

### Research on the Improvement of China's Public Service Quality Management Level Based on the Background of Big Data

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**Abstract.** As socialism with Chinese characteristics has entered a new era and the economy and society has entered a stage of high-quality development, around adhering to the people-centered development idea, it is necessary to propose a public service quality management proposition that better meets the people's growing demand for public services [1]. Therefore, through literature analysis and measurable analysis methods, this paper uses public service quality monitoring technology and compares the background and content of public service quality improvement at home and abroad, and then explores the development bottleneck existing in the process of improving public service quality management in China. This paper proposes countermeasures and suggestions to improve the quality management level of China's public services, so as to achieve high-quality development of China's public services.

Keywords: Big data  $\cdot$  quality management of public service  $\cdot$  service-oriented government

#### 1 Introduction

In the new era, improving the level of public service management has become an important goal of China's public service reform. During the more than 40 years of reform and opening up, changes in the mode of economic growth and social progress have prompted changes in the functions of the Chinese government. The current government administrative system is also gradually changing from a management-oriented government to a service-oriented government. Promoting the reform of public service management, improving the quality of public service management, and responding to the public's growing demand for public service management have become the urgent tasks of Chinese government management and social reform in the new era.

# 2 Application and Practice of Public Service Quality Monitoring Technology

The monitoring of public service quality highlights the new theme of contemporary public management [2]. In recent years, with the continuous advancement of the national

public service quality monitoring work, the local governments of various provinces and cities have paid more and more attention to the construction of public service quality, and gradually incorporated public service monitoring and improvement into the government's key work, and successively carried out local Monitoring practice.

In 2021, the Academy of Quality Management Sciences and the China National Institute of Standardization jointly drafted the Technical Guidelines for Public Service Quality Monitoring to promote the development of public service quality monitoring. At the same time, in the specific practice of using public service quality monitoring technology, the public service quality monitoring model (as shown in Fig. 1) mainly includes three aspects, namely subjective satisfaction analysis, objective index data analysis and public opinion information analysis [3].

When quantifying satisfaction, the calculation method of the scale will directly affect the final result of the satisfaction index. According to the satisfaction theory and various industry conditions, combined with the use of the scale in the evaluation questionnaire, it needs to take the form of a ten-level scale. The ten-point scale is based on a scale of 1 to 10, where 0 means very dissatisfied, 10 means very satisfied, and the higher the score, the more satisfied. In addition, uncertain is represented by 99, and no answer is represented by 0 (Fig. 2).

Public service quality monitoring is systematic, procedural, and cyclical. The construction of a monitoring system should systematically integrate monitoring processes, monitoring subjects, monitoring fields, monitoring indicators, monitoring principles, and monitoring methods. At the same time, in order to obtain more accurate public service monitoring results, the government can improve the public service quality monitoring technology, vigorously build a service quality monitoring network, and promote the application of service quality monitoring results.

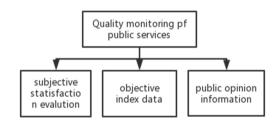


Fig. 1. Public service quality monitoring model



Fig. 2. Ten-level scale settings

### 3 Comparison and Analysis of Public Service Quality Management Reform at Home and Abroad

Since the reform of new public management, more and more national governments have taken improving the quality of public services as the main goal of government reform and innovation. Continuously improving the quality of public services has become a major agenda faced by governments around the world [4]. China's public service reform started late. In order to complete the successful reform of public service quality management under the background of big data, it is necessary to learn from and absorb advanced international experience, and actively explore the future development path of public service quality management improvement based on the actual national conditions.

### 3.1 The Practice of Improving the Quality of Public Services in Britain and America

From the perspective of the process of public service quality improvement in Britain and America, public service quality improvement includes three stages: quality circle, total quality management, and customer satisfaction [5]. Specifically, the quality circle stage is mainly to improve the quality of public services through internal government reform; the total quality management stage is to identify the real needs of the public by expanding the scope and intensity of public service quality management; the customer satisfaction stage turns to focus on the real needs of the public need (Fig. 3).

### 3.2 The Practice of Improving the Quality of Public Services in Asian Countries

The reforms of public service quality in Asia represented by Japan, Korea and Singapore are all innovative practices based on the practice of western developed countries and combined with their own national conditions. Japan mainly starts from the two aspects of government leadership and public participation to improve the quality of public services. Korea applies customer satisfaction-based measurement indicators in corporate

Reform background	Contents of public service quality improvement
Britain: Fiscal crisis, welfare state ills, crisis of confidence	Marketization of public services, standardization of public services, quality improvement based on democratic citizenship, etc.
America: Fiscal crisis, low responsive government, legitimacy crisis	Marketization and socialization of public services, reform of the government itself, survey of public service needs, evaluation of public service quality, etc.

Fig. 3. The background and content of public service quality improvement in Britain and America

Reform background	Contents of public service quality improvement
Japan: Economic downturn, excessive government planning, weakened social vitality	Marketization of public services, attention to public service needs, reform of public service operation mechanisms, etc.
Korea: The traditional bureaucracy is rigid and the demand for social public services increases	Customer-oriented focus on public opinion, standardization of public services, and people- friendly services, etc.
Singapore: Developed economy, strong government tradition, development of information technology	Pay attention to service demand, e-government construction, networked governance, and strengthen the government's response to the environment, etc.

Fig. 4. The background and content of public service quality improvement in Asian countries

management to the quality improvement of public services. Singapore's public service reform follows the tradition of "strong government", advocating the leading role of the government in improving the quality of public services to anticipate public service needs (Fig. 4).

### 4 Problems Existing in the Process of Public Service Quality Management in China Under the Background of Big Data

In recent years, some regions in China have carried out localized exploration and innovation based on the successful experience of foreign public service quality management, and achieved some results. However, China's national conditions of "being in and will be in the primary stage of socialism for a long time" and the actual differences in the uneven development of regional economy have put forward realistic requirements and challenges for the improvement strategy of China's public service quality management.

#### 4.1 Inadequate Legal System

Due to historical factors and the influence of the external environment, China has not yet formed a perfect public service quality management mechanism, and the relevant legal system is not perfect. Therefore, in the specific implementation process of public service quality management, the power boundary and responsibilities of the government to provide public services are likely to be ambiguous. In addition, the relevant laws and regulations do not clearly stipulate the scope of responsibilities and authority of

social organizations, which cannot stimulate the enthusiasm of social organizations to participate in the quality management of public services.

## **4.2 Unbalanced Development of Public Service Quality Management in Different Regions**

Since the founding of the People's Republic of China, the functions of the Chinese government have undergone changes in the center of gravity in different periods. On the one hand, China has experienced a transition from a traditional agricultural society to an industrial society to an information society, but this transition has not been realized in all regions; On the other hand, we are in the transition period of economic development, but also facing many social problems in the process of urbanization. The accumulation of these problems has concentrated on the comprehensive characteristics of unbalanced public services in China: unbalanced public services in the eastern and central and western regions, unbalanced public services between urban and rural areas, and unbalanced public services among social groups, etc. From the improvement practice of China's public service quality management, the supply-improving public service quality improvement, the evaluation-driven public service quality improvement and the demand-driven public service quality improvement coexist in the reality of China's public service reform, showing the disparity between regional reforms.

### 4.3 Low Integration of Public Service Quality Management Improvement Mechanisms

Compared with the continuous improvement mechanism of public service quality in developed countries, China's public service quality continuous improvement mechanism has not yet been established. At present, China's public service quality management focuses more on the evaluation link after production and output, and pays less attention to the public needs that should belong to the first stage. As far as the procedures of public service management are concerned, to realize the effective connection between public services and public needs, it is necessary to earnestly understand the actual needs of the public and pay attention to the important role of demand management in the construction of a service-oriented government.

## 4.4 The Awareness of Big Data in the Quality Management of Government Public Services is Weak and the Feasibility is Not Strong

Under the background of big data, public service quality management is considered to be the most valuable and practical management technology in modern management because of its forward-looking characteristics. However, these management techniques are only used as an auxiliary tool for the government and management platform in social management, and their real practical value has not been fully applied to the process of public service quality management. In addition, many management departments in China still have insufficient understanding of big data technology, poor data information collection and induction capabilities, and small data capacity.

# 5 Path Selection for Improving the Quality Management of Public Services in China Under the Background of Big Data

### 5.1 Improve the Relevant Legal System Guarantee System

A sound legal system guarantee system can vigorously promote the reform of institutional concepts and ensure the quality of public services more efficiently. Therefore, relevant departments should formulate and issue perfect laws and regulations according to the actual situation, clarify the responsibilities that the government, the market and social organizations need to undertake in the work process as providers of public services, and at the same time, clarify the performance evaluation standards and supervision systems for the implementation of public services.

### 5.2 Increase Financial Investment to Narrow the Gap in Public Services

As a special kind of public product, public service first needs to rely on the financial support of the state in order to satisfy citizens' universal enjoyment of fair and accessible services [6]. In addition to the central government's investment in underdeveloped areas, relevant provinces also need to use their own resources and local characteristics to promote the economic development of the region. In addition, the internal variables that affect the quality of public services within the region also need to be optimized and improved.

### 5.3 The Circular Interaction of Public Service Quality Improvement

From the perspective of supply and demand, in order to achieve the basic goal of improving the quality of public services in contemporary China, the dynamic mechanism constitutes a benign interaction between supply and demand. On the one hand, the public service supplier and the public service demander must overcome the "information gap" through cyclic interaction to continuously realize the harmony and unity between supply and demand; On the other hand, the need for public services in different regions and at different stages and the planning of public services should be managed through horizontal and vertical governance structures to achieve dynamic coordination in the public service management mechanism, so as to achieve continuous improvement of public service quality management.

### 5.4 Use the "Internet+" Platform to Improve the Quality of Public Services

The report of the 19th National Congress of the Communist Party of China pointed out that "we are good at using Internet technology and information technology to carry out work". Therefore, in the context of big data, with Internet information technology as the carrier, in response to the problem of unbalanced public service quality among different provinces, different regions and different departments, the following aspects should be improved: First, we must attach importance to cross-business, cross-department, cross-level, and cross-regional business collaboration and new models of integration, so as to achieve data sharing and improve the utilization of data resources; The second is to

accelerate the in-depth integration of the Internet and the government's public service system, promote the opening of public data resources, and promote the innovative supply of public services and the integration of service resources; the third is to strengthen the communication between the government and the public, improve government public management, public services and public policy formulation response speed.

#### 6 Conclusions

Public service quality management is an important subject in the theory and practice of public service development and service-oriented government construction. The government provides high-quality public services and establishes a continuous public service quality improvement mechanism. It is not only a symbol of the "publicness" of the public sector, but also an important means for transformation and upgrading in the high-quality development stage, increasing the effective supply of people's livelihood security, and achieving common prosperity. The urgent need to maintain social fairness and justice essentially embodies the inherent requirement of modern government departments to transform into service-oriented government governance. Therefore, we must improve the level of public service quality management and promote research in this field according to national conditions, so as to provide useful theoretical guidance for the development of China's public services and the construction of a service-oriented government.

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