



Based on Qualitative Comparative Analysis of Influencing Factors of the Performance of Provincial Government Service Platforms

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Abstract. Using the qualitative comparative analysis method, six condition variables were selected from the internal and external dimensions of the government to study the influencing factors of the performance of China's provincial government service platform. The study shows that policy support is a key factor affecting the performance of provincial government service platforms, and the conclusion suggests that local governments should do a good job in service roles, establish a government management operation model that matches the construction of the platform, and optimize the cooperation mechanism between the government and technology suppliers by starting from the needs of users.

Keywords: Qualitative Comparative Analysis · Government Service Platform Performance · Influencing Factors · Provincial Government

1 Introduction

The emergence of the term “government service platform” originated from the “Internet + government service” reform that the country advanced in-depth in 2015, and in November 2019 the national integrated online government service platform went online for trial operation. This article discusses the influencing factors of the performance of the provincial government service platform, and uses qualitative comparative analysis to put forward the improvement of the performance of my country provincial government service platform to provide references.

2 Literature Review

In recent years, many scholars at home and abroad have conducted research on the performance of government service platforms, which are mainly divided into two types of government internal influencing factors and external influencing factors. Based on the 2010–2020 China Knowledge Network (CNKI) database, the relevant literature on the performance of government service platforms has been found that the overall research on the performance of domestic and foreign government service platforms has shown an

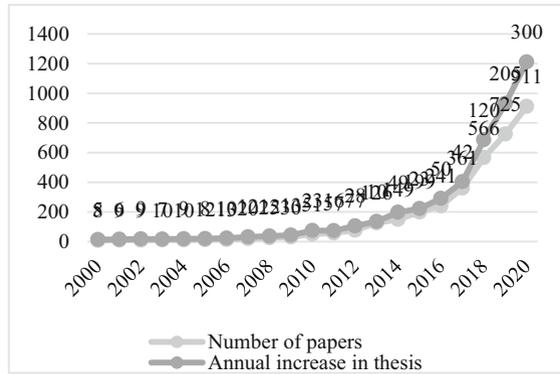


Fig. 1. Trends in the number of research publications on government service platforms (2000–2020)

upward trend year by year. Literature search data shows that the research on government service platforms at home and abroad is in its infancy from 2000 to 2009. Since 2010, the number of documents targeting the performance of government service platforms has risen rapidly. The average growth rate from 2010 to 2020 is 50.37%, showing a rapid upward trend (see Fig. 1).

3 Materials and Methods

Qualitative comparative analysis aims to study the complex causal relationship between multiple causes (variables) and a specific result, and seek a combination of conditions that lead to a specific result, especially suitable for studies with a sample size of 10–60 [3]. In terms of analysis technology, three more mature technologies have been developed: clear set analysis, fuzzy set analysis and multiple set value analysis. In recent years, the qualitative comparative analysis of fuzzy sets has been widely used in the research of comparative politics [1]. This research applies the qualitative comparative analysis of fuzzy sets.

Use the corresponding qualitative analysis software (such as fs/QCA3.0 developed by Larkin) to obtain the truth table of the corresponding result variables, condition variables and case information through the analysis of the data. After evaluation and calibration, it is found that the necessary conditions that affect the results or the combination of relevant satisfying conditions are found, and finally a summary report is obtained.

This study chooses qualitative comparative analysis method for research mainly for the following two reasons: First, the number of openings of all provincial-level authoritative government service platforms in my country is only 31, and the sample size meets the requirements of qualitative comparative analysis. Second, the construction of the provincial government service platform involves many factors, including the performance requirements of relevant government departments and the participation of third-party technology platforms. It is a data effect ultimately caused by a multivariate factor. Therefore, the result of qualitative comparative analysis will be more distinct.

3.1 Case Selection

This paper selects 31 provincial government service platforms in mainland my country as sample cases (as shown in Table 1). First of all, from the perspective of the number of case samples, the 31 provincial government service platform samples are within the sample number range required by fs/QCA, so the fs/QCA analysis is more appropriate.

Secondly, judging from the development of the case samples since the present, an integrated government service construction with the national government service platform as the main hub and various provincial government service platforms has been

Table 1. Basic facts of the study case

serial number	Case name	Performance effectiveness	serial number	Case name	Performance effectiveness
1	Beijing Municipal Affairs Service Network	93.06	17	Hubei government service network	88.04
2	Tianjin online office hall	81.99	18	Hunan Government Service Network	84.84
3	Hebei Government Service Network	86.89	19	Guangdong Government Service Network	95.38
4	Shanxi government service network	81.15	20	Guangxi digital government integration platform	84.41
5	Inner Mongolia Government Service Network	83.13	21	Hainan Government Service Network	84.23
6	Liaoning Government Service Network	83.59	22	Chongqing online office hall	86.28
7	Jilin Province online office hall	83.90	23	Sichuan government service network	90.18
8	Heilongjiang government service network	80.92	24	Guizhou government service network	92.02
9	Shanghai Municipal One Netcom Office General Portal	95.38	25	Yunnan Government Service Network	85.10

(continued)

Table 1. (continued)

serial number	Case name	Performance effectiveness	serial number	Case name	Performance effectiveness
10	Jiangsu government service network	93.06	26	Tibet Government Service Network	78.13
11	Zhejiang government service network	95.38	27	Shaanxi Government Service Network	78.08
12	Anhui government service network	91.02	28	Gansu Government Service Network	76.15
13	Fujian government service network	89.09	29	Qinghai Government Service Network	76.36
14	Jiangxi government service network	86.28	30	Ningxia Government Service Network	85.33
15	Shandong government service network	83.59	31	Xinjiang Government Service Network\Corps Government Service Network	73.15
16	Henan Government Service Network	87.38			

Note: Referring to the “Provincial Government Integrated Government Service Capacity Survey and Evaluation Results (2021)” based on the original collection data statistics, after standardized processing, according to the administrative division.

formed. The construction of the platform involves various factors such as technology, organization, and political structure, forming a specific government performance model.

Finally, the data set required by the case is obtained through the “Provincial Government Integrated Government Service Capability Survey and Evaluation Results (2021)”, government website, and statistical yearbook to ensure that the data format is complete and accurate and meets the requirements of the fs/QCA software.

3.2 Variables and Assignments

According to the research logic of qualitative comparative analysis, the performance of the provincial government service platform is the result variable to be explained, and the influencing factor of the performance of the provincial government service platform is the condition variable.

For the evaluation of the performance of provincial government service platforms, this article is mainly based on the “20th Chinese Government Website Performance Evaluation Report (2021)” issued by the Software and Integrated Circuit Promotion Center of the Ministry of Industry and Information Technology (China Software Evaluation Center). Based on the performance results of the 31 provincial government service platforms in the report, this article regards the platforms ranked 1–10 as high-performance provincial government service platforms with a value of 1, and the platforms ranked 11–31 are regarded as failing to produce provinces. The high-performance government service platform is assigned a value of 0. According to convention, the number of condition variables is best to be 4–7 [2]. Based on the experience of ancient and foreign countries, this paper determines six conditional variables from the internal and external dimensions of the government. The variable assignment methods are shown in Table 2.

Table 2. Variable assignment methods

	Variable Name (Metric)		Variable assignment	Data sources
Result variables	Performance of provincial government service platforms		Ranks 1–10 are assigned a value of 1, and 11–31 is assigned a value of 0	Chinese Government Website Performance Evaluation Report (2021).
Condition variables	Internal variables	Leadership values	The leader of the municipal party committee and the municipal government to do the government service platform project construction is assigned a value of 1, otherwise, the assignment is 0	Official government websites and public news reports
		Institutional norms	The policies and regulations on the construction of provincial government service platforms are assigned a value of 1, otherwise, the assignment is 0	Official government websites and public news reports
		Technical support	1/3 of the number of technicians in the organization is assigned a value of 1, otherwise, the assignment is 0	Official government websites and public news reports
	External variables	Level of economic development (GDP per capita)	Above 3 1 cases the city mean is assigned a value of 1, otherwise, the assignment is 0	2017 China Urban Statistical Yearbook

(continued)

Table 2. (continued)

	Variable Name (Metric)	Variable assignment	Data sources
	Citizen needs	Cities above 31 cases are assigned a value of 1, otherwise, they are assigned a value of 0	Communiqués of data from the Seventh Population Census of the regions
	Internet penetration	Cities above 31 cases are assigned a value of 1, otherwise, they are assigned a value of 0	2017 China Urban Statistical Yearbook

Internal measurement variables include leadership attention, institutional norms, and technical support. Leaders' awareness of the importance of the construction of a government service platform plays an important role. If the leader of a certain area's government affairs service platform construction planning organization has a certain degree of power and assumes responsibility for the entire planning process. At the same time have a serious and responsible work attitude. It is 1, otherwise it is assigned as 0. The construction of the government service platform needs to be supported by laws, regulations, and related supporting policies. If a local government issues regulations or policy documents that clearly regulate the construction of the government service platform, the value is 1; otherwise, the value is 0. Effective implementation of the specific rules for platform construction requires the presence of relevant professionals. The proportion of technical staff within the organization is assigned a value of 1, otherwise it is assigned a value of 0.

External measurement variables include the level of economic development, citizen needs, and Internet penetration. The construction of the government service platform requires a certain degree of economic foundation. Therefore, this article introduces the per capita GDP as an indicator to measure the economic development level of a place, which is higher than the average value of 31 case cities and assigned a value of 1, otherwise it is assigned a value of 0. Supply and demand are two parts that correspond to each other. Only when citizens have the need to use the government service platform can the platform's characteristic functions and updates occur. Generally, the number of people with a college education level and above per 100,000 people is used as a measure of education level of residents. The value is higher than the average value of the 31 case cities, which is assigned a value of 1, otherwise it is assigned a value of 0. The government service platform is based on the Internet. Therefore, the Internet penetration is measured by the number of netizens in each region, which is higher than the average value of 31 case cities across the country, which is assigned a value of 1, otherwise it is assigned a value of 0.

Table 3. Results of the requirements analysis

Variable name	Consistency	Coverage
Leader	0.755	0.784
System	0.898	0.766
Technology	0.645	0.432
Economy	0.619	0.412
Public Demand	0.763	0.443
Internet Penetration Level (IT)	0.540	0.499

Table 4. Combination of high-performance conditions for provincial government service platforms

Condition variables	Combination 1	Combination 2	Combination 3	Combination 4
Leader	○		○	●
System	●	●	●	●
Technology		○	●	●
Economic development level (Economy).	●	●	○	○
Public demand	●	●	○	●
Internet Penetration.	●	●	○	○
consistency	1.000	1.000	1.000	1.000
Coverage	0.430	0.211	0.111	0.098

Note: “●” indicates that the condition exists, “○” indicates that the condition does not exist, and space indicates that the condition is optional or not.

3.3 Analyze the Process and Results

3.3.1 Requisite Analysis

The necessary condition analysis results are shown in Table 3. According to the requirements of qualitative comparative analysis, conditional variables with consistency greater than 0.9 are regarded as necessary conditions, and the result variables can be explained separately. According to the fact that none of the variables in Table 3 reach the consistency of 0.9, the institutional norms are very close to 0.9, indicating that the condition variable has the ability to independently explain the outcome variables. The promulgation of policies and regulations plays an important role in the construction of provincial government service platforms.

3.3.2 Condition Combination Analysis

Since there is no conditional variable that has a consistency of 0.9, it is necessary to perform a combined analysis on the conditional variables. The core condition variable is the variable that appears in the parsimonious solution, and the edge condition variable is the variable that only appears in the intermediate solution and can be substituted [4]. Through the results of the parsimonious plan and the intermediate plan in Table 3, a combination of conditions for high performance of the provincial government service platform has been formed, as shown in Table 4.

4 Reference to the Development Model of Foreign Government Service Platform

4.1 Internal Cause Dominance

The model is dominated by government actions, corresponding to the combination of 3 and 4 in the table. The main content of this model refers to actively formulating policies and regulations for the construction of provincial government service platforms, and the leaders of major government departments are more proactive in taking the lead in the construction of government service platforms, playing the role of overall coordination of all parties. In addition, the public needs a higher Internet penetration rate than the average of 31 other provinces. Although the economic development level of this place is not high, it has reached the high-performance level of the government service platform through active policy promotion and public cooperation. In order to reduce the cost of small and medium-sized enterprises and support entrepreneurs to self-reliance, all regions must ensure that their start-up rules will not increase new businesses.

4.2 External Cause Dominance

This model has good external conditions, including a high level of economic development in the region, strong public demand, and a high level of Internet penetration. However, the internal conditions are general, the number of policies of the government service platform is not as effective as expected, the ratio of technical staff within the government organization is less than one-third, and the staff are not sensitive to platform construction. Taking the government of New South Wales, Australia as an example, the My Service NSW Account platform provides personalized service support for enterprises.

4.3 Intrinsic Incentive Model

The model corresponds to combination 3 in the table. The main content of this model is to actively introduce policies to establish a core development department, and establish an internal departmental incentive system at the same time. Decompose into specific businesses, processes and positions according to the tasks and objectives of government management and services in different departments. It will be completed by the government with high timeliness and high adaptability, forming strong top-down pressure and incentives in a short period of time. The new business profile is designed to support

business customers with a one-stop function that can now enjoy an integrated service experience between My Service NSW personal account and My Service NSW business file management.

5 Conclusions

This paper uses qualitative comparative analysis to analyze the performance of the provincial government service platform by selecting 6 condition variables from the perspectives of the government internal and external and finds that the provincial government service platform is affected by multiple factors such as leadership attention, system norms, technical support, economic development level, public demand, and Internet popularization, and finally forms an internal-led type, an external-led type, and an internal incentive type.

From the following aspects, policy suggestions for the high-performance development of the provincial government service platform are proposed: First, starting from the needs of users, do a good job in service roles. Second, establish a government management operation model that matches the construction of the platform. Third, optimize the cooperation mechanism between the government and the technology supplier.

References

1. Bennett A, Elman C. Qualitative Research: Recent Developments in Case Study Methods[J]. Social Science Electronic Publishing, 2018(12):2.
2. HE Junzhi. Fuzzy Set Methods in Comparative Political Analysis[J]. Social Sciences, 2013(5):9.
3. Public Administration Review, 2008, 68(3):549-563.
4. Rihoux B, CC Ragin. Configurational Comparative Methods: Qualitative Comparative Analysis (QCA) and Related Techniques[M]. Thousand Oaks and London: Sage, 2009:28.

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