Evaluating the readiness of government portal websites in China to adopt contemporary public administration principles

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ABSTRACT

This article aims to evaluate whether the e-government development in China is ready to adopt contemporary public administration principles. In response to these questions, we propose an evaluation framework that integrates the contemporary public administration principles and current web-quality evaluation theories. The proposed framework evaluates government portal websites in terms of their content, function, and construction, following the theory of website evaluation. The indices for each of these dimensions emphasize interactions, transparency, efficiency and effectiveness, all of which reflect the contemporary public administration principles. The validation analysis shows that the proposed evaluation framework well fits the data. The empirical studies suggest that China has implemented advanced e-government services.

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1. Introduction

E-government is currently being implemented worldwide. Most government institutions now have their own space on the internet, thereby allowing citizens to find information and, increasingly, to engage in e-government services (Pieterson, Ebbers, & van Dijk, 2007). E-government is the joint product of information technology and new principles of public administration. It has been a key element of public service reconstruction undertaken by many countries in the 21st century. As a result, government portal websites have become one of the most important channels for public service delivery and for citizen–government interaction, and the performance of these portals ultimately reflects the effectiveness of a country's e-government platform. Accordingly, a systematic approach to performance evaluation and management of these portals is essential to enhance the managerial performance and overall level of e-government implementation.

A number of studies have been conducted in developed countries (e.g. Lee, Tan, & Trimi, 2005; Torres, Pina, & Royo, 2005), including the U.S., EU countries, Australia, New Zealand, South Korea, and Singapore, as well as Taiwan and Hong Kong, which are regarded as leaders in e-government development. In these developed countries and regions, e-government is characterized by advanced services, such as e-democracy and the integration of services and resources. In general, there has been limited research on the effectiveness of e-government, especially in developing countries (Schuppan, 2009).

There too has been some attention to e-government in China, with emphasis on e-government development. Ma, Chung, and Thorson (2005) reported the progress of China's e-government development and analyzed the relation between e-government and the economy of China. Chen, Chen, Huang, and Ching (2006) studied and compared the systems of e-government in Shanghai and in the U.S. However, that study only considered one city in China and focused on the level of implementation: that is, how well the network infrastructure was constructed. Chen, Pan, Zhang, Huang, and Zhu (2009) conducted a case study on a social security smart card project in Shanghai to demonstrate how local e-government can be implemented in such a huge city.

Although China adopted e-government later than most developed countries, the central government has put a lot of resources and effort into supporting its development (Zhang, 2002). The initiation of the three Golden Projects to build a sophisticated information network throughout the country is regarded as a critical step in the development of e-governments in China (Ma et al., 2005). The three golden projects were namely "golden bridge project," "golden card project," and "golden gate project." The "golden bridge project" aimed to build the fundamental information system infrastructure of the nation such as FDDI network, satellite communication, broadband, etc. The "golden gate project" aimed to develop the backbone electronic interchange system (EDI) for the nation's economic and trading system. The "golden card project" aimed to promote the use of various forms of digital currencies and personal identifications such as credit card, smart ID card, and online banking. Based on this information network, the State Council of China first implemented the Government Online Project (GOP) in January 1999 and then released a 5-year plan for the construction of China's national information network and e-government administration in 2001, to promote the application of internet-based technology at all levels of

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government. China is reported to have invested 1 trillion yuan (US$ 121 billion) in e-government applications, ranging from office automation and e-commerce promotion to government websites (Yong, 2003). China's nationwide e-government program is an extensive and intricately planned initiative involving ambitious goals and large-scale implementation.

Results of e-government research in China have been somewhat contradictory. For instance, the UN/ASPA ranked China at 74 on its e-government readiness index (UN, 2003). In contrast, Brown University's Taubman Center for Public Policy ranked China 7th in the world in 2002 and 12th in the world in 2003 in terms of effective e-government. These inconsistencies may be due to discrepancies in the basic principles guiding the evaluation indices.

The objective of this study is to examine the readiness of e-government development in China to adopt contemporary public administration principles. The portal websites of the governments of 30 provincial capital cities in China are studied to show the status of the development of e-government in China. This work and the study of government portals are important for several reasons. First, government portal websites are interfaces between government and government, government and business, government and internal employees, and government and citizens. Second, as Lee et al. (2005) stated, the integration of services and resources is a more advanced stage of e-government development. Torres et al. (2005) asserted that portal websites are able to deliver more advanced services, because they usually integrate resources and services based on the demands of the user. Accordingly, it is reasonable to state that the design and operation of government portal websites is a direct reflection of government strategy. Third, researchers often use government websites to represent e-government. Jiang and Xu (2009) studied the online structure of China's provincial government websites to ascertain how governments used the websites to improve their legitimacy and to control citizens' political participation. Holliday and Yep (2005) observed the progress of e-government development in China by conducting a content analysis of government websites. Zhou (2004) studied the content arrangement of Chinese government websites to observe how the government performed its functions via information technologies.

Government portal websites are the application of web technologies for public administration affairs. In focusing this research, we felt that it's necessary to discuss and analyze contemporary public administration principles, the principles of e-government development adopted by China, and web quality evaluation theories.

2. Contemporary public administration principles under the information technological backgrounds

Following the idea of Moe and Gilmour (1995) that a principle for public administration should affirm the distinctive characters of public administration and should also provide guidance to public administration practices, we define public administration principles as rules that should be followed when conducting public administration and should become essential characteristics of e-government systems.

2.1. The emphasis on effectiveness and efficiency

Efficiency and effectiveness have always been important principles of public administration. Both government agencies and researchers have included efficiency and effectiveness as the key principles. Organization for Economic Co-operation and Development (OECD) stated that an efficient government should follow seven principles. Efficiency is one of them (OECD, 2001a, 2001b). Following the principles identified by the OECD, Groot and Budding (2008) argued that public administration in the new age should focus on aspects such as improved competitiveness by increasing efficiency and effectiveness. The e-government Office, a subsidiary of the Executive Office of the President Office of Management and Budget (U.S.), suggested that government portal websites should be result-oriented, improving the efficiency and effectiveness of government organizations. In the context of government portal websites, efficiency and effectiveness are requirements of service quality, which refer to what types of functions should be included and how well the functions can be accessed (Ancarani, 2005).

2.2. Contemporary requirement on transparency and interaction

The penetration of internet and web technologies brought the world new concepts like online-citizen and virtual community which totally differ from the aforementioned in the traditional public administration. This required that e-government development regard citizens as consumers of public services; also placing more emphasis on the interactivity between citizens and government. OECD's report emphasized participation, consultation, and transparency. The e-government Office of U.S. suggested that a perfect website should be citizen-centered, allowing the citizens to interact with the government and receive services via internet while also allowing feedback from the citizens so as to make the interaction bidirectional. Kapucu (2009) and Haque (2007) also held similar opinions in their research. Kapucu (2009) argued that an e-government should increase public access to information (transparency) and improve democracy through e-participation.

There have been many discussions on the meaning of transparency in Chinese academic publications. The basic idea is that transparency means that the government or government agencies should publish information about administrative affairs, activities to public following the regulations of the government; and the information published should be able to be searched, copied, downloaded, heard, or watched by citizens (Chu, 2003; Yao, 2005).

Based on the literature, we believe that transparency of public administration means that not only typical information such as policies, regulations, and officials should be known to the citizens (Kapucu, 2009) but also the administrative process should be known by the citizens (OECD, 2001a). On the other hand, interactivity should allow the citizens to participate in the administration of the society which means not only receiving information but also being able to give feedback.

2.3. Integration of services

However, the idea of "citizen centricity" infers meanings beyond information access and online participation; as citizens are not just participants in the demographic system, they are also customers and business partners of government (Tan & Benbasat, 2009). The former role again requires high level service quality so that the services can be delivered to citizens. The latter actually requires the government to create value added services which are related to operations behind the websites, such as the integration of various resources as suggested by Moon's (2002) five stage model of e-government development. The five stage model suggests a trend from simple information providing focused design of government websites, shifting to the integration of services in order to improve efficacy and efficiency.

This kind of demand for change in government operation caused by information technology is consistent with the contemporary principles of public administration, especially in the field of e-government. For example, legitimacy and rule of law (OECD, 2001a, 2001b) raise policy requirements to the operation of a government which will be reflected in all aspects of a government portal website: information, system, and services. Transparency, accountability, coherence, and integrity (OECD, 2001a, 2001b) are more related to services and information of a governmental portal website.

In summary as shown in Table 1, public administration in the new age also raises its requirement on services and contents. First, it should regard citizens as their customers such that the content of government portal websites should be transparent and adequate in order to satisfy the needs of customers, and services should be integrated so that they can be delivered to the public. Second, it regards citizens as participants