

Application of Big Data in Government Audit

Lei Bai *

School of Management Department, Xi'an Jiaotong University City College, Xi'an, 710018, China

*zhaowc418@163.com

Abstract. With the development of economy and the progress of society, the continuous innovation of science and technology has driven people's research and exploration of data, and the era of big data arises at the historic moment. Government audit has also entered the era of big data. At present, the development of government audit in our country is slow. Due to the lack of relevant technology of big data audit and the lack of audit experience of big data, it is difficult to put the theory into practice, which leads to many problems in big data's application in the field of audit. First of all, this paper preliminarily combs the relevant theories of government audit and big data and big data audit, and then studies and analyzes the inevitability of promoting big data audit under the new situation. finally, through the analysis of the opportunities and challenges brought by the big data era to the government audit, the paper puts forward the relevant strategies to deal with the challenges.

Keywords: Big data; Government audit; Audit technology; Audit platform.

1. Introduction

With the development of society and the progress of science and technology, the upgrading of information technology has promoted people's research and exploration of the mysteries of big data. With the increasingly frequent exchanges in various industries, the amount of information data is increasing, so it is necessary to mine, query, analyze and deal with a large amount of data.

The same is true of government audit work, constantly studying big data audit technology, using big data technology to audit is an inevitable means to comply with the development of the times. This paper mainly takes the influence of big data era on government audit as the research object, through the understanding of the concept and characteristics of big data, combined with the current situation of the development of government audit, the combination of quantitative research and qualitative research, from many levels to analyze the impact of the arrival of big data era on government audit institutions and functions, government audit-related content, found that there are problems, and put forward relevant suggestions. [1]

2. The Connotation and Characteristics of Big Data

With the emergence of new technological concepts such as "cloud computing" and "cloud platform", "Internet of things" and "stream processing", the word "big data" has become a household name. Big data phenomenon is an organic combination of our reality and daily life, it can be said that big data is everywhere, data is transmitted almost all the time, and information users get this and that kind of information through the analysis and processing of big data. For example, the development of the Internet of things, the transmission of exchange data, the online and offline trading data of the OTO platform, and the mining of big data's market exploration, economic forecasting, data analysis and other functions, the value produced is also inestimable. At this point, the use of big data has gradually become a new type of wealth comparable to oil. Big data is defined as an information technology product characterized by huge data volume, various data types, low value density and fast processing speed.

3. Summary and Function of Government Audit

The concept and characteristics of government audit government audit is an important guarantee to ensure the compliance of national financial revenue and expenditure and the healthy and stable

operation of the national economy. It mainly means that the government audit institutions independently audit the accounting accounts, financial revenue and expenditure and the use of state-owned assets of the audited units in accordance with the law, and use professional methods to supervise the truth and legitimacy of the financial revenue and expenditure of the audited units in accordance with the law. Its essence is to independently supervise the results of the behavior of the entrusted economic responsibility subject due to the pursuit of economic interests, in order to maintain the relevant audit laws and regulations and protect the safety of national property. It has the characteristics of independence, comprehensiveness, professionalism and professionalism. [2]

4. The Present Situation of Government Audit in China the Basic Pattern of Government Audit has been Formed

It can be said that the important supervision power in China's socialist economy is reflected through the audit strength of the government. The current situation is as follows: [3]

1) the lag of audit limitation in our country, the objects of government audit are generally government agencies, state-owned enterprises and financial institutions, and the supervision of these objects is generally followed up and audited afterwards. The punishment of these institutions after financial problems is lagging and can not be dealt with at the same time.

2) there are two kinds of audit methods in our country: one is traditional manual audit, the other is computer-aided audit. Because our country is still hovering in the initial stage of the big data era, the development of computer-aided audit is not enough, and the content of our government audit is not related to testing the security of the software. there is no specific analysis and processing of the collected data and information.

3) the audit process is limited by time and space. Nowadays, the government audit in our country is still dominated by traditional manual audit, which consumes a lot of time. Our government audit is carried out on working days, which requires a large amount of manpower and financial resources. Limited by time and space.

4) the analysis of audit data is not comprehensive. At present, the audit of our government focuses on the results of government agencies and state-owned enterprises, and the authenticity and integrity of the information of the audited units. There is no systematic analysis and follow-up summary of the data obtained, and the mining of potential value is not enough.

5. The Inevitability of Promoting Big Data Audit under the New Situation

1) Audit problems are complex, there is an urgent need to innovate audit methods and methods due to the introduction of big data technology and the change of big data environment, the occurrence of the problem is more hidden and deeply secondary, how to have a discerning eye in a large number of standardized accounts, to find complex violations, it is necessary for audit departments to innovate the ways and methods of audit.

2) exponential growth of audit data requires high-quality information management system. At present, the application of modern information system is more common, and the audited data shows an exponential growth trend. Text, image, ERP, U8 system and other technologies are widely used in all aspects of society, which requires government audit institutions to establish a high-quality information management system to cope with the development and progress of big data technology.

3) the development of big data audit requires that the audit scope be continuously extended under the new economic situation, and the audit department should expand its focus from financial funds audit to decision implementation, project performance evaluation and so on. Government audit should also change from traditional linear audit to modern three-dimensional audit, which requires audit institutions and staff to explore a deeper and wider scope. [4]

6. The Contingency Countermeasures of Government Audit in the Era of Big Data

The era of big data has come quietly, and the development of the times has put forward new challenges and requirements for all aspects of auditing. Government audit, as an important guarantee for the smooth operation of the national economy, must comply with the development trend of the times in order to give full play to its effectiveness. Striding forward in the opportunities and challenges, we will comprehensively improve from the aspects of improving the system, enriching the law, operation supervision and inspection, personnel and technology training mechanism, software upgrading and so on. [5,6]

1) to improve relevant laws and regulations and promote administration according to law in the era of big data, the changes in the means of audit, the way of collecting evidence and the standards of rules and regulations require the government to formulate laws and regulations compatible with big data's audit in a timely manner. Big data audit procedures, quality standards and relevant norms will be institutionalized, supervise the implementation of laws and regulations according to law, and promote the implementation and implementation of administration according to law.

2) focus on improving the ability of analysis and identification, and diversified thinking about the authenticity of audit data is an important guarantee for the effectiveness of audit results. the improvement of authenticity should start from improving the professional and technical ability of government audit staff. strive to improve their professional identification ability, strive to analyze and judge in all directions and from various angles, and enhance the focus of audit work to understand and think about problems from a strategic level.

3) accelerate the construction of big data platform and realize the sharing of audit data. in the current era, government audit mainly depends on the database that stores massive data for analysis. Under this condition, if we want to promote the development and progress of our government audit analysis, we must establish our own intelligent data platform to realize the unity of audit site and office automation, so that various audit institutions can share data.

4) establish a professional data analysis team to obtain the most big data value. At present, most of the audit data analysis in our country lags behind, and auditors can not carry out data analysis at the same time during the audit. Therefore, under the premise of establishing an intelligent database, it is also necessary to establish a professional data analysis team. Carry on the comprehensive classification processing to the obtained data at the fastest speed, optimize and improve the database platform continuously while carrying on the audit.

5) pay attention to the risk prevention of audit and reduce the risk of audit. The data of government audit is confidential, which contains some sensitive information and commercial value information. Once the confidential information is leaked, it will bring heavy damage to the national economy. Therefore, while establishing the database, we must strengthen the control measures of information confidentiality, guard against risks in real time, strictly use the database management system, and reduce the audit risk while ensuring the confidentiality of data through the authorization and approval system.

7. Conclusion

This paper first combs the relevant theories of big data and government audit, and points out the inevitability of promoting big data audit under the new situation. Then it analyzes the impact of the current big data era on government audit, focusing on the opportunities and challenges faced by government audit. At present, in the process of audit modernization, China should actively grasp the development trend of big data and follow the leadership of the Communist Party of China. Continuously optimize the audit information technology, use advanced audit technologies and methods, realize the innovative development of audit under the premise of improving the rigor and independence of government audit, accelerate the promotion of big data audit, and play a safeguard role in national governance.

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