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UNDERSTANDING CROSS-SECTOR COLLABORATION IN E-GOVERNMENT DEVELOPMENT: THEORETICAL CONSIDERATION BASED ON EXTENDED BRYSON'S FRAMEWORK

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Abstract

With the rapid development of e-government, cross-sector collaboration has been one of the most important issues to academia and practitioners. Although collaboration was a classical topic in public administration research, digital age and e-government environment complicate the related issues from multi-perspectives. Based on accumulated literature in the public administration research area and e-government research area, this paper tries to introduce Bryson's Framework, an important theoretical framework of collaboration in public administration provided on 2006, for analyzing cross-sector collaboration based on e-government development more deeply. Considering the e-government environment, we redefine and extend the detail items of five basic dimensions in the framework, called initial conditions, process, structure and governance, constraints on collaboration, outcomes. The research plan of an empirical study in a local government in China for utilizing this extended framework was also discussed briefly in the paper.

Keyword: Cross-sector collaboration, E-Government, Bryson's framework, Public management reform, ICT

Acknowledgements

This work was partly supported by the National Nature Science Foundation of China (70833002/70890081), National Social Science Foundation of China (05BZZ032) and Postdoctoral Science Foundation of China (20080440030).

1 INTRODUCTION

The past decade has witnessed rapid progress in the development of e-Government systems in the global. The adoption of IT/IS has led to dramatic changes in the relationships between governments and citizens (G2C), governments and businesses (G2B), governments to employees (G2E), and governments and governments (G2G) (Siau and Long, 2006). Along with the development of e-government application, policy makers and other practitioners are confronted with emerging challenges that are introduced with the new systems and new transactional environment based on them. With the implementation of IT/IS in many public organizations, the problem of interoperability among different e-Government systems has become an obstacle to e-government post-adoption and usage in many cases. According to Layne and Lee (2001), both vertical integration and horizontal integration are the senior stages in the process of e-government development. Integration among different systems often means negotiation and cooperation among different public sectors who manage those systems. Therefore, cross-sector collaboration (CSC) has been an urgent issue for e-government to deliver public services effectively and efficiently. In a sense, collaboration is the basic feature of public governance in information age.

Collaboration has always been one of the most important issues in the research area of contemporary public management. Since today's public managers operate in collaborative settings every day (Agranoff and McGuire 2003), public administration enters into a new generation in great need of more cross-sector collaborations (Gadot et al. 2003). Cross-sector collaboration is increasingly assumed to be a series of strategies for dealing with most of difficult public challenges in current society, such as trans-boundary natural resources management, regional economic development, poverty, climate change and environmental protection, natural disaster, emergency management and so on (Peters 1998; Linden 2002; Agranoff and McGuire 2003; Pollitt 2003; Vangen and Huxham 2003; Gadot 2003; Goldsmith and Eggers 2004; Imperial 2005; Osborne 2006; Kettl 2006; O'Leary et al. 2006; Bryson et al. 2006; Thomson et al. 2006; Axelsson 2006; Fedorowicz et al. 2007; Ansell and Gash 2008; O'Leary et al. 2009). The Public managers often find themselves facilitating and operating in multi-organizational networked arrangements to solve such inter-connected problems and cannot be solved easily by single sector (O'Leary et al. 2009). The future of public administration to a certain extent will be the mode of cross-sector collaborative public management.

In the current digital age, there is no doubt that information communication technology (ICT) is the fundamental component and basic infrastructure for developing cross-sector collaborations and implementing public administrative transformation. In the last few years, e-Government and ICT policy seem to have had a high priority in the policy agenda of most governments around the world. Combining cross-sector collaboration with ICT greatly accelerates the government interoperability and interconnectedness in the public sectors to collaborate and share information across organizational and jurisdictional boundaries, which will contribute to create a joined-up government (Ling 2002; Pollitt 2003; Perri6 2004), also be called as a whole-of-government (Christensen and Lægreid 2007). According to Dawes (2008), cross-sector collaboration and integration is the important theme of current e-Government. Information sharing and integration across different agencies became essential to effective e-Governance. As the Internet and networking revolution has widened the scope of ICT use across organizational boundaries (O'Brien 2003) to fulfill the e-Government services, one of the most challenging aspects of e-government implementation is the best approach of collaboration and cooperation among different government agencies (Joia 2004).

E-government is creating more and more interest among researchers in the IT/IS field. In recent years, issues regarding IT/IS evolution, adoption, and diffusion in governmental organizations have been widely addressed on international academic conferences, as well as on major MIS journals (Grant 2005; Hackney et al. 2005; Irani et al. 2007; Srivastava and Teo 2006). Around the collaboration issues, however, most literatures around collaboration have explored this issue from the technological framework and requirement perspective (Kaliontzoglou et al. 2005; Otjacques et al. 2007; Park et al. 2009). Based on the insights towards e-government cross-sector collaboration by these existing efforts, the time is ripe for probing into the related issues from public administration perspective.

Seeing e-Government application as necessary infrastructure supporting the transition from bureaucrat-centered towards citizen-centered government, Chinese governmental agencies on various levels has all been strongly promoting e-Government development. With the implementation of a series of initiatives called “Four Golden Projects” (Golden Bridge Project for public communication backbone network, Golden Tariff Project for foreign trade information network, Golden Card Project for banking and payment, and Golden Tax Project for tax levy) (Tang 1998), as well as continuous efforts in extensively building governmental websites, e-Government application has become an integral part of the overall IT/IS growth in China (Ma et al. 2005; Zhang et al. 2009). According to reports released by United Nations and other organizations, the ranking of China in the chart of e-Government application maturity (or readiness) has been rising as well (UN, 2005, Liu, 2006, West, 2006). It is reasonable to predict that the e-Government development in China will keep its fast pace and enjoy a broad stage. However, it should not be overlooked that, despite the rising in the ranking systems which are mostly based on evaluating the functions of government web sites, IT/IS application in Chinese governments still lacks the abilities to support achieving the goal of “providing more services and more convenience to citizens,” which is generally considered as the essential target for e-Government applications (Holliday and Yep, 2005). As has been mentioned in various literatures, the problem of ineffective investment and duplicate construction has long been troubling Chinese governmental organizations in the process of IT/IS application (Chen et al., 2007; Wang and Xu, 2009). One of the most important causes for this problem could be that the lack of interoperability and collaborative institution among information systems implemented by different public sectors. Therefore, e-government cross-sector collaboration is also an invaluable issue to both academia and practitioners in this stage.

In this paper, we extend the Bryson’s framework, a general conceptual framework for collaboration, to describe the process of cross-sector collaboration based on e-government infrastructure from public administration perspective. Base on the findings of the rich literature relating to cross-sector collaboration and e-Government, we have tried to discuss the issue from five aspects: initial conditions, process, structure and governance, constraints on collaboration, outcomes. The research plan of an empirical study in a local government in China for utilizing this framework was also discussed briefly in the paper.

2 LITERATURE REVIEW

The phrase cross-sector collaboration(CSC) in this paper denotes the horizontal integration and sharing of information, sources, activities, and capabilities by two or more agencies in government in order to eliminate situations in which policies of different agencies or departments undermine/conflict each other, to make better use of scarce resources, achieve a common objective or outcome that could not be achieved by one agency or organization separately, to create synergies by bringing together different agencies and organizations in a particular policy area and to work together to offer citizens seamless rather than fragmented access to services and public values. Research on cross-sector collaborations offers a set of findings marked by rapid progress and a continuing focus on knowledge generation from several perspectives.

2.1 Resource dependence theories

Resource dependence theories have been especially prominent, with their ability to explain how a need to increase resources or reduce competition and uncertainty drives an organization’s decision to ally with another (Tschirhart et al. 2009; Fleishman 2009; Gazley and Brudney 2007; Lundin 2007; Guo and Acar 2005; Bardach 1998; Gary 1989; Pfeffer and Salancik 1978). Resource dependence theories see cross-sector collaboration as resource-sharing arrangement. Information resources sharing is a relatively new type of ICT initiative in collaborative e-Government; it involves building systems, instituting formal standards, and changing business processes to allow organizations to share data and information with many other organizations (Dawes and Prefontaine 2003; Gil-Garcia et al. 2005; 2007).

2.2 Exchange and transaction costs

Exchange and transaction cost theories have also helped to explain the organizational efficiencies of collaboration as an activity that can reduce the time and effort needed for inter-organizational negotiation (Saidel 1994; Williamson 1996; Booher 2004; Imperial 2005; Graddy and Chen 2009). According to transaction costs perspective, whether organizations seek to form partnerships for resource exchange or for legitimacy, they should seek to reduce the associated transaction costs, such as monitoring costs, informational costs, and search costs.

2.3 Inter-organizational network perspective

Although not all cross-sector collaborative relationships occur within multi-actor networks, the literature on cross-sector collaborations has been substantially strengthened by a large body of theory and research about inter-organizational networks now existing to try to explain how the cross-sector collaborative relationships emerge and development (Alter and Hage 1993; O'Toole 1997; Agranoff and McGuire 2001; Goldsmith and Eggers 2004; Kamensky et al. 2004; Keast et al. 2004; Kettl 2006; Agranoff 2006; Acar et al. 2007; O'Leary et al. 2009).

2.4 Joined-up government/whole-of-government

Joined-Up Government (JUG) has played an important part in this new wave of public sector reforms since the mid-1990s and this perception has remained an important part of the thinking behind public sector reform (Ling 2002; Pollitt 2003; Perri6 2004; Christensen and Læg Reid 2007; Davies 2009). According to Ling (2002), joined-up government is an umbrella term describing various ways of aligning formally distinct organizations in pursuit of the objectives of the government. JUG was high up on the first Blair Government's agenda in the UK. The Cabinet Office created some New Units to facilitate joined-up working. For example, the Service First Unit used the People's Panel (a cross-section of the population intended to provide a sounding board for public policies and services) to find out about citizens' experiences in using services which aimed to be joined up.

2.5 Bryson's framework

Categorizing and organizing the current literature on collaboration, Bryson et al. (2006) presents a framework for understanding cross-sector collaboration around the initial conditions affecting collaboration formation, process, structural and governance components, constraints and contingencies, outcomes, and accountability issues (see Figure 1).

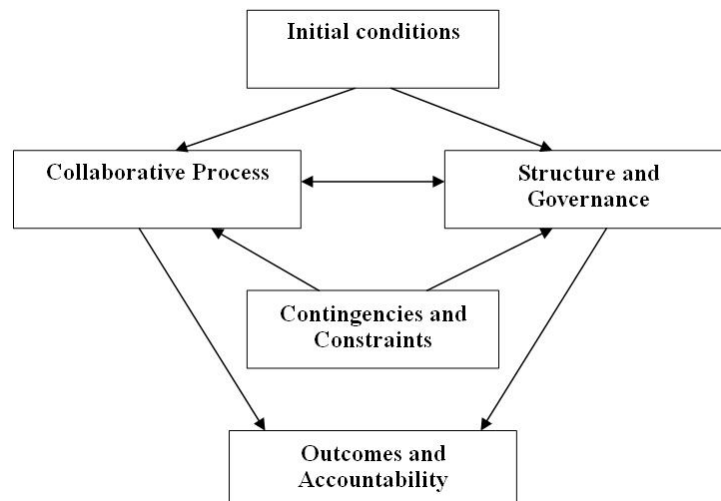


Figure 1. Bryson's framework for Cross-sector Collaboration

The initial conditions include the general environment in which collaborations are embedded, the notion of sector failure as an overlooked precondition for collaboration, and other specific and immediate preconditions affecting the formation of collaboration. The process components

emphasizes six aspects: forging initial agreements, building leadership, building legitimacy, building trust, managing conflict, and planning. The Structure components include membership, structural configuration, and governance structure. The constraints affecting collaborations include collaboration type, power imbalances, competing institutional logics. The outcomes of cross-sector collaboration include three categories: public value; first-, second-, and third-order effects; and resilience and reassessment. According to their viewpoint, cross-sector collaboration is more likely to be successful when they have an accountability system that tracks inputs, processes, and outcomes.

Resource dependence, technical structure and ICT application have not attracted the attention of Bryson’s framework. In the information age, there is no doubt that ICT is the fundamental component and basic infrastructure for cross-sector collaboration. We attempt to demonstrate in the paper that research must pay attention to the resources dependence and common interest, technical structure which affect the formation and process of cross-sector collaboration. Based on Bryson’s framework, the paper presents an improved framework for understanding cross-sector collaborations in the context of E-Government.

3 CONCEPTUAL FRAMEWORK

As mentioned in the second section, Bryson et al. (2006) construct one framework for understanding cross-sector collaboration which includes initial conditions, structure and governance process components, contingencies and constraints affecting process, structure, and governance, outcomes. Based on this framework, we redefine and extend the items belong to the five factors for cross-sector collaboration in the context of e-Government (see Figure 2).

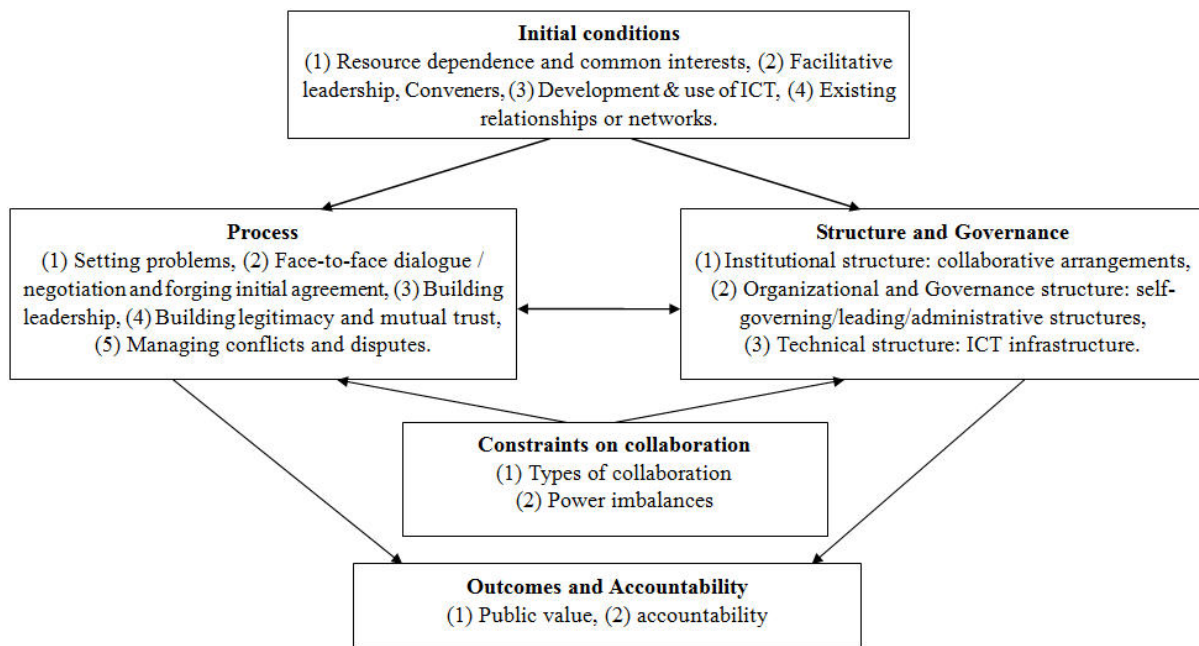


Figure 2. The extended Bryson’s framework for understanding CSC in e-Government

3.1 Initial Conditions

Inter-organizational systems supporting interagency collaboration must accommodate a wide range of factors from the external environment and participating organizations as part of their design and operation (Fedorowicz et al. 2007). The literature is clear that conditions present at the outset of cross-sector collaboration can either facilitate or discourage coordination and integration between different agencies. The initial conditions focuses on broad themes related to the general environment in which cross-sector collaborations are embedded, the notion of sector failure as an overlooked precondition for collaboration, and societal change as precondition affecting the formation of cross-sector collaborations (Bryson et al. 2006).

3.1.1 Resources dependence and common interests

For many government agencies, collaboration has become the primary means of coping with modern problems, such as complexity in the policy process, turbulent environments, dispersion of resources and expertise, and the constant flow of new information (Fleishman 2009). Devolution, rapid technological change, scarce resources, and rising organizational interdependencies are driving increasing levels of collaboration (Thomson and Perry 2006). Policies, programs, and laws have always required many different agencies at the very least to take account of each other and often to collaborate; the idea must be rejected that there was once a simpler age, when policies could be enacted that would require a single agency to carry them out, acting alone (Perri6 2004).

3.1.2 Facilitative leadership, Conveners

One of the key challenge of cross-sector collaborations is that the type of leadership needed to achieve synergy is not the type of leadership most sectors are producing (Lasker et al.2001). Traditional leaders frequently have a narrow range of expertise, pay little attention to coordination. Collaboration is the constructive approach to the management of differences (Gray 1989).The objective of cross-sector collaboration is to create a richer, more integrated and comprehensive appreciation of the problem among the different sectors or agencies than any one of them could construct alone. Modern leaders are required to develop and nurture collaborative relations through cross-cutting policies.

3.1.3 IT development and Use of ICT

To enhance the efficiency and effectiveness of public service delivery and create more public values for the citizens through making the best use of the potential of ICT, cross-sector integration and collaboration is becoming an imperative for the public managers. For public managers, the challenge is to find feasible and effective strategies to reengineering governmental process and improve governance structures to strengthen the e-government interoperability and interconnectedness when the capacity for achieving joint activities and solving common problems is widely disperse, when few organizations accomplish their missions by acting alone, and when the fragmentation of service delivery damages the integration of service delivering, which is not citizen friendly.

The political, economic, social, and technical context within which cross-sector collaborative relationships have developed, have created a new reality for e-government interoperability and interconnectedness in the digital age. Firstly, political authority frames the environment of public management and shapes decisions by putting “order” into the choices that confront public managers (Bozenman and Straussman 1990). Secondly, economic environmental complexity and social change affect sector-functional differentiation, organizational structural differentiation and fragmentation of sector responsibility, which make the functions of agencies fallen apart or become fragmented. In this sense it is necessary for the different sectors involved to integrate and work together to form collaborative partnerships and design shared customer interface to provide holistic services to the clients. Facilitative leaders and managers play an important role in facilitating and forming the willingness to develop inter-organizational cooperative relationships.

One of the key challenges governments face in improving e-government’s interoperability and interconnectedness in the digital age is the need to identify, break through and address existing bureaucratic, political, and hierarchical structures and policies that make cross-sector decision making about priorities, resources, and systems difficult. Certainly there is organizational competition and conflict among public agencies, but realization of strategic goals more often requires recognition of organizational interdependence and pursuit of inter-organizational cooperation (Bozenman and Straussman 1990).

3.1.4 Existing relationships and networks

The role of prior relationships or existing networks is important because it is often through these networks that partners judge the trustworthiness of other partners and the legitimacy of the key stakeholders (Bryson et al. 2006).

3.2 Process Components

Collaboration is a process in which autonomous actors interact through formal and informal negotiation, jointly creating rules and structures governing their relationships and ways to act or decide on the issues that brought them together; it is a process involving shared norms and mutually beneficial interactions (Thomson and Perry 2006). Operating process is a process that includes a set of related activities designed to produce a particular outcome through collective actions. Structural characteristics of collaborative partnerships are related to both process and outcomes (Bidwell and Ryan 2006). Structure and operating process often interact in cross-sector collaborations (Bryson et al. 2006).

3.2.1 *Setting problems and ascertaining main stakeholders*

Setting problems through cross-sector coordination under the initial conditions is the first step to integration and collaboration. Problem-setting is concerned with getting to the table so that face-to-face dialogue can begin (Gray 1989). Large-scale e-Government projects involve many stakeholders and create many interactions among them with issues of coordination becoming essential for the success of the project (Ezz et al. 2009).

3.2.2 *Face-to-face dialogue and forging agreements*

Forging agreement and setting common and shared goal through face-to-face dialogue and negotiation is the key to successive cross-sector integration and collaboration. Face-to-face dialogue and forging agreements requires identification of the stakeholders, mutual acknowledgement of the issues that join them, and building commitment to address these issues through face-to-face dialogue (Gray 1989).

At the processing level, the public managers and the concerned agencies implement their agreements and public policy by using ICT to integrate the single agency's functions and policies, such as interdepartmental service group and committee, integrated service call centre and "one-stop shop" or information sharing among different administrative agencies within the framework of organizational arrangement. In terms of public management, e-governance has evolved rapidly from rudimentary use of ICT to support for highly structured administrative processes, to infusion of technology throughout government offices, and to reliance on networks and other advanced tools to change the way services are delivered and governmental processes are carried out (Dawes 2008). This operating concentrates not only on the internal aspects involved, but also on aspects related to the relationship between government and other organizations, social groups, and citizens (Inas et al. 2009).

3.2.3 *Building leadership*

Collaborations provide multiple roles for formal and informal leaders (Bryson et al. 2006). The development of formal and informal leadership throughout cross-sector collaborative process is especially important. According to Agranoff and McGuire (2003), managing in collaborative settings should not be confused with managing hierarchies. In contrast, collaborative settings are not based in a central authority and cannot be guided by a single organizational goal. Interagency communication and coordination become more important. In cross-sector collaborative processes, the public managers' strategies and actions more often are inter-organizational strategies and actions. Government agencies responded with early efforts to redesign work processes and support cross-sector joint activity with new applications of ICT focused on the needs of customers—rather than the needs or structures of agencies. The horizontal integration of government services across different functions of government will be driven by visions of efficiency and effectiveness in using information technology, but pulled by citizen demands on an "inside-out" transformation of government functions to more service oriented ones (Layne and Lee 2001). Thus a form of ICT-enabled cross-sector collaborative e-government is coming into being. Databases and information across different agencies will exchange with each other through using ICT, so that information obtained by one agency will be shared and transferred to another agency.

3.2.4 *Building legitimacy and trust*

To building legitimacy through achieving consensus or acceptance on cross-sector information sharing and integration, continuous interaction and negotiation among all party agencies is critical. Through interaction, congruent understanding and common objectives emerge and become legitimized through continuous negotiation and modification. Thus, the party agencies should reach the commitment to design institutions to create a collaborative e-Government. This horizontal cross-sector integration is a shift from governing through authority, that is, properly exercised power, to contract (Cooper 2003). Any system that meets with the approval of the affected parties is legitimate (Hirschheim and Klein 1989).

Nurturing trust in inter-organizational relationships is significant and important to maintain and further collaborative processes (Vangen and Huxham 2003). When collaborative partners are unwilling to monitor their own adherence to the agreed upon rules, the ability to build credible commitments is lost, and joint decision making is unlikely (Thomson and Perry 2006).

3.2.5 *Managing conflicts*

Whether partners in cross-sector collaboration play distinctive roles or whether they begin to develop competency in multiple roles, one of the principal administrative dilemmas for leaders and managers in collaboration is managing the inherent tension between self-interests and collective interests (Thomson and Perry 2006). Thus conflict and dispute resolution and management is needed. The issue is how to design to devise a strategy that retains the search for reliability, efficiency, and accountability and, at the same time, rises to meet the issues that governments face (Behn 2001).

ICT also plays an important role in the operating process. In its broad sense, applying ICT to transform government structure and functions is to enhance e-government interoperability and create collaborative e-government (Gil-Garcia et al. 2007), which promotes different agencies to develop cross-sector collaborative structure and work together to provide one-stop integrated and comprehensive services to citizens and businesses since government services are diverse and are offered by different agencies.

3.3 **Structure and Governance**

Cross-sector collaborative relationships analysis is often linked to inter-organizational network structure. Structure is a highly developed concept in inter-organizational relationships theory and typically includes elements such as membership, goals, specialization of tasks and division of labour, rules and regulations, standard operating procedures and designated authority relationships, coordinating mechanism and inter-organizational agencies. Through instructing, stakeholders in collaborative processes generate a system for sustaining coincident values and establishing order within the domain (Gray 1989, 89). This paper categorizes the structure into institutional structure, organizational structure and technical structure.

3.3.1 *Institutional structure*

Designing inter-organizational system and institution are essential to promote cross-sector information sharing and integration effectively. The institutional structure includes basic collaborative arrangements, such as designated authority relationships, specialization of tasks and division of labour, rules and standard operating procedures. The institutionalization of a collective decision-making process is central to the definition of collaborative governance (Ansell and Gash 2008). A cross-sector collaborative structure provides the interconnected and cooperative arrangements to support the integration of resources and the exchange of information across different agencies.

3.3.2 *Organizational structure*

Collaborations are not self-administering enterprises. To achieve the common purpose, that brought the organizations to the table in the first place, some kind of administrative structure must exist that moves from governance to action (Thomson and Perry 2006). Collaborative structures take on features commonly associated with formalized agencies (O'Leary et al. 2009), such as the secretary division of

Regional Cooperation of Pan-Pearl River Delta, Office of Mayors' Joint Meeting between Guangzhou and Foshan in Guangdong province South China, the New York—New Jersey Port Authority in the New York-New Jersey Metropolitan Region, the Ohio River Valley Water Sanitation Commission (ORVWSC) of interstate collaborative partnerships in Ohio River watershed management, the EMAC Committee of U.S. interstate partnerships in emergency management, the EU Commission and so on. According to Dawes (2008), the emergence of permanent cross-boundary, multi-organizational structures for policy making and action may represent one area in which administrative reform in the more radical sense is unfolding.

In this paper, we focus on the inter-organizational structure associated with formalized agencies or cross-sector joint committees, particularly the collaborative organizations composed of other sectors or organizations that perform a variety of functions by institutionalizing rules and regulations, operating process into a coordinating organizational structure. According to Bozenman and Straussman (1990), organizational structure is viewed exclusively as a means of enhancing efficiency in the production and delivery of goods and services. A completely integrated and networked intra- and intergovernmental organization is the basis for a fluid and boundless interchange of information and knowledge (Scott 2000). Organizational structure includes the specification of the entities that will be created. At the organizational structural level of cross-sector collaborations one finds the cross-sector committees, cross-cutting policy group, hierarchical bureaus or authority, interdepartmental joint group, and of the executive branch of interagency commissions, as well as the lateral government nongovernmental organizations linked by contract and in other ways to government. Participants' governance structures will affect membership decisions and shape the strategies that support the collective initiative (Agranoff and McGuire 2001).

To fully exploit the benefits of ICT, public administration has to consider changing its organizational structure (Ezz et al. 2009). Designing cross-sector collaborative organizational structure enables a seamless and integrated governmental organization. The choice among types of organization governance structure is likely to influence cross-sector collaboration efficiency and effectiveness (Provan and Kenis 2005). According to Bryson et al. (2006), These types include (1) self-governing structures in which decision making occurs through regular meetings of members or through informal, frequent interactions; (2) a lead organization that provides major decision-making and coordinating activities; and (3) a network administrative organization, which is a separate organization formed to oversee network affairs. Cross-sector organizational arrangement provides a public forum through which the public managers and stakeholders involved in the process of building cross-sector collaborative e-government resolve interagency differences and disputes, build agreement, design basic rules and regulations, which is critical for the procedural legitimacy and successful promotion of the cross-sector collaborative management in e-governance.

3.3.3 Technical structure

ICT infrastructure is the most important technical structure in e-Government. In the age of information, cross-sector collaborations in public management become closely linked to the creative application of ICT. The need for the transformation of public governance from a single sector oriented to a multiple sector oriented public management system has increased with the use of ICT. If applied effectively, ICT is potentially capable of transforming government organizational structures, administrative functions and policy processes. The collaborative public managers should develop and safeguard ICT infrastructure to create cross-sector synergy system.

3.4 Constraints on collaboration

Generally speaking, there often exists potential impediments particular to the government environment which could limit the attainment of collective and collaborative benefits, jeopardizing the project of collaborative e-Government (Gil-Garcia et al. 2007).

3.4.1 Types of Collaboration

Important differences exist among partnerships formed for system-level planning (identifying and defining system problems and solutions), administrative activities (involving resource transactions,

such as sharing), or service delivery (such as client referral agreements) (Bolland and Wilson 1994). Service delivery partnerships are more frequent and easier to sustain than those aimed at planning for systems change because system-level planning activities, like agenda setting in the public policy process, involve negotiating tough questions about the problem and creative solutions (Bolland and Wilson 1994). Similarly, Alter (1990) found that partnerships involving administrative-level managers are more prone to conflict, whereas those coordinating service delivery among line staff experience greater cooperation.

3.4.2 Power imbalances

Power imbalances between stakeholders are a commonly noted problem in collaborative governance (Gray 1989; Bryson et al. 2006; Ansell and Gash 2008). Gray (1989) argues that power differences among players influence their willingness to come to the table. If some stakeholders do not have the capacity, organization, status, or resources to participate, or to participate on an equal footing with other stakeholders, the collaborative governance process will be prone to manipulation by stronger actors.

Co-ordination was made more difficult partly because the incentives to achieve each organization's aims were greater than the incentives to achieve more system-wide objectives (Ling 2002). The collaborative public managers must remember that co-ordination and integration in the public sector is inherently a political process (Peters 1998). Integration transforms adversarial interaction and into a mutual and collaborative search for information and for solutions that allow all those participating sectors and organizations to manage their differences constructively. The facilitative leaders and managers of the different sectors involved in the collaborative process should use politicized strategies effectively to promote cross-sector integration to maximize cross-sector synergistic effect.

3.5 Outcomes and Accountability

3.5.1 Public value

The point of creating and sustaining cross-sector collaborative ought to be the production of public value (Moore 1995; Bryson et al. 2006) that cannot be created by single sectors alone. Public value in cross-sector collaborations is most likely created by making use of each sector's characteristic strengths while also finding ways to minimize, overcome, or compensate for each sector's characteristic weaknesses. Playing to the strengths of the different sectors seems logically linked to managing costs effectively and attending to diverse human needs and aspirations.

3.5.2 Accountability

Accountability is a core issue in collaborative public management. Cross-sector collaborations are more likely to be successful when they have an accountability system that tracks inputs, processes, and outcomes; use a variety of methods for gathering, interpreting, and using data; and use a results management system that is built on strong relationships with key political and professional constituencies (Bryson et al. 2006).

4 PLAN FOR EMPIRICAL STUDY AND EXPECTED CONTRIBUTION

In order to explain some phenomenon in cross-sector collaboration in China from e-government perspective by using this conceptual framework, we will conduct a case study in a sub-district of Chengdu in Sichuan Province, focusing on collaboration and integration on the transactions of administrative permit system. The research will be conducted in compliance with a normative case study methodology. In the research process, we laid much emphasis on the diversity of data sources during the collection of evidence and materials. The evidence we plan to collect for analysis include: records of several field interviews to key-person of local government, directors of transactional sectors and directors of IT sectors; documents such as announcements, reports, and regulations provided by the government agency during the promotion of the integrative process. In addition, in order to secure a better construct validity of this study, we paid special attention to the diversity of

data sources during the interviews. We interviewed the person in the government agency, as well as citizens who accept the service, so as to construct an evidence triangulation to reduce the limitations caused by the choices of interviewees to the greatest extent (Yin, 2003).

In order to secure a better internal validity of the study, we will conduct coding and scheme matching on the relevant qualitative research data collected. One problem that scholars in the IS field have long been faced with is how the above-mentioned methods are effectively employed in examining and exploring the high-level theories in sociological research. In our research, we methodologically refer to the top-down and bottom-up combined approach proposed by Reimers and Johnston (2008). After sorted the interview records and other raw materials and induced “rationales” from them, we will interpret the case facts with the model deduced from the high-level theories.

As far as we are concerned, the empirical study can clarify two aspects related cross-sector collaboration issues: (1) Whether the extended Bryson’s framework could help us to describe the collaboration process in e-government development more deeply or not? (2) Which important factors related the four dimensions in the framework should be paid attention in public administration in China? Since literature accumulated in recent years focuses on macro-perspective strategies of collaboration, does not seem enough for the extrapolation of widely accepted theoretical frameworks on the details related that how to fulfill the collaboration and integration in the digital age, The expected findings of the empirical study based on the extended Bryson’s framework would provide some valuable implications to both academia and practitioners around cross-section collaboration issues.

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