

User-Centered E-governance in Shanghai: Evaluation & Recommendation

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1. Introduction

The development of e-Government in China could be traced back from 1980s¹. In the metropolis like Beijing, Shanghai and Shenzhen, the e-Government systems has already been upgraded to the last stage, Stage 3: Enabling Constituents, according to the roadmap to effective e-Government². In other words, the systems and websites in these cities are supposed to deal with most administrative work online, however, 75% of e-services users, according to my survey, don't agree that e-Government has increased the governmental efficiency.

Nearly fifteen years ago, many articles began to address issues on e-Government worldwide. One dimension is related to Human Centered Design Theory, which advocates listening the need of users, creating and delivering the services with consideration of participants. Few Chinese e-Government officials admitted that they implemented this notion according to my interview. Thus, this theory may partly explain why inefficient performance in China with the advanced technology at hand.

This proposal aims to present the current performance of e-Government in Shanghai fundamental bureau, to explain the reasons behind the perception gap between users and government, to propose a new feasible user-involved framework for Shanghai government.

2. Literature Review

Many academic journals such as Government Information Quarterly have published plenty of researches on e-government focused on the practical and technical dimensions of getting information and services online, including presence, availability, efficiency, effectiveness, capacity, and design.³ In terms of human centered, it includes ease of use, ability to find and access content, navigation, and a general ability to use

¹ Lihui Cai, e-Government, Tsinghua University Press, 2009.09, P108

² The roadmap to effective e-Government, <http://www.youtube.com/watch?v=6tbHrLUUQrA>

³ User-Centered e-government: Challenges and benefits for government Web sites. Pdf, Government Information Quarterly 23 (2006) P163

the site for specific purposes.⁴ These articles help us to classify the definition of user-centered e-Government, which provides the standard for my survey.

In micro level, Asbjorn, Havard and John(2004)⁵ conducted empirical case study of European countries to contribute the theory of user involvement in e-government development projects. “It was found that user involvement is regarded as important by e-Government project leaders, but actual user involvement is often conducted according to the participation practice of industrial democracy rather than the processes and methods advocated within the traditions of HCI.” It challenges the traditional thinking of using HCI methods, and it implies that “ even though there seem to be a strong tradition for user involvement in e-Government projects, there still is room for improvement when it comes to the systematic involvement of users and the utilization of the combined potential in the practice of industrial democracy and the methods of HCI”.

What about the real situation of e-Government implementation in developing countries, China? Does e-government application improve the quality of Chinese public services? Especially in Government-to-Business section? To what extent could China put user-involved methods to use in e-Government with strong politics culture?

3. Research Methods

This paper mainly aims to seek the answers for the following two questions through needs assessment.

Question 1: Does e-government application improve the quality of Chinese Government-to-Business (G2B) public service?

Question 2: To what extent could China put user-involved methods into use in e-Government with strong politics culture?

Considering these two questions, the subject of research case is Shanghai Industry and Commerce Department, Luwan Branch. Industry and Commerce Department administrates business behaviors in different level. Luwan Branch stands for a local level of government’s ministering of business.

⁴ User-Centered e-government: Challenges and benefits for government Web sites. Pdf, Government Information Quarterly 23 (2006) P164

⁵ Asbjorn Folstad, Havard D. Jorgensen, John Krogstie, User Involvement in e-Government Development Projects, NordiCHI’04, October 23-27,2004 tamperer, Finland

The e-government application they used is called “online business permits inspection” which checks every firms with their business status, tax status, and their legal record of last year. Traditionally, business permits inspection involves 4 times round trip of each company and abundant of paper work on both government side and business side. From 2010, government began to apply e-permit application and online system to replace their traditional way of work.

In this case study, the methodology used is needs assessment approach, namely site visits, the in-depth interview and surveys of each participants involved in. The interviewees are including four groups:

- 1) the business firms in Luwan district selected randomly (Multinational Company 18% of the sample, State-owned Company 35% of the sample, Local Startups 47% of the sample)
- 2) Front-line government officials in Luwan (75% of the whole front-line crew)
- 3) technology officials in Luwan Branch (50% of the whole technology crew)
- 4) Top-level officials in Luwan branch (2 top-level leaders in Luwan Branch)

4. Findings

4.1 Users’ reaction to online business permits inspection

On balance, the interviewees favor e-services to reduce their time cost on transportation and to increase government efficiency and transparency.

However, the experience of using their online services at first time is not comfortable and sometimes will cost them more than before. The application of e-government, otherwise, uncovered inefficiency and the problem caused by top-down bureaucratic habit of Chinese local government.

1. Infrastructure Problem

Slow internet speed was the biggest flaw in this e-system, as the respondents reflected in the interview. Most of enterprises had met with internet congestion. Worse, their information can’t be saved simultaneously and therefore they should refill the form repeatedly.

2. Asymmetric information when implemented

Enterprises complained of asymmetric information which resulted in waste of travel cost on them to confirm the regulations of different departments within Luwan district back and forth.

3. Public service in double-track

This is the most weird part in this e-system. Online business permits inspection requires firms to print everything that they put in to the computer. In other words, they shifted the burden of paper work on enterprises. They use both traditional way and e-government service, doubling the work of everyone.

4. Stiff and bureaucratic management.

For those local startups, which may consists of technical-illiterate people, they thought e-government didn't better them off, on the contrary, they prefer traditional paper work.

4.2 Front-lines' response to online business permits inspection

Front-lines believe that the online business permits inspection increases the transparency of their work. For instance, they can "correct" some big errors for enterprises in traditional paper work, it leads to reasonably corruption that enterprises will be likely to bribe civil servants to do so. In e-service, their performance are recorded everyday, reduces the probability of "correction behavior".

Front-lines also believe the e-service they provided is not perfect, sometimes both enterprise side and local government officials will be worse off. For instance, designer created e-permit which can't work smoothly on the government's systems. It cost front-lines more time than before.

4.3 Top-level officials' response to online business permits inspection

Both top-level officials appreciated that e-government service increases the efficiency and transparency for them. They admitted that "due to the first time of using new technology, it's common for enterprises to complain some flaws in their systems. If they are used to it, it will be fine in the future.

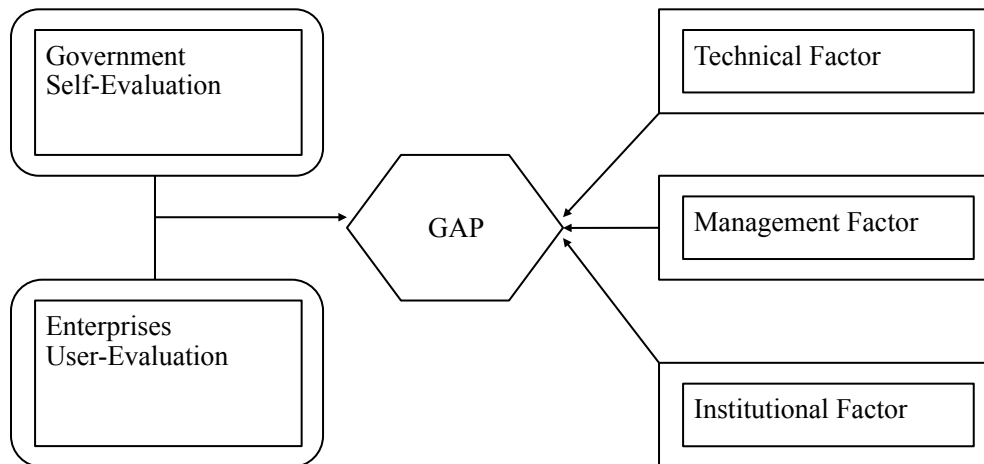
The top three barriers of e-government services they believed is 1) data security 2) illiteracy in civil servants 3) management challenge

4.4 Technical official's response to online business permits inspection

The technical officials revealed the process of e-government's design and database management. It is designed by a technology company which owned by a state-owned company. From 1990s, the civil government was planning to build online system for G2B systems. Now, the e-government database was managed by the government of city level. The technical officials in local area only has limited access to fix technology problem in each level. They don't care too much about other ends in e-services. They only focus on ensuring it was executed.

5. Problem Analysis

Considering the findings above, it is easily found that there is a huge difference between user's responses and government's. Sometimes, the comments from users are ignored by government because they can't change a lot as a local governmental official. However, there is no other means for users to review or make suggestion for upper officials who designed the system. This leads to the slow speed of development of Chinese e-Government. Besides, there are three influential factors discussed in the following part. Below is the model based on the discussion.



Model: User-Government Gap and Influential Factors

5.1 Technical Factor

Although the hardware in China is advanced, the software and tech-illiteracy in most of civil servants makes severe “information island” phenomenon,⁶ which causes department fraction, and information asymmetry.

⁶ Yang Li, Zhongda Chai, Information and Governmental Reform in China, Management World, 2005 P147

For Instance, the new information of a snack store filled in department of commerce and industry will not be updated in other department, like tax department. Therefore, the enterprise of this store should fill in his information in two different websites, even go to the departments himself to revise some details. It is a waste for both enterprises and government.

5.2 Management Factor

Management factor that affect performance of e-Government comprises strong bureaucratic culture, topdown habit. Rather than citizen-centered, officials always concern more about head's orders.

For example, when asking “how do you reflect the comments of users and fixed the problem of low internet speed?” The answer was “because it is the first time for enterprises to use this system, so that it is normal to face the low internet speed. Next year, they will used to it and will find a best time to log in themselves.” The frontline officers don't know who can fix the problem and don't want to change it themselves.

5.3 Institutional Factor

From the interview, in the most developed area of the most developed city in China, it is easily found that government doesn't change too much. It is still a “traditional government” with technology, rather than an “e-Government” which is service-oriented, citizen oriented.

From the model and discussion above, it could be concluded that:

Proposition 1: The government's self-assessment is inaccurate, partial and self-defensive.

Proposition 2: Customer's comments should be considered into the implementation to improve the quality of public service and government's capacity.

6. Recommendation

6.1 IDEO's HCD toolkit and challenges in Chinese context

IDEO's Human Centered Design toolkit for nonprofit organizations provides us a clear path on how to involve users into the design of organizations.

However, in the context of China, it is very hard to implement these phases into the e-government design because of its strong bureaucratic history and culture.

Hear Phase⁷

During the Hear phase, your Design Team will collect stories and inspiration from people. You will prepare for and conduct field research.

Challenge for Chinese Government in hear phase:

- Interviewees will conceal part of the truth because they are afraid of offending government too much according to my research survey
- Traditional topdown bureaucracy model in China usually implemented first and then revised

Create Phase⁸

In the Create phase, you will work together in a workshop format to translate what you hear from people into frameworks, opportunities, solutions, and prototypes. During this phase, you will move together from concrete to more abstract thinking in identifying themes and opportunities, and then back to the concrete with solutions and prototypes.

Challenge for Chinese Government in create phase:

- The design group is made of most technical experts with few knowledge of public management

Deliver Phase⁹

The Deliver phase will begin to realize your solutions through rapid revenue and cost modeling, capacity assessment, and implementation planning. This will help you launch new solutions into the world.

Challenge for Chinese Government in deliver phase:

- The difference in perception between frontline workers and leadership team

6.2 Recommendations for user-involved e-government design and implementation

⁷ IDEO's Human Centered Design Toolkit at: <http://www.ideo.com/work/item/human-centered-design-toolkit/> Page 7

⁸ IDEO's Human Centered Design Toolkit at: <http://www.ideo.com/work/item/human-centered-design-toolkit/> Page 7

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Considering the comparison between theoretical HCD model and challenges in the context of Chinese government, I have put forward several proposals.

In Hear phase, to collect full picture of users, government could hire a third party such as university to conduct interviews. To prevent the conceal of information out of strong political culture, “Bollywood” method is recommended in interviews.

In Create phase, to offer better interface with users and frontline workers. It is recommended to involve frontline workers into designing group as well as customer opinion.

In Deliver phase, to implement the ideas of leadership team, training of frontline workers is crucial in this period. Although training of e-government service is prevalent in government, the training of particular case and notion of user-centered is much less than pure technical part.

7. Conclusion

E-government is one of the most important issue on Chinese government’s agenda. However, “Government with pure technical support” is not the true meaning of “e-government. The perception gap of government’s performance between users and government in this paper reflected the huge space of improvement for government. However, the process of design and implementation involving human centered design faced many challenges in the context of China. Third party research, interdisciplinary design team and specific training may help to overcome this challenges to enhance the capacity of Chinese e-government.

8. Reference

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