

# Impacts, Risks, and Countermeasures of Building a Digital Government on Optimizing the Business Environment

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**Abstract:** Optimizing the business environment is a new strategy for economic development which is placed by the Party Central Committee, and optimizing the business environment to improve the quality of economic development has gradually become an important task of the government. The construction of digital government is an important factor which is involved in the optimizing process, additionally has a significant impact on it. Therefore, it is essential to explore the impact, risks, and countermeasures of the construction of digital government in term of business environment optimizing.

**Keywords:** Digital government; Doing business; Digital governance theory

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## 1. Introduction

The Party Central Committee and the State Council have been promulgating policies to encourage and to support the optimization of the business environment. The ‘Decision of the CPC Central Committee on Several Major Issues of Comprehensively Deepening Reform,’ was adopted on November 12, 2013, proposed the goal of establishing fair, open, and transparent market rules and building a business environment based on the rule of law. Notice on ‘Focusing on Enterprise Concerns to Further Promote the Implementation of Policies to Optimize the Business Environment,’ was further released on November 8, 2018, suggesting improvements to address problems in small and micro enterprises, local regulation, and policy formulation, in an effort to make the business environment more market-oriented, follow the rule of law, and internationalized. In addition, the ‘Regulations on Optimizing the Business Environment’ was released on October 23, 2019, as China’s first administrative regulations on optimizing the business environment, elevates proven experience and policies to the institutional level, creating a continuous atmosphere for the whole society to optimize the business environment. On November 25, 2021, the ‘Opinions on Launching Pilot Work on Business Environment Innovation’ was released, proposing one hundred and one reform initiatives in ten areas, and six pilot cities including Beijing, Shanghai, Chongqing, Hangzhou, Guangzhou, and Shenzhen were selected for business environment innovation, in an attempt to accelerate the international convergence and to continuously optimize the international business environment. After a series of construction and efforts, the ‘World Bank’s Doing Business 2020 Report’ shows China’s overall ranking of 31st, increased 15 places compared to the previous year. For two consecutive years, China has been ranked as one of the top 10 economies in the world with the greatest improvement in business progression.

Meanwhile, digitalization is rapidly on the rise. Based on the report released by the Organization of Economic Co-operation and Development (OECD), digitalization is as an integral part of globalization, and it has become an increasingly global phenomenon <sup>[1]</sup>. On May 13, 2020, 145 organizations launched the Digital Transformation Partnership Initiative (2020, Partnership Initiative), where the aims of the initiative are to promote inclusive services through the formation of multi-party cooperation, and eventually cultivate a new digital economy. The ‘Outline of the 14th Five-Year Plan of the National Economic and Social Development of the People’s Republic of China and Vision 2035,’ adopted on March 11, 2021 contain the theme of ‘Accelerating Digital Development and Building Digital China’ in its fifth chapter, showing the complete system of 3+1 in building digital China. In short, digitalization is important for the national development.

## 2. The impact of building a digital government on optimizing the business environment

Optimizing the business environment is a key indicator to assess the performance of digital government, therefore the construction of digital government is also a key factor to optimize the business environment. The business environment refers to the various institutional influences and requirements which are involved in the market economic activities, from market entry to market exit, including marketing, policy, legal system, business operation, human, and natural environment <sup>[2]</sup>. The most commonly used business environment assessment system today is the twelve environmental assessment indices which are established by the World Bank <sup>[3]</sup> (**Table 1**).

**Table 1.** World bank doing business indicator system

Primary indicators	Secondary indicators
Business start-up	Procedures, time, cost, paid-up capital baseline indicators
Construction permit processing	Procedures, time, cost, construction quality indicators
Access to electricity supply	Procedures, time, cost, reliability of electricity supply, transparency of electricity tariffs
Property registration	Procedures, time, cost, land management indicators
Credit access	Credit status indicators, legal rights indicators, credit registry and credit bureau coverage indicators
Small and medium-sized investor protection	Small and medium-sized investor protection indicators, shareholder governance transparency indicators, dispute mediation effectiveness indicators
Tax payment	Procedures, time, cost, frequency of tax payment, total tax rate, post-taxation procedures indicators
Cross-border trade	Time and cost for import and export documents and border compliance
Contract enforcement	Time, cost, quality indicators of judicial procedures
Bankruptcy processing	Time, cost, results, recovery rate, bankruptcy degree indicators
Government procurement	Procedures, time, cost, results

Source: Based on the World Bank Doing Business report. Because the World Bank does not use the statistical indicator “labor market regulation” in its Doing Business rankings, this indicator is not included in the table.

As shown in **Table 1**, these twelve indicators which are; (1) Business start-up; (2) Construction permit processing; (3) Access to electricity supply; (4) Property registration; (5) Access to credit; (6) Small and medium-sized investor protection; (7) Taxation; (8) Cross-border trade; (9) Contract enforcement; (10) Bankruptcy processing; (11) Labor market regulation; and (12) Government procurement. Each of these indicators has a secondary indicator, which the World Bank uses to measure the business environment of each country <sup>[4]</sup>. Similarly, the construction of digital government can also find its footing in the indicators as described below.

Firstly, promote open sharing technology to public data: The key to build a digital government is to ensure that public data is open and shared with relevant departments in a timely and effective manner, so that the data and information can circulate among different departments after breaking through the information barriers <sup>[5]</sup>. Further, the addition of public data to the public service system will provide convenience for the government's regulatory work.

Secondly, deepen the technology of sharing government information: An important part of digital government construction is to optimize the process of digitalization. Through artificial intelligence (AI) and other technical means, a mechanism for cooperation in the whole process of each department can be constructed <sup>[6]</sup>, the process optimization of online and offline business processing can be achieved, and short time and efficiency in improvement can be obtained.

Thirdly, enhance the ability to collect law enforcement evidence accurately: The evidence collection ability of law enforcement departments is crucial to the digital construction of the government. Using big data analysis and other technologies to improve the collection of information of relevant enterprises by law enforcement departments can help the law enforcement departments to accurately and effectively combat enterprises with externalities and minimize the tragedy of the commons, indirectly optimize the business environment <sup>[7]</sup>.

### **3. The risk of building a digital government to optimize the business environment**

The primary task of building a digital government is to develop a model for speaking, making decisions, managing, and innovating with data, which requires the extensive use of digital technologies. However, any technology will have both advantages and disadvantages, and digital technology also has its own risks, which are reflected in the process of optimizing the business environment, and to a large extent the rule of law risks that need to be prevented and solved <sup>[8]</sup>. Below are few of the disadvantage of digital technologies.

Firstly, data collection can leak the corporate secrets: The process of building a digital government requires collection of a large amount of data and information, which is conducive to timely disclosure of information from government departments and enterprises to enhance the openness and transparency of their own governance <sup>[9]</sup>, meanwhile the disclosure data can also increase the difficulty of information protection, which can easily cause confidential leaks.

Secondly, the digital divide increases the burden on enterprises: The digital divide, is a trend where the difference in the digital globalization process is increasing due to the different levels of information and information technology mastery by society, enterprises, and other subjects <sup>[10]</sup>. It is often reflected in the daily life of the elderly, and micro and small enterprises, and other disadvantaged groups which are unable to enjoy the convenience of digitalization <sup>[11]</sup>. Similarly, for many micro and small enterprises, providing a large amount of information and implementing the digital transformation may be a burden for the enterprises.

Thirdly, the algorithm black box infringes on the power of enterprises: The algorithm itself is not completely transparent due to the complexity of the technology, and the exclusivity of the user, which causes the unknown process of the algorithm for the enterprise, which can only passively accept the results of the algorithm for the enterprise and has the possibility of being infringed <sup>[12]</sup>.

Fourthly, unknown algorithms affect the reputation of enterprises: The database of digital government is often difficult to exclude some abnormal data, thus leading to unknown algorithm which in return leads to the government department's mistake to regulate and enforce laws on certain enterprises. Further, it may generate algorithmic unknown risks, subsequently, affect the corporate reputation<sup>[13]</sup>.

#### **4. The response of building digital government to optimize the business environment**

Patrick Dunleavy, a leading proponent of digital governance theory, systematically elaborated the theory in 2006, where digitalization is a process emphasizes reintegration, demand-oriented holism, and digital operation of government at the organizational, process, and technical levels, respectively<sup>[14]</sup>. The responses of a building digital government to optimize the business environment can be described based on three levels.

First: Laws and regulations should be used to regulate the data collection behavior of government departments for enterprises. Appropriate legislation should stipulate the scope of application of government departments' power to collect the data<sup>[15]</sup>, ensure the security of enterprise data, and the orderly flow among government departments, further try to avoid the leak of data and confidential information.

Second: Form a specialized agency to collect data and to review abnormal data, by selecting dedicated personnel to improve the data accuracy. Real-time monitoring of data while reviewing data, establishing a sound risk prevention, control early warning mechanism<sup>[16]</sup>, and mitigating the consequences which are caused by algorithmic black boxes, and unknown algorithms as much as possible.

Third: Strengthen the cooperation between government and enterprises. Government departments due to their technical and functional limitations, it is more difficult for them to achieve continuous optimization of the business environment, therefore there is a need for synergistic cooperation between government departments and enterprise in the process of business environment optimization<sup>[17]</sup>, to effectively achieve the goal of optimization at the same time can strengthen the communication and cooperation between the market players.

Fourth: The needs of enterprises as a guide to optimize the government process. Optimization of the business environment should be based on the needs of the particular enterprises, where big data analysis and other methods can be used to predict the needs of enterprises, subsequently, provide personalized services to the enterprises based on their demands<sup>[18]</sup>, and effectively improve the efficiency of business environment optimization.

Fifth: The promotion of information technology applications to enhance innovation and intelligent services. Government departments are good at using big data analysis, AI and other digital technologies to make up for the lack of empirical intuition, provide more transparent and convenient services for enterprises, and make decisions with more intelligent and scientifically<sup>[19]</sup>.

#### **5. Conclusion**

Optimizing the business environment is a key indicator for assessing the performance of digital government, therefore the construction of digital government is also a key factor in optimizing the business environment, and its impact is reflected in the open sharing of public data, the common sharing of government information, and the accurate collection of law enforcement evidence<sup>[20]</sup>. However, everything has two sides, the construction of digital government will prove an important impact on the optimizing of the business environment, but it also can cause risks. Some countermeasures are proposed in this paper to address these risks, namely, regulating the data collection behavior of government departments for enterprises by laws and regulations and others.

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## Disclosure statement

The authors declare no conflict of interest.

## References

- [1] Shi Y, Wang Y, 2022, Business Environment and Digital Transformation of Enterprises: Impact Performance and Mechanism of Action. *Journal of Beijing Jiaotong University (Social Science Edition)*, 21(2): 14-28.
- [2] Chen T, Gao AL, 2021, Study on Optimizing Business Environment Driven by Digital Transformation of Government: The Case of Dongguan City. *E-government*, 2021(03): 83-93.
- [3] Song L, He C, 2018, The Logic and Promotion Path of the Reform of Management and Service under the Perspective of Optimizing Business Environment: An Analysis Based on the World Bank’s Business Environment Indicator System. *China Administration*, 2018(04): 67-72.
- [4] Xu J, Sha T, Business Environment, Technological Innovation and Total Factor Productivity, *Research World*, 1-9.
- [5] Xie Y, Wei J, Hao X, 2005, Research on Information Technology Barriers and their Countermeasures. *Intelligence Theory and Practice*, 2005(05): 557-560+556.
- [6] Lei H, Tang S, Sheng Y, et al., 2021, Process Digitization, Supply Chain Information Sharing and Firm Performance. *Journal of Hunan University (Social Science Edition)*, 35(06): 67-79.
- [7] Peng H, 2022, The Logical Structure and Empowerment Boundaries of Data Tenure: A Perspective of “Tragedy of the Commons” and “Anti-Tragedy of the Commons”. *Comparative Law Research*, 2022(01): 101-115.
- [8] Han C, 2021, Optimizing Business Environment and Digital Government Construction. *Journal of Shanghai Jiaotong University (Philosophy and Social Science Edition)*, 29(06): 31-39.
- [9] Huang W, 2022, The Disclosure of Enterprise Intellectual Property Information in the Context of Big Data. *Journal of Shanxi University of Finance and Economics*, 44(S1): 20-22.
- [10] Liu H, Cheng N, 2022, Study on the Multifaceted Challenges of Global Digital Governance and China’s Countermeasures. *Northeast Asia Forum*, 31(03): 19-28+127.
- [11] Ran X, Hu H, 2022, Urban-Rural Disparities, Digital Divide, and Health Inequalities in Old Age. *Journal of Population*, 44(03): 46-58.
- [12] Wang S, Ma R, 2022, The Construction of a Black-Box Regulatory System for Smart Investment Algorithms in the Context of Financial Data Security. *Journal of Social Sciences*, 2022(02): 86-95.
- [13] Xiao Y, Sheng Y, Tong B, 2020, Enterprise Reputation Management System Based on Enterprise Identification. *Journal of System Science*, 28(03): 76-79.

- [14] Patrick D, 2006, *Big Era Governance: IT Corporations, the State, and E-Governance*, London: Oxford University Press, 233.
- [15] Ding HM, 2018, Local Government Big Data Governance: Actions, Challenges, and Responses. *Journal of Zhengzhou University (Philosophy and Social Science Edition)*, 51(01): 76-80.
- [16] Liu S, Liang J, Zhang Y, 2020, Research on the Prevention and Control of Bank Credit Risk under the Threshold of Big Data Technology. *Guizhou Social Science*, 2020(12): 121-128.
- [17] Lu S, Jing S, Sun Y, 2021, Collaborative Research on Government Services to Help Optimize the Business Environment. *China Administration*, 2021(08): 146-148.
- [18] Liu G, Liang H, 2019, Optimization of Business Environment from the Perspective of Externalities: A Study Based on the Demand-Oriented of Enterprises. *China Administration*, 2019(11): 52-59.
- [19] Dong KY, 2015, Five Key Points of Optimizing Government Services. *Journal of the National School of Administration*, 2015(04): 9-11.
- [20] Liu D, Dong B, Lu Y, 2021, Enterprise Code: A New Exploration of Government Digital Service Enterprises in a Double-Loop Pattern. *E-Government*, 2021(02): 53-63.

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