



The Problems and Optimization Paths of Digital Government Governance in Shandong Province: Based on the Perspective of Unbalanced Governance

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Abstract. Based on the perspective of unbalanced governance, this paper analyzes the promotion of digital government construction in Shandong Province and finds that the province has achieved significant results in this field. However, there are still imbalances between provinces, cities, digital government governance and economic development levels, and public participation in digital government governance. Overall, Shandong Province needs to deepen the supply side reform of digital talents, strengthen the integration of digitization and legalization, and unify the standards of the government data governance system.

Keywords: Unbalanced governance; Digital government; Government governance

1 Introduction

The report of the 20th National Congress of the Communist Party of China proposed to "accelerate the construction of a strong online country and a digital China", "improve the level of urban governance, and build a smart city". The Guiding Opinions of the State Council on Strengthening the Construction of Digital Government issued in 2022 point out that strengthening the construction of digital government is an inevitable requirement for leading the development of the digital economy and driving the construction of the digital society. In recent years, various provinces in China have applied new generation digital technologies such as cloud computing, big data, and artificial intelligence to government management services through the construction of digital governments, improving administrative efficiency and fully leveraging the strong governance capabilities of digital governments. However, this process faces imbalanced issues, which have a negative impact on the process of digital government governance. This article analyzes the construction of digital government governance in Shandong Province and finds that Shandong Province has achieved many results in the process of digital government governance, but there are still some imbalances. Therefore, based on the theory of unbalanced governance, this article explores the problem of imbalanced

digital government governance in Shandong Province and proposes countermeasures to actively promote the process of digital government governance.

2 Theoretical and Current Status of Digital Government Governance in Shandong Province from the Perspective of Unbalanced Governance

2.1 Non Equilibrium Governance Theory

The theory of unbalanced governance is rooted in many interdisciplinary theories, such as Marxist philosophy, which holds that things are constantly evolving and changing, and are a metabolic process. Based on this, quantitative and qualitative changes occur, and the preparation conditions for quantitative and qualitative changes are achieved to achieve rapid development of things. The process from quantitative to qualitative changes reflects the theory of unbalanced governance¹. The theory of modernization also contains non-equilibrium content. In the process of modernization, some countries, regions, and subjects must have a faster modernization speed than other countries, regions, and subjects, thus possessing a more obvious modernity². These countries use non-equilibrium means to break the "low-level lock-in" state before achieving rapid development. Biology believes that evolution is a process of interaction between jumping and stagnation. During the jumping process, new species emerge with randomness, and after the emergence of new species, they enter a conservative or evolutionary stagnation period³. This stagnation period presents a "low-level locking" state, so the emergence of new organisms also reflects the theory of non-equilibrium. The theory of imbalanced development is an important source of unbalanced governance theory, and some contents of unbalanced governance theory have strong correlation with the theory of imbalanced growth in imbalanced development theory⁴. Overall, imbalanced governance is a common state, and improving governance level requires breaking the "low-level lock-in" state⁵.

2.2 The Current Status of Digital Government Governance in Shandong Province

Shandong regards big data as an important means to enhance social governance capabilities, iteratively upgrading the "Shandong Tong" platform, optimizing general applications such as industry contacts, instant messaging, video conferencing, paperless meetings, and general reports, and enhancing the ability to provide general business services such as official documents, information, supervision, and meetings. Deepening the digitization of government business, comprehensively sorting out responsibilities, processes, systems, and data, has reduced the uneven level of digital government governance within different government agencies. Optimize and upgrade the functions of the Internet supervision system, create a joint inspection platform for enterprises, and effectively improve the efficiency of supervision; We have continuously promoted the construction of "Skynet Project" and "Snowy Brightness Project", and established a

relatively complete digital social security prevention and control system. Building a comprehensive data platform for towns and streets in Yantai City, and creating a new model of grassroots digital governance; Weihai City has built an urban Internet of Things perception platform to real-time perceive the pulse of urban operation, improving the balance between big data and network security system. In the process of promoting digital government governance, power is gradually being delegated, especially in areas such as program development. Government departments entrust business to some enterprises, making them important participants in the digital government governance process. The degree of imbalance between the government and enterprises has been reduced.

3 The Problems of Digital Government Governance in Shandong Province from the perspective of Imbalance

On June 17, 2023, the Data Governance Research Center of Tsinghua University released the "2022 China Digital Government Development Index Report", which comprehensively presents the digital government construction index of 31 provincial-level and 333 prefecture level cities in China, and accurately presents the current situation of digital government governance in Shandong Province. According to **Table 1**. Ranking of Digital Government Development Index in , it can be seen that Shandong Province is facing some problems in promoting the process of digital government governance.

Table 1. Ranking of Digital Government Development Index in Shandong Province and Its Prefectural Cities

Province	Ranking	Prefecture level city	Ranking	Prefecture level city	Ranking
Shandong Province	7	Qingdao	4	Dongying	32
		Jinan	12	Binzhou	34
		Weihai	14	Yantai	40
		Weifang	27	Jining	42
		Rizhao	28	Linyi	63
		Zibo	30	Zaozhuang	66

3.1 Uneven Level of Digital Government Governance in Provincial and Prefecture Level Cities

Firstly, the level of digital government governance between Shandong Province and other provinces and cities is unbalanced. In recent years, Shandong Province has developed an online and handheld government that operates 24 hours a day, but the ranking of the digital government development index is lower than that of Anhui Province and Sichuan Province. The overall development level of these two provinces and cities is lower than that of Shandong Province, and there is a clear imbalance phenomenon.

Secondly, the level of digital government governance among cities at different levels in Shandong Province is uneven. From Table 1, it can be seen that Qingdao ranks the highest among city level cities in Shandong, while Jinan ranks 12th. As the core cities of Shandong, these two cities show an unbalanced state.

3.2 Imbalance Between Digital Government Governance Level and Economic Development Level

From an inter provincial perspective, the economic development level of Shandong Province is significantly higher than that of Sichuan Province and Anhui Province, but the level of digital government governance is lower than these two provinces. From the perspective of prefecture level cities, according to the 2023 National Urban GDP Ranking, Jinan ranks 20th, higher than Guiyang, Suzhou, Xiamen, Chengdu, and Wuhan, but its level of digital government governance ranks below these five prefecture level cities; From the perspective of provincial and inland level cities, Yantai City ranks 26th in GDP, higher than Weifang City and Weihai City, but its level of digital government governance ranks below them.

3.3 Non equilibrium of Object Participation in Digital Government Governance

The process of digital government governance requires the participation of multiple stakeholders, including social organizations, enterprises, and citizens. The construction of digital government can benefit the masses of the people, but the Internet users benefit the most. For those non Internet users, such as some poor people and the elderly, it is difficult to effectively participate in the process of digital government governance because of poor economic conditions, low education level, and Internet learning difficulties.

4 The Influencing Factors of Digital Government Governance in Shandong Province from the Unbalanced Perspective

4.1 Unbalanced Subject Capacity

With the deepening of digital work, in recent years, the types of demands from the people in Shandong Province have significantly increased, and the lack of professional and technical talents has become increasingly prominent. Provincial and municipal government personnel have varying levels of benefits for the public due to differences in their own abilities when responding to various needs of the people. For example, in township governments, due to the low level of public service and lack of professional and technical personnel, the needs of the rural population are constantly upgrading with the development of society. As a result, township governments are increasingly unable to meet the real service needs of the rural population, leading to an imbalance in digital government governance.

4.2 Efficiency and Fairness are not Balanced

The Guiding Opinions on Strengthening the Construction of Digital Government issued by the State Council require "promoting the legalization of government governance and the deep integration of digitalization". Digital technology provides comprehensive, multidisciplinary, and cross level solutions for national governance innovation, which can greatly improve the overall efficiency of national governance and further enhance the comprehensive competitiveness of the country. However, while significantly improving the efficiency of national governance, it may also lead to issues of efficiency and fairness. In some regions, there is an imbalance between efficiency and fairness to accelerate the promotion of digital government governance.

4.3 Inconsistent Data Governance Standards

The large number and scale of government departments in our country determine the wide range and diverse forms of government data sources. Due to the lack of unified data governance standards, the difficulty of government data organization and collection has increased, resulting in a series of problems such as duplicate data collection, unclear data sources, and difficulties in data integration. Some organizations or units have formalism and falsify data, resulting in a lack of authenticity and affecting digital government governance.

5 Optimization Approaches for Digital Government Governance from a Non Equilibrium Perspective

5.1 Deepening the Supply Side Reform of Digital Talents

On the one hand, to deepen the supply side reform of digital talents, relevant government departments should focus on the fast lane of digital government development, provide encouragement and preferential policies for talent introduction, increase support, refine relevant policies for talent introduction, and meet the reasonable needs of talent development. On the other hand, it is necessary to strengthen the establishment and construction of disciplines, further enhance the training of elite and professional talents, enhance the effectiveness of talent education and training, and provide talent support for the construction of digital government.

5.2 Strengthening the Integration of Digitalization and Legalization

The construction of a digital government is actually a transformation of service content and methods, rather than just a simple application of technology. The operational characteristics of a digital government result in fewer opportunities for people to face each other, and the rights of the people are not effectively protected. Therefore, it is necessary to continuously improve the laws and regulations on digital governance, and adhere to promoting development and regulatory norms in parallel. At the same time, it

is necessary to strengthen network security supervision and ensure that network security is synchronized with the construction of digital government. The development and use of government platforms will collect personal information from users. If government departments cannot guarantee the security of user information collected during this process, it will cause many negative impacts.

5.3 Unified Government Data Governance System Standards

Build a unified and standardized national integrated government data directory system, achieve "one book" management of government data, promote the rapid circulation and effective docking of data from different regions, departments, and levels, and enable collaborative operations. At the same time, strengthen the synchronous update management of the government data directory, so that the government data system can truly achieve integration. Secondly, establish a unified data quality supervision mechanism to ensure the accuracy, completeness, and trustworthiness of data during collection, storage, and processing. Establish unified data quality standards and regularly inspect data quality.

6 Conclusion

In short, China has fully entered the digital age, and digital government governance has entered a new stage. In order to achieve significant results in the process of digital government construction, it is necessary to control the degree of imbalance in this process within a moderate range and break the "low-level lock-in" state. Therefore, this article applies the theory of imbalanced governance to analyze the problem of imbalanced digital government construction in Shandong Province, which not only effectively promotes the process of digital government governance, but also benefits the development of imbalanced governance theory.

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