On the Application of Big Data in National Supervision Work

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Abstract. Big data has inserted scientific and technological wings into national procuratorial supervision, but due to the lag of legislation, system and talents, it has also brought some problems and challenges. Efficient integration and application of big data technology into national procuratorial supervision requires not only strengthening legislation and sharing data resources at the national level, but also attaching great importance to the training of information talents.

Keywords: Big Data, State Monitoring, Supervision Work

1. Introduction

After China completed the reform of the national supervision system in 2018, all public officials exercising public power were included in the scope of supervision. However, in order to transform the advantages of reform into governance effectiveness, besides the integration of institutional mechanisms, we must make full use of modern scientific and technological forces. The Platform for Action to Promote Big Data Development, issued by the State Council in August 2015, points out that: "Big data is a data set characterized by large capacity, many types, fast access speed and high application value, which is rapidly developing into the collection, storage and correlation analysis of data with huge quantity, scattered sources and diverse formats." A new generation of information technologies and services that discover new knowledge, create new value and enhance new capabilities [1] "Big data, as a power to enter the national governance system, has become a new perspective to think about social supervision" [2]. At present, a new round of information technology revolution is reshaping all areas of the economy and society. Big data, cloud computing, artificial intelligence and other information technology improve the quality of supervision not only bringing opportunities, but also challenges.

2. Big Data Has Inserted Scientific and Technological Wings into National Procuratorial Supervision

In China, the object of the national supervisory organs, that is, public officials, is a very large group. In order to effectively solve the problems of insufficient supervision manpower, in recent years, all parts of the country are actively building big data supervision platform. From the current practical effect, the intervention of big data has subverted the traditional supervision mode and greatly improved the level of supervision.

2.1. It Greatly Saves Human Costs
In the past, it was necessary to collect and sort out the clues of the problems manually, and then coordinate the departments to verify them one by one. A problem can take months to follow up, and it takes a lot of manpower and material resources. Through the analysis and comparison of big data, we can make the data run more errands and people run less, which greatly saves the manpower cost and time cost of the supervision organs, and fundamentally improves the quality and efficiency of supervision. For example, Chongqing relies on the "big data" information platform to compare in real time, accurately "locate" the absconders, and improve the efficiency of pursuing stolen goods. At present, the suspect Li Min, who has absconded for 18 years, and two suspects Wen Yan and Wu Xuelin, who have absconded for more than 10 years, have been successfully arrested and brought to justice. From January to June this year, the city recovered 13 fugitives and more than 4 million yuan of stolen money. The Duty Crime Investigation Bureau of Chongqing Procuratorate makes full use of information technology to guide the case handling units to find clues, to study and judge the escape information of the fugitives, and to successfully recover the suspects Du Xiuquan and Zhang Shulu who are listed and supervised at the municipal level [3].

2.2. It Effectively Realizes Grasping Early, Grasping Small and Preventing Micro Problems

Through the survey of big data supervision platforms established in various places, big data supervision platforms can use existing data to achieve real-time comparative analysis, and always grasp whether the power operation is "healthy". Once problems are found by comparison, the big data platform can automatically warn, and the staff can study and judge in advance according to the early warning, so as to resolve the problems in the budding state and provide "navigation" for doing fine supervision. In order to effectively improve the level of scientific and technological anti-corruption in the whole region, the Discipline Commission of Cuiping District of Yibin City has independently innovated and developed the Information Management System for Early Warning of Cadres' Integrity in Cuiping District of Yibin City, and created a new weapon of "scientific and technological anti-corruption". The system has the functions of anti-corruption archives recording, anti-corruption information analysis and statistics, anti-corruption dynamic early warning and anti-corruption system document management, which provides an effective scientific and technological platform for comprehensively grasping cadres'anti-corruption archives, timely analyzing anti-corruption information, dynamic early warning of anti-corruption risks and moving forward to prevent corruption [4]. Ningming County, Guangxi Zhuang Autonomous Region, set up a data monitoring platform for poverty alleviation funds, through independent comparison of system background data, found more than 14000 abnormal data, formed 297 problem clues, filed 37 cases, recovered or voluntarily refunded more than 600000 yuan of subsidies [5].

2.3. The Joint Force of Supervision Has Been Effectively Formed

Effective and effective supervision can not be separated from the grasp of basic information of public officials, including real estate, deposits, vehicles, stocks, funds, insurance and so on. Establishing a large data monitoring platform and mining the relationship between data avoids the formation of "information island" of massive data in various departments, realizes the sharing of information resources, and is more conducive to the formation of a joint force of supervision. For example, in order to effectively solve the problem of monitoring official vehicles, the Taiyuan Municipal Supervisory Committee of Shanxi Province has made a statistical summary of all the information of official vehicles in the city, cleaned up 8278 official vehicles, established the "Taiyuan Official Vehicle Information Supervision Database" in conjunction with the traffic police department, and used "big data" and more than 500 traffic management jacks in the city. During the holidays, the driving situation of official vehicles is monitored dynamically for 24 hours [6]. In view of 23 special poverty alleviation projects in the field of poverty alleviation in Luzhou City, Sichuan Province, a large data analysis group was set up to collect basic data such as personnel identity, household registration information and family income provided by public security, residential construction and agriculture departments, and to carry out data collection, comparison and judgment relying on special software, so
as to find clues to suspicious problems and accurately extend to the "black hand" in the field of poverty alleviation. A total of 1309 clues were found, 848 cases were filed and more than 26.92 million yuan of economic losses were recovered [7].

3. Problems Existing in the Application of Big Data in National Procuratorial Supervision

Everything has two sides. Big data not only brings efficiency and convenience to national supervision, but also has problems that cannot be ignored. To sum up, there are mainly the following aspects.

3.1. Violations of Personal Privacy Occur from Time to Time

Violations of personal privacy occur from time to time. For a long time, there has been a debate between big data supervision and the protection of personal information privacy. In the current big data and Internet environment, individual digital traces are everywhere and from time to time, and public officials will upload photos and publish information through social networks, but most people will not take measures to protect privacy. In this way, personal information, including the disgraceful past, will leave a lasting imprint on the network, which can be retrieved by big data at any time. We often see on the Internet that public officials are butchered by netizens and personal privacy information are leaked.

3.2. There are Data Barriers between Relevant Departments

The core of the Platform for Action to Promote the Development of Big Data is to promote the sharing and opening of data resources, and to promote the sharing and opening of data resources in various departments, regions, industries and fields. Although the Chinese government has long put forward the strategy of network power and digital China, due to many factors, the data barriers of various industries and departments have not been completely broken, the sharing and retrieval of scattered data stored in cross-sectoral information data has become extremely complex [8], and the interaction and integration of data is still difficult. Taking Huimin Huinong Fund Supervision and Management Platform as an example, the household registration data, real estate registration data, cultivated land data and sown area data of land subsidy are distributed in different departments, and the data interaction is not fully realized, the comparison function is not fully used, and the problem function is not obvious. Even within the supervisory organs, reporting platforms, case supervision and management systems are also distributed in different institutions, the use of these data needs to copy and other traditional ways of interaction and sharing, resulting in the difficulty of comprehensive use of data.

3.3. Professional Information Talents are Relatively Scarce

Integrating big data supervision into supervision requires professional personnel to operate. However, the staff of the national supervisory organs has both the professional background of information technology and the compound talents engaged in supervision. Relevant personnel are not strong in the use of information technology. There is a lack of professionals who can effectively integrate information technology with political ecology evaluation, clean and honest administration archives construction, daily supervision and other business, establish data model, use data analysis software such as Spss to find problems, dig deep causes and other aspects.

4. Countermeasures and Suggestions to Improve the Quality and Effectiveness of Big Data Supervision

Technological change is the most profound agent of governance change [9]. There is still a long way to go to efficiently integrate and apply big data technology into the supervision work. It requires not only strengthening legislation and sharing data resources at the national level, but also attaching great importance to the training of information talents.

4.1. We Should Strengthen Legislative Protection
For public officials, it is natural to transfer part of their civil rights, publish part of their personal information, and take the initiative to accept public supervision. But public officials also have the right to privacy, in addition to the need for public information, other personal privacy information should also be protected by law. Therefore, it is necessary to further strengthen national legislation to distinguish which information needs to be disclosed and which information is protected by privacy, so as to maintain a reasonable degree between the promotion of supervision power and the protection of public officials' privacy. At the same time, punitive measures should be taken against the abuse of supervision [10] to safeguard the correct use of public power.

4.2. We Should Increase Data Sharing
At present, data resources have become an important bottleneck restricting the informatization of supervisory organs, and it is urgent to realize the sharing of supervisory information data resources. The information data of supervisory organs mainly include internal data and external data of the system. Internal data should include all kinds of data resources, such as words, figures, charts, images, audio and video, which are recorded and preserved in a certain form by supervisory bodies at all levels directly or through third parties according to law, authorized and managed according to law and formed due to the need to perform their duties, such as letters and visits, reports, clues and other business data. External data includes government data generated by relevant departments. Through the establishment of data pools at different levels, guided by standardization, open access, and build a cross-regional, cross-system, cross-level external data resources exchange mechanism to achieve data sharing, sharing and co-management.

4.3. We Should Intensify the Training of Talents
From the perspective of technology development path and application mode, the future national supervision work must be digitalized, informationized and intellectualized, and the application of big data technology, block chain technology and artificial intelligence in supervision business will be more extensive. Therefore, supervisory organs at all levels should attach great importance to the recruitment and training of information talents. In daily supervision work, special training such as office business application, network application, data statistical analysis application and problem model analysis should be carried out in different categories, so as to continuously improve the comprehensive application ability of information technology and consolidate the talent base.

Conclusion
Globally, the use of big data to promote economic development, improve social governance, and enhance government services and regulatory capacity is becoming a trend. Developed countries have formulated and implemented strategic documents on big data to vigorously promote the development and application of big data. China's Internet and mobile Internet users rank first in the world, with rich data resources and application market advantages, should further integrate big data into the national supervision work, speed up the legislative construction, mechanism construction and talent team construction, and promote the clean use of power of public officials.

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