-3 Xiaoshu	C-1 Jingwan	C-2 Xilong	C-2 Zhangwu	D-1 Baofu	D-2 Shanchuan	D-3 Port
F1	80	40	80	20	60	60	60	100	20	20	20	40
F2	80	60	100	20	60	80	60	80	60	40	40	40
F3	80	80	100	40	80	80	40	100	40	40	40	40
F4	40	80	20	60	40	60	60	40	100	80	100	60
F5	80	80	100	40	60	80	80	100	60	60	60	60
F6	40	40	20	40	20	80	20	60	40	60	40	20

	Score of Each Sample Community											
Indicator Factor	A-1 Guishan- chang	A-2 Chibu	A-3 Tongpu	B-1 Hangai	B-2 Gaoyu	B-3 Xiaoshu	C-1 Jingwan	C-2 Xilong	C-2 Zhangwu	D-1 Baofu	D-2 Shanchuan	D-3 Port
F7	60	40	60	40	40	100	100	100	20	80	80	20
F8	60	40	100	60	60	80	80	100	60	80	100	80
F9	60	80	20	100	20	60	100	60	100	100	100	80
F10	60	40	60	80	60	80	100	80	100	80	100	80
F11	80	80	60	100	60	80	100	100	100	100	100	100
F12	20	40	20	60	20	60	100	80	100	100	100	100
F13	80	40	80	40	60	80	60	100	40	80	80	60
F14	60	40	60	60	40	100	100	80	60	100	100	80
F15	20	20	20	100	40	100	100	100	100	80	80	20
F16	40	40	20	40	40	100	100	100	40	80	80	20
F17	60	40	40	80	20	100	100	100	80	80	80	40
F18	60	60	60	80	60	80	100	100	100	100	100	100
F19	80	80	100	60	80	100	100	80	60	80	80	40
F20	60	60	60	100	40	100	100	100	100	100	100	100
F21	60	60	60	100	60	100	100	100	100	100	100	100
F22	100	80	100	20	80	100	60	80	20	100	80	40
F23	80	80	80	40	60	100	80	100	40	80	60	20
F24	60	60	80	80	60	100	80	80	60	80	100	60
F25	60	60	80	40	80	100	60	100	60	80	60	40
F26	60	80	60	60	60	80	100	80	100	100	100	100
F27	60	60	20	60	20	60	100	80	100	80	80	60
F28	80	60	40	20	40	60	80	80	80	60	60	40
F29	60	80	40	80	60	100	100	100	100	100	100	80
F30	60	60	60	20	60	100	60	80	60	20	20	40
F31	80	80	80	100	80	100	100	100	100	100	100	100
F32	100	80	80	100	100	100	100	100	100	100	100	80
F33	80	60	80	60	80	100	80	100	80	100	100	80
F34	100	100	100	80	100	100	100	100	100	100	100	80
F35	80	100	80	100	80	100	100	100	100	100	100	80
F36	100	100	100	100	100	100	100	100	80	100	80	80

Table 11. Cont.

5.2. Variance Analysis for Five-Dimensional System of Spatial Governance

The evaluation scores of samples of 12 village and town communities in Anji County are placed into the IELHG five-dimensional system based on types to draw a radar chart. The light blue pentagonal block represents the ideal state of the IELHG system in the spatial governance evaluation system (Figure 4).





Figure 4. Radar chart of ideal scores of IELHG five-dimensional system for spatial governance.

The ideal state of the IELHG system of village and town business communities is calculated and obtained on basis of the maximum value of each criterion in the fivedimensional system of spatial governance evaluation system. It is found from the figure that environmental renovation, life quality, industrial upgrading, and governance of society play a big part in the spatial governance of business communities. Humanistic characteristics are less important than others. The ideal states of the IELHG system of spatial governance of village and town business communities, are compared. The scores of the samples of 12 types are presented as followed (Figures 5 and 6).



**Figure 5.** Radar chart for the analysis on five-dimensional system of IELHG for sample spatial governance.



Figure 6. Distribution map for spatial governance.

It is obviously found from the comparison of the ideal states of the IELHG system for spatial governance of village and town business communities, that the "strengths and weaknesses" of samples of each type are presented as follows:

A—the economic radiation-driven type of central towns in county: the state of three village and town business communities lags much behind the ideal state. Guishanyang Village in the various systems gains higher and more balanced scores compared with Chiwu, Tangpu. Its weakness is not obvious. Governance of society, life quality, and environmental renovation gain higher scores, while their states still lag much behind the ideal state. More attention needs to be paid to the improvement of the governance of each system. Particularly, in the aspect of the industrial upgrading, the traditional, extensive, carbon-consumed economic model needs to be changed. The reasonable layout of ecological industries, such as green biomedicine, high-end equipment manufacturing, is strengthened; in Chiwu Village, various scores are balanced, but not high. The governance operation and maintenance in each system needs to be improved to enhance the comprehensive level; Tangpu Community gains relatively high scores in social governance and life quality.

However, there is obvious weakness in the dimension of humanistic characteristics for this community. So, more attention needs to be paid to the protection and excavation of its own regional characteristics and culture, to strengthen the organic renewal of the old neighborhoods and ancient villages in the region.

B—the comprehensive development of township industry: Xiaoshu Community group scores significantly higher than Gaoyu and Hangai in all systems, and a more balanced development is demonstrated here. Hanggai performs better in governance of society and environmental renovation but has obvious weakness in industry and humanistic characteristics. It indicates that more attention needs to be paid to exploiting Hanggai's own special advantages in terms of its industrial upgrading, thus getting rid of the traditional extensive economic development mode. Meanwhile, efforts should be made in humanistic characteristics to cultivate a new image and temperament of its communities in villages. Gaoyu fails to obtain a high score in all dimensions excluding the governance of society. The overall shape is the shape of a trapezoid. That is because Gaoyu is an "early-developed" village and town community that has completed its environmental improvement and renewal tasks earlier. Its governance momentum in recent years suffered aftereffect inadequacy, but spatial governance should be dynamic throughout the development of village and town communities. Therefore, Gaoyu must again pay attention to the spatial governance of each system, maintain and update it in a timely manner, and realize the sustainable development of communities (of villages and towns) in operation and maintenance. Xiaoshu's spatial governance in each system is remarkable, and no obvious weakness exists mainly due to the local government's vigorous initiatives and favorable policies. In recent years, Xiaoshu has placed emphasis on improving environmental quality and promoting humanistic characteristics in the region, bringing residents a stronger sense of happiness and gain. In addition, it has made a lot of efforts in industrial upgrading, greatly optimizing the business environment and boosting the integration of industry and town. On this basis, it performs better in the spatial governance of village and town communities under the type of overall industrial development in towns.

C—the characteristic-driven agricultural specialized production: business communities of this type in villages and towns score higher in each system compared to that of other types. Xilong and Jingwan perform better, and their strength in the five-dimensional spatial governance system is very significant; Zhangwu performs excellently in humanistic characteristics, and poorly in other aspects. Many efforts need to be made on industrial upgrading for Zhangwu, including full exploration and development of the derivatives of the local traditional bamboo fans and bamboo furniture industry, and expansion of the upstream and downstream industrial chains. It goes beyond the scattered business model of a small family workshop and helps capable enterprises become bigger and stronger in the whole industry of bamboo wares. In addition, more attention should be paid to the protection of local distinctive "Changshuo culture". The prosperity of the cultural tourism industry must be promoted, so as to make the cultural tourism and traditional industries closely connected, thus expanding the effect of the "Zhangwu brand".

D—tourism industry driving type of scenic village: Baofu and Shanchuan in each system score higher than Port, and they rank on the top in all samples. Although Port also has unique ecological landscape resources, its score is not high. The author, based on the results of in-depth local research, found that the tourism industry in Port is intensive but the quality is not high. Homogenization is too serious, causing the unbalanced distribution and waste of resources, specifically in the tourist attractions, B and B, and other aspects. Next, efforts should be made in the industrial upgrading, environmental renovation, and life quality to cultivate a high-quality tourism industry with characteristics, create a warm village and town community environment with humanistic feelings, and make sure "one can travel everywhere, and sceneries can be seen everywhere" in village and town communities.

## 5.3. Classification of Spatial Governance Performance Echelons

Based on the weight coefficients of each evaluation factor, the final comprehensive weighted score of business communities in each village and town is calculated (Table 12). It is found from the overall comparison of the comprehensive scores of spatial governances of a total of 12 village and town business communities of Anji County, that all 12 communities basically score within the segment of 60–90, indicating that most business communities have reached a basic level of spatial governance and are at a relatively mature stage of development.

Table 12. Each factor and composite scores of	comprehensive weig	things of the	e community sample	S.
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Туре	Samples of Villages and Towns	Industrial Upgrading	Environmental Renovation	Life Quality	Humanistic Characteris- tics	Governance of Society	Weighted Composite Score
A—the economic	A-1 Guishanchang	12.404	12.426	15.61	9.318	16.95	66.708
radiation-driven type of	A-2 Chiwu	11.034	10.98	15.142	9.836	15.672	62.664
central towns in county	A-3 Tangpu	13.436	9.886	16.898	5.538	15.784	61.542
B—the comprehensive	B-1 Hangai	8.374	17.994	13.658	7.678	16.276	63.98
development of township	B-2 Gaoyu	9.948	9.584	14.084	6.094	16.95	56.66
industry	B-3 Xiaoshu	15.78	20.882	21.354	10.392	19.37	87.778
C—the characteristic-driven	C-1 Jingwan	12.18	23.43	18.73	13.578	17.962	85.88
agricultural specialized	C-2 Xilong	16.788	21.42	20.63	12.004	19	89.842
production	C-2 Zhangwu	9.746	19.378	14.494	13.578	17.582	74.778
D the tourism in dustry	D-1 Baofu	12.076	21.718	19.606	11.966	17.89	83.256
D—the tourism industry	D-2 Shanchuan	12.39	22.166	17.842	11.966	17.51	81.874
driving type of scenic village	D-3 Port	8.668	15.172	12.894	9.798	15.212	61.744

Meanwhile, based on the rating method of spatial governance performance, the spatial governance performance scores of village and town business communities are divided into four echelons (Figure 7). Xilong, Xiaoshu and Jingwan have the highest spatial governance score close to 90 and are in the first echelon. It is worth mentioning that Xiaoshu and Jingwan are both under the jurisdiction of Meixi Town, and Xilong is adjacent to Meixi region. Baofu and Shanchuan in the second echelon gain a score of over 80, and the gap between the first echelon and the second one is small; Zhangwu and Guishanchang gain a score of over 64. The fourth echelon involves all other remaining village and town communities. The score gap between this echelon and the first three echelons is large, and a steep drop is presented here. From the viewpoint of sub-types, village and town communities under the tourism industry driving type of scenic village, and the characteristic-driven agricultural specialized production see high comprehensive scores. The comprehensive development of township industry and the economic radiation-driven type of central towns in county see slightly lower comprehensive scores. Xiaoshu scores higher and ranks first in the comprehensive development of township industry, and the total score ranks second.

The important reasons for the differences arising from these echelons are mainly analyzed as follows:

(1) Governments of higher levels tend to pay more attention, and favorable policies tend to be issued.

The spatial governance of village and town business communities depends on the autonomy of grassroots village organizations, as well as the support and guidance of governments at the county level and town level. Especially, the town authorities play the role of "baton" to make the "piano music" of governance and management of village and town communities continue to be played. Therefore, favorable policies and attention from the government of higher levels are crucial to their governance and operation. For example, Xiaoshu and Jingwan, in the first echelon, have received policy dividends from the superior Meixi Town, a small city cultivation pilot in Zhejiang Province. A large amount of construction investment funds is brought on the one hand, and high attention from

the superior government is received on the other hand. So, they, directly and indirectly, promote its spatial governance level and set off a boom in its creation. Xilong is the same. Xilong itself has the brand value of "China's first white tea village". It attracts continuous attention from the city-level and county-level governments and governments of a higher level; thus, a distinctive town (white tea town in Anji, China) takes shape, and comprehensive environmental improvement of small towns and other external policy benefits are brought. Internal space governance is naturally improved.



Comprehensive comparative analysis of spatial governance of rural management community

Figure 7. Comprehensive scores of spatial governances of village and town business communities.

(2) The difference in their own development directions and governance model transformations.

It is found from the score that community spatial governance in the villages and towns including Guishanchang, Tangpu, Gaoyu, and Chiwu is not ideal. It is found from the backgrounds of these villages and towns, that they all boast an excellent early development foundation and a complete industrial system, but the "later development" fails to be guaranteed. That is because the old governance model is still adopted, and they take the rough and high-carbon business model as their main development model. Actually, these village and town communities have a good foundation. At this stage, they should embed ecological thinking into the overall spatial governance system and make it run through the whole process of governance. The resource and governance dilemma of the traditional business model is broken through.

(3) Adequacy of the utilization of local advantageous elements and capital introduction.

The strength of advantageous elements should be enlarged as much as possible in spatial governance. The main reason is that they have made full use of their excellent ecological scenic elements, invested in spatial governance mainly for environment creation, implemented fine management, introduced social and industrial capital, and took the initiative to improve service support, creating villages and towns where "you can travel in the whole area and view sceneries everywhere".

### 5.4. Comparison of Community Types of Spatial Governance Performance

The evaluation scores of the 12 village and town communities in Anji County are averaged by type. The score gained is as followed:

It is obviously found from Figure 8 that, the village and town communities under the characteristic-driven agricultural specialized production gain the highest average score, followed by the tourism industry driving type of scenic village and the comprehensive

development of township industry; the economic radiation-driven type of central towns in county ranks last in this aspect. This goes beyond our usual perception that, due to the advantages of location and industrial radiation factors, communities in the center of the county should be at the same or even a higher level of spatial governance compared with communities of other types. It is mainly because the accumulation of industrial capital has been completed earlier in village and town communities under the type of economic radiation of the central town of the county. So, in these communities, a longer time is spent on carrying out spatial governance. Project investment and construction for this type are generally made earlier than that for other types. However, "later development" fails to be realized in spatial governance because of the limitations of traditional economic patterns, and the lack of innovative capacity for industrial upgrading. On the other hand, because village and town communities of this type are basically at the junction of the city and the countryside, the social composition there is very complicated due to the influence of the "transitional area". The phenomena of "illegal and unauthorized construction" and "nail household's refusal to move for higher compensation" hinder the governance. In addition, policy opinions are hard to be implemented; thus, governance performance is affected. Village and town business communities under the type of agricultural and cultural specialization have seen great prosperity due to their own characteristic industrial resource advantages, the strong promotion of agriculture, and rural revitalization by Chinese governments at all levels from all aspects in recent years, as well as the overlapped favorable policies.



## **Community type comparison of spatial governance performance level**

Figure 8. Comparison of community types of spatial governance performance.

5.5. Analysis of Coordination Index for Spatial Governance Performance

Spatial governance is a dynamic process, and the goal of sustainable governance of village and town communities can only be achieved through repeated management and regulation. It can be said that the PSR model reveals the single-loop relationship of economic–environmental–social interactions in the spatial governance of village and town communities within a certain period of time. The PSR model coordination index

Table 13. PSR model coordination index for spatial governance of village and town business communities. Village and Pressure Response Туре State System Coordination(C) Town Sample System System A-1 Guishanchang 14.922 17.522 34.264 1.616 A-the economic radiation-driven type of A-2 Chibu 13.872 17.642 31.15 1.632 central towns in county A-3 Tangpu 15.132 15.764 30.646 1.635 B-1 Hangai 12.944 20.092 30.944 1.636 B-the comprehensive development of 12.98 15.734 27.946 1.638 B-2 Gaoyu township industry B-3 Xiaoshu 19.222 21.906 48.651.566 23.516 45.048 1.600 C-1 Jingwan 17.316 C-the characteristic-driven agricultural C-2 Xilong 18.16 23.062 48.62 1.582specialized production C-2 Zhangwu 15.292 23.75 35.736 1.642 14.358 1.575 D-1 Baofu 24.128 44.77 D-the tourism industry driving type of D-2 Shanchuan 14.806 24.63 42.438 1.597 scenic village D-3 Port 13.42 22.02 26.304 1.676

Figures 9 and 10.

for the spatial governance of village and town business communities is in Table 13 and

## Score line chart of PSR systems under sample space governance



#### Figure 9. Line chart of PSR coordination for sample space governance.



Scatter diagram of PSR coordination degree of sample space governance

Figure 10. Scatter diagram of PSR coordination for sample spatial governance.

It is found from the analysis of the coordination that the problems are identified in each link of spatial governance of village and town communities. Corresponding regulatory solutions are proposed, and practice is put into spatial governance to gradually achieve the goal of sustainable development. Generally speaking, the higher the coordination is, the more balanced the development of the three systems will be. It is found from the coordination index in Figure 9 that, the coordination gap of the 12 samples is not big, and the indexes of all are between 1.55 and 1.7, indicating that the pressure-state-response systems of spatial governance of all samples are very good. Port, Zhangwu, and Gaoyu boast the highest coordination, while Xiaoshu, Xilong, and Baofu rank lower in this aspect. That is because investment and construction density in these three village and town communities in recent years saw a significant rise, and a wave of construction work followed, making the function of the response system much better than that of the pressure system and state system in spatial governance. Therefore, new requirements are put forward for the spatial governance of these village and town communities. They had obvious advantages in "late-development" and witnessed a high level of comprehensive spatial governance in recent years. However, attention should be paid to reasonable control of the investment and construction amount, classification-based and step-by-step progress, and "the drawing of the blueprint in the whole process". Excessive supply is forbidden because it will result in a waste of resources. The level of response and that of pressure and state should be kept in balance in spatial governance, to achieve sustainable development of coordination between the various systems of spatial governance.

#### 5.6. Goal Setting in Spatial Governance Based on Performance Indexes

In the article, the methods and conclusions in the established studies on spatial governance in China and European countries are compared with that in this study. In the article [45], an empirical study of 60 villages in China is conducted based on the performance of rural cultural governance, with the conclusion as followed: in the subsequent cultural governance, much attention should be paid to the reconstruction of public space, and the construction of public culture for public life. Practical efforts must be made to improve the quality of people's lives; the class gaps must be eliminated to achieve social harmony; the production, living, and interaction in public cultural services must be promoted. In the article [46], the performance of environmental management in 21 administrative villages in Niudian Town, Henan Province, is evaluated based on the performance of environmental management in rural China. Seventeen indicators are selected, and the weights of the environmental indicators of Niudian Town are obtained through a questionnaire survey. The comprehensive score is obtained via the use of the analytic hierarchy process. Suggestions are made for rural environmental renovation. In the article [47], based on "effective governance", the evaluation indexes of village governance in Jinjiang City, Fujian Province are designed. Then, with 54 sample villages in Jinjiang City as the research objects, the effectiveness of village governance in Jinjiang City is analyzed empirically via the use of factor analysis. The results show that the top-ranked villages (communities) witness outstanding governance effectiveness and are significantly different from those in backward areas. A "long-tail effect" appears in the score and the "Cannikin's law" can be seen in the score of the sub-factors. On this basis, the comprehensive scores of towns (blocks) and villages (communities) in Jinjiang City, are further compared and analyzed to explore the causes of their scores, and then the corresponding optimization paths are proposed.

In the article [45], the evaluation indexes are only used to measure the impact of rural public culture construction on rural governance. In the article [46], the evaluation indexes are only used to measure the impact of environmental governance performance on rural governance. In the article [47], the evaluation indexes are selected based on the government's governance assessment performance. These three articles provide some references, respectively, for rural public culture construction, environmental governance, and governance assessment performance of different types. However, the selection of their evaluation indexes is relatively one-sided. Since the research results based on these single indexes are incomplete, there is great room for improvement in the correspondingly established evaluation systems and practical guidance strategies. The evaluation index system established in this study from the five dimensions of industrial upgrading, envi-

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ronmental renovation, life quality, humanistic characteristics, and governance of society, is more comprehensive in direction compared with such system in the above three articles. Thus, the quantitative evaluation system is proposed for rural governance from a more integrated perspective.

According to the article [48], in terms of the European countries, the urban environmental governance model in the Netherlands has shifted over time. Environmental governance is shifted from the national decision-making level down to lower levels, from indirect democracy to direct democracy. More stakeholders are introduced to participate in interactive decision-making, and this direct to the grassroots governance model can effectively improve the environment. According to the article [49], the collaboration-based participation approach has become increasingly popular in recent years in ecosystem management and government departments. Compared with the evaluation in this article, the evaluations in articles [48,49] only focus on urban environmental governance but provide implications for community spatial performance evaluation. According to the articles [50,51], after exploratory and developmental periods, the community governance model of British towns and cities that reach maturity will revive citizens' confidence in participation and promote the revitalization of villages, towns, and communities, as well as drive the development of civil society. In the study, governance performance indexes include the strength of multiple parties involved in community governance, the breadth and depth of community residents' participation in community affairs, and the improvement of social and economic benefits of town and city communities. In contrast, the spatial governance of village and town business communities in China is still at a stage featured by government-led management, shared social governance, and self-governance of grassroots village communities. Differences exist between the spatial governance of village and town business communities in China and that in other parts of the world due to different national realities.

In the article [51], the environmental governance performance of Jiangsu province, China, is regarded as the study object. A pressure–state–response model is used to construct an assessment framework. Here, the principal component analysis is adopted to evaluate environmental governance performance. The spatial variation of environmental governance performance is analyzed based on the Moran Index (MI). The research method of the article [51] is similar to that of this article, while the study in the article [51] focuses on the urban mesoscale, while this article focuses on the rural microscale.

Based on the connotation of sustainable spatial governance and the performance requirements of each system, the construction objectives are derived and evolve to form various construction objectives such as open governance, harmonious governance, service-oriented governance, efficient governance, and intelligent governance. All sub-goals influence each other and village and town business communities should be guided according to their spatial governance level and local conditions. Specifically, the following conclusions are drawn:

Economic radiation-driven type of central towns in the county: through the analysis of the above study, village and town business communities of this type are generally "developed in an early period". They boast a good foundation but suffer a low level of current spatial governance. In terms of the village and town communities of this type, much attention should be paid to efficiency-based governance and service-oriented governance, so as to improve the comprehensive ability to coordinate multiple platforms' governance, optimize the performance appraisal mechanism of existing government governance, and regain efficiency. Meanwhile, the existing services are well provided, and good long-term services and emergency protections are provided for residents and enterprises.

Comprehensive development of township industry: most village and town business communities of this type rely on the traditional economic development model but lack humanistic characteristics and suffer a low level of spatial governance. In terms of village and town communities of this type, much attention should be paid to effective governance, open governance, and harmonious governance. Gradual efforts need to be made based on local economic development. Ecological economic development must be pursued based on realities; the valuable resources need to be fully identified; a sound, open and shared governance mechanism must be established; local humanistic characteristics need to be established; at the same time, the relationship between the near-term goals and long-term ones must be clarified; the relationship between the current environmental renovation and the future one must be clarified; the planning and governance need(s) to be unified, and corresponding measures need to be implemented step by step, especially for the village and town business communities that have been developing faster in recent years. More attention should be paid to the difference between the content needing short-term remediation and needing long-term adherence, so as to achieve sustainable development of a healthy regional spatial governance.

Characteristic-driven agricultural specialized production and the tourism industry drive the type of scenic village: according to the above research analysis, village and town business communities of these two types generally have a high level of spatial governance. Attention should be paid to open governance, harmonious governance, service-oriented governance, and intelligent governance. On the one hand, attention should be paid to the connection with the government of higher level to achieve cross-system open information sharing and gain more policy dividends; on the other hand, the hardware facilities and software services need to be optimized, so as to perform well in serving the scenic spots of the local enterprises, thus enhancing the local attractiveness and promoting local economic development, cultural inheritance, and prosperity. Additionally, intelligent digital aids to governance decision-making are fully introduced, such as the construction of "digital factories", "digital farms", "digital scenic areas", so as to make sure that the spatial governance is developed both internally and externally.

## 6. Conclusions and Implications

## 6.1. Conclusions

In this article, the connotations of key concepts such as sustainable development, village and town business communities, and spatial governance performance assessment are defined from the perspective of spatial governance performance of village and town business communities, based on government behavior theory and performance management theory. Here, an evaluation index system for sustainable spatial governance and an assessment model is established for village and town business communities. With 12 village and town business communities in Anji County, Zhejiang Province as examples, the comprehensive performance, classification performance, IELHG five-dimensional system (industrial upgrading, environmental renovation, life quality, humanistic characteristics, and governance of society) and PSR coordination index are evaluated as well as analyzed in depth. On basis of the analysis results, the guidelines for spatial governance practice of village and town business communities are proposed. The findings of this article can be summarized as followed:

(1) A theoretical background is provided for the spatial governance of village and town business communities via the definition of the concepts of sustainability theory, village and town business communities, and spatial governance performance, as well as sorting-out of governmental behavior theory and performance management theory. Further, the development forms and characteristics are classified based on the industrial and economic radiation drive of the inner and outer edge, and four major types are formed: the economic radiation-driven type of central towns in the county, the characteristic-driven agricultural specialized production, the comprehensive development of township industry, and the tourism industry driving type of scenic village. Finally, based on the above theories, the basic concepts, which are involved in the spatial governance performance assessment of village and town business communities, are defined. The essence, objectives, and characteristics of spatial governance of village and town business communities are proposed, and the meaning of performance assessment in this study is elaborated. A preliminary theoretical

construction is realized for spatial governance performance assessment of village and town business communities.

- (2) The PSR pressure-state-response model is adopted, based on the objectives of "five beauties" (industrial beauty, ecological beauty, cultural beauty, life beauty, and innovative beauty) in "Construction of Guidelines for Beautiful Towns" to form the IELHG-PSR diamond model of spatial governance, and an assessment index system on the basis of five dimensions: industrial upgrading, environmental renovation, life quality, humanistic characteristics, and governance of society. The Delphi method is used to delete the indexes, and the system finally covers five primary indexes, fourteen secondary indexes, and thirty-six tertiary indexes; the analytic hierarchy process and YAAHP10.1 software are used to test the established index system for consistency and to determine the weights.
- (3) The constructed sustainable spatial governance performance evaluation system is applied to village and town business communities. Samples of 12 village and town business communities in Anji County are selected. Field research, expert consultation, questionnaire survey, and multiple comparisons are conducted, and the evaluation indexes are finally determined to be measured by a unified and balanced assignment method. Each index is divided into five levels I, II, III, IV, and V according to different criteria. Each level is assigned with 100, 80, 60, 40, and 20 points for index quantification. The results show that Xilong, Xiaoshu, and Jingwan gain the highest comprehensive scores in spatial governance in the first echelon, while Baofu and Shanchuan are in the second echelon; Zhangwu and Guishanchang are in the third echelon, and all other remaining villages and towns are in the fourth echelon. In terms of subtypes, the comprehensive scores for the tourism industry driving type of scenic village and the characteristic-driven agricultural specialized production are generally high, while that for the comprehensive development of township industry and the economic radiation-driven type of central towns in the county are slightly lower. The IELHG-PSR model is used to draw radar charts to evaluate the scores of the five-dimensional systems of the 12 village and town business communities and the strengths and weaknesses of spatial governance of each village and town community. The coordination function is used to evaluate the development relationship among the PSR subsystems of the 12 sample communities. It is found that Port, Zhangwu, and Gaoyu boast the highest coordination, while Xiaoshu, Xilong, and Baofu have lower coordination. It is proposed that in the spatial governance of village and town business communities, attention should be paid to the reasonable control of investment and construction volume, precise classification, step-by-step promotion, and avoidance of blind investment; the response level of spatial governance should be slowly kept in line with the pressure and state levels to guarantee their balanced development, and meet the new requirements of sustainable development for the coordination status of spatial governance systems.

#### 6.2. Contributions

(1) Theoretical contributions

Spatial governance is the new issue and hotspot in the current social study. Although some scholars have put forward relevant concepts and conducted preliminary exploration on the sustainable development of spatial governance in village and town communities [43,44], the construction of an evaluation index system and the assessment of spatial governance performance are rarely studied and explored. Relevant theoretical support and guidance are needed for the sustainable development of spatial governance in village and town communities. A relevant evaluation index system needs to be established to measure it, and the guidance of relevant dimensions is given. In our article, the concept of sustainable spatial governance is clarified, and the concept of spatial governance for village and town business communities and the necessity of implementing sustainable spatial governance in China, are proposed. An evaluation index system of spatial governance ernance of village and town business communities is established based on the literature collation, expert interviews, questionnaire research, and statistical analysis. In addition, the development evaluation is conducted based on the practice of each sample in Anji County, in an attempt to provide theoretical relevant references in the theory of sustainable spatial governance.

(2) Practical implications

A relatively objective evaluation index system of spatial governance for village and town business communities is established to obtain relevant system indexes and comprehensive performance scores. Thus, scenario analysis of the spatial governance performance of village and town business communities can be conducted, providing the government with relevant policy references and decision-making basis, and ensuring the "precise implementation" of spatial governance measures. The big data-based and graph-based analysis and comparison are used to propose strategic guidelines for sustainable spatial governance of village and town business communities in terms of development goals, implementation paths, and guarantee mechanisms, thus avoiding standardized and one-size-fits-all governance evaluation and management guidelines. On the one hand, everyone can play a part in spatial governance; all can share the governance result, and all elements of governance can be gathered. On the other hand, the governance must be conducted based on realities, and attention must be paid to the practical results. A one-size-fits-all governance does not work, and "targeted" governance based on realities works well.

#### 6.3. Limitations and Future Research

- (1) The contents and objects of spatial governance of village and town business communities are complicated, and there are many relevant policy documents issued at the national, provincial, and municipal levels. The research on this issue involves different disciplines such as political science, sociology, management, and human geography. In the article, general theoretical analyses and abstract generalizations are made mainly from the disciplinary perspectives of architecture and planning, but there is a lack of microscopic and detailed explanations of specific governmental decision-making and administrative implementation. So, it is difficult to present how the government prevents and resolves the risks and crises occurring in urbanization in spatial governance and to resolve the contradictions and conflicts among multiple spatial interest groups in spatial governance. Here, the analysis of the governance revolution of village and town business communities is just made roughly.
- (2) The spatial governance of village and town business communities represents a specific practical process, and the governance methods and changes in spatial forms will all be different in different cities. In the study, the analysis is made based on the empirical data from field interviews and 12 typical cases about the spatial governance of village and town business communities in Anji County. The samples are not sufficiently selected and there is a certain subjectivity, so there are differences in the applicability of the strategic guidelines, and these differences need to be solved according to the local realities.
- (3) There is a lack of studies based on individual buildings. Because this study belongs to a cross-disciplinary scope, theoretical knowledge of architecture and management is used to analyze village and town business communities and community groups as the main research objects. The plane spatial locations are set in terms of the spatial governance input density, and supplements and improvements can be made in subsequent studies from the perspective of GEP (gross ecosystem product) and green buildings.

The implications of sustainable spatial governance can be understood and placed at the intersection of specific historical conditions and contemporary meaning. At present, the spatial governance of village and town business communities in China is still at the stage featured by government-led management, social governance, and autonomy of grassroots village communities. The construction of a spatial governance community should be accelerated. Additionally, sustainable spatial governance is a whole life cycle management process, so the government must obtain relevant information from multiple dimensions and levels, provide support for governance and services, as well as record, retrace, inquire into, and analyze the status and attributes of each "life link" in spatial governance. As the reform is advanced further, the innovation in socio-spatial governance has undergone great difficulties, and more and more problems and barriers will emerge. It is increasingly difficult to promote reform. At this time, in terms of government spatial governance, sustainable development needs to be achieved in a systematic manner.

**Author Contributions:** In this paper, K.Z. performed the experiment, including conceptualization, calculation, and data visualization. X.Z. and Z.L. reviewed it. Y.Z. and K.Z. refined the diagram, H.S. wrote and edited it. All authors (X.Z., K.Z., Z.L., Y.Z., H.S.) organized the paper structure. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research was funded by the National Natural Science Fund of China (grant No. 51878613), the Humanities and Social Science Project of the Chinese Ministry of Education (grant No. 17YJAZH136), the Fundamental Research Funds for the Provincial Universities of Zhejiang (grant No. GB201901003).

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Acknowledgments: The author gratefully acknowledges the editors and referees for their positive and constructive comments in the review process.

**Conflicts of Interest:** The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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