Study of E-government Under China’s Government Reform

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Keywords: Large department system reform, Government reform, E-government, SWOT.

Abstract. This article describes the current reform of the administrative system in China, the fundamental situation of the Large Department System Reform. Mainly it implies the influence of the Large Department System Reform on the development of the E-government. With the help of the model of SWOT, from four aspects, its strengths, weaknesses, opportunities, threats, it totally analyzes the influence of the Large Department System Reform on the development of the E-government. In order to improve and promote the development of the E-government, it propose four strategies, Strengthen the top-level design, Restore the IT architecture, Reengineering the business process, Strengthen the information integration.

Introduction

Recently, with the optimization of administration and the change of the times, the improvement of administrative efficiency of the government and the "Large Department System Reform" have gradually become the development direction of the government reform in China, that is, expanding the scope of business under the jurisdiction of a single department, responsible for the tasks linked or intercrossed, in an effort to achieve the purpose of concentration, streamline, efficiency, responsibility.

The promotion of large department system and construction of service-oriented government provide a great opportunity for the development of e-government in China. As far as the current situation is concerned, the gradual reform of the administrative system has just started. There are still many places that are not in place. However, after all, the direction of the reform has emerged. E-government should, of course, play an important role in the process of transforming government functions and building a service-oriented government. The fundamental purpose of the system reform of the government administration is to build a service-oriented government. The construction and development of e-government needs to support the current and future administrative management system reform in our country and become a comprehensive information platform for government management innovation [1].

Large Department System and E-government

In China, Large department system refers to “in the government institution, enabling a single department to centrally manage the similar or even the same tasks among several independent departments, in an avoidance of repeated management, so as to enhance administration efficiency and reduce administrative costs”[2].

Table 1. Changes in the number of state council institutions of China (Data source: Internet).
The structure of government organizations is determined by the structure of government functions which is also determined by the needs of social development. Since the establishment of a socialist market economy began in the 1990s, the government under the original planned economic system and its organizational structure has been unable to adapt to the development of the times under the new situation. In addition, the requirements of our government and its departments to further change their functions and the organizational structure of the government have been repeatedly reformed and optimized, and they have gradually moved toward the large department system and service-oriented government. The reduction in quantity is based on the further improvement of the government functions that are considered by the government administrative reality and the optimization of the government operation mode so as to facilitate the rational integration and sharing of various government resources [4].

However, at an age full of information, the impeded information has seriously hindered the progress of governmental informatization and the enhancement of execution efficiency of government. The purpose of large department system reform is to build a service-oriented government, so does E-government. The most direct impact of the large department system reform is the reduction in the number of departments, which will help to reduce "Islands of Information" and "Data Chimneys". On the one hand, the overall structure of the government will be flattened without redundancy with an enhancement on the handling of relevant public affairs as well as an improvement on the service quality and efficiency on the public services; on the other hand, the proposal facilitates the cooperation among departments, with a reduction on the costs caused by information communication and transportation. The E-government confronts a rare opportunity for development in the wave of the large department system reform.

**SWOT Analysis**

SWOT analysis is a comprehensive analysis of strength and weakness crisis, it is a situational analysis method first proposed by Albert S. Humphrey, a U.S. commercial and management consultant. Through the comprehensive analysis and evaluation of the strengths and weaknesses of the research object and the opportunities and threats in the environment of the research object, it draws to a strategic plan suitable for the development of the research object. It is reasonable to analyze the development of E-government in this context with the use of this method.

**Information Infrastructure.** The E-government construction in our country started from the construction of office automation system in 1980s. In 1999, the government started the "Internet Project of Government", marking that China's E-government construction has entered a substantive stage of development.

Table 2. Change in the number of government websites in our country (Data source: CNNIC [5]).
With the support of national policies and the guarantee of state finance, the infrastructure for E-government and government informatization in our country is gradually being improved and the hardware equipment is gradually being completed. By now, although there is still a gap compared with the countries that started E-government earlier, they have already crossed the stage of providing only simple information service. Government websites have gradually started to provide online services, interact with the public, which makes it easier for the public users.

**Institutional Barriers Gradually are Eliminated.** The implementation of the large department reform broke some of the drawbacks of the original government administration system and reorganized the organizational structure of the government from the most fundamental functions of government departments, which will greatly facilitate the sharing of government information resources and the realization of the integration of government information resources and also significantly enhance the efficiency of government departments.

Due to the reorganization of departments and the gradual elimination of institutional barriers, the so-called "cross-sector business" involving multiple departments turned into a daily operation within one department, and the redundancy among departments will be gradually decreased. The implementation of e-government construction enables e-government "one-stop" service with more adequate conditions [6].

**Policy Support.** In order to speed up the process of the construction of E-government and government information in our country, the General Office of the CPC Central Committee and the General Office of the State Council have successively issued a series of important documents, such as, Guiding Opinions on the Construction of E-government in our Country, Opinions on Strengthening Information Security and Security Work, Strategy for National Informatization Development between 2006-2020, Overall Framework of National E-government, Construction of Country’s Information Engineering in the 12th Five-year Plan and National E-government in the 12th Five-Year Plan, which clarified the guiding ideology, objectives, tasks and development strategy for the construction of E-government and government informatization in our country at this stage. These documents have been promulgated one after another, effectively safeguarding and promoting China's E-government and government information construction.

**W: Weaknesses**

**Technical Problems.** Since the initial stage of our country, E-government has been carried out separately in all levels of government and in different departments. There are no unified strategic plans and various departments are independent of each other. A considerable part of the E-government system has not been unified. These independent, distributed, closed, heterogeneous systems make it difficult to achieve interoperability between each other, thus forming several "islands of information." Therefore, in the top-level design of E-government construction, things that are relevant to the overall situation, such as network platforms, security platforms, switching centers and databases, must be unified and all departments should not act independently. In order to improve the efficiency of the department, individual department can certainly construct their own business systems independently. However, the system must be able to be docked on a unified platform so as to avoid duplication and waste as much as possible.

However, at the present, the construction of E-government is not yet unified. Technical difficulties have always been difficult, and the network, data, information technology level is still at a low level, which will limit the development of E-government of our country.

**Talent Shortage.** Actually, talent is the key factor in the development of E-government, of which the development cannot be separated from the support of professionals. On the one hand, among the current education system in our country, there is no clear definition of "E-government" in the directory of enrollment under the Ministry of Education. Therefore, at present, there are only more than 20 undergraduate colleges and universities in our country to recruit E-government students, which are mostly anchored in a professional research direction. Such an education system has led to the fact that the number of E-government professionals currently trained in our country is too small to meet the needs of the ever-growing E-government [7].
On the other hand, E-government professionals must have comprehensive talents with good command of three aspects, that is, information technology, specific government affairs and management science. The qualified E-government professionals trained at this stage are very scarce. According to a survey conducted by relevant departments in 2004, all provinces and cities seriously lack the talents who know both IT and management. Only 2.3% of the total demand is met. In spite of several years of development, there is still a great gap of such talents [8].

**Mechanism Inertia.** The inertial influence of the old government administration system and service idea on E-government is the following aspects: Under the old system, the allocation of resources in the Department is a considerable power, which is likely to be dissimilated as the privilege of a certain individual or department. E-government usually manifests itself in pursuit of self-system, paying too much attention to the interests of the department, thus forming a block of separatism, and even some departments refuse to cooperate, directly blocking the interconnection.

Obviously, it is in the integration of resources that huge institutional and management obstacles have occurred. Various departments are unwilling to share their information resources, but in fact, it is the departmentalization of right, profitability of department, and legalization of benefit paly a dominated role. Hence, the breakthrough of the inertia of old system which leads to the failure of integration and sharing of resources has become a quite significant issue in the construction and development of E-government.

**Lack of Public Understanding.** The situation that the public services in our country are still in a underdeveloped state leads to the lack of understanding of the newly established and developing E-government. The notion of pure instrumentalism, the emphasis on electronic than government affairs is the main manifestation of the lack of understanding of the new mechanism. For example, the understanding of many department on E-government is still limited to computerization, namely, using computer system stimulate or reshape the traditional mode of government administration.

**Shortage of Funds.** The development of E-government depends on three prerequisites: information technology infrastructure, human capital and networking, all of which undoubtedly require significant funding. At this stage, contrast to the fact that China has spent a great deal of money on solving these three preconditions, but the fund used for the information sharing among departments is relatively little, which limits the information sharing among departments. Although large department system reform has objectively reduced the number of departments, the fund served for the information sharing among departments is still limited.

**O: Opportunities**

**Increase on the Enthusiasm for Public Participation.** The opening of the government Weibo in 2009 and the release of the WeChat official platform in 2013 not only provide convenient platforms for government to communicate with the public, but also opens up new channels for government to release information and helps to enhance the government's influence, and also helps ordinary people. Especially during the "two sessions" each year, "Weiibo politics" and “WeChat politics” have become a trend. The concern of the public about the social affairs and state affairs continues to increase, and the enthusiasm for democratic participation continues to increase, which is the external impetus for the development of E-government.

**Cooperation between Government and Enterprises is Starting.** Recently, the cooperation between companies and governments can form strong complementarities in each other, so as to activate the information resources both owned by each side and provide them with the necessary resources so as to more fully tap into the value inherent in these data and information. The cooperation between governments and enterprises can effectively collect and collate the data and can depict the panorama of the digitized society. And also, big data and cloud computing used in companies can help governments. Through the scientific analysis of the data, it is possible to find out the patterns and laws of social operation that were difficult to understand in the past and the existing problems, which will undoubtedly greatly help the government, make government work more efficiently, scientifically and democratically and vigorously promote the government information disclosure, E-government and government information process.
T: Threats

**Information Security.** Traditional thinking holds that information security is nothing more than a technical problem that equates information security with network security. However, information security is not only a technical issue, but also must be comprehensively understood from many angles, such as the combination of politics and technology, the combination of management and technology, and the combination of people and technology.

Information security can be roughly summarized into two aspects: one is the content of security issues, which mainly involves the political and public opinion, including all kinds of bad information, harmful information, criminal information. The other is the network security issues, the network is a combination of technology and the product of the community, network security is mainly to consider the key infrastructure and network environment security.

**Laws and Regulations are Imperfect.** In terms of E-government legislation, on the one hand, the state of construction and development of E-government directly provides the basis for the formulation of relevant laws and regulations; on the other hand, the implementation of laws and regulations also affects the process of E-government construction and development or affects the pace of development of E-government. More importantly, looking at the world, E-government legislation can be regarded as an important node in the legislation of the world today. To achieve the simultaneous alignment with the world, especially after China's accession to the WTO, the importance and urgency of legislation on E-government is even more important. Compared with other developed countries in the world, the progress of E-government legislation in our country has been very slow. The reasons include institution, concept, of course technique.

**Inertia of the Public.** From a public point of view, the inertia of old notion prominently shows that the public's understanding and positioning of the government only remain in the object of being controlled rather than being served. Therefore, the public cannot express its own demand for service and demand for rights in a powerful way to the government, so that the government encounters certain difficulties in collecting public demand information and improving public services, and makes it difficult for E-government to grasp in time and accurately the public intentions to meet their needs, restricting the development of E-government.

**Strategic Analysis**

**Strengthen the top design**

Originally designed as an engineering term, the top-level design has now become a new political term in China. Its meaning is: From a global perspective, centering around the core objective of an object, make overall consideration and coordination of all aspects and elements of the object, and make overall and comprehensive planning and design of the basic structure of the object and the inter-element operation mechanism [9]. In other words, comprehensive evaluation of all levels and elements of a thing, starting from the root causes of things, the overall situation, at the highest level to find a solution to the problem. The main problems that exist of China's E-government in the background of government reform are as follows:

**Duplication of the Construction of Investment Resources.** From the current situation, according to their own business development needs, the government departments formed a relatively isolated system independent planning of information resources, independent construction or construction of blocks, to some extent, there is duplication problems in the construction and investment of basis infrastructure and basic data.

**Relative Independence of the Use of Data Resources.** At present, the information systems in various departments are basically used independently, and coexist with each other in the form of distributed systems. Therefore, the information resources among various departments are closed to some extent. Since effective sharing mechanisms and technical standards have not been established
yet, the degree of sharing is not high, the mutual utilization rate between departments is very limited, the potential of resources to be explored urgently.

**Management of the Whole Life Cycle of Information Resources has not been Formed.** Information resources are composed of four links, such as collection, processing, utilization and exchange, which constitute a complete life cycle. At present, due to the overall coordination and management of government information resources is not enough, the seamless connection of life period management has not yet been achieved, especially the information collection and information sharing. The integrity, authenticity and timeliness of the information are not adequately protected.

**The Overall Coordination and Management of Information Resources and Development and Utilization Mechanisms need to be Improved.** In recent years, with the joint efforts of departments, some policies and systems have been provided for the development and utilization of public information resources, but they are still not perfect. For instance, the public information resources, especially there is a lack of relevant mechanism and progress on the open or confidential of government information resources, collection, distribution and storage, sharing exchange mechanism, supervision mechanism, which need to be further enhanced and enriched [10].

**Restructuring of Business Processes**
The so-called process reorganization of government department business, as the name suggests, is to take the existing government business processes transformation as the object and center, take to the public needs and satisfaction as the goal, re-plan and re-design the existing government departments, with the use of modern management tools to maximize the integration of management functions in order to achieve the government departments in the cost, service, speed and quality of great improvement. The model is based on the government administrative business process as the center, to break the traditional pyramid management model, in order to achieve flat management, so as to adapt to the high efficiency and fast pace of information technology, to achieve effective communication within the government. Government reform can be seen as a manifestation of the reorganization of the business processes of the government departments. The departments in the end are merged, the businesses are merged, and the E-government needs the reorganization of the business processes of the government departments. Government reform will create opportunities for them.

**Increase the Integration of Information**
The integration of information in E-government is an information construction process, which is to collate, merge and organically integrate the existing office information resources, including the hardware, software and internet associated with E-government and the information itself according to more scientific and reasonable methods, by virtue of organizational management, system ideas and advanced information technology, under the leadership of certain organization in the premise of the rapid development of information technology, the continuous expansion of application fields, the complicated management decision-making, the change of environment and the explosion of data, in order to realize the sharing of information resources, data interconnection and mutual visits, and to generate new information aggregates that meet the needs of different users, different scenarios, value added of the existing information[11].

The integration of government information resources is an organic integration, a comprehensive system facilities the application of public department and public. The database resources come from different government departments and different administrative level governments, covering all aspects of government administration, through the original unity and relevance of government information resources.

**Promoting Information Integration**
At the beginning, there are several different software system such as OA, ERP, in different government departments, the data format, the database category, operating system and application system are different, dispersed, and are independent of each other, and even some departments,
under the same system of finance, office and so on system construction also independently, each other can't share data and resources, data integrity, and availability. They have set up a lot of system to solve the problem of "information island", according to the department's actual situation, design a set of economic and efficient solution, information integration is the effective way to solve this problem.

E-government affairs information integration is in the rapid development of information technology, applications continue to expand, complication of management decision, the environment changes, the data explosion under the premise of more, to a certain organization under the leadership of with the aid of organization and management, the system of ideas and advanced information technology, the existing government information resources, including the electronic government affairs related hardware, software, network and information itself, according to a more scientific and reasonable method of sorting, merging, organic integration of information construction process, to realize information resources sharing, data interconnection visits, generate new information aggregation of meet the demand of different users, on the basis of existing information value-added information[12].

Information integration is not a simple superposition of information resources, it is a system engineering. And in the integration process, it is necessary to ensure that the data redundancy in the shared repository is minimal [13].

For government information resources, the integration is to come from different government departments, including the database resources, government management aspects to carry on the organic integration, through the original uniformity and relevance with the help of the government information resources, make it become a system, a friendly , convenient government departments and easy to public use.

Summary

Only by strengthen the top-level design, restore the IT architecture, reengineering the business process, strengthen the information integration, can improve and promote the development of our E-government. There is a saying in the Accenture Report on the 2004 E-government Survey of 24 Countries around the World: "Only with a sound regulatory framework and the political will to push forward the entire government reform, government services reform will come true." [14] This is probably a good guidance for the development of E-government in a country like China, which is in the midst of magnificent reform.

References


