

## **The Impact of Network Structure Elements on the Building of Service-Oriented Government in China from the Perspective of Network Governance**

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### **Abstract**

*Building a service-oriented government to the satisfaction of the people is a basic goal and direction of the development of the Chinese government. In the current era, it has become a consensus for the government and non-governmental organizations to jointly govern public affairs. Network governance focuses on the realization and promotion of public interests as the core value, and pays attention to coordinating the complex interaction of diversified actors. It advocates sharing power in the cooperative network and jointly dealing with all kinds of problems. Compared with the traditional management system, network governance can coordinate and manage cross-border cooperation networks among governments at all levels and departments more effectively. The purpose of this study is to explore the impact of network governance on the building of service-oriented government in China. Through a questionnaire survey of 408 civil servants, this study analyzes the relationship between the network structure elements and the government service effect. The results show that the cooperation network with high stability and high intensity is positively related to the improvement of government service effect. In addition, the government concept and the network cooperation ability are also closely related to the government service effect. These findings show the important influence of network governance in the process of building a service-oriented government, and put forward the relevant measures for the building of service-oriented government.*

**Keywords:** *Network Structure Elements, Service-Oriented Government, Network Governance.*

### **1 INTRODUCTION**

Network governance refers to the establishment of horizontal lines of action through various partnerships, in addition to the traditional top-down hierarchical power lines in government governance (Goldsmith & Eggers, 2005). This helps the government improve performance and enhance accountability. Network governance emphasizes the process of achieving governance goals through cooperation among government, businesses, social organizations, and citizens, based on democratic consultation and sharing of resources and information.

A service-oriented government is a government model that emphasizes public services, responsiveness to public demands, and the provision of efficient services. It focuses on citizen-centricity and is committed to providing services that meet the needs of the public,

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promoting social development, and improving people's livelihoods (Chen & Wang, 2018). A perfect service-oriented government emphasizes government responsibility, efficiency, and innovation, advocating for interaction and collaboration between the government and the public to improve the level of government services and satisfaction.

Integrate the service concept into the process of government construction in China is an important measure in advancing modern governance, improving the level of public services, and meeting the needs of the people. In recent years, the Chinese government has formulated a series of policy documents and reform measures to promote the building of a service-oriented government. For example, the "Guiding Opinions of the General Office of the State Council on Deepening the Reform of 'Delegating Power, Streamlining Administration, and Optimizing Services' to Improve the Business Environment" issued in 2018, clarifies the goals and tasks of promoting the building of a service-oriented government (Gong & Wu, 2022).

In terms of service innovation and convenience measures, China has promoted digital transformation and utilized information technology innovation to provide more convenient and efficient public services. For example, the implementation of e-government, online services, mobile payment, etc., has made it more convenient for people to handle various government affairs. In terms of improving service quality, there has been enhanced supervision and evaluation of the quality of public services, along with measures to improve the level of government services. The establishment of complaint channels, strengthened supervision of service attitude, efficiency, and effectiveness, and efforts to provide a better service experience by government departments (Li & Zhang, 2021). To further improve the construction of a service-oriented government, leveraging network governance, especially cooperation network, to comprehensively enhance the performance of public services has become an essential path for government reform.

Network governance and the construction of a service-oriented government are interrelated. Network governance emphasizes multi-stakeholder participation and cooperation decision-making, while a service-oriented government focuses on public participation and the provision of efficient services. Network governance provides a way for a service-oriented government to achieve its goals, through network technologies and cooperation platforms to provide broader and more convenient public services (He & Chen, 2021). At the same time, perfecting the construction of government system provides a path for implementing network governance, by establishing service-oriented government institutions and systems, promoting multi-stakeholder participation and public involvement, and enhancing the effectiveness of network governance and public satisfaction.

Network governance and the construction of a service-oriented government also face challenges and opportunities. Network governance needs to address issues such as data security, privacy protection, and the digital divide, while the establishment of a new government mechanism needs to overcome challenges in government capacity and institutional transformation (Leach, 2022). However, network governance provides an opportunity for a service-oriented government to integrate resources and improve service efficiency, while the construction of a service-oriented government can enhance public participation and governance effectiveness in network governance.

## 2 LITERATURE REVIEW

In network governance, the stability of cooperation network is closely related to the lasting operation of the service-oriented government.. The various participants connected through cooperation mechanisms play crucial roles in network governance, and the stability of cooperation network is essential for effective governance and sustained

cooperation. If there is instability in the cooperation network, such as the absence of basic conditions for forming cooperation network, communication barriers among stakeholders, or fractures in cooperative relationships, it will severely affect the effectiveness and outcomes of network governance. The service-oriented government plays a key role in promoting and maintaining the stability of cooperation network (Wang, 2021). It not only provides infrastructure and technical support but also coordinates the interests and expectations of various participants, facilitates information sharing and collaboration to ensure the smooth operation of network governance.

The stability of cooperation network is influenced by multiple factors, and one important factor is the involvement and support of the government. The government can encourage collaboration and joint efforts among participants by establishing sound legal and policy frameworks, providing technological and resource support to enhance the stability of cooperation network (Ansel & Gash, 2018). Additionally, the government should pay attention to issues such as incentive mechanisms, public information security, and protection of citizens' privacy within the cooperation network to promote their sustainable development.

Network governance requires the government to transform from traditional top-down hierarchical structures to become partners and service providers. The government needs to collaborate closely with different stakeholders, including businesses, social organizations, and citizens, to jointly formulate policies, address issues, and provide innovative services and solutions (Li & Liu, 2021). This transformation helps build trust and cooperative relationships, promoting the stability and development of cooperation network.

The stability of cooperation network and the service-oriented government are interdependent in network governance. The government, through providing support, coordinating collaboration, and establishing relevant assurance mechanisms, promotes the stability of cooperation network (Wang & Liu, 2020). In turn, the stability of cooperation network provides a favorable operational environment for the government to fulfill its responsibilities and deliver effective services to citizens and social organizations.

In network governance, the intensity of cooperation network is closely related to the efficiency of government operation. The government needs to actively participate in and establish cooperation network, engaging in communication and cooperation with various partners (Klijn & Koppenjan, 2016). By continuously enhancing the frequency and depth of cooperation within the network, the government can better share resources, knowledge, and information with all parties involved, forming a collective force to address increasingly complex public service issues.

Increasing the intensity of cooperation network can facilitate information sharing, coordinated action, and resource integration. Through frequent use of cooperation network, the government can better understand public needs, respond to societal issues, and collaborate with stakeholders to address complex governance challenges (Liu & Wang, 2020). A service-oriented government advocates for public participation and cooperation by establishing open decision-making mechanisms and participation platforms that involve the public in processes such as policy formulation, project implementation, and monitoring and evaluation. The intensity of the cooperation network is closely linked to the level of public participation (Li & Wang, 2021). When the cooperation network is more closely connected and stable, opportunities for public participation and influence increase, thereby enhancing the government's own democracy and sense of responsibility.

Furthermore, the intensity of the cooperation network has significant implications for the performance and innovation capabilities of a service-oriented government. Close cooperation network can facilitate information exchange and sharing of experiences among stakeholders, stimulating innovative thinking and the ability to cooperate in

problem-solving. By jointly exploring innovative solutions with cooperation partners, the government can improve the effectiveness and quality of public services to meet the changing and complex social needs. A high-intensity cooperation network also helps enhance the comprehensive governance effectiveness and sustainable development capacity of governments at all levels. The cooperation network strengthens the government's cooperation and coordination with other stakeholders, improving decision-making and implementation efficiency, and advancing governance objectives (Chen & Zhang, 2022). By establishing high-intensity cooperation networks, a service-oriented government can build long-term partnerships that provide support and drive sustainable development.

### 3 METHODOLOGY

This study adopts quantitative research methods to carry out the relevant research. A fully structured questionnaire, which contains several five-level Likert scale questions expressing independent and dependent variables, It is the key path to collect research data. The study population selected local government civil servants with certain representative regions in China, aged between 18 and 60 years old. Because of the large number of local government civil servants in China and their wide distribution, judgment sampling is adopted for non-probabilistic sampling. According to the sampling table, it is suggested that the sample size should reach 400, and the actual sample size is 408. The study used a statistical program IBM SPSS Statistics (27.0) and IBM SPSS Amos (26.0), which include relevant statistical tests used to determine the quality of research data and verify hypotheses.

### 4 MEASUREMENT

#### 4.1 Profile Respondents

The independent variable " Network Structure Elements" consists of six items. The survey results of the respondents were relatively balanced.

Table 1 Descriptive statistics of research variables

Item	Responses (%)					S.D.	Mean	Outcome
	VL	L	M	H	VH			
1. Compared with other departments, the department has been working with partners for a longer time.	5	3.7	38.5	48.5	8.8	.719	3.62	Moderate
2. Compared with other departments, the department has a lower turnover frequency with partners.	2	4.7	39.9	45.6	7.8	.704	3.58	Moderate
3. Compared with other departments, the relationship between the department and its partners is stronger.	3	4.9	42.1	42.4	7.6	.721	3.53	Moderate
4. Compared with other departments, the department has more frequent contact with other government departments.	2	10	39.5	41.9	8.3	.796	3.48	Moderate
5. Compared with other departments, the department has more frequent contact with enterprises.	2	7.6	44.1	38.7	9.3	.777	3.49	Moderate
6. Compared with other departments, the department has	2	7.1	40.7	40.9	11	.791	3.55	Moderate

more frequent contact with social organizations.								
<b>Network Structure Elements</b>	2.67	6.33	40.8	43	8.8	.751	3.54	Moderate
1. Government departments achieve higher efficiency by working with partners.	2	4.7	37.5	46.1	11.5	.755	3.64	Moderate
2. Government departments have achieved management and service innovation through cooperation with partners.	2	5.4	34.1	53.4	6.9	.706	3.61	Moderate
3. The public goals of the department can be achieved through cooperation.	1.5	6.1	34.5	46.3	11.5	.780	3.62	Moderate
4. The community recognizes and encourages the government to implement active partnerships with other departments.	2	6.1	34.6	47.8	11.3	.772	3.64	Moderate
5. The current situation of social governance has been effectively improved.	1.3	4.2	35.8	48.8	10	.728	3.67	Moderate
<b>Service Effect</b>	1.76	5.3	35.3	48.48	10.24	.748	3.64	Moderate

The arithmetic mean of the independent variable is 3.54 and the standard deviation is 0.751. This means that the level of strength and stability of the network structure are moderate, with approval from 51.9% of the respondents and an interval confidence of  $0.751 \pm 3.54$ . The dependent variable "Service Effect" consists of five items. In Table 1, the arithmetic mean is 3.64, and the standard deviation is 0.748, meaning that the service effect of cooperation between the government and other subjects is moderate, with the approval of 58.72% of the respondents.

As can be seen from the above table, the arithmetic mean of the related independent variables is 3.54 (S.D. is 0.751). This shows that the level of strength and stability of the network structure is medium, about 51.9% of the respondents agree, and the interval confidence is  $0.751 \pm 3.54$ . The dependent variable "service effect" consists of five items, with an arithmetic average of 3.64 (S.D. is 0.748), which to a certain extent reflects the moderate service effect of cooperation between the government and other subjects, which is recognized by about 58.72% of the respondents.

#### 4.2 Reliability and Validity

Cronbach's Alpha is mainly used to measure the internal consistency between scale items, and its acceptable range is between 0.7 and 0.95 (Hair et al., 2014). According to the data in Table 2, the Cronbach's Alpha value is within an acceptable range, so there is reasonable internal consistency between the items and constructs to be measured. The AVE value is used to consider the amount of differences that can be explained in structural elements or potential variables. (Henseler, Ringle, & Sarstedt, 2015). Its value is generally not less than 0.5, if it is greater than 0.7, it indicates that it has good applicability.

Table 2 Results of exploratory factor analysis (EFA).

Construct	Item	Factor Loading	Cronbach's Alpha	AVE
Network Structure Elements	N1	0.75	.882	.689
	N2	0.83		
	N3	0.85		
	N4	0.84		
	N5	0.82		
	N6	0.85		
Service Effect	S1	0.71	.844	.621

	S2	0.73		
	S3	0.74		
	S4	0.86		
	S5	0.84		

As can be seen from Table 2, the AVE values of all variables in the construction are greater than 0.5, which meets the basic conditions of the study. According to the general law of cross-loading, a particular project should have a higher load on its own parent structure than other structures in the study. If a project is loaded well into another structure compared to its own parent structure, then there is a problem of discriminant validity. The difference of loading less than 0.10 also indicates that the project is cross-loaded into another structure, which is likely to indicate poor discriminant validity. It is generally believed that the correlation value needs to be greater than 0.7. According to the data in Table 2, all the test values in this study are greater than 0.7, indicating that the relevant results can effectively distinguish different categories.

### 5 HYPOTHESIS TESTING

H0: The network structure elements have a significant impact on the effect of cooperative services.

Path analysis is mainly used to analyze the linear relationship between multiple independent variables and dependent variables, which is mainly explained by standardized beta and t-statistics (Coffman & MacCallum, 2005). The P value less than 0.05 means that the results are statistically significant. Thus, it indicates a directional relationship between the two variables in the assumed relationship.

The path coefficient reflects the direct influence of network structure element variables on the effect of collaborative services, and explains the relationship path between them. From the data in Table 3, the p value of the correlation is less than 0.05 (0.00), indicating that the related variables have a certain causal relationship. Empirically, there is a correlation between network structure elements and service effect (beta = 0.130, p-value = 0.00).

Table 3. Direct effects of the first hypothesis.

H	Relationship	Std. Beta	Std. Error	T Value	P Value	Decision
H0	Network Structure Elements → Service Effect	.130	.027	15.270	0.00	Support a positive relationship

According to the model summary Table 4, the R Square value is 0.365 reflect the percentage of variation which is explained by the regression line. This means that 36.5% of the variance in service effect is explained by network structure elements. According to the regression weights calculated by AMOS the relationship between network structure elements (NSE) and service effect (SE) is significant and when NSE goes up by 1 SE goes up by 0.588.

Table 4 Model summary: NSE to SE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.604 <sup>a</sup>	.365	.362	.42896	.365	116.434	2	405	.000	1.905

a. Predictors: (Constant), Network Structure Elements

b. Dependent Variable: Service Effect

## 6 DISCUSSION

The results show that improving the strength and stability of the cooperation network between the government and other subjects will help to improve the public service supply network and enhance the service effect. Under the background of emphasizing the construction of service-oriented government and the performance of government functions, it is necessary for the government to realize the public interest in accordance with the wishes of the public (Chen & Zhang, 2022). The government should change from "self-centered" management-oriented thinking to "social public-centered" service. In the public service cooperation network, because there are different stakeholders, when coordinating the goals and interests of different participants, it is necessary to build a mutual enhancement mechanism that can meet the needs of different subjects, alleviate the conflict of interest in the cooperation network, and ensure the smooth realization of public interests. In addition, when the government solves all kinds of public service problems, the specific operational measures and methods should meet the basic requirements of public interests, and rely on the diversified cooperation advocated by network governance to achieve the effect of mutual promotion between the operation process and objectives, and ensure that service projects that meet the needs of the public can be implemented effectively and responsibly through collective efforts and cooperation (Liu & Yang, 2020).

As far as the actual situation is concerned, the problem of insufficient supply of public services and public goods in China is still more prominent. The government occupies more public resources and social resources, but fails to provide public services with higher efficiency and better results (Fang & Zhang, 2022). Adjusting the supply form of China's public services with the help of diversified actors will become the main means in the process of building a service-oriented government. In the process of perfecting the structural elements of the cooperation network, we should ensure that a reliable cooperation mechanism is established among the cooperation subjects, and on this basis, the competition mechanism should be continuously strengthened, and competition should be carried out on the basis of mutual trust (Qin & Wang, 2020). The competition within the cooperation should not lose the mutual trust between the cooperation subjects, and all parties should fully demonstrate their strengths, resources and shortcomings, and be widely recognized in the cooperation network. Carry out competitive activities on the premise of better achieving the common goal, allow and encourage reasonable competition among different subjects, encourage internal competition in the cooperative network with appropriate incentive measures, and promote the continuous improvement of the strength and stability of the cooperative network, so as to reduce the risk of the cooperative network and ensure the efficient implementation of decisions in the cooperative network.

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