

RESEARCH ARTICLE

Network structure and collaborative innovation processes—A comparative analysis of two elderly service networks in Shanghai

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Summary

How does the structure of government-funded service networks affect the process of service innovation? We have conducted a comparative analysis of the structure and processes of collaborative innovation of 2 government-funded community-based elderly service networks in Shanghai. We have found that in consistent with the literature, a network that has a network administrative organization structure is better able to manage the process of service innovation in a way that balances the need to achieve government policy goals on the one hand and the imperative to facilitate bottom-up citizen participation on the other. Surprisingly, contrary to what prior studies have suggested, we have found that a network in which a lead organization plays a dominant role, despite its more centralized process of service innovation, is often able to deliver a variety of high-quality and low-cost services addressing citizens' needs. With the leadership provided by the network lead organization and its close affiliation with the street-office government, the network has been able to solicit government support. Such a hierarchical yet responsive state-society relation has emerged as a result of the coalescence of a corporatist state legacy and an increasing pressure for local governments to seek citizens' support in service delivery.

KEYWORDS

authoritarian regime, citizen participation, collaboration, community-based elderly service innovation, network structure

1 | INTRODUCTION

China is home to more than 200 million people aged over 60 and has the largest population aged over 80 in the world (United Nation, 2015). As a result of the drastic decline of family support and a short supply of elderly care institutions, the demand for community-based elderly care (CEC) has been on the rise.¹ Although the elderly who are economically better-off are able and willing to pay for elderly care and services (Liu, Fu, Qu, & Wang, 2014), a significant proportion of

China's elderly population are living in poverty.² How to provide adequate support for those who cannot afford private care has posed a serious policy challenge to the Chinese government.

The central government of China began to develop and experiment CEC programs in the early 2000s, with a view to providing professional services to meet the diverse care needs of the elderly at affordable costs (State Council, 2001). Social organizations (SOs), private enterprises, volunteers, and social workers have been encouraged to participate in the provision of CEC services (National Old Age Commission, 2006; Xu & Chow, 2011; Yan & Gao, 2007). Significant efforts have been made to lower the barriers for privately

¹According to a national survey of 32,494 households, 40.5% of the elderly need health check and consultation services, but only 27.2% have received the services; 25.3% need home-visit by doctors, but only 7.5% have received such services; 17.1% need house cleaning services, but only 3.1% have received the services. See National Health and Family Planning Commission (2015, p. 98).

²In 2015, 23.9% of population aged over 60 have income less than half the country's median income. Global Age Watch Index. (2015). Retrieved from <http://www.helpage.org/global-agewatch/population-ageing-data/country-ageing-data/?country=China>.

initiated SOs³ to register with the government and to compete for government service contracts (China Communist Party Central Committee and State Council, 2013). Particularly, the central government was committed to the goal that no less than 30% of the newly increased social service procurement would be purchased from SOs (Ministry of Finance and Ministry of Civil Affairs, 2016).

This study examines how the network structure of public–private collaboration in the provision of elderly services affects citizen participation in service innovation (Bovaird, 2007; Brandsen & Pestoff, 2006; Osborne & Brown, 2011). Service innovation refers to “new ways in which services are provided to users” (Hartley, 2005, p. 28), with a view to creating new services or improving existing services to meet the needs of existing or new service users (Osborne & Flynn, 1997); bottom-up innovation arguably allows for more effective and efficient service provision that is better able to meet the diverse needs of service users (Alves, 2013; Osborne & Strokosch, 2013). Prior studies of public service provision in China have so far mainly focused on SOs' collaboration with governments at the municipal and district levels. In urban China, however, the implementation of many social and economic policies and programs relies heavily on street-office governments (Read, 2000). With rapid urbanization in recent decades, street-office governments have been playing an increasingly significant role in ensuring service quality and good governance at the local level (Heberer & Gobel, 2011).

This paper is organized as follows. We first review three bodies of literature pertaining to public service provision and innovation—the roles of government and SOs in community-based service networks in China, co-production and co-creation, and the impact of network governance structure on service innovation. Based upon the review, a series of propositions on how different network structures might affect the process of innovation and the ability of networks to innovate and to provide services to satisfy citizens' needs are put forth. To elaborate these propositions and illustrate their validity and empirical relevance, we conduct an in-depth comparative analysis of two CEC service networks in Shanghai and discuss the implications for understanding public service provision in China and elsewhere.

2 | LITERATURE REVIEW

In the literature of public management, there is a longstanding debate on whether government can facilitate public service innovation through collaboration with actors in the private and social sectors. Prior studies have found that, through providing resources to service networks, government can monitor network performance, foster trust among organizations in the networks, and ensure public accountability (Keast, Mandell, & Brown, 2006). In many instances, guided by a

policy mandate to promote service innovation, government can channel resources to help build nonprofits' capacity to innovate and to share the risk involved in service innovation (Mulroy & Shay, 1997; Osborne & Flynn, 1997). These studies have also found that, through public–private collaboration, government is able to mobilize knowledge and skills from actors in different sectors for better service delivery and to build trust among network actors which is instrumental to public service innovation (Sorensen & Torfing, 2015).

That government resources can necessarily facilitate innovation in service networks, however, is not a conclusive finding. Some scholars have observed that, in situations where governments are eager to meet statutory and policy targets, government resources tend to limit the nonprofits' flexibility of resource use (Hanf & O'Toole, 1992; Kickert, Klijn, & Koppenjan, 1997), destabilize collaborative relations (Agranoff, 2007), and compromise the nonprofits' leeway to innovate (Osborne, Chew, & McLaughlin, 2008).

Earlier research has suggested that bottom-up innovation, which pertains to involving citizens in the co-production of public services, often helps overcome problems brought about by limited government funding, mainly through effective identification of social problems and the needs of service users, development of trust among citizens, and a reduction of costs to taxpayers (Alves, 2013; Mulgan, 2006; Ostrom & Ostrom, 1977). In bottom-up social innovation, citizens may be involved in implementing, designing, and even initiating new services in collaboration with governments (Pestoff, Osborne, & Brandsen, 2006; Voorberg, Bekkers, & Tummers, 2015). Through the process of innovation, governments are not only able to serve the interests of the politically less powerful at low costs (Kickert et al., 1997; Provan & Milward, 2001) but also treat citizens as active and equal partners in public service delivery (Vigoda, 2002).

The central government of China has strived to innovate public services through public–private collaboration as a means to cope with social and economic challenges and fiscal constraints (Jing & Osborne, 2017; Lin, 2016; Shieh & Schwartz, 2009). Local government officials have been given both the mandate and incentives to engage in public service innovation (So, 2014; Wu, Ma, & Yang, 2011; Zhu, 2014). Under China's authoritarian political system, however, it is imperative for local governments to ensure a certain degree of social stability and accountability of service providers. A consequence is that local governments have been rather selective in choosing collaborative partners, collaborating with only nongovernmental organizations (NGOs) whose leaders the governments can trust and have strong ties with (Hsu & Hasmath, 2014; Teets, 2012). By collaborating with the governments, the nonprofits are able to acquire not only the needed resources but also legitimacy and reputation which in turn can enable them to mobilize resources from both within and outside the state sector (Johnson & Ni, 2015). Government sponsorship, however, is a two-edged sword; despite all the potential benefits, it could also restrain bottom-up participation in social innovation as a result of regulatory hurdles and financial accountability requirements (Jing & Gong, 2012). Perhaps more importantly, the nonprofits could easily be driven by policy goals of the governments in the process of service contracting, often at the expense of their own missions and service diversity (Fulda, Li, & Song, 2012; Howell, 2015).

³Although in the Western literature, NGOs refer to nonprofit and nongovernmental entities (Salamon & Anheier, 1992), China's official documents refer to NGOs as social organizations or charity organizations. These documents do not distinguish government-initiated SOs which are established by the government from privately initiated SOs which are established by ordinary citizens (China Communist Party Central Committee and State Council, 2016; National People's Congress, 2016). Until recently, government-initiated SOs had enjoyed more privileged access to resources than privately initiated SOs (Howell, 2015; Jing & Gong, 2012).

For government-funded service networks to be effective, they have to be able to sustain government resource support on one hand and to maintain the potential for bottom-up service innovation on the other (Thynne & Peters, 2015). We conjecture that the governance structure of service networks is a key independent variable affecting the networks' ability to reconcile the two imperatives. As argued by Provan and Kenis (2007), different forms of network governance structure can affect the way networks manage the tension between the demands of internal and external stakeholders. Given the prominent role that local governments in China have been playing in service networks, two centralized forms of network governance are of particular relevance.

A lead organization (LO) network has a more centralized structure and is governed by a leading service agency which at the same time also provides network administration and coordination of network members to attain collective goals. Although an LO network tends to be more efficient and flexible in operation and better able to address the needs of external stakeholders, due to the dominance of the leading organization, it is often characterized by a lower level of trust among the organizations in the network, a lower degree of goal consensus, and a lower level of competency in meeting the collective needs of the network members. A network administrative organization (NAO) network in which a NAO takes on the authority and responsibility of managing and sustaining the network tends to be able to attain higher levels of goal consensus and trust; which enhances its capacity in addressing the needs of external stakeholders and facilitating collaboration among network members (Provan & Kenis, 2007).

Chen and Graddy (2010) have found that LOs that seek to meet the requirements of external funding agency are often less able to improve direct client outcome. In fact, networks with one dominating agency in many instances have been perceived by network members to be less effective in administration and service delivery (Lemieux-Charles et al., 2005).

We propose that when a government-funded CEC service network adopts the LO structure, service innovation is likely to be restrained, if not distracted, by government policy goals; as a result, citizens' participation in service innovation is rather limited. By contrast, a government-funded CEC service network that adopts the NAO structure is better equipped to manage the seemingly conflicting demands for achieving government policy goals on one hand and for facilitating bottom-up citizen participation in service innovation on the other.

3 | POLICY CONTEXT

The government of China has made it a national policy to provide the elderly living at home with quality elderly services through a community-based network of service providers, with institutional elderly care playing only a supplementary role (State Council, 2006, 2011a, 2011b, 2013). To implement the policy, the central government strives to establish a system of government procurement of elderly services by 2020 (Ministry of Finance, National Development and Reform Commission, Ministry of Civil Rights, & National Old Age Work Commission, 2014). The 13th National Five-Year-Plan of Public Health

Development stipulated that health care institutions in the country will make efforts to strengthen community-based health services for the elderly (State Council, 2016). Many of these institutions are public service units (shiye danwei) established and financed by the state (National Public Service Unit Registration Bureau, 2014).

Shanghai's population has aged rapidly. The forecast is that, in 2020, over 36% of the city's registered population will be aged over 60 (Shanghai Municipal Government, 2016). To meet the challenges associated with the ageing population, since 2007, the municipal government has set for itself the policy objective of providing CEC services to 97% of its elderly population⁴; 10 types of CEC services⁵ are provided mainly through three mandated service agencies at the community level: Elderly Home Care Agencies (EHCAs), Elderly Day Care Centers (EDCCs), and Elderly Dining Service Centers (EDSCs). By the end of 2016, there were 289 EHCAs, 488 EDCCs, and 633 EDSCs in Shanghai's 213 communities (Shanghai Civil Affairs Bureau, Shanghai Elderly Services Commission, & Shanghai Statistics Bureau, 2017).⁶ In 2015, more than 390,000 elderly were receiving CEC services provided by EHCAs, EDCCs, and EDSCs (Shanghai Civil Affairs Bureau, Shanghai Elderly Services Commission, & Shanghai Statistics Bureau, 2016).

An EHCA has been established by each street-office government⁷ to arrange and coordinate elderly care workers for providing home care services for the elderly (Shanghai Civil Affairs Bureau et al., 2004); the government has also been subsidizing low-income elderly for the elderly care workers services (Shanghai Civil Affairs Bureau and Finance Bureau, 2015). Applications for the subsidies are processed by the Home-Based Elderly Care Centers (HECC) which are SOs established by the district Civil Affairs Bureaus and street-office governments. Since 2008, the government of Shanghai has established and subsidized EDSCs and EDCCs (Shanghai Civil Affairs Bureau, 2008a, 2008b). Recently, EDCCs are encouraged to employ social workers to provide psychological services for the elderly (Shanghai Civil Affairs Bureau, 2016). Public health institutions are mandated to provide community-based health care services for the elderly (Shanghai Municipal Government, 2007, 2012, 2016). SOs and businesses have been encouraged to participate in the community service networks. More importantly, the elderly have been encouraged to organize among themselves to initiate and organize entertainment

⁴Ninety percent of the elderly are taken care by their families, and 7% are served by the community care givers, only 3% of the elderly go to the elderly care institutions. In total, 97% of the elderly population are the potential targets of the CEC services. See Shanghai Municipal Government (2007, 2016).

⁵The 10 types of services include (a) personal daily care, (b) meals, (c) bathing, (d) cleaning, (e) washing, (f) travelling, (g) managing chores such as shopping and bill payments, (h) health rehabilitation, (i) conversation, and (j) medical care. (Shanghai Civil Affairs Bureau, 2010).

⁶By June 2016, under the Shanghai municipal government, there were 16 districts. Under the district governments, there were 104 street-office, 107 township, and 2 county governments. Shanghai Administrative Division. Retrieved from <http://www.shmzj.gov.cn/gb//shmzj/node6/node34/userobject1ai26450.html>. Accessed on 16 January 2017. Shanghai Municipal Government, 2016.

⁷According to the Local People's Congress and People's Government Organization Law (Amendment), 2015, the street-office government (jiedao banshichu) is the dispatched agency of the district or county government, which is the lowest level of administration within the Chinese government.

programs, cultural and learning activities, and home-visits (Shanghai Municipal Government, 2014).

The CEC Service Standards were adopted as the professional guideline for service providers (Shanghai Civil Affairs Bureau, 2010). CEC service agencies are encouraged to employ professionals such as nurses, social workers, and psychological counsellors to deliver services to the elderly (State Council, 2013). In 2015, only 13% of CEC care workers in Shanghai have been able to obtain the national professional certificates, and about 86% of them have received lower secondary school education. The municipal government has set the goal that, by the end of 2020, all CEC care workers in the city are professionally qualified, with an addition of 78,000 elderly care workers joining the service (Shanghai Human Resource and Social Security Bureau et al., 2015).

4 | RESEARCH DESIGN AND METHODS

This study compares two networks in Shanghai which are representative of typical CEC service networks in the city. Both networks are located in communities with over 30% of the permanent residents aged over 60 (Shanghai Yangpu Statistics Bureau, 2014; Xinmin Evening News, 2013) and are under the jurisdiction of two different street-office governments⁸ which launched their government-sponsored CEC programs about a decade ago. The comparative analysis of the two networks can help validate the causal mechanisms through which network structure affects performance as suggested by existing theories and identify possible alternative causal mechanisms (Seawright & Gerring, 2008).

This study triangulates both the quantitative and qualitative information of the two networks to capture the structure and operation of the networks and to gauge their impact on service innovation. Network structure is measured by the number of reported links of member organizations to service providers in the network in the delivery of CEC services. The approach and processes of innovation in the networks are gauged by in-depth interviews with key actors, including managers of service provider, service users, and street-office government officials. We have also collected documentary information about the services delivered by the two networks to supplement and triangulate the interview data.

Three rounds of fieldwork were conducted in July 2014, May–June 2015, and February–March 2017. In the first round of fieldwork, we conducted eight interviews in the community served by one of the networks—Community A, and six interviews in the community served by the other network—Community B. To identify key informants for interviews, we adopted a snowball method. We first approached and interviewed the street-office government officials who are responsible for coordinating elderly service provision in their jurisdictions. Through these officials, we identified managers of service providers in the networks for interviews. In the second round of fieldwork, we interviewed a network manager in Community A for the second time and, through her introduction,

interviewed managers of five more service providers in the network, either face-to-face or via telephone. The five managers came from different service types and were considered by the network manager to be compassionate and capable collaborators. We also revisited Community B and interviewed the street-office government official and the HECC manager there. In the third round of fieldwork, we revisited Community B and interviewed one street-office government official, the managers of six service providers in the network, and four service users. We also obtained from the street-office government the third-party program evaluation reports of three service providers in the community. We visited Community A again and interviewed a manager of HECC and three service users. In total, we conducted 45 interviews with major actors, with each interview lasting for about an hour.

A semi-structured questionnaire was used in the interviews. In designing the questionnaire, we took into account, and also made reference to, relevant literature (Milward & Provan, 1998; Provan, Huang, & Milward, 2009; Provan, Isett, & Milward, 2004; Provan & Milward, 1991, 1995), government documents, and advice provided by local experts. The interviews with the street-office government officials were mainly focused on the background and performance of network collaboration and also the processes of CEC service innovation; the interviews with the managers of the service providers emphasized the organizations' service innovation and their perceived benefits and problems involved in collaborating with other service providers, government agencies, and private donors. The questions for service users pertained to their experiences in using, designing, and delivering CEC services.

5 | STRUCTURE AND SERVICE INNOVATION OF TWO COMMUNITY-BASED ELDERLY SERVICE DELIVERY NETWORKS

5.1 | Network A: LO structure and service innovation approaches

Network A is a highly centralized service network which adopts an LO governance structure. Despite the centralized innovation process, Network A has been able to attract government resources and successfully coordinate network members to innovate and deliver diverse and low cost services needed by citizens.

To measure the degree of integration of Network A, we calculated the density score by dividing the total number of organizational linkages by the number of agencies in that network (Provan & Milward, 1995). Among the 13 service providers we interviewed which represent major types of services provided to the elderly by Network A, 54 service collaboration links were identified; the density score was 0.346. These service providers have more dyadic service links with JLL—the LO of the network—than among themselves.

As the LO of Network A, JLL has the largest number of interorganizational links in the network (Table 1). It is a street-office level HECC which is responsible for managing the administrative work of Network A, including government funding application and subcontracting. JLL itself also delivers services, through EHCAs and EDCCs. For example,

⁸Street-office jurisdictions refer to geographical areas administratively governed by the street-office governments.

TABLE 1 Service agency involvement in the community-based elderly care service Network A

Agencies	Organizational links*	Legal status	Interviewee's qualifications
JLL	63 (51)	Private nonenterprise	9 years of elderly service management
JDC	11 (10)	Private nonenterprise (one branch)	4 years of elderly service management
JCL	14 (13)	Private nonenterprise (one branch)	6 years of elderly service management
JYY	15 (14)	Private nonenterprise (one branch)	6 years of elderly service management
JLY	6 (5)	Public service unit	8 years of hospital management
JSM	7 (6)	Public service unit (one branch)	16 years of medical services
JYH	6 (5)	Public service unit (one branch)	7–8 years of medical services
JDX	2 (1)	State-owned enterprise	3 years of telecommunication management
JFM	3 (2)	Self-employed business	Over 20 years of medical services
JHY	1 (1)	Private nonenterprise	5 years of elderly service management
JXH	4 (3)	Private nonenterprise	10 years of elderly service management
JFZ	2 (1)	Private nonenterprise	7 years of charity service management
JMJ	6 (5)	State-owned enterprise	3–4 years of meal service management

*Figures in parentheses are linkages to the nongovernmental service providers only. These links are for the purpose of elderly service delivery in Community A. JDC, JCL, and JYY are three service stations of JLL. JSM and JYH are two service stations of a community health care center. We present their linkages to other organizations because they operate as separate units that directly deliver the services.

it operates a hotline that responds to the needs of the elderly by referring them to appropriate service providers in the network.

Network A has close ties with the street-office government through JLL. Despite that the HECC (JLL), EHCA, and EDCC are registered as SOs which are independent legal entities, JLL in fact manages all the three entities which are all established and financed by the street-office government. The director of JLL is simultaneously the legal representative of the HECC, EHCA, and EDCC. She is also the Party Secretary of a party branch comprising 10 party members who are the staff of the HECC, EHCA, and EDCC. She has developed very good relationships with major actors in government and the public sector, due to her preretirement work experiences.⁹

The LO structure has enabled Network A to develop new service programs based on the direct feedbacks from service users. Its close relation with the government has allowed the Network to have good information about the government's policy goals; such information has enabled the Network to make use of governmental platforms to scale up their innovation. For instance, the government-initiated social organization JXH was greatly benefited by JLL's ability to accurately identify family caregivers who need JXH's nursing care training services. This experiment program was so successful that it has been adopted and scaled up by the government to become a municipal-wide program.¹⁰

JLL manager's passion for elderly services and street-office government's support have enabled Network A to innovate and deliver quality and diverse services at a low cost through forging a common goal among network participants. Many network

members are public service units, state-owned enterprises, or SOs established by the government (Table 1); in fact, some joined Network A as a result of the coordination by the street-office government, and others joined Network A because of the trust in the JLL manager. Member organizations all share the network goal of providing the elderly with charitable and quality services.¹¹ Every year JLL organizes meetings with network service providers to communicate to them the feedbacks of the elderly. Also, it uses government funding to subsidize some service providers and to reward those who have been able to attract more service users.¹² As of July 2014, JLL has signed service contracts with over 70 service providers (51 of them are active "supporting units"), which together offer more than 55 types of free or low-priced services covering meal services, daily personal care, psychological counselling, health care, legal service, culture and entertainment, and security services. The contracts specifically stipulated that all service providers shall abide by "the principle of serving public interests" (gongyi yuanze) in service delivery.¹³ For instance, to accommodate the diverse preferences of the elderly, JLL arranged three service providers to take turns to deliver meals at different stations of the EHCA and the EDCC every day, including weekends and public holidays.¹⁴

¹¹For instance, the collaboration of the community public health service stations (such as JSM and JYH) with EHCAs was facilitated by the District Government Health Department and Office of Working Commission on Ageing (Shanghai Elderly Newspaper, 2009). The immigrant manager of a barber shop JFM provided low priced hair cutting services to the elderly in Network A to "give back to the community" in return for the assistance he received from the street-office government during earlier stage of his career (Interview JFM manager, May 16, 2015). The charity service unit associated with a high-end supermarket delivered free food to the elderly in Network A largely because its manager trusted JLL manager due to their preretirement friendship and working relations in the district public sector prior to 2008 (Interview JFZ, May 15, 2015).

¹²Interview JLL director, July 16, 2014.

¹³Interview JLL director, July 16, 2014. The service and contacts of JLL's "supporting units" are found in a brochure displayed at the JLL.

¹⁴This information is confirmed by JLL managers, staff at EHCA stations, and the elderly service user. Interviews, JLL director, July 16, 2014; managers of JYY and JCL, July 22, 2014; manager of JDC, July 23, 2014; Miss Gu, February 17, 2017.

⁹To verify the information from the interviews, we found the registered names of the HECC (JLL), EDCC, and EHCA in the 2013 Announcement by Shanghai Jing'an District Civil Affairs Bureau and Social Organization Management Bureau about the Annual Review of Social Associations and Non-government Nonenterprises. Retrieved from <http://stj.sh.gov.cn/node1/n12/n76/n79/u8ai25586.html>. JLL manager was an economist retiring from a state-owned enterprise. See also Note 11. Interview JLL director, July 16, 2014 and May 13, 2015.

¹⁰Interview JXH, May 19, 2015.

One elderly lady told us that she only paid 150 CNY per month for the services she enjoyed at one EDCC, including the meals, entertainment programs, physical exercises, and health care services.¹⁵ Being familiar with relevant government policies, JLL has helped the EHCA retain as many as 400 regular care workers, who are underpaid because of government policy, by securing social security benefits for them. JLL has also utilized its access to public hospitals to provide free nursing training to care workers to improve their skills. About 70% of EHCA's care workers have now obtained national professional qualifications, which is higher than the average level of the city.¹⁶ In 2014, Network A served 250 government subsidized low-income elderly and over 1,000 self-financed elderly and delivered 30,000 meals per month. With a moderate increase of funding for each station (from 100,000 to 150,000 CNY), the service volume of each station has increased from 50,000 times of service in 2007 to around 100,000 times in 2014.¹⁷

Support provided by the government and a consensus on network goals among the network members (including the LO) have sustained long-term collaboration among the members and stabilized service provision despite the centralized network structure. For instance, when one meal provider was undergoing furnishing, another meal provider JMJ was willing to increase its service supply to the network temporarily, with the tacit understanding that other meal providers would do the same when JMJ needed help. More importantly, to deal with the problem of temporary capacity shortage of JMJ, the manager of JLL referred some elderly caretakers from EHCAs to JMJ to undertake some workload so that JMJ would not need to employ additional permanent staff.¹⁸ It would have been more difficult to reassign care workers had the management of EHCA, EDCC, and EHCC (JLL) not been integrated. As of February 2017, two meal service providers and two community public health service stations had been collaborating with JLL for more than 10 years. Four agencies which provided such services as haircuts, estate management, electronic appliance repair, and care worker training had been operating in Network A for more than 8 years; the two agencies that maintained the JLL hotline center and provided specialized home care services had been working in the network for more than 5 years.¹⁹

Network A's performance is generally in line with government goals which helps it to attract resources from government to further develop new services. Since 2013, JLL has been identified by the municipal government as one of the 40 "elderly friendly communities" where new government-funded CEC services are experimented

(Jiefang Daily, 2013). As of July 2014, JLL has attracted a total amount of 1,645,000 CNY, most of which are from the government.²⁰

Network A's innovation faces several challenges, however. First, some of JLL's government-sponsored collaborators are constrained by government policies in service provision. For example, the elderly rehabilitation hospital, JLY, could only provide a limited number of intravenous injections for the elderly at home for 1 day; and the injections must be prescribed at JLY. This has limited JLY's capacity to serve the elderly referred by JLL.²¹

Second, JLL has only limited administrative capacity and expertise in dealing with such tedious tasks as surveying service needs, bidding for government funding, performance reporting for government-funded service programs, and evaluating service providers' performance.²² Perhaps more importantly, JLL is facing the problem of succession. The current director of JLL is about 70-year-old; her retirement would mean a heavy loss of JLL's social capital which has been largely personified by the director; JLL is having difficulty finding a successor who has similar experience and social capital.²³

Third, Network A's innovation has been constrained by the street-office government's micromanagement approach in dealing with HECC, EDCC, and EHCA. For instance, the salaries of the staff at the EDCC and EHCA are fixed at the minimum wage level in accordance with government regulations, which is not proportional to their heavy workload; any attempts to raise their salaries would require the approval by the street-government.²⁴ Given the low salaries, the HECC, EDCC, and EHCA can only attract retirees to work for them, as young people do not see good prospects in the jobs.²⁵

Fourth, the management of the LO does not always appreciate the service innovation efforts made by the SOs. Managers of JLL perceived that most SOs lack resources and do not know the needs of the elderly. In one case, JLL helped an SO to recruit some elderly participants for a paper-cutting workshop. However, a JLL manager complained that the workshop was not attractive because only 20 elderly turned out and more than 30 volunteers came.²⁶ In another occasion, JLL bids for a government-funded program in collaboration with a privately initiated SO JFK. JFK would send their own nurses

²⁰A 1,300,000 CNY is directly transferred by the government, 99,000 CNY is funded by the street-office government through competitive bidding, and 216,000 CNY is allocated by Shanghai Senior Citizens Foundation, which is a government-organized SO. JLL's collaborator YXH bid 30,000 CNY from the government to offer free professional training for family care givers in Network A. According to the JLL manager, the winner for "competitive bidding" was actually designated in advance by the government. Other bidders were just accompanying the bidding process. This phenomenon is prevalent among privately initiated SOs. In February 2017, we found that YXT was also looking for "accompanying bidders" to prepare for the bidding for a government service program. For a systematic explanation for the phenomena, see (Jing & Chen, 2013) Interviews YXT manager, March 2, 2017; JLL director, July 16, 2014.

²¹Interview the vice president of JLY, July 18, 2014.

²²Interview JLL director, July 16, 2014.

²³To illustrate the challenges of the job, a JLL manager told us that a Party leader from Jing'an district government would visit JLL on same the day of our interview with a very short notice. JLL director prepared reporting materials for the visit the night before until 9 pm. Interview JLL manager, February 17, 2017.

²⁴Interview JLL director, May 13, 2015.

²⁵Interview JYY manager, July 22, 2014.

²⁶Interview JLL director, July 16, 2014.

¹⁵Interview Miss Gu, February 17, 2017.

¹⁶Interview JLL director, July 16, 2014; Interview JXH, May 19, 2015; Interview JLL manager, February 17, 2017. In comparison, only half of 70 EHCA care workers in Network B obtained national professional qualifications. Interview YJJ director, February 17, 2017.

¹⁷Calculations are based upon the sum of administrative cost (staff salaries, electricity charges of station, etc.) related to the provision of varieties of services by each service station mentioned previously. Interview JLL director, July 16, 2014.

¹⁸Interview JMJ manager, June 9, 2015.

¹⁹Interviews in Community A in July 2014, May and June 2015, and February 2017.

TABLE 2 Service agency involvement in the community-based elderly care service Network B

Agencies	Organizational links*	Legal status	Interviewee's qualifications
YYZ	16 (13)	Private nonenterprise (one branch)	10 years of community service management
YZX1	14 (13)	Private nonenterprise (one branch)	1 year of community service management
YHBS1	14 (13)	Private nonenterprise (one branch)	1 year of elderly service management
YHBS2	11 (10)	Private nonenterprise (one branch)	1 year of elderly service management
YXT	16 (15)	Private nonenterprise (one branch)	3 years of community service management
YHY	18 (16)	Private nonenterprise (one branch)	1.5 years of elderly service management
YJM	25 (24)	Service team (being incubated)	1 year of community service management
YYG	23 (22)	Private nonenterprise (one branch)	2 years of meal service management
YQJ	33 (32)	Private nonenterprise (one branch)	3 years of voluntary service management
YWT	40 (39)	Private nonenterprise	1 year of sports service management

*Figures in parentheses are linkages to nongovernmental service provider agencies only. These links are for the purpose of service delivery in Community B.

to provide care services such as bathing for the frail elderly at home; JLL would help the JFK to reach service users. One JLL manager, however, complained that this joint program cost their staff too much time, and JLL should have charged JFK a management fee. JFK, on the other hand, was fully aware that this service program was in fact competing with JLL for the limited government subsidies for CEC services.²⁷

Finally, the level of participation of the elderly in Network A has often been confined to *codelivering services* to the elderly together with the professionals (Bovaird, 2007).²⁸ The elderly service users have not played much role, except for being consulted, in identifying service needs, designing service programs, or delivering services on their own.

5.2 | Network B: An NAO structure and service innovation approaches

In Community B, the CEC service network has a more decentralized structure. Compared with Network A, the interorganizational links in Network B are not centered around a particular organization but more evenly distributed (Table 2). The density score of Network B is 0.444, which is higher than that of Network A. If we exclude YHY which manages the EHCA care workers, the density score of Network B rises to 0.528.

Network B displays an NAO structure and differs from Network A in three major aspects. First, except for YWT, all the service providers in Network B are branch offices of SOs which also provide services outside Community B. Except for YWT and YQJ, all the other SOs in the network are privately initiated. Second, all SOs in Network B have contracted directly with the street-office government for funding rather than through a LO. Unlike in Network A where JLL is the single most reputable SO, a majority of SOs in Network B have developed a reputation among their peers.²⁹ Third, the street-office government

has contracted out major network administrative duties to a privately initiated SO: YZX2.

In 2014, YZX2 was awarded a service contract of over 200,000 CNY by the street-office government to manage a community SO service center.³⁰ The organization has since become the NAO for Network B. YZX2's network administrative tasks include incubating new service teams or new SOs for service provision, evaluating the performance of government service programs contracted to the SOs in the network, and facilitating collaboration among the SOs through information dissemination, engagement activities, and joint service programs. YZX2 has helped new service teams to get access to resident committees (*ju wei hui*) and neighborhood centers.³¹ During the period from 2009 to 2015, more than 10 SOs were incubated at the center.³² An interesting example is that a group of legal professionals was awarded a service contract of more than 50,000 CNY by the street-office government to provide free legal counselling services for the elderly.³³ YZX2 has also introduced different types of services and resolved the conflicts among SOs as a result of competition.³⁴ As of July 2014, all nine SOs in Network B have forged collaborative relationships with one another, which enable them to share volunteers, information, and resources.³⁵

²⁷Interviews JLL director, July 16, 2014, JFK manager, June 20, 2015, JLL manager, February 17, 2017.

²⁸For example, retired volunteers including doctors provided health check services at the service stations of EHCA. Their participation shared the workload of the community public health service center. Interviews JCL manager and JYH manager, July 22, 2014, Shanghai, China.

²⁹Eight SOs have been mentioned by our respondents as the best elderly service agencies in Community B. YZX was mentioned three times, YXT four times, YYZ twice, YHY four times, YLF once, YWT once, YJM once, and YHBS five times.

³⁰It is municipal government's policy to establish a SO service center at each community to provide consultation and capacity building services to SOs and evaluate their performance as well as facilitate their participation in community service delivery and governance. By 2016, most street-office governments in Shanghai have established a SO service center. However, not all service centers are managed by privately initiated SOs. See Shanghai Social Organization Management Bureau (2015a, 2016).

³¹For example, with the initial introduction by YZX2 to the street-office government, YJM's health care education and YLC's legal counselling services were delivered at the neighborhood centers and the residential committees. Interview YZX2 manager, June 12, 2015; Interview YLC manager, March 14, 2017; Interview YJM manager, May 25, 2015.

³²Interview YZX2 manager, June 12, 2015. We also refer to the third-party evaluation report for YZX2's performance in 2014 obtained from the street-office government on March 3, 2017.

³³The group registered as a SO in 2015, with the help of the center. Interview the staff of YLC, March 14, 2017; Interview the manager of YZX2, June 12, 2015.

³⁴Interview YYZ manager, July 15, 2014; Interview YZX2 manager, June 12, 2015; Interview a street-office government official, May 27, 2015

³⁵Interviews in Community B, July 2014 and June 2015.

The flexibility of the NAO network has not only encouraged competition among SOs but also facilitated citizen participation in service innovation. The management of the three neighborhood centers in Network B has been contracted by the street-office government to three SOs, namely, YXT, YYZ, and YZX1. Although their collaboration with the street-office government has been relatively stable, the service contracts normally last for 1 or 2 years and can be renewed only through open competitive bidding. A result of such an arrangement is that the SOs are given very strong incentive to maintain good performance.³⁶ In addition, members of the SO staffs are motivated to perform well so that they can get promotions.³⁷

With a small number of full-time staff and the challenging government service targets, the SOs in Network B have also competed with one another to solicit volunteers, of whom most are retired elderly, to co-design, and co-deliver the services.³⁸ For instance, YXT is an SO specialized in community preventive health care. In one occasion, YXT's volunteers proposed that the older elderly and the elderly who have lost their only child could use chatting services. YXT assisted the volunteers to formulate a service plan which has since provided chatting services to more than 200 elderly every week.³⁹ During our fieldwork, an elderly volunteer reported that YXT had invited a health expert to give a lecture on smoking control. The follow-up monthly workshops and advocacy activities were then organized by the volunteers themselves.⁴⁰

Some service programs such as visual inspection were first proposed by the residents too; YXT then turned the ideas into action by introducing volunteers from the relevant sectors to offer free and professional visual inspection for the elderly.⁴¹ Other SOs used similar approaches to elderly service innovation.⁴² In a service program funded by the street-office government, YJM invited health care experts to train the leaders of the self-organized health care clubs in the community. YJM then assisted these leaders to deliver health education programs to other community residents, including the

elderly served by EDCCs. A staff member of an EDCC told us that the programs were very popular among their clients.⁴³ In appreciation of the positive impacts of citizen participation, the street-office government increased its financial support for bottom-up service innovation.⁴⁴

With an NAO structure, no single service provider in Network B can control the access to service users. Compared with Network A, Network B is more receptive to external resources. The street-office government welcomed external resources to help achieve its performance targets.⁴⁵ For instance, YJM received a program funding of 40,000 CNY from the street-office government in 2012 and was allocated free office space at the SO service center. In 2015, its revenue has grown to reach 200,000 CNY, of which one-third came from business donation.⁴⁶ During the period from 2015 to 2017, YZX2 solicited a total of 600,000 CNY from private banks; the street-office matched an additional amount of 600,000 CNY for the fund.⁴⁷ In 2016, YXT was contracted to manage a community foundation⁴⁸ in Community B. Of its 5.05 million CNY, only 400,000 CNY was allocated by the street-office and district governments; the rest was all raised by YXT from a private foundation and local businesses.⁴⁹

The EHCA, EDCC, and EDSC in Network B all face the similar government financial constraints as their counterparts in Network A. To better leverage private resources to sustain service delivery and innovation, they have contracted the delivery of many of their programs to SOs. For example, the meal-on-wheel services of the EDSC have been outsourced to an SO, YYG. Although government subsidies can barely cover the cost of YYG's services, YYG has been able to make the ends meet through providing dinner services that generate additional incomes.⁵⁰ With the declining number of subsidized elderly in Community B, the contracting fee for YHY to manage the EHCA declined from 120,000 CNY in 2013 to 100,000 CNY in 2014. This amount could hardly cover the actual costs.⁵¹

³⁶Until March 2017, YXT had contracted with the street-office government to deliver community services for near 6 years, whereas YYZ and YZX1 have done so for near 7 years. Interview street-office government official, July 15, 2014; interview YXT manager, March 2, 2017; interview YZX2 manager, February 17, 2017. YXT, YYZ and YZX1 renewed their contracts after they obtained "90," "90," and "84" scores (out of 100), respectively, in 2014. Sometimes SOs' contracts are not renewed due to competition. For example, one elderly day care center was originally managed by a branch of YZX during 2010–2012 and was later contracted to YHBS1. Interview street-office government officials, July 15, 2014. See also the consultation report obtained from a local scholar, July 7, 2014, and the third-party evaluation reports obtained from the street-office government, March 4, 2017.

³⁷Well-performed staff of SOs in the community service centers is usually promoted to oversee several service centers across communities. Their salaries will also be doubled. Interview a staff of YXT working in one neighborhood center. March 2, 2017.

³⁸In 2014, YXT has two full-time staff, YYZ has three full-time staff, YZX1 has four full-time staff, and YZX2 has two full-time staff to manage four neighborhood/service centers. Interviews in Community B, July 2014.

³⁹Interview YXT manager, July 22, 2014.

⁴⁰Interview an elderly volunteer, March 2, 2017.

⁴¹Interview YXT manager, July 22, 2014.

⁴²Interview YYZ manager, July 15, 2014; Interview YZX1 manager, July 23, 2014. Interview YJM manager, May 25, 2015.

⁴³Interview YHBS1 staff, July 23, 2014.

⁴⁴According to the internal work reports by the street-office government in Community B, in 2014, it allocated 3 million CNY to purchase SOs service programs. In 2016, the street-office government recognized that SOs can encourage citizens to participate in community self-governance and the amount allocated to purchase SOs' service programs increased to 3.8 million CNY. Interviews of street-office government officials on July 15, 2014, May 27, 2015, and March 4, 2017.

⁴⁵Interview YZX1 manager, February 17, 2017.

⁴⁶Interview YJM manager, May 25, 2015.

⁴⁷The street-office government matches the same amount of money for the fund donated by private banks. In 2015 and 2016, the donation from a bank was 150,000 CNY, respectively. In 2017, donation will come from two banks and increase to 300,000 CNY. The street-office government will match 300,000 CNY accordingly. Interview YZX2 manager, June 12, 2015; Interview YZX2 manager, February 17, 2017; Interview YXT, July 22, 2014, Shanghai, China.

⁴⁸Despite that the government policy encourages the establishment of community foundation, by March 2017, only 58 community foundations had been established in 213 community jurisdictions. Personal communication with an official of Shanghai Social Organization Management Bureau, March 29, 2017. See also Shanghai Social Organization Management Bureau (2015b).

⁴⁹Interview YXT manager, March 2, 2017.

⁵⁰Interview YYG manager, May 26, 2015.

⁵¹Interview YHY2 manager, June 1, 2015; Interview YJJ director, May 27, 2015.

Yet YHY was able to make up the shortfalls by getting subsidies from the business-group YHC.⁵²

Compared with Network A, SOs in Network B have enjoyed higher degrees of autonomy in management and service development. As an SO manager nicely described,

*The street-office government views us as its partners rather than subordinates. When they need our help to carry out additional administrative tasks not specified in the contract, they will ask whether we are willing to do it rather than instruct us to do it. From our perspective, we are also willing to help out because we aim to form a long term collaborative relation with the government.*⁵³

In the process of service innovation, the SOs have also helped align the government's service priorities with citizens' needs. For instance, YYZ and YXT have formulated their program proposals on the basis of the results of the community service need surveys, the service priorities of the street-office government, and their own missions and service capacity.⁵⁴

Service innovation is a collaborative process between governments, SOs, and citizens. As the process of designing new services is conducted jointly by professionals and service users, it fosters citizen participation (Bovaird, 2007). For instance, YZX2 has encouraged citizen groups and SOs in Community B to apply for the fund it manages. YZX2 would invite external experts to participate in the selection of proposed programs. The street-office government would then invite external professional organizations to evaluate the performance of the funded programs.⁵⁵

For the allocation of funding of the community foundation YCF managed by YXT, the street-office government would only suggest service priorities. It is the citizens who proposed service programs, applied for the foundation's fund, and implemented the programs. In 2016, 9 of the 10 service programs proposed by the citizens were funded.⁵⁶

In summary, with an NAO structure, Network B has been better able to align the service priorities of the government with the diverse needs of the elderly citizens. It has the capacity to cope with the government financial and policy constraints through mobilizing external and private resources and to solicit citizen participation in service innovation. In 2013–2014, the elderly service funding of the eight SOs in Network B was estimated at 1,751,000 CNY, excluding direct payment to care-workers by the government⁵⁷;

the network has been able to deliver high volumes of services in home care, health care, culture and entertainment, legal counselling, and so on.⁵⁸

Major challenges for service innovation faced by an NAO include unstable funding support, a lack of program continuity, and the frequent personnel changes of the SOs. Compared with Network A, successful innovative programs in Network B are less likely to be continued, replicated, or scaled up. For example, a service program which provided free house-cleaning services on a one-off basis was not well-received because the elderly preferred regular and continuous services.⁵⁹ In one case, citizens suggested that the service program which helps install resting chairs at buildings with no lifts be continued and be extended to other buildings.⁶⁰ The personnel change of YZX, for instance, has discontinued YZX's regular meetings with YXT and hence adversely affected the collaboration between the two organizations.⁶¹ YZX and the street-office government have learned about the problems and have tried to sustain successful citizen innovation programs through extra funding support for these programs.⁶²

6 | DISCUSSION

This study has examined how a network can leverage government resources to create space for bottom-up innovation while at the same time protect itself from being driven or overshadowed by the government's missions and priorities. We have found that the service innovation of Network A with a LO structure faces more constraints as a result of the substantial government regulation and requirements; its more centralized operation has limited not only the network's administrative capacity but also hindered participation by privately initiated SOs and citizens in service design and delivery. Nevertheless, Network A has been able to attract government resources, to innovate an array of diverse, quality, and low cost services to meet the needs of the elderly.

Network B with an NAO structure has enabled its SOs to align the service priorities of the government on one hand and the diverse needs of the elderly on the other. It has also attracted abundant external and private resources for service innovation and is more ready to embrace bottom-up initiatives proposed by citizens. Compared with Network A, Network B's capacity to engage in service innovation has been substantially strengthened by the bottom-up

⁵²YHC is registered as a business entity, whereas YHY is registered as a non-profit social organization. YHC and YHY are affiliated with the same business group. This group can be understood as a social enterprise which pursue both social mission and financial sustainability. For a definition of social enterprises, see Dart (2004). Interview YHY1, July 16, 2014; Interview YHY2, June 1, 2015.

⁵³Interview YXT, July 22, 2014.

⁵⁴Interview YYZ manager, July 15, 2014; Interview YXT manager, March 2, 2017.

⁵⁵Interview YYZ2 manager, March 3, 2017.

⁵⁶YCF manager provided applicants technical trainings about how to write funding proposals. Interview YCF manager, March 29, 2017.

⁵⁷Interviews with managers of eight SOs in Network B, from July 2014 to June 2015.

⁵⁸Network A on average provides 58,914 times users per month on 10 types of elderly services, with higher service volumes concentrating on meals (31,413) and home delivery (11,325). Network B on average provides 44,198 times users per month, with higher service volumes concentrating on meals (11,990), sports, culture, and entertainment (over 9,000), and health care (around 8,000) and cleaning (over 8,000). Personal communication with managers in Network A and Network B, July 2014 and May–June 2015.

⁵⁹Interview a resident committee's deputy Party Secretary. She suggested a list of potential service users for the YXT. Interview YRC March 2, 2017.

⁶⁰The self-evaluation report of a citizens' service program funded by the community foundation, obtained from the manager of the community foundation YCF. March 29, 2017.

⁶¹Interview YXT manager, July 22, 2014.

⁶²Interview YZY1 manager, February 17, 2017.

participation of privately initiated SOs and citizens. The NAO network, however, faces the challenge of unstable funding and frequent personnel changes, which are detrimental to service innovation and delivery.

We have identified in this case the mechanisms through which government funding for nongovernmental service delivery does not necessarily compromise service innovation in an authoritarian regime. With an appropriate network structure in place, governments can collaborate with privately initiated SOs to improve public service performance. The SOs in Network B are often willing to accommodate the governments' policy goals and to learn to get along with bureaucratic constraints. One can see that service innovation and collaboration in Network B are built upon a process of mutual adaptation which reconciles the government's concerns about accountability and the need for leveraging private resources in public service delivery on one hand and the SOs' aspirations for independence and citizen participation in program development on the other (Brinkerhoff, 2002; Salamon & Toepler, 2015). The patterns of performance of Network B are consistent with what has been suggested in the literature—a decentralized and collaborative network is effective in service innovation (Poole, 2008; Provan & Milward, 1995).

Contrary to what Provan and Kenis (2007) and some studies have suggested, we have found that, even though a LO network tends to have a more centralized innovation process, it can still maintain a high level of consensus among members of the network and attain a level of competency and innovativeness for effective service delivery. What makes it possible is the government's support and trust in Network A, which is largely a result of the LO leader's reputation as a shrewd policy entrepreneur with close affiliations with the street-office government. Such a hierarchical yet responsive state-society relation is not only a legacy of the China's corporatist-style state control over society (Foster, 2002; Unger & Chan, 2008) but also a feature of the local state pressured to seek citizens' support by providing public goods (Dickson, Landry, Shen, & Yan, 2016).

This study is subject to a number of limitations. First, Shanghai is a highly developed city of which both the public and private sectors are relatively resourceful. The findings of this study hence cannot be generalized to other regions in China which have different degrees of social-economic development. Second, many SOs in China do not release their internal information, such as revenue, expenditure, and third-party performance evaluation, to the public, despite the fact that a substantial part of their revenue comes from government service contracts. As a result, we can only rely on information provided by the managers of the SOs and some performance evaluation reports which we obtained from the government. Third, to get access to network SOs and service users, we had to seek the government's endorsement and authorization. We are well aware that the authorization process, advertently or not, might incur a certain degree of screening by government officials which might well compromise the quality of the data. In spite of that, we have focused our analysis on the differences between the two networks, which we believe can provide not only useful lessons for designing public service networks for elderly services but also insights about service innovation in an authoritarian context.

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