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Analysis the Present Situation of Chinese Electronic Government Based on Fundamental Data

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Abstract: Electronic government can improve service delivery, transparency, and encourage citizens to participate government affairs which could promote government efficiency. This paper gives a full and statistics analysis on the data which collect from questionnaires by e-mail survey. Finally, the purpose of this paper is to offer some practical and effective advices for the future successful e-government development in China.

Key words: electronic government, statistics analysis, e-government development

1. E-GOVERNMENT BENEFITS

Electronic governance has developed as an information tool which could help government to apply information and communication technologies (ICTS) into different levels of government and public sector for improving service quality^[1]. E-government enhances the relationship between government and citizens, and which also make it easier or possible for citizens to participate in government-related issues^[2]. Brunschwig^[3] pointed out that it might improve the delivery efficiency of many public services, involving online transactions and information transparence about the operations executed by the administration. Additionally e-government could help citizens to make their contribution to government decisions that could improve the direct communication between citizens and the government^[4].

The primary purpose of e-government is to provide better services to the customer of public administration by using information and communication technologies, for example, offer services to citizens who are the large part of the benefits provided by government^[5]. However, it could not help to increases external satisfaction with public service that an improvement of internal efficiency through an investment in ICT which can increase productivity and decrease costs^[6]. Considering this reason, it is necessary for government improve communication between administration and their customers, when they plan to construct e-government service. Concisely, e-government offer clear advantages to citizens^[7] and which assist to raise their understanding of the public sector^[4]. It is possible that e-government could supply some prominent benefits, most of them are shown in the following^[5]:

(1) Depending on the information technologies, e-government could deliver service to citizens or other customers in 24 hours a day, 7 days a week, at the same time they could obtain a personalized service, such as in different languages, without having to go to the physical officials building in person.

(2) Obviously, e-government can save costs for improving service effectiveness and efficiency, which could make the public body better by saving state budget.

(3) E-government can achieving a more desirable relationship about government transparence between the citizen and the administration, because plenty of information items may be offered on the official websites, for instance, legislation, tax income, state budget, schedules or dates, etc.

(4) The government could be imaged as trusty entity through offer the privacy and security information to personal or organisaitons.

2. RESEARCH METHODOLOGY

2.1 research methods

This paper is concerned with the way for collecting data to answer the research questions. It is widely believed that the designs of research need using qualitative and quantitative methods. In order to meet the objectives which referred before, this paper use the data from secondary and primary sources. Research is about enquiry and systematic investigation to find things out. It is the process by which we produce evidence or knowledge. It is found on scientific methods, which are in turn supported by philosophical principles about the nature of knowledge and how we construct the knowledge^[8].

The secondary data is the data that have already been collected for some other purposes and can offer a useful source from which to answer, or to begin to answer research questions^[9]. Secondary data include both quantitative and qualitative data, and they can be used in both descriptive and explanatory research. The data may be raw data, where there has been little if any processing, or compiled data that have received some form of selection or summarizing^[10]. Saunders suggests that different researchers have created kinds of classifications for secondary data. Hence there are three main subgroups of secondary data such as: documentary data, survey-based data, and those compiled from multiple sources^[9]. In this investigation, the secondary data come from different sources such as journal, textbook and other materials which information is related to the networking innovation. Therefore, this paper will cite the second resources by the following ways which derive from academic literatures, published resources that could be collected from Coventry University library and databases which could be search on campus and off campus websites (<http://rds.coventry.ac.uk:8331/V>). In another way, some Chinese university databases will give some support to this research. Some friends of mine in Zhejiang University and Zhejiang University of Technology will help to find some resource. Because the information is Chinese version from these databases, the tasks for obtaining useful information including selection and translation. At last, the China government blue book for e-government will be chosen to support this paper. The main advantage of using secondary data is tremendous saving in resources, time and money for many research issues and aims^[11]. However, there are also some drawbacks to use secondary data. As Saunders advised, the secondary data may be collected for a purpose that does not match researcher's demand and it could be difficult and costly to obtain them^[9]. By contrast with the secondary data, it may be the case that the primary data is more concerned with the specific intention.

The primary data is the first time to collect data through different ways, for example, observation, questionnaires, and interviews. Due to the time and money in this investigation, the researcher will design one type of questionnaire as the research methods. The questionnaire is one of the most widely used survey data collection techniques. To a large extent, it is an efficient approach of collecting responses from a huge sample prior to quantitative analysis through asking each respondent to reply the same set of questions^[9]. In this investigation, the questionnaires will be sent to the interviewees by e-mail and reclaim by the same way. In order to collect useful data as possible as the researchers can, the questionnaire will consist of open questions and closed questions. It has been suggested that the open questions could be the good way to investigate while the investigators are unsure of the response and simultaneity the questionnaire will become unpleasant if there are too much space^[9]. Therefore, the questionnaire will be mostly designed by using the open questions which is easy to answer and analysis. In this paper, the primary data will come from two ways: the first one is to send questionnaires to the government departments, business firms and ordinary citizens that could gather useful information; the second one is to obtain information from some China government websites, and internet organization such as China Internet Network Information Centre^[12]. Some surveys, case studies and reports will be found from these resources.

When researchers finish the process of collecting data, they will focus on how to analysis these data. As

Saunders mentioned, quantitative data refers to all such data which can range from simple counts such as the frequency of occurrences to more complex data such as test scores or prices. After gathering the data, quantitative analysis techniques assist this process. These range from creating simple tables or diagrams that show the frequency of occurrence through establishing statistical relationships between variables to complex statistical modeling^[9]. It is also necessary that analyzing qualitative data to achieve the aim of this research. Qualitative analyses need researchers to adopt their data collection and analysis in systematic and well-planned manner for drawing reliable conclusion from them^[9]. During this investigation, the second step for collecting primary data is selecting samples for doing questionnaire survey. Selecting interviewees is a basic element of a positivistic research. Vogt^[13] state that a sampling frame is a list or other record of the population from which all the sampling units are drawn. Generally speaking, the larger the size of the sample, the lower the error will be. The Economist^[14] demonstrate that a minimum number of 30 which could provide a useful samples for statistical analysis. Naturally, the number of 30 is just a minimum requirement of investigation, and in fact the size of sample need to be at least four or five times as many as the researcher could.

2.2 questionnaire survey

The questionnaire survey for this paper adopts the fundamental approach of emailing questionnaires to the random samples which based the people that the researcher knows about. As a result, out of 100 participants surveyed, 46 questionnaires (46%) are returned as being valid. The following charts will present the result of data analysis based on the questionnaires.

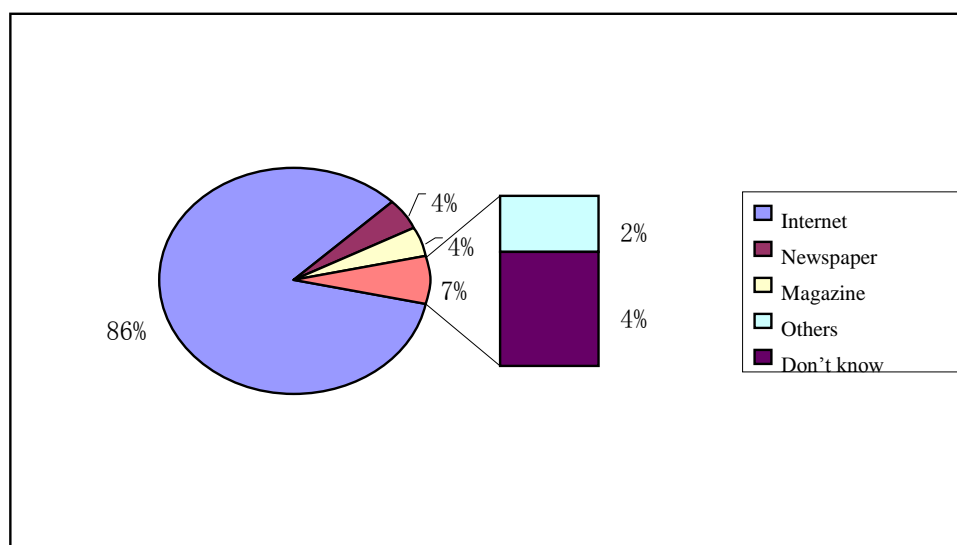


Figure 1. The basic way that informant know about e-government

After statistical analysis the first question in appendix 1, there are only two people who do not know about the concept of e-government, which is four percent in all informants. Thirty-nine people (86%) find out this from Internet by which the function of e-government could be used. With regard to the remaining people, the same number of people read information about e-government from newspaper and magazine, which separately occupies 4%. During the investigation, there is one people who forget where get the information about e-government, but he could briefly explain what is e-government.

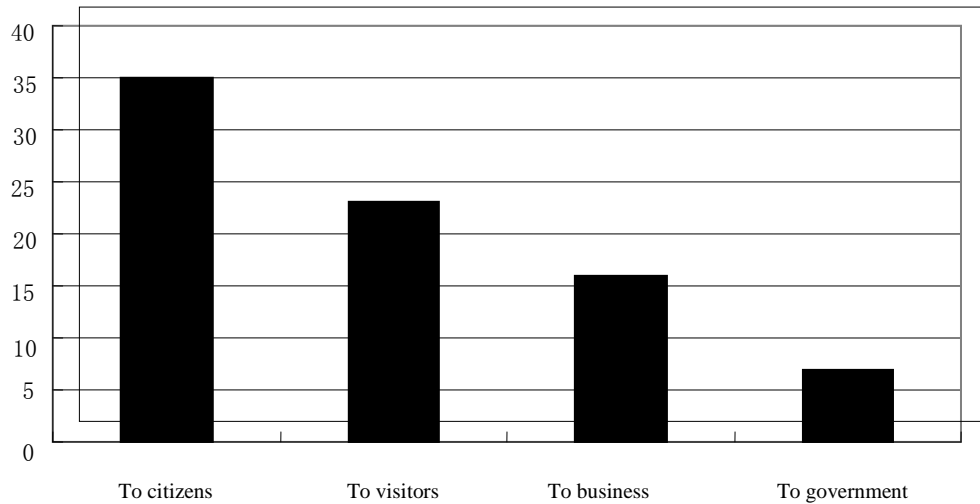


Figure 2. The service target that informant think China e-government provide

Depending on the statistical results for the second question to the sixth question in appendix 1, there are four major target users that China e-government offers to, such as native citizens that 35 people agree it offers to, ordinary visitors that 23 people think it provides to, business departments that 16 people consider it focus on, and government agencies that 7 people believe it aims at. In all respondent questionnaires, half of people think China e-government portal websites just can browse news, and others give opinion that China e-government websites could offer some online service, for example, pay tax, leave message to mayors or governors, and so on. Nearly all people respond that China e-government websites can be read in Chinese and English, but if some provinces are in northeast of China, their websites could be read in Korean or Japanese because they do a lots of business with these two countries.

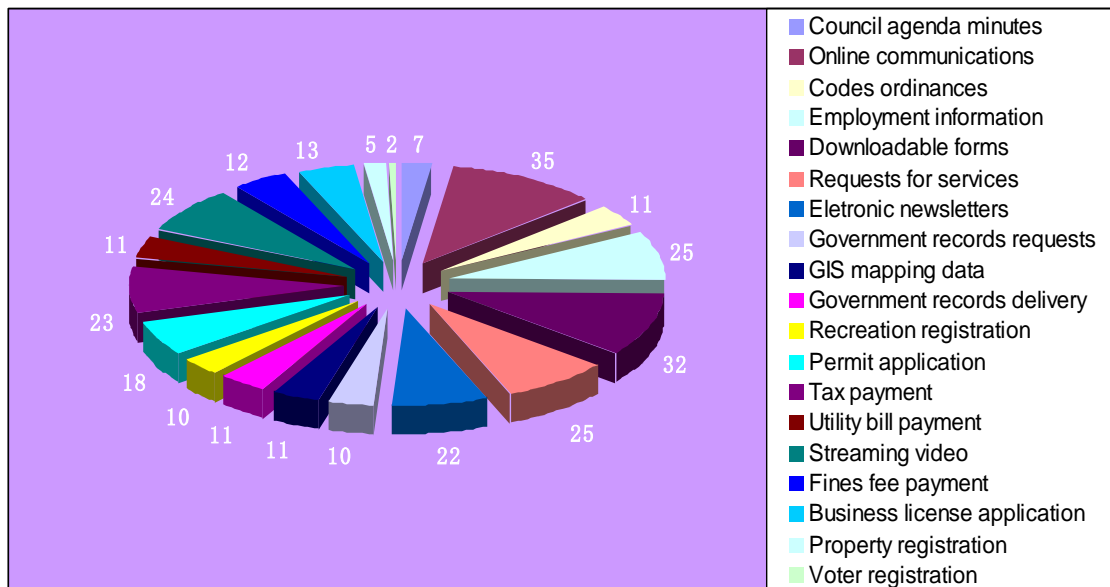


Figure 3. The online service that people need e-government websites provide

The above figure shows that people expect China e-government websites to offer these online services based on the seventh question in appendix 1. Generally speaking, the amount number of online services could be applied on China e-government websites is nineteen. More than thirty people want to online communication and download

useful forms from government websites. Furthermore, nearly half the 46 respondents desire to get some practical services, such as employment information, requests for services, electronic newsletters, tax payment and streaming video. In addition, one third of these respondents demand more precise services, for example, council agenda minutes, codes ordinances, government records requests, GIS mapping data, government records delivery, recreation registration, utility bill payment, fines fees payment, business license application. Lastly, only a few people pay attention to private property registration that 5 people suggest this service, and voter registration that 2 people mention this service. As a result, the development of e-government in China is still in embryonic stage that is because most of users can not get more deep-level service from this program.

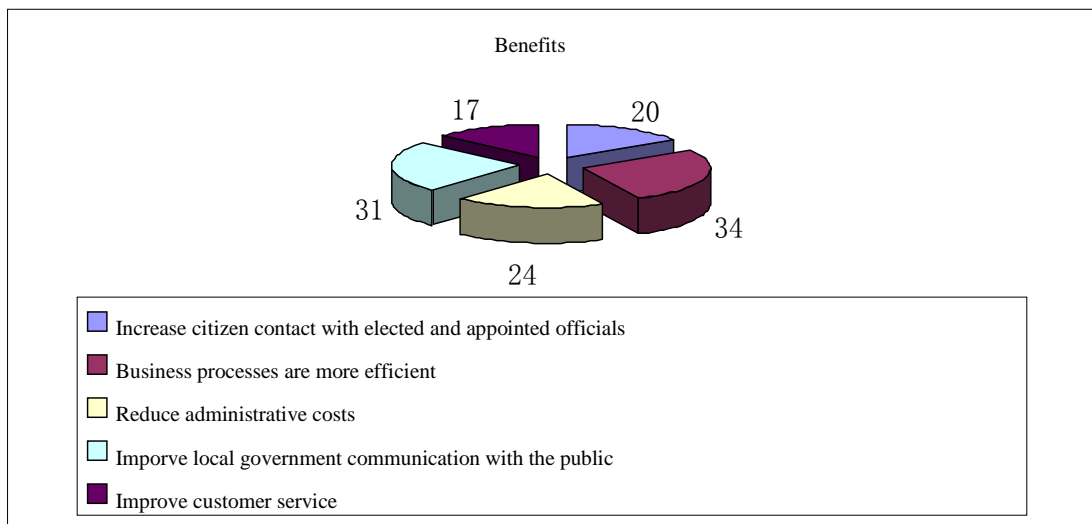


Figure 4. The benefits that respondents believe e-government could provide

As showed in figure 9, which is also from statistical analysis of the eighth question in appendix 1, the majority of people think e-government could make business processes more efficient comparing with current red tape in China. At the same time, there are 31 respondents who feel that e-government can improve local government communication with the public and 20 informants who believe that they can contact with elected and appointed official by e-government. Moreover, more than half people think e-government might reduce administrative costs, and some of them expect that e-government may improve customer service.

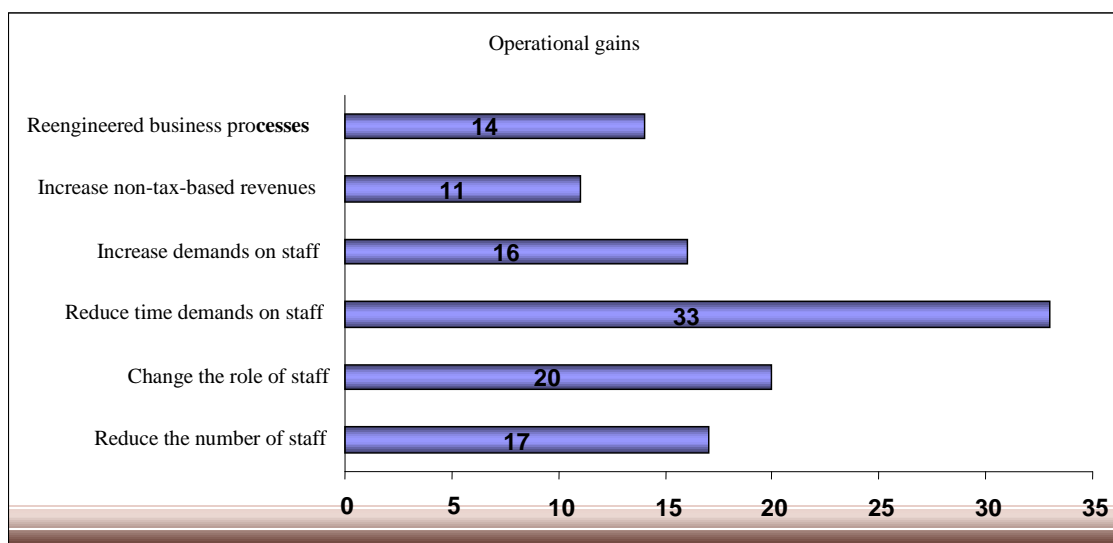


Figure 5 The operational gains that respondents think e-government provide

The above figure demonstrate that the most possible operational gains after implementing e-government local government, and the statistical result based on the ninth question in appendix 1. More than two-thirds of informants expect that local government could reduce time demands on staff with the help of e-government. However there still have 16 people who suspect that e-government may require more staff to assure this program implementation. There have 17 respondents think that e-government could reduce the number of staff as well. Nearly half people suppose that e-government may change the role of staff. Meanwhile, there are eleven people put forward that e-government could increase non-tax-based revenues. In addition, some businessmen also think that e-government reengineered business processes. In short, people agree that e-government could bring a lot of advantages for local government operation.

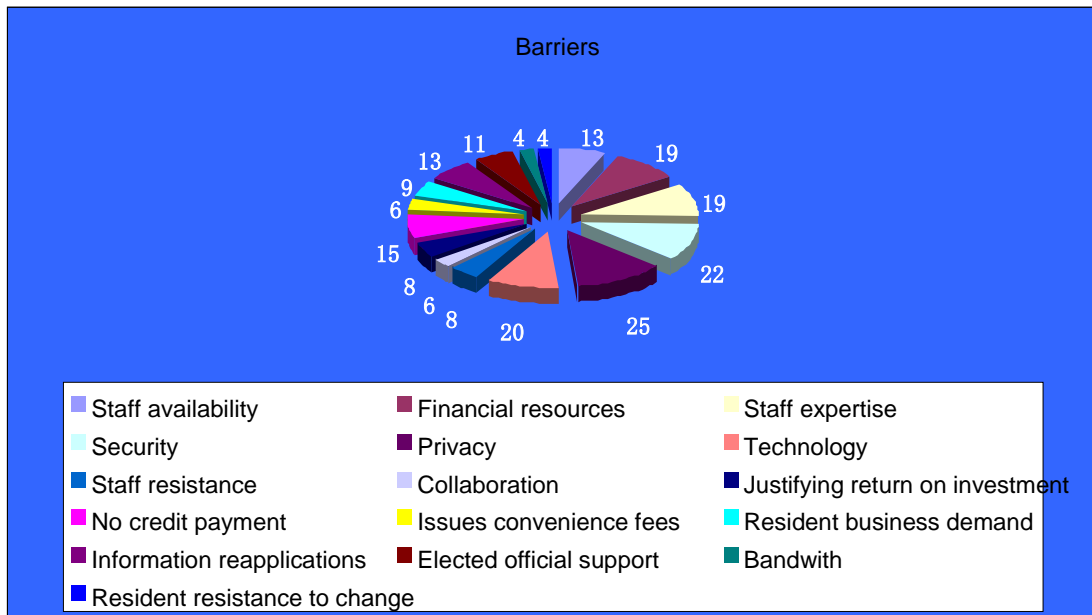


Figure 6. The barriers that e-government implement in China

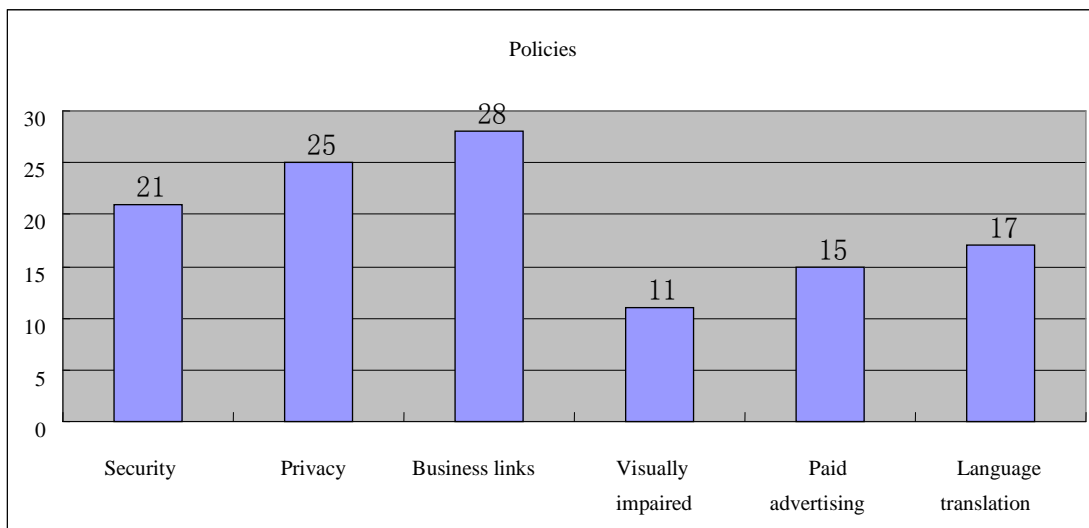


Figure 7. The policies that local government have applied

According to statistical analysis on the tenth question in appendix 1, the figure as showed, illustrate that respondents enumerate some barriers for China e-government development. As mentioned on the figure, the

majority of people are concerned about security, privacy and technology. There are 19 people who all consider financial resources and staff expertise as barriers for implementing e-government in China. There are almost one third of informants who care about some facts that could influence the development of e-government, such as staff availability, no credit card payment, information reapplications and elected official support. Furthermore, the minority of people suggest more specific elements, for example, bandwidth, issues convenience fees, resident business demand, collaboration, staff resistance and justifying return on investment. In a word, China government should consider these factors during in the period of implementing e-government.

In terms of statistical analysis on the eleventh question in appendix 1, the figure 12 shows that local government have adapted some polices or procedure to develop e-government. For some purpose, local governments offer the function of business links on e-government websites, which is agreed by 28 respondents. In the following policies, most people think that local governments do well in security and privacy, which is also the fundamental condition for implementing e-government. Nearly one third of informants feel that local governments announce and carry out some polices about paid advertising and language translation. The minority of people believe that local governments pay attention to visually impaired. In summary, local government make some progress for developing e-government in China.

According to statistical analysis on the last two questions in appendix 1, there are only 11 respondents who have taken part in citizen survey about online service by their local governments. At the same time, there are just 22 people who give opinion for e-government development in China. In a word, most of people expect that China government could be more transparent and effective.

3. RECOMMENDATION

Since the 20th century, there is a growing tendency in society to set service-oriented government as the target of administrative system reform. It has also been set as the objective of Chinese governmental reform in the 11th Five-year period which could help China accelerate the functional transformation. In this age of information and communication, e-government is an effective and positive approach to improve the administrative services during the government transformation. As previously noted, there are some advantages and disadvantages in the process of implementing e-government in China. Therefore, during the next five-year period, it is urgent to expediting promotion of e-government to enhance public service capacity which could improve competitiveness of China government. Some practical and effective suggestions will be revealed in the following contents that based on the above analysis.

1. Promoting government affairs cooperation to enhance the service ability

The government affairs cooperation measures e-government level of a region and a department, and which also embodies service level of government. In the coming years, the most effective way to advance the development of cooperation is supported by related institutions and mechanisms reform, breaking departmental barriers, strengthening technological innovation, and so on^[15].

2. Adopting various ways of service to enhance the service ability

In the e-government construction, it is essential to provide a platform for information exchange which could make the citizens who is inconvenience to access internet understand information, involve governmental management and two-way interactive between public and government that based on different ways of service, such as telephone, cell phone, handset short message and television, etc. Meanwhile, it is possible to achieve real-time communication and get feedback from users by BBS (bulletin board system) and online mailbox which could assist China to improve the quality of governmental work, increase operational transparency and innovate government mechanism^[15] China government leading also should play an important role in e-government development. It is necessary to reform the government administration system reorganize

information market for exploiting the particular advantages of non-government information industry and eliminating disadvantages for information development^[16]. The most effective way to develop informational and knowledge society is to strengthen training. The government is not only providing kinds of training courses to regional official staff, but also offering train education courses to public in an appropriate method, for instance, online tax payment. These could enhance the awareness of the importance of information development and increase public knowledge of the importance of e-government implementation.

3. Reducing information asymmetry to enhance the service ability

At present, the network information resource is not abundant enough in most of China government websites. Most of them could not provide the function of content retrieval, and the responses rate of email is usually low. In the market economy, the information asymmetry will lead to the owner of information causes damages to others for seeking their own interests^[15]. Hereby, it is necessary to reduce the damages to social public, especially, to social vulnerable groups during the development of service-oriented government. As a result, with the development of e-government, government affairs cooperation could improve the level of information sharing and the participation extent of the public.

4. Strengthening software system development to enhance the service ability

In order to actively establish service-oriented government, the application and development of e-government should obey the principle of demand-led. It is the top priority to develop programs that could improve governmental work efficiency and provide better service for public. China government should establish and perfect application software system that could boost comprehensive quality in the aspects of protecting social security and handling emergence situations, which also could realize the target of constructing service-oriented government and a harmonious society^[17].

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Appendices

1. Questionnaire

Please spend a few minutes completing this questionnaire. Thank you for your time! After completion, please return to kjvbaobao@msn.com.

Personal details (please complete the form. Leave blank if not applicable)

Name:	Age:	Gender:	E-mail:
Occupation:	Position:	Department:	
Name of organization:			
Subject of graduation:			
Education level and Length of working:			

General Questions (please tick the box that matches your view. Leave blank if not applicable)

1. Do you know about e-government?					
Yes				No	
	Where did you about e-government?				
	Internet---examples:				
	Newspaper---examples:				
	Magazine---examples:				
	Others---examples:				
2. Which target users does the government websites provide?		to citizen	to visitors	to businesses	To government
3. which users usually access these websites		company	citizens	government	
4. Which services are available on the websites?		Online service	browse	type informational	
5. How many languages are used on the websites?		Examples:			
6. What features does the website support?		digital signatures	search	personalization	privacy statement

7. Online services---Check service currently offered on Web.

	Council agenda minutes		Government records delivery
	Online communications		Recreation registration
	Codes ordinances		Permit application
	Employment information		Tax payment
	Downloadable forms		Utility bill payment
	Requests for services		Streaming video
	Electronic newsletters		Fines fees payment
	Government records requests		Business license application
	GIS mapping data		Property registration
			Voter registration

8. Benefits---How has e-government changed your local government (Tick all applicable)

	Has increased citizen contact with elected and appointed officials
	Business processes are more efficient
	Has reduced administrative costs
	Has improved local government communication with the public
	Has improved customer service

9. Operational gains---How has e-government changed your local government? (Tick all applicable)

	Has reduced the number of staff
	Has changed the role of staff
	Has reduced time demands on staff
	Has increased demands on staff
	Has increased non-tax-based revenues
	Reengineered business processes

10. Hurdles---Which if any of the following barriers to e-government implementation in China (Tick all applicable)

	Staff availability		Justifying return on investment
	Financial resources		No credit card payment
	Staff expertise		Issues convenience fees
	Security		Resident business demand
	Privacy		Information reapplications
	Technology		Elected official support
	Staff resistance		Bandwidth
	Collaboration		Resident resistance to change

11. Policies---Does your local government have a policy or procedure on any of the following? (Tick all applicable)

	Security
	Privacy
	Business links
	Visually impaired
	Paid advertising
	Language translation

12. Permeability---Has your local government conducted a citizen survey to determine what online services residents and business want?

	Yes
	No

13. According to your experience, could you give some suggestion for e-government development in China?