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# Lean public management: How lean principles facilitate municipal governance reform in China

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Traditional Chinese municipal governance set up on “information islands” brought negative effect to municipal governance reform. E-government has become a hot topic in public management recently just as lean supply chain does in business management. However, there is little discussion about their relationship. This article focused on this gap through referring to lean principles in supply chain management. The aim was to illustrate the determinants of efficient public service provision for citizens to support flexible municipal governance reform to satisfy increasing public demand. The explorative and deductive principles were put forward following by a case study on Jiangmen municipal service hotline that set an example of cross-network integration for lean public management. The determinants of different dimensions were demonstrated by analyzing the process and key points of the cross-network integration. Direction and endeavor for implementing lean management in public sectors were further discussed. This paper contributed to identifying framework, determinants and criteria of lean public management for municipal governance, and, was essential for ensuring the successful practices of lean public management in future. It provided a new insight for public sector reform and contributed to public management research as well as business management study.

**Key words:** Public management, lean principle, municipal governance reform, cross-network integration, municipal service hotline, case study, China.

## INTRODUCTION

Public administrations of developing countries are under increasing pressure to improve its effectiveness for providing more and better services to the people (Ukpata and Olukotun, 2008). “The introduction of e-government services and applications leads to major changes in the structure and operation of public administrations” (Marchese, 2003) and the transformation of the traditional government function. This transformation is service-oriented and needs to respond to an increasingly quickly changing requirement (Hashemi et al., 2008). However, in Chinese e-government practice, there is a considerable amount of isolated islands of information infrastructure. Repeated construction of e-governance platform implemented by respective government departments exhausts huge resources and produces thousands of ex-travagant cost (Li et al., 2006). Traditional e-government in China was not citizen-centric, and thousands of government websites were constructed around

government bodies but did not center on the needs of citizens. The municipal government lacks a network to learn about citizens’ need and to offer them targeted services. Therefore, lean management need to be adopted to reform previous municipal governance in China.

E-government has been a mostly debated concept in the domain of public management in recent years just as what has happened to lean supply chain in the field of business management. Yet, there has been few discussion of the relationship between the two in the past. E-government, by definition, refers to the use of Information and Communication Technology (ICT) by government bodies to improve their operational efficiency and effectiveness in meeting citizens’ needs (Chen et al., 2009; Sisman et al., 2009). The use of e-government aims to boost information dissemination, enhance service delivery and facilitate citizen participation in governance with a low cost manner (Holliday and Yep, 2005). It is not merely a technology term or event, but rather a profound revolution (Lan, 2004), just as the emergence of supply chain in business domain. A supply chain can be defined

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as the “network of organizations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of the ultimate customer” (Christopher, 1992). The term “lean” means a series of activities or solutions to eliminate waste (Wee and Wu, 2009). “Waste” is defined as anything that interferes with the smooth flow of products and services (Macduffie and Helper, 1997). Lean supply chain management may be regarded as the process of strategic management of information flow, activities, tasks and processes, involving various networks of organizations and linkages involved in the delivery of quality products and services to customers in an efficient manner (Akintoye et al., 2000).

From the above elaboration, it is a known fact that the reform needs to adopt lean philosophy to cut down the waste and forms a citizen-centric e-government platform. E-government can provide “one-stop” service and on-line service without the limits of time and space. However, the e-government needs interactions among various government departments. Each department has already had its relatively independent information system and the affairs vary significantly, therefore, it is a complicated process to make these departments coordinate and achieve “front-line service” (Migiro and Ambe, 2008). The most prominent problem behind is how to implement the lean management. This study attempted to fill the research gap by reference to the philosophy of lean supply chain management and illustrate the lean implementation by a case study.

## LEAN PRINCIPLES FOR PUBLIC SECTORS

Lean public management is for many public departments and just as lean supply chain management is for many companies. Lean can be understood as how a properly designed and operated organization should function (World Wide Shipping, 2004). A lean process can reduce and eliminate waste to the total workflow within the organization (Wee and Wu, 2009; Ambe and Badenhorst-Weiss, 2010). To develop a lean public management, one should pay attention to the following points (World Wide Shipping, 2004):

- (i) Understand lean is an ongoing, continuous improvement approach as compared to process re-engineering which can be viewed as a one-time change.
- (ii) Gain top management's commitment. Continuous improvement requires ongoing support.
- (iii) Build a multi-discipline team for the project-one that understands lean management.
- (iv) Analyze the total working process, not just one part.
- (v) Map the process.
- (vi) Assess for gaps or redundancies that create time, the key waste.
- (vii) Study the entire process and avoid cannibalizing the process.
- (viii) Realize cause-effect impacts.
- (ix) Drive for root causes, not symptoms.
- (x) Ask citizens about how well the public bodies operate.
- (xi) Use event management and exception management to add management and control. The complexity of public affairs increases the need for event and exception management technology and

capability.

- (xii) Grasp the impact of the organization and culture on lean process design and operation.
- (xiii) Collaborate with various departments. It is a requirement, not an option; and it is a two-way exchange.
- (xiv) Demand public department performance. It is vital to lean implementation.
- (xv) Integrate the working flow. Breaks in the flow, both internal and external, can be pockets of waste.
- (xvi) Rationalize the process.
- (xvii) Improve the process to drive change.
- (xviii) Know that technology cannot overcome process flaws.
- (xix) Involve relevant people to provide input on present effectiveness and for improvements.
- (xx) Incorporate new technology and new medium as part of the process improvement.
- (xxi) Make the working flow visible; recognize that blind spots can be areas of waste.
- (xxii) Recognize the viability of outsourcing as a driver of needed changes.
- (xxiii) Include change management in lean program requirements.

## CASE STUDY

The above principles may be abstract, while the following case may be helpful to understand these principles. It is a true story about the municipal service hotline center of Jiangmen city in China. In contrast to private sectors, where hybrid structures and production networks enabled by ICT are increasingly coming up, ICT-based cross-network integration for provision and delivery of public services are still not prevalent in China. Various government departments including social security, public security, civil affairs, and medical insurance and so on have set up their own information management systems independently through a large number of separated e-government projects in China. Various administrative departments set up these systems as per their own needs. Perhaps each sub-system can play a unique role, but due to mutual independence, different techniques and norms, isolated information islands were finally set up in cities that lead to inefficient and new waste and are of no advantage for upper decision-making. Therefore, lean public management through cross-network information integration becomes the only way for the successful implementation of municipal governance reform in China. At the same time, the voice of improving municipal service is more and louder in the public. To satisfy public demand, the municipal government of Jiangmen city proposed the plan of building interconnected and citizen-centric municipal service network, and meanwhile the municipal government began to change the scattered and closed administration style to improve comprehensive management level. Therefore, a municipal service hotline center emerged in the city leader minds as the tie to connect the municipal government and the public for better listening viewpoints and solving difficulties of the public. Just at that time, Jiangmen City was selected as one of the experimental cities in China for the construction of hotline that coincided with the city's own

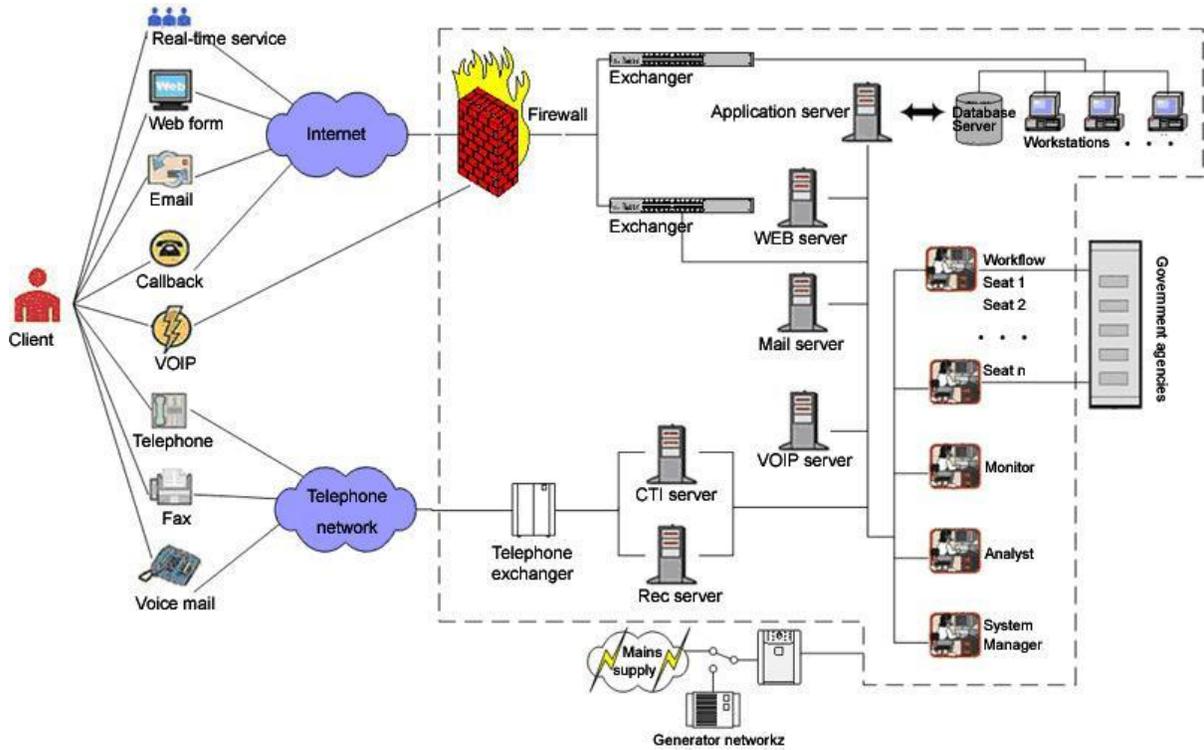


Figure 1. The network sketch of the “12345” service hotline in Jiangmen city.

intention.

The “12345” service hotline was planned and prepared in October 2006, and it draw high attention from the city leaders. Nan-jian Wang, the mayor of the city, emphasized that “we should consider the hotline as a concrete service means and carry it out well”. Mayor Wang tracked the whole process personally and took charge of the implementation of this project. He even designated relevant department leaders to visit Shenyang city to learn experience, held special meetings to promote this project and solved some difficulties such as fund shortage. The City Construction Bureau took charge of specific preparation work and the city’s Information Industry Bureau was responsible for the implementation of the service hotline construction.

It is worth to point out that the “12345” service hotline project made full use of outsourcing for the construction, operation and maintenance, and it is a courageous and beneficial attempt for governmental affair outsourcing. The government put forward requirements, and the construction, operation and maintenance were implemented through public bidding. The government need not increase personnel, and accordingly, reducing some cost. Through the joint efforts of relevant departments, the hotline was tentatively put into operation on 1 July 2007 and formally started working on August 4 of the same year. Nine departments, that is, the city construction bureau, the city civil defense department, the city council, the city real estate council, the city garden bureau, the city

inspection department, the city water supply company and the city bus company form the first group of the hotline network.

Ping Li, the Director of the City Information Industry Bureau, said that the “12345” service hotline brought important meanings into the city’s e-government project. It exhibited the characters of democratic government, and unified current information technology and future development tendency. Its design was novel and can be regarded as a pioneer in the whole nation. Figure 1 shows the network sketch of the “12345” service hotline in Jiangmen city.

The hotline system integrated the traditional telephone service and the modern ICT into a comprehensive service platform. Simultaneously, the multimedia call center service was integrated into the e-government and formed an open service system that can provide service to public all-day. It eliminated the restriction of space and time, and realized the zero-distance communication between the municipal government and the public. The public can report problems to the hotline center through cell phone, SMS, on-line message, e-mail, etc. The center can promptly record the information and submit them to the higher officials according to urgent degree such as ordinary, urgent and extra urgent. Meanwhile, the corresponding departments will feed back information to the hotline center and the public can conveniently enquire through the “12345” hotline. Figure 2 shows the working station of the “12345” service hotline center of Jiangmen



**Figure 2.** The working station of the “12345” service hotline center of Jiangmen city.

As a comprehensive service platform and an important way to satisfy the public demand, the “12345” service hotline had extended its influence sphere to various departments and districts. The public can dial “12345” at any time and the call will be directed to the service hotline center. Thus, it prompted the public to put forward their opinions about the city development and facilitated the provision of public service. The “12345” service hotline ensures the opinions, proposals and demands of the public entering a rigorous process of record, supervision, coordination, answer, tracing, feedback, examination, responsibility investigation and so on. So, the problems from the public can be solved as soon as possible or a satisfactory reply is given. For those that cannot be solved in a given time span or those that have not obtained satisfactory answer, the hotline center will report them to the leaders of the relevant departments and make sure the complaints were solved effectively. For repeated complaints and unsolved problems, the city leaders will review the matter and hold a meeting to find a satisfactory solution to the problems.

Therefore, the service hotline contributes to complete information flow and favorable results. Just a few months after the test operation of the service hotline, the “12345” hotline received wide praise, and became a convenient tie connecting the public and the government. For example, a citizen reported that there had been a dirty open drain near the Honggaoliang Street and it had not been disposed for 6 years. After receiving this complaint, the city council held a meeting immediately and discussed the possible solutions, and finally decided to replace it with an underground drain. This project took only one month from open bidding to complete accomplishment.

The hotline center regards the voice of the public as the top priority, pays close attention to the satisfaction degree of the public and solves public problems actively. Ring is “the voice of citizens”, and the hotline becomes the entrance of public voice and the exit of social contradiction. As an interactive medium, the hotline has facilitated the public opinion expression, and it received not only complaints but also constructive proposals, for example, many people have put forward their constructive suggestions about the disposal of tail gases of automobiles.

The construction of e-government collaboration platform and cross-network information system, and the integration and optimization of workflow in different government bodies, can facilitate inter-organizational collaboration, improve administrative efficiency and reduce administrative cost. By the year 2010, professional e-government network platform had extended to all public sectors and related sub-organization. The unified and professional service platform, “Mobile Jiangmen”, endows new meaning to e-government.

## **DISCUSSION**

There is no single best way to govern, and the mode of good governance varies with the cultural contexts (Xiong, 2003). Many factors contributed to the success of the “12345” hotline project in Jiangmen city. However, a key element of lean implementation is creating a problem solving culture. Bringing problems to the surface and solving them to their root causes are critical to successfully providing the citizens with the best quality of

service. Besides, firm determination, excellent leadership, effective coordination and increased citizen participation are important for the success of municipal governance reform. The Jiangmen government has a firm determination to set up a cross-network platform to integrate the information islands and build a citizen-centric service network. It is important to give full play to the subjective initiative to accomplish this ambitious goal in China. Attention and support from leaders are important guarantee for the implementation of lean public management. The relevant official will attach importance to the project for the city leader has set a good example for them. The "12345" hotline center enhanced citizens' access to government as much as government's access to citizens. One of the important problems in the implementation of municipal governance reform in developing countries is the low rate of citizen participation (Chen et al., 2006; Schuppan, 2009). Citizen participation is necessary for the success of an e-government system, as services provided by e-government are only as useful as the extent to which citizens actually use the services.

Lean public management supported by modern ICT is changing the municipal governance institution by enabling the public more access to the government, and thus, makes the government working process transparent, accountable and citizen-centric (Brewer, 2007). Moreover, municipal government becomes the largest collector and disseminator of information resource on citizens. The municipal information-sharing infrastructure and network management practice have important implication for citizens, businesses and government institutions. Therefore, ICT can be applied to transform public agencies, public service delivery and even the basic function of governance. ICT can facilitate citizen participation in policy formulation and monitoring, and promote democracy. Creating an information-rich environment means not only assuring transparency, but also assuring that multiple voices, including those of the dissident, are heard (Hanna, 2003).

There are some recommendations for implementation of lean public management (Kim and Park, 2006): (1) Lean training programs need to be developed for public sectors. Lean concepts and principles may be complex for the governors to understand, but training can focus on lean implementation: the "how-to," rather than on lean theories. (2) Lean expert/consultant can be invited to help a local governor to establish all aspects of lean management at the beginning of the public sector reform. (3) It is important to note that the previous recommended principles may result in an effective lean management process. However, some actors may fail to implement many of the lean techniques yet they are beneficial from better-planned work activities. Thus, the actors are encouraged to begin to employ the lean techniques without going through all the changes at once rather than considering this approach is too radically different to be considered on their projects.

## Conclusion

The "12345" hotline center utilized e-government initiatives as vehicles to improve internal efficiencies and provide better services to their citizens. It also represented an opportunity to infuse business principles into the government-citizen relationship. The reorganization of public service provision and delivery by ICT has enabled the adoption of new processes, procedures, and organizational structures, which in turn, have led to sustainable gains in productivity, quality, and responsiveness. Lean public management is enhancing access of information resources and public service, accelerating innovation in public sectors, and enriching learning and knowledge sharing at all levels of the extended organizations (Hanna, 2003). A new breed of event-driven public sectors is emerging to exploit and tailor real-time information for decision-making and service delivery (Ranadivé, 1999). Consequently, public sectors are giving increasing attention to their information infrastructure, network management, and governance innovation.

This paper provided a new insight for lean implementation in public sector, and contributed to public management research as well as business management study. It introduced the principles of lean supply chain management to facilitate the formation of lean public management theory and practice. The philosophy in business management may help governors understand and handle public affairs. Through a case study of the Jiangmen municipal service hotline, lean principles were demonstrated to be practical in public sectors.

Lean public management is organizational change, and not IT projects. It is not standalone and requires coordinated action. The lean implementation relies on legal, fiscal and policy framework and it is a continuous process of improvement. Lean public management focuses on improvement of relationships among actors. Even though lean public management still stands on the bridge crossing from traditional practice to lean practice in China, lean principles will be successfully applied in the public sector reform in the near future and will be recognized as an effective way.

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