

Reflections on the Use of Big Data Analysis to Enhance the Level of Grassroots Supervision Work in the Construction of Smart Customs

-- Research on Supervision Scenario Innovation in Digital Government Construction

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Abstract: In the construction of smart customs, how to use the idea of digital government to strengthen the supervision and control of grassroots power has become a new mode indispensable for customs to improve its governance capacity in the era of big data. I study the significance of big data analysis on supervision in the construction of smart customs, the main structural characteristics, the current problems and measures, so as to make a better combination of big data analysis and grass-roots supervision, so as to establish a more efficient and more perfect supervision system, so that the supervision mechanism can run better, and to build a good "cage" of power.

Keywords: Smart customs; Big data analysis; Supervision

Introduction

Big data analysis is one of the important elements that need to be considered for smart customs. Based on the actual customs, constantly improving the effectiveness of supervision is the key to cracking the current challenges of the construction of smart customs and the high-quality development of grassroots supervision. China is currently promoting the construction of the rule of law government initiatives, and the supervision of the use of administrative power has become an important part of the construction of the rule of law government. The current opportunities and challenges brought about by the application of big data in supervision, in the practical application of the strengths and weaknesses, to avoid harm, so as to explore the direction of development, so that big data technology to better serve the supervision, which is of great significance to improve the quality of law enforcement, to protect the interests of society, the legitimate interests of administrative relative.

1. The importance of using big data analysis in grassroots supervision

In the era of big data with explosive growth of information, it is inevitable to empower supervision with big data technology and explore a new model of the government's public power supervision system.

1.1 It is an urgent requirement to strengthen the internal supervision of the government.

Promote the deep integration of big data technology and power supervision, to rely on "people" to supervise the transformation of "number" to supervise, in order to promote power supervision from empirical judgement to the substantive transformation of scientific decision-making. At the same time, due to the emergence of the Internet to force the physical structure of the existence of the surveillance tool "flow", and invisible in the information flood, so that the big data behind the operation of the hidden power, easy to trigger the order of alienation, algorithms, black box, power out of control and a crisis of trust and other issues. Therefore, in the use of big data technology to constrain and supervise public power, "let the data stand guard, let the data speak, let the data accountability", can give full play to the multiplier effect of big data. Therefore, embedding big data technology in the field of government internal supervision and realising the big data transformation of power supervision at the level of national governance is an inevitable demand for improving government internal supervision in the new era.

1.2 It is an inevitable requirement to enhance the effectiveness of power supervision.

Big data analysis of law enforcement supervision, is a new type of supervision form, which sets the system of big data intelligence and

human wisdom in one, with the double advantage of fusion of online and offline supervision, the use of big data technology to break through the limitations of time, space, manpower and other factors, its convenient, flat, interactive technical advantages embedded in the field of power supervision, the implementation of timely early warning and dynamic supervision, to build up a scientific and standardised, efficient and clean, systematic and integrated power supervision system, and enhance the effectiveness of power supervision within the government by means of accurate and efficient big data.

1.3 It is an inherent requirement for improving the power supervision system.

The traditional supervision mode is confined to the "compartmentalisation" of supervision thinking and vested interests, and there are "fragmentation" and "departmentalisation" and other supervision weaknesses, which will incur high time and management costs. The cost of time and management costs, in the administrative internal friction to reduce the performance of supervision. Big data law enforcement supervision can achieve full-coverage intensive supervision, in the cross-domain collaboration scenario of big data supervision business activities, different subjects rely on each other, breaking data barriers and the phenomenon of each side of the fence, integrating the originally discrete, diversified and heterogeneous fragmented supervision resources in an intensive way, and unifying the supervision platform and optimising the supervision process by means of system integration. At the level of national governance, it is exploring a new model of government supervision with a unified portal and integrated platform, building a supervision network that is "vertically linked, horizontally synergistic, and coordinated across the board", better promoting information interaction and data sharing for power supervision, and realising full coverage of supervision across hierarchical levels, geographic regions, and businesses.

2. Specific scenarios for the use of big data analysis in grassroots supervision

The use of big data analysis in grassroots supervision reshapes the effectiveness of supervision with big data technology, uses organisational reengineering and data sharing to reconstruct the elements of supervision, puts the power into the "iron cage" of data, lets the power run under the sun, controls the discretionary power in a reasonable range by limiting the power through big data, and gradually builds up a big data supervision system that leaves traces of the whole process, model early warning supervision, static and precise supervision, and cross-departmental joint supervision. It gradually builds up a big data supervision system that leaves traces of the whole process, models early warning supervision, dynamic and precise supervision and cross-departmental joint supervision before, during and after the whole process of supervision.

2.1 The whole process under the condition of big data to leave traces.

Big data analysis and supervision to promote the "string department, check the ledger" type of traditional supervision to the "data monitoring, node control" of the whole process of supervision optimisation and upgrading, with the use of the power to leave traces of the way to regulate the power of the operation process and to prevent the power of the derailment of the act, with the means of big data power management. The means to promote the supervision of power is seamless and blind. Through the application of big data technology to the whole process of grassroots supervision, through the use of sensors and data collection equipment, the actual power behaviours based on standardised processes are datamaterialised, pictorialised and imaged, such as administrative law enforcement reporting and approving behaviours prior to administrative law enforcement, law enforcement recorders and surveillance cameras during administrative law enforcement, and various types of information collection, processing and evaluation systems after administrative law enforcement. Through the collection and aggregation of data on the elements of the whole process of law enforcement, auditing, classification management, comprehensive query, and the establishment and analysis of logical relationships, the process of power operation and specific behaviours are left with data traces.

2.2 Big data precision modelling for early warning and supervision.

Through various types of business analysis and the use of big data analysis tools, a series of early-warning indicators and information system models are constructed, the data pool is continuously expanded and data models are iteratively upgraded to improve the early-warning and supervision system, assess the level of the risks of the problems found, determine the main objects of supervision and intervention, and provide timely early-warning reminders of incipient and tendency problems, so as to achieve the early discovery of the problems and risks, their early prevention and early treatment.

2.3 "Dynamic + static" big data synchronous supervision.

In the application of grassroots supervision, big data can be used synchronously to carry out "dynamic + static" supervision, such as real-time access to grass-roots supervision resources, tracking, analysis into real-time dynamic supervision mode. At the same time to data analysis, law enforcement behaviour summary static supervision, analysis and prediction of the current law enforcement behaviour error risk. Big data analysis in the application of law enforcement supervision in dynamic and static supervision mode complement each other, multiple types of big data platforms with each other, constituting an integrated information data collection, analysis and evaluation of the supervision system.

2.4 Cross-departmental joint intensive supervision.

Big data technology has inestimable application value for the cohesion of composite supervision power. In the traditional supervision structure, the accountability of power is limited by the physical environment, mainly belonging to the scope of government functions, and the external supervisory body lacks the accountability pathway. And big data technology breaks the traditional relatively hermetic closed-loop structure, and under the premise of taking into account national security, social stability, and information security, builds a big data platform that can embrace the supervision power of multiple parties, brings together the information resources of various departments, such as customs, public security, border inspection, postal service, market supervision, etc., and integrates the dispersed power of the internal and external supervision subjects to realise the seamless cooperation of the diversified subjects of power supervision, so that it can better Implementing the responsibility of supervision and strict enforcement of discipline.

3. Problems and Countermeasures Suggestions of Big Data Analysis for Law Enforcement Supervision

3.1 Data collection quality issues.

Massive basic data is an important data base for grassroots supervision departments to use big data technology for prediction, decision-making and supervision. The quality of data is directly related to the accuracy of data analyses, which has a great impact on the efficiency and quality of grassroots supervision. Firstly, the data systems developed by various departments currently do not have uniform data quality standards for basic information collection, which include a variety of data elements such as programme sets, logos, export types and terminal interfaces, resulting in the data collected by grass-roots supervisory departments of varying quality, and even the existence of invalid data, which ultimately affects the efficiency and quality of grass-roots supervision. Secondly, some of the data sources are of low quality, which, if analysed on this basis, may reduce the efficiency and accuracy of grass-roots supervision, which is not conducive to the further development of grass-roots supervision in the current situation.

3.2 Inaccurate algorithms.

The core of the analytical and predictive role of big data technology relies on the algorithms for basic data processing, which is responsible for the task of sorting and processing large amounts of data, extracting effective information and drawing certain conclusions. Low quality algorithm design and inaccurate algorithms will lead to deviations in the output results, which will have a certain negative impact on grass-roots supervision. Firstly, the deviation of the results will lead to the risk of insufficient understanding of the overall situation of law enforcement in various fields by the subject of grassroots supervision, which will not be able to analyse and control the situation from a holistic perspective; and secondly, from the viewpoint of key areas of supervision and key supervisory behaviours, the deviation of the results will not be able to be effectively locked. Secondly, from the point of view of key supervisory fields and key supervisory behaviours, the deviation of the results cannot effectively target the administrative law enforcement departments and specific administrative law enforcement behaviours with frequent law enforcement problems, and ultimately, it is not possible to effectively monitor and prevent the business fields and administrative law enforcement behaviours, and complete the formulation of corresponding solutions to problematic fields and law enforcement behaviours.

3.3 Insufficient articulation of various types of big data platforms.

At present, various types of big data platforms are "doing their own thing", not integrated and insufficiently coordinated. Each part collects relevant data from its own needs and then collates, analyses and utilizes them, but the integration and sharing of data is not promoted much, and at the same time, the major data platforms have not formulated unified standards, resulting in different processing technologies and application platforms, and the databases are not connected to each other, which makes them not have the ability to share data and cannot be connected to each other.

3.4 Insufficient investment in talent and technology.

Under the current requirements of big data analysts, and should not only have a technical professional background can be competent, it should be in the application of big data in different fields also has the corresponding jurisprudence, statistics, customs business and other related knowledge of the composite talent. With the rapid development of economic and social and customs business, the flow of information, exchange and statistical analysis of the demand is rising, in the field of grass-roots supervision, with the administrative law enforcement departments, more and more types of laws and regulations on the grass-roots supervision of the more and more refined requirements, its law enforcement and supervision of the field of the application of big data platforms to generate greater pressure, making its update and upgrade has a certain degree of urgency. However, if the talent and technology investment is insufficient, it will bring certain obstacles to its development speed, ultimately affecting the quality and efficiency of law enforcement supervision.

3.5 Data security issues.

Various types of big data platform involves a large amount of business data, some of which involves customs business work secrets and even personal information of administrative relative, once leaked may have an important impact on the development of customs business, and seriously may involve the degree of citizens' information security and even national foreign trade security. The degree of confidentiality of data security cannot be overestimated.

4. Conclusion

In view of the above challenges, this paper suggests discussing countermeasures from the following aspects: first, guaranteeing the integrity, authenticity and security of data. Further purify the source of data, improve data quality, ensure completeness, standardisation and validity, improve unified data collection standards, open up the sharing barriers of various data platforms, reduce the probability of error in manual collection, explore and improve data security encryption technology, and at the same time, strengthen the continuous enhancement of data security awareness to eliminate the occurrence of confidentiality leakage. Secondly, it is to enhance the comprehensive arithmetic power of the big data platform. Due to the complexity of various businesses as well as reform and development, the scenarios, data types and data volumes faced by big data analyses are continuously updated and changing. The wide application of big data computing requires that the arithmetic power required for big data computing platforms will not only be for a certain problem or a certain industry, but also to obtain the arithmetic power to solve various fields and types of problems. At the same time, combined with expert analysis and other experience, iterative algorithmic models are continuously used to assist in improving the system's data analysis capabilities. Thirdly, the combination of incentive guidance and practical orientation accelerates the cultivation of composite talents for big data analysis. To focus on incentive guidance, for big data analysts to develop thinking, build a platform, can increase the tilt of the publicity and reward, praise and praise and so on. We should focus on practical guidance, with typical big data analysis project guidance, and gradually promote the integration of big data technology and business theory, in the analysis of key and difficult issues, research and discussion, the formation of solution ideas and solutions, and through the practical synchronous training of composite talents in big data analysis.

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