

GOVERNANCE COMPLEXITY: THE ROLE OF HYBRID ORGANIZATIONS IN POLYCENTRIC SYSTEMS

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Abstract:

This study delves into the realm of economic organizations by exploring the dynamic relationship between hierarchy, market, and networks. It examines the contention that these three prototypes—hierarchy, market, and network—give rise to diverse organizational forms, including hybrid organizations. Drawing on seminal work by Williamson, Olson, Simon, and various scholars, this research aims to uncover the reasons for the coexistence of these organizational forms and their contribution to public benefit. It underscores that the amalgamation of hierarchy, market, and network features plays a pivotal role in shaping modern economic organizations. Additionally, this study advocates the utilization of discrete structural analysis to understand the intricate mechanisms behind the formation of diverse organizations and the relative advantages they offer in terms of transaction costs.

Keywords: economic organizations, hierarchy, market, network, hybrid organizations, transaction costs, public benefit, discrete structural analysis.

Introduction

In a comparative study of economic organizations, Oliver Williamson (1991) argued that hierarchy and market are on polar ends of the continuum, with many hybrid organizations in between. Hybrid organizations are understood as the mixture of hierarchy and market the two ideal types of economic organizations (Menard, 2004). As Williamson, the pioneer who conceptualized the continuum, was deriving hybrid organizations from hierarchy and market as prototypes, he was reluctant to receive networks as a distinct prototype not resulting from the hybridization, provided that networks as organizational entities are applied to deliver goods and services and organize economic activities in the context of the network society (Castells, 1996; Jones, 1997; Provan & Kenis, 2008; Lewis, 2011). Many scholars have argued that hierarchy, market, and network are three prototypes of organizations, from which hybrid organizations are developed (Lindblom, 1977; Powell, 1987; Adler, 2001; Evers, 2005; Keast et al., 2006; Demil & Lecocq, 2006; Billis, 2010).

Why do diverse organizations exist in reality? Mancur Olson (1965) asserted that collection actions, like providing public goods, need to be organized for delivering public benefit. Actually, Olson gave the functional explanation of organizations as collection action for the delivery of public goods. In parallel, Herbert Simon (2009) argued that the very nature of organization lies in member altruism in terms of organizational identity and loyalty. Moreover, Williamson (1996) might argue that diverse transactions correspond to diverse organizations, and diverse governance structures of organizations each hold comparative advantages of transaction costs. Williamson (1991) thus call for the application of discrete structural analysis in the study of diverse organizations, which is regarded as first-order economizing in transaction costs beyond the second-order economizing of marginal analysis.

In the age of globalization, the sovereignty of nation-states has been hallowed out through reallocating central state power upwards to international organizations, downwards to localities and communities, and sideways to

private and third sectors (Hooghe & Marks, 2003). Nation-states worldwide have been transforming governance systems from modes of statism to multi-level and polycentric governance, in order to cope with the opportunities and challenges of globalization. Liesbet Hooghe & Gary Marks (2003) summarized two types of multi-level governance: Type 1 characterized as nested jurisdictions without overlapping membership, and Type 2 characterized as policy networks across jurisdictions with overlapping membership. In other words, Type 1 is like multiple scaling of governance in federalism, and Type 2 like rescaling of governance in policy arenas.

Similarly, Vincent & Elinor Ostrom argued for polycentric governance that requires a complex combination of multiple levels and diverse types of organizations drawn from public, private, and third sectors with overlapping realms of responsibility and functional capacities (McGinnis & Ostrom, 2011).

From the perspective of transaction costs economics (Williamson, 2005, 2010), the governance structures of organizations vary to account for comparative advantages of economizing transaction costs in covenants and contracts. This paper makes an effort to put forth a general theory of organization with an interdisciplinary approach, to argue that all organizations are hybrid and explain their diversity in reality. Moreover, it argues for the division of labor and collaboration between hybrid organizations in services delivery, and the polycentric order of governing globalization. Finally, the case of transitional China is studied to explore the labor division and collaboration between corporate entities in the industries of education, healthcare and culture.

Theoretical Framework of Organization and Governance

With the end of the Cold War in the early 1990s, market economies have prevailed over command economies worldwide, and Francis Fukuyama (1989) even called for the end of history. Unfortunately, neoliberalist agendas go global with the economic paradigm of market and government dichotomy: if government fails, then market is the solution; if market fails, government is the solution. Evidently, this dichotomy ignores the role of civil society in delivering public services beyond markets and governments. Based on her studies of governing the commons, Elinor Ostrom (2010) argued for going beyond markets and states towards polycentric governance of complex economic systems. No doubt, this was Ostrom's attempt to develop a general theory of economic governance in delivering public services. This paper goes further to set up the linkages of hybrid organizations, services delivery and polycentric governance with the case of transitional China.

A Hybridation Theory of Organization

Hybridation as a genetic term means the base pairing of two chains of DNA, or the gene reorganization resulting from the intercourse of parental individuals. While human beings are genetically descendants of Adam and Eve, organizations are metaphorized as organisms derived from parental organizations as prototypes in paraphrasing Max Weber's ideal types (Calhoun, 2002). Who are the prototypes of organizations? Existing studies show alternatives such as hierarchy, market, community, and network. The qualifications of organizational prototypes are as follows: (1) they are subjects or actors; (2) like ideal types, they are constructs abstracted from diverse organizations in reality; (3) they are typological concepts for a general theory to explain the formation of organizations; (4) they are mutually exclusive in nature and characteristics.

Unlike the concept of collective action as providing public goods (Olson, 1965), corporate action is defined as the action of a corporate entity or corporate person. James S. Coleman (1990) argued that there are two selves in a body: the objective self, or so-called principal, and the action self, or so-called agent. If the two selves do not both exist in a body, then a minimum corporate action is formed. Drawing on studies of corporate persons and organizations, this paper assumes three prototypes of corporate actors or persons: (1) public corporate actors based on authority coordination, (2) private corporate actors based on price coordination, and (3) social corporate actors based on trust coordination. These prototypes of corporate persons represent three types of parental organizations,

corresponding to three modes of governance. In other words, organizations can be understood as the corporate actions of persons or entities.

Principal-agent relations are the core of corporate governance in a broad sense. The three corporate persons above can be principals as well as agents, and their combinations result in nine ideal types of organizations as corporate actors (see Table 1): governments, state-owned enterprises (SOEs), public NPOs (nonprofit organizations), natural monopolies, private enterprises, social enterprises, communities, private NPOs, and voluntary associations. This is the first order hybridization. There are the second and higher order hybridizations too. The second order hybridization takes the nine ideal types of organizations as principals and agents separately, with their combinations bringing about new organizations. The new offspring organizations will inherit the types of parental organizations, according to the knowledge of genotypes and phenotypes. Thus, the new organizations lie in the range of the nine ideal types of organizations of the first order hybridization. So do the types of the new organizations resulting from the higher order hybridization?

Table 1: Ideal types of organization as corporate action

		Principal		
		Public corporate actor	Private corporate actor	Social corporate actor
Agent	Public corporate actor	Governments	Natural monopolies	Communities
	Private corporate actor	State-owned enterprises	Private enterprises	Private NPOs
	Social corporate actor	Public NPOs	Social enterprises	Voluntary associations

The nine ideal types of organizations can be reduced to five ideal types through combining similar items: governments, enterprises, non-profit organizations, associations, and communities. Conventionally, the cluster of governments represents the political state, or public sector, the cluster of enterprises represents the market economy, or private sector, and the cluster of non-profit organizations, associations and communities represents civil society, or the third sector. Moreover, the hybridization theory of organizations reveals that all organizations are hybrid, and their governance structure is mixed with authority, price, and trust. Of course, the hybridization theory of organizations also helps us to understand the embeddedness of the state and market in civil society, in terms of nested and mixed institutional and organizational arrangements (Polanyi, 2001; Granovetter, 1985; Evans, 1995).

A Division of Labor in Services Delivery

For a traditional public policy and management paradigm, characterized by public and private goods and the dichotomy of government and market, Vincent & Elinor Ostrom (1977) argued that public services are not restricted to the public-private dichotomy, and there are four ideal types of public goods or services. Based on rivalry in consumption and excludability in use, they presented the taxonomy of public service types as follows: (1) private goods and services, both rival and excludable, (2) public goods and services, neither rival nor excludable, (3) club (toll) goods and services, non-rival but excludable and (4) common goods and services (common pool resources), non-excludable but rival. The core of public choices is not confined to the government, thus it is important to find alternative delivery systems of public services, beyond states and markets.

Reflecting on the division of labor between government and market in welfare economics, this paper argues that certain types of organizations are good at delivering specific types of public services, conforming to the logic of

labor division and specialization. First of all, it has been established that governments are good at delivering public goods and services, and enterprises at delivering private goods and services. Second, governing the commons as studied by Elinor Ostrom (1990) indicates that communities are good at delivering common goods and services or governing common-pool resources beyond privatization and nationalization. Third, civil society studies by Lester Salamon (1995) have shown that non-profit organizations are good at delivering club goods and services in education, healthcare, culture, research and development, environmental protection and social security. Finally, associations in the form of clubs are also good at delivering club goods and services.

Transaction costs economics may be conducive for explaining the comparative advantages of delivering of public services by alternative organizations (Brown & Potoski, 2003; Tavares & Camoes, 2007; Rodrigues et al., 2012). Governments based on authority coordination are good at financing the production of public goods and services through legitimate taxation, given market failures in terms of marginal costs pricing. Moreover, associations, NPOs and communities embedded in trust are able to deliver better club and common goods and services through memberships and/or user fees. Theoretical and empirical studies show that enterprises in a market economy do well in delivering private goods and services through the price mechanism (Wang et al., 2018).

Ostroms(1977) suggests the separation of provision and production regarding the delivery of public services. The logic of provision is as follows: (1) deciding what types of goods and services should be provided, and to whom; (2) deciding how to finance them; (3) finding production organizations; (4) monitoring the quality. The logic of production is as follows: (1) choosing technologies to transform inputs into outputs; (2) integrating vertical production organizations for the economies of scale; (3) integrating horizontal production organizations for the economies of scope; (4) networking production organizations for the economies of sharing (Oakerson, 1999). Governments are usually regarded as providers rather than producers, and the combinations of alternative providers and producers exhibits the partnerships between public, private, and third sectors, such as public-private partnerships (PPPs) and government-nonprofit partnerships (Andrews & Entwistle, 2010; Cheng, 2019).

A Polycentric Order of Governing Globalization

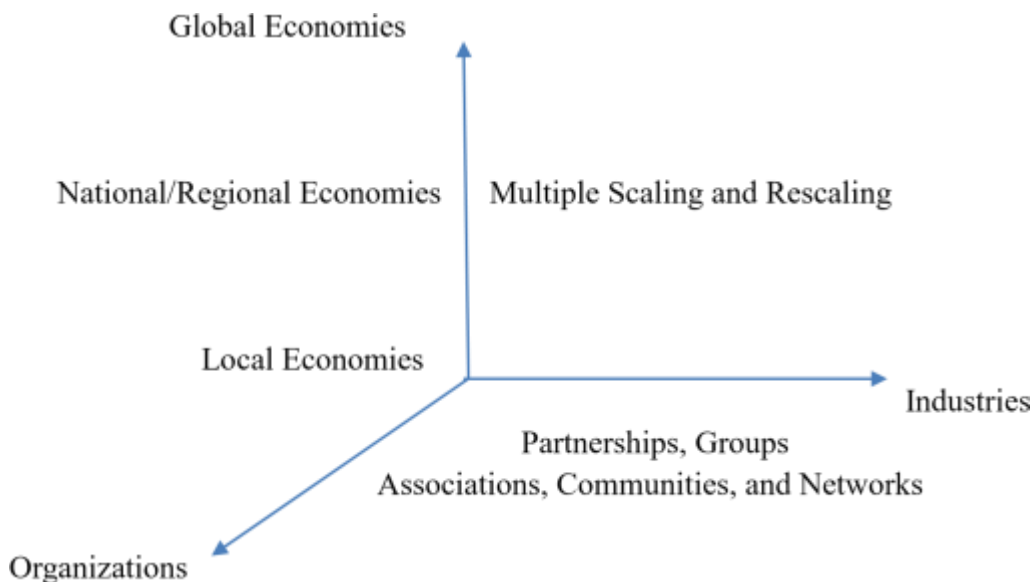
Stephen Osborne (2006) argued that public services are not isolated, but an integrative system; Ostroms(1977) called them public economies. This is a perspective of public services as industrial organization. An industry is characterized by diverse types and sizes of deliverers of goods and services in terms of the division of labor and collaboration (Shepherd, 1990).

Collaboration based on the division of labor means organized interactions through partnerships, groups, associations, communities and networks. It is argued that labor division and collaboration between deliverers presents the polycentric delivery systems that take on the federal forms of self-rules and shared rules, or the institutional structure of fragmentation and overlapping, according to the theories of federalism and compound republic (Elazar, 1987; Ostrom, 2007).

An economy consists of industries, while an industry, or sector, consists of delivery organizations. There is a geographical dimension of economies, industries and organizations from local to national to global with the aggregation effects(see Figure 1). The division of labor and collaboration apply not only to delivery organizations but also to industries and economies. Put differently, the division of labor relates to multiple scaling across organizations, industries and economies, while organized collaboration based on the division of labor relates to rescaling.

The polycentric order of delivery for organizations, industries, and economies is thus conducive for governing globalization, provided that the term of polycentric order means different similarities and similar differences.

Figure 1: Polycentric order of governing globalization



Like multi-level governance, polycentric governance has two types of systems: hierarchical and heterarchical. Hierarchical governance systems show nested institutional and organizational arrangements, such as the associations, communities, groups, enterprises, and jurisdictions. While hierarchical governance systems are a top-down approach, relating to multiple scaling of governance, heterarchical governance systems are a bottom-up approach. Heterarchies are neither hierarchies nor networks, but take on the organizational form of the internet, or the network of networks (Cumming, 2016). By definition, a heterarchy means that the components of a system are unranked (non-hierarchical) or possess the potential to be ranked in a variety of ways (McCulloch, 1945; Crumley, 1995). In other words, a heterarchy presents the —horizontal position shared by the system components or governance units, relating to governance rescaling and policy networks.

Both hierarchical and heterarchical systems trigger the issue of meta-governance, which means the governance of governance, and reflects the values and principles of governance (Kooiman&Jentoft,2009). The rules of law, democracy and property rights are the constitutional values of the polycentric order of governing globalization. The rule of law limits the state, while democracy and property rights encourage self-organization and self-governance of civil society and the market economy.

Moreover, subsidiarity and sphere sovereignty are regarded as two principles of hierarchical and heterarchical governance systems (Mcilroy, 2003; Van Til, 2008). The sphere sovereignty principle emphasizes the authority of sectors and mediate organizations beyond totalitarianism (statism) and individualism (marketism).The subsidiarity principle emphasizes that low-level organizational units precede high-level units to make decisions on their own; when low-level organizational units are not able to fulfill their duties, the high-level organizational units are legitimate to step in.

The Case of Transitional China

China has been in transition from a command economy to a market economy since the late 1970s. Unlike the radical privatization of the former Soviet Union and Eastern Europe, China has taken an incremental strategy of corporatization, reforming the public sector and allowing the private and third sectors to boom. According to the National Statistics Bureau of China, there are six types of corporate entities: governments, enterprises, public institutions (public NPOs), associations, communities and private non-enterprises (private NPOs). Based on a factor analysis of census data on the distribution structure of corporate entities, an empirical study found

an emerging polycentric pattern of governing transitional China in terms of clusters of governments and communities, enterprises and associations and NPOs (Zhang, 2016). Moreover, centralized systems of corporate entities relate to import-based economic development, while decentralized systems of corporate entities relate to export-based development (Zhang, 2005). It is further argued that there is the division of labor and collaboration of corporate entities in delivering public services.

Polycentric Delivery of Education

Education is neither a public nor private good, but a public industry consisting of many types of goods and services. Traditionally, private education has prevailed in terms of aristocratic and elite education. Until the rise of the welfare state in the end of the nineteenth century, church-based private education was the primary deliverer in western countries from preschool to higher education (Green, 2013). In contrast, the welfare state treats education as a public good, then monopolizes delivery. As for the socialization of children, welfare states promulgate compulsory education laws to implement education nationalization. By the same token, traditional education in China relied upon private education of classical learning until the 1911 Revolution; since then, education has been nationalized and popularized. Public and private education coexisted during the period of the Republic of China, but private education was banned by the People's Republic of China in the 1950s (Lin, 1999). In 1982, the Constitutional Amendment of the People's Republic of China corrected the left-wing mistakes made during the Great Cultural Revolution, laying institutional foundations for market reform. Given the shortage of public education resources, the 1982 Constitution called for non-state sectors of collective economic organizations, SOEs, public institutions and other social forces to run educational institutions. The Education Law enacted in 1995 reiterated the legitimacy of non-state educational sectors, but placed an emphasis on the significant role the state plays in education finance.

Given the priority of public education, the society as a whole has started to explore alternative educational institutions and increase room for private education development. This is conducive for expanding the education supply and meeting the diverse needs of citizens, but also for forming competition between public and private institutions for efficiency gains (Ngok, 2007).

Consequently, education deliverers in transitional China have been differentiated through corporatization and the free market entry policy. Public educational institutions have been transformed, and non-state institutions have entered the fields of education previously monopolized by the state. According to 2009 census data, transitional China had a total of 342,002 educational corporate entities of different types and sizes, broken down as follows: 224,232 public educational institutions (public sector), accounting for 66% of the total, 93,773 private non-enterprises (third sector), or 27%, and 23,997 enterprises (private sector), 7% of the total (see Table 2 and Table 3).

Table 2: Contingency table of education categories and corporate types, 2009

	Enterprises	Public Institutions	Private Nonenterprises	Subtotal
Preschool	4,122	13,202	49,667	66,991
Primary	588	122,133	6,785	129,506
Secondary	1,021	65,209	8,638	74,868
Higher	219	4,440	983	5,642
Others	18,047	19,248	27,700	64,995
Subtotal	23,997	224,232	93,773	342,002

Source: *China Basic Statistical Units Yearbook 2010*.

Education as a public service industry can be broken down into subsystems of diverse types and sizes. A generally accepted typology of education has been formed based on longitudinal studies including preschool, primary, secondary, higher and other education (adult education and training).

The diverse types of education deliverers are corporate entities of enterprises representing the private sector, public institutions representing the public sector and non-private enterprises representing the third sector, according to the National Statistical Bureau of China (see Tables 2 and 3). Of course, there are multiple levels or scales of diverse deliverers, such as international, national, regional and local. Some deliverers specialize in one activity in one place, reflecting division of labor and specialization, and others specialize in multiple activities in many places, reflecting economies of scope.

Does the contingency table of education categories and corporate types reflect the division of labor and collaboration of public, private and third sectors? Or, does it confirm the polycentric theory of delivering public services? To test the association of education categories and corporate types, a Chi-square test should be applied; thus, Table 2 was transformed for calculating Chi-square statistics (see Table 3). The calculated Chi-square value of Table 3 is 57.48, compared with the critical value of 15.51 at $\alpha=0.05$ and $df=(5-1)(3-1)=8$. Since the calculated value of the Chi-square is more than the critical value, the null hypothesis is rejected and we accept the alternative: the association or correspondence of education categories and corporate types exists.

Table 3: Contingency table transformed from Table 2 (%), 2009

	Enterprises	Public Institutions	Private Nonenterprises	Subtotal
Preschool	1.21 (1.37)	3.86 (12.84)	14.52 (5.37)	19.59
Primary	0.17 (2.66)	35.72 (24.83)	1.98 (10.38)	37.87
Secondary	0.30 (1.54)	19.06 (14.35)	2.53 (6.00)	21.89
Higher	0.06 (0.12)	1.30 (1.08)	0.29 (0.45)	1.65
Others	5.28 (1.33)	5.62 (12.46)	8.10 (5.22)	19.00
Subtotal	7.02	65.56	27.42	100.00

Note: Numbers in parentheses are expected values, and others are actual values.

The differences between actual and expected values can reveal how congruent one type of deliverer and one type of education are. The results first show that public institutions tend to deliver primary, secondary and even higher education, although it appears that higher education may be delivered more effectively as club goods and services by private non-enterprises. Second, adult education and training as private goods and services were provided primarily by enterprises (for-profit organizations) and private non-enterprises (non-profit organizations). Third, private non-enterprises tend to deliver preschool education efficiently, indicating that preschool education may not be treated as public goods and services. Thus, the polycentric theory of delivering education is confirmed empirically in terms of the division of labor and collaboration of public, private and third sectors.

The contingency table shows a division of labor between deliverers, and several aspects of collaboration. First of all, there are nested institutional arrangements within the public sector. Primary education with small-scale externalities heavily relies upon local public financing; higher education with large-scale externalities utilizes central and provincial public financing. Second, schools with better resources form groups through integrating other or new schools across jurisdictions, to achieve equity goals by including more students and resources. Third, there are several universities in China jointly ventured with foreign world-class universities in the context of globalization, which shows the international collaboration of educational institutions. Finally, some private

educational institutions have been listed in international stock markets, which reveal the global dimension of educational service delivery.

Polycentric Delivery of Health Care

Fuchs (2011) argued that there is no country that can provide all citizens with comprehensive health insurance and services. Resources are scarce, and every country must consider ways to allocate and utilize these resources equitably and efficiently. Since the rise of the welfare state in the nineteenth century, Western developed countries have made efforts to build and complete a unified, coercive system of national health insurance and provision. However, in the 1980s, slowed economic growth and rising costs and callings for health rights led to a fiscal crisis in Western welfare states in terms of reduced taxation revenue. Reforms were taken to cut back public expenditures on health care. The reforms in Western countries may tell us that neither government nor market will satisfy the diversified needs of citizens for health care. The polycentric approach of government, market and civil society may achieve the objectives of equity, efficiency, inclusiveness and responsiveness of health care services (Carrin et al., 2009; Offer & Pinker, 2016).

Since the late 1970s, the Chinese health care system has experienced three periods of historic change. In January 1979, the former Minister of Public Health, Xinzhong Qian, first put forth a reform strategy, or an economic approach to public health institutions. Accordingly, the Ministry of Public Health began a trial reform strategy in public hospitals, setting quotas for subsidies and practicing economic accounting. In 1984, the Ministry of Public Health called for another reform strategy, delegating autonomy to hospitals and allowing for multiple financing. In 1985, the first round of health care system reforms started to solve the scarcity problem of medical resources, with the strategy of —increasing the hospital revenue by selling medicine. Unlike the first round, the second round of health care system reform in 1997 began to solve the problems of —seeing a doctor is difficult and expensive. The health policy then supported social forces to run medical institutions through expanding medical service delivery.

Reflecting on the health care reforms, some scholars have argued that the failures of the first two rounds can be attributed to the marketization of health care services. Other scholars, however, believe that the marketization was not thorough enough (Blumenthal & Hsiao, 2005). The third round of health care system reform started in September 2006, consisting of a coordination team composed of 11 state ministries and commissions approved by the State Council. This new reform plan emphasizes health care services as a public welfare prioritized by the government, which has market mechanisms and will gradually achieve equalization across regions. Actually, the core of the new plan lies in the hierarchical diagnosis and treatment mode, composed of primary diagnosis, two-way referral, acute and chronic triage, and up and down linkage among medical services deliverers.

The 2009 census data of corporate entities in the health care industry (see Tables 4 and 5), show a total of 172,838 deliverers, in which 22,595 were hospitals, accounting for 13.07% of the total, 52,091 were health centers and community care (HCCC), 30.14% of the total, 70,454 clinics, 40.76% of the total, 16,071 family planning and maternal and child health care (FPMCHC), 9.30% of the total, 7,368 disease prevention and control (DPC), 4.26% of the total, and 4,259 others, 2.46% of the total. Some corporate entities specialized in one activity in one place, reflecting the division of labor and specialization, and others multiple activities in many places, reflecting economies of scope.

Health care institutions at the grass-roots level, such as health centers, community care and clinics, accounted for 70.9% of the total, showing a pyramid structure of the health care system in China. There were 15,630 enterprises, accounting for 9.05% of the total, 85,751 public institutions, 49.61% of the total, and 71,457 private non-enterprises, 41.34% of the total. Hence, the public and third sectors were the main components of the health care

system, accounting for 90.95% of the total. This indicates that private sector or market played a smaller role in delivering health care.

Table 4:Contingency table of health categories and corporate types, 2009

	Enterprises	Public Institutions	Private Nonenterprises	Subtotal
Hospitals	4590	13522	4483	22595
HCCC	1980	39545	10566	52091
Clinics	7507	8658	54289	70454
FPMCHC	331	15009	731	16071
DPC	446	6366	556	7368
Others	776	2651	832	4259
Subtotal	15630	85751	71457	172838

Source: *China Basic Statistical Units Yearbook 2010*.

Of course, the health care system can be understood as an industrial organization, showing nested institutional arrangements that conform to economies of scale. Clinics, health centers and community care are first-level health institutions, responsible for medical treatment of common diseases; second- and third-level hospitals are responsible for medical treatment of non-common diseases. The hierarchical diagnosis and treatment modes mean that primary medical treatment starts at the grass-roots level and follows with second and third medical institutions as needed, which may transfer patients back to primary institutions for restoration. Since the second and third medical institutions are general hospitals, they present economies of scope. If medical services are private goods and services, then disease prevention and control are public goods and services. Family planning and maternal and child health care are in between, regarded as mixed goods and services. Medical communities have been evolved to fulfill economies of scale and scope discussed above, given the continuum of health care and integrated delivery networks (McBryde-Foster & Allen, 2005; Burns & Pauly, 2002).

Do there exist an association of health categories and corporate types? Or is there a polycentric delivery of health care? To answer this question, we need to know the value of the Chi-square statistics. To calculate, Table 4 was transformed into Table 5. After calculation, the Chi-square value of Table 5 was 46.18, compared with the critical value 18.31 at $\alpha=0.05$ and $df=(3-1)(6-1)=10$.

Obviously, the calculated Chi-square value is more than the critical value, thus rejecting the null hypothesis and accepting the alternative, that there exists the association of health services and their deliverers. In other words, health care services in transitional China show a polycentric delivery system in terms of the division of labor and collaboration between health care deliverers in public, private and third sectors, conforming to the rationale that each type of deliverer is proficient at a specific type of health care services.

Table 5:Contingency table transformed from Table 4 (%), 2009

	Enterprises	Public Institutions	Private Nonenterprises	Subtotal
Hospitals	2.66 (1.18)	7.82 (6.49)	2.59 (5.40)	13.07
HCCC	1.15 (2.73)	22.88 (14.95)	6.11 (12.46)	30.14
Clinics	4.34 (3.69)	5.01 (20.22)	31.41 (16.85)	40.76
FPMCHC	0.19 (0.84)	8.68 (4.61)	0.43 (3.85)	9.30
DPC	0.26 (0.39)	3.68 (2.11)	0.32 (1.76)	4.26
Others	0.45 (0.22)	1.54 (1.23)	0.48 (1.02)	2.47

Subtotal	9.05	49.61	41.34	100.00
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Note: Numbers in parentheses are expected values, and others are actual values.

To explore the details of the association, a comparison must be made between the actual and the expected values of the contingency table. First, except clinics, the whole health care system showed actual values higher than expected values with respect to the share of total public institutions (see Table 5). This indicates that most health care services in transitional China are regarded as public goods and services, with the public sector responsible for their productive delivery. Second, with respect to the shares of enterprises, data indicates that hospitals, clinics and other health care services tend to adopt a market approach. Third, in theory, clinics are regarded as club goods and services, and private NPOs should play a significant role, given the actual values are more than the expected values with respect to the share of private non-enterprises. Fourth, unlike clinics, health centers and community care are regarded as public or common goods and services, with local governments allocating health care institutions by jurisdictions, conforming to the principle of equity; in contrast, markets allocate health institutions by population, conforming to the principle of efficiency. Finally, given the consensus that health care services are public welfare, health reform policy should set up incentives for non-profit health care organizations.

Polycentric Delivery of Culture

In April of 1956, to promote the construction of socialism through culture and literature, Mao Zedong put forth the guideline of —letting a hundred flowers blossom, and a hundred schools of thought contend at an enlarged meeting of the Political Bureau of the CPC (Communist Party of China) Central Committee. —Letting a hundred flowers blossom refers to autonomous development of different forms and styles of literature and art, and —letting a hundred schools of thought contend encourages open debate between different schools of sciences. The —shuangbail guideline assures the development and prosperity of cultural undertakings in socialist China. The left-wing guideline of the Great Cultural Revolution, with the goals of eliminating cultures of capitalism and feudalism and building up a proletarian culture, however, stifled the —shuangbail guideline, resulting in cultural autocracy with certain forms of literature and art, such as model opera (Mackerras, 1981).

Given the long-term impacts of the centrally-planned economy, public cultural institutions have been the primary deliverers of cultural services in China, responsible for the construction, guidance, control and administration of public cultural undertakings. These cultural undertakings include (1) performance institutions, including all kinds of art performance groups; (2) artistic creation, such as academies, art centers and audio and video centers; (3) access to books and documents, such as libraries, archives and document information centers; (4) cultural relics, including protection stations, relic and archaeology teams, museums and memorial halls; (5) mass culture, such as mass art museums, cultural and cinema centers, youth palaces, and clubs; (6) radio and television, such as radio stations, television stations, and relay bases; (7) newspapers and magazines; (8) editing, such as newsrooms, editorial offices and local chronicles; (9) press and publication, such as publishing houses, press centers and news agencies; (10) other cultural undertakings.

At the Third Plenary Session of the Eleventh CPC Central Committee in 1978, the —shuangbail guideline was reset with the direction that —Culture should serve the people and socialism. The 1980s growth of cultural markets driven by individual workers and private enterprises indicates that cultural undertakings are no longer treated solely as public goods and services. In the 1990s, large clusters of cultural enterprises formed a cultural industry in a narrow sense, attracting a lot of businessmen and professionals and producing considerable economic output (Fung & Erni, 2013). In March 2001, —cultural industry was written for the first time in a state document, the Tenth Five-year Plan Outline of National Economic and Social Development. In the Report of the Sixteenth National Congress of the CPC in 2002, cultural industry, in terms of enterprise clustering, was separated from cultural undertakings. The goal of rapid development of cultural industry was set, to cope with the opportunities

and challenges of the cultural market globalization in the twenty-first century. For example, the added value of culture industries as a percentage of the gross domestic product (GDP) in 2015 was 11.3% in the USA and 3.76% in China.

Based on the 2009 census data of corporate entities, there were 37,948 total units in the culture industry. Specifically, there were 22,320 public institutions, accounting for 58.82% of the total, 11,225 enterprises, 29.58% of the total, and 4,403 private non-enterprises, 11.60% of the total (see Tables 6 and 7). The descriptive statistics show that the public sector plays a leading role in the system of cultural undertakings, although marketization of cultural undertakings exists to some extent. From the other dimension, corporate entities in performance and venues (PV) represented 19.29% of the total; libraries, archives and museums (LAM), 17.55% of the total; cultural relics, 6.99% of the total; mass culture, 30.50% of the total; cultural agencies, 7.82% of the total; other cultural undertakings, 17.85% of the total. Obviously, mass culture institutions were mainstream in the Chinese cultural system, reflecting the socialist policy with the feet on the ground. Some corporate entities specialize in one activity in one place, reflecting the division of labor and specialization, and others specialize in multiple activities in many places, reflecting economies of scope.

Table 6: Contingency table of cultural undertakings and corporate types, 2009

	Enterprises	Public Institutions	Private Nonenterprises	Subtotal
PV	2650	3409	1260	7319
LAM	275	6028	358	6661
Cultural Relics	174	2078	399	2651
Mass Culture	1202	8708	1665	11575
Agencies	2774	95	99	2968
Others	4150	2002	622	6774
Subtotal	11225	22320	4403	37948

Source: *China Basic Statistical Units Yearbook 2010*.

Does transitional China present a polycentric delivery of culture? To calculate the Chi-square test of the contingency table, Table 6 was transformed into Table 7. After calculation, the Chi-square value of Table 7 was 40.02, compared with the critical value of 18.31 at $\alpha=0.05$ and $df=(3-1)(6-1)=10$. Evidently, the calculated value was more than the critical value, thus rejecting the null hypothesis and accepting the alternative: there exists a congruence of categories of cultural undertakings and types of deliverers. To see the congruence details, the differences between the actual and expected values of the contingency table need to be compared. The findings first show a lot of privatization and marketization in performance and venues, which are seemingly regarded as private goods and services. Second, provided that libraries, archives and museums are regarded as public goods and services, public institutions tend to deliver them productively. Third, cultural agencies result from the marketization of cultural undertakings as private goods and services.

Fourth, cultural relics protection and mass culture are regarded as both public and club goods and services, so public institutions and private non-enterprises tend to deliver them productively. Finally, other cultural undertakings are conveniently regarded as private goods and services, with market mechanisms working better.

Table 7: Contingency table transformed from Table 6 (%), 2009

	Enterprises	Public Institutions	Private Nonenterprises	Subtotal
PV	6.98 (5.71)	8.98 (11.34)	3.32 (2.24)	19.28
LAM	0.72 (5.17)	15.88 (10.32)	0.94 (2.04)	17.54
Cultural Relics	0.46 (2.07)	5.48 (4.11)	1.05 (0.81)	6.99
Mass Culture	3.17 (9.03)	22.95 (17.94)	4.39 (3.54)	30.51
Agencies	7.31 (2.32)	0.25 (4.60)	0.26 (0.91)	7.82
Others	10.94 (5.28)	5.28 (10.51)	1.64 (2.06)	17.86
Subtotal	29.58	58.82	11.60	100.00

Note: Numbers in parentheses are expected values, and others are actual values.

No doubt, cultural services are part of services trade in the context of globalization. According to relevant statistics, China is currently the second largest cinema market in the world, next to the US. In 2012, China's box office income was 2.550 billion US dollars, and in 2017, it reached 8.594 billion US dollars. From 2012 to 2017, the average annual growth rate of box office income was 27.5%, faster than the economic growth rate. Moreover, in 2017, the box office income of US-made films in China reached 3.26 billion US dollars, a growth of 19% from the previous year. Hollywood cinemas occupied 40% of China's box office income in 2017. Thus, cinemas as cultural service trade have satisfied the diverse cultural needs of Chinese citizens, and have facilitated international cultural exchange and collaboration.

Concluding Remarks

According to the hybridation theory of organization, all organizations are hybrid, with a mixed governance structure of authority, price and trust. Nine ideal types of organization exist that are able to account for the real-world diversity of organizations. The typological approach argues that a type of organization corresponds to a type of goods or services. The case of transitional China confirms the division of labor and collaboration between the ideal types of hybrid organizations in the industries of education, health care and culture. Globalization means that goods and services cross states, regions and countries. Services delivery in the context of globalization is not restricted to the boundaries of nation-states; multi-level and polycentric patterns of governance are needed to cope with the nested externalities of globalization, such as climate change, terrorism, financial crises, epidemics, cultural development, research and development, etc.

Given the hollowing-out of nation-states and the argument for the new mixed economy of government, market and civil society (Giddens, 2000; Jessop, 2010), this paper presents a polycentric order of governing globalization, an extension of the hybridation theory of organization in the context of global exchange. Polycentric governance in terms of the combination of self-rules and shared rules means organized collaboration based on the division of labor, in the forms of partnerships, groups, associations, communities and networks. In other words, polycentric governance can be understood as the embeddedness of the state and market in civil society, in terms of associations bridging social capital and communities bonding social capital. To conclude, the embeddedness of

institutions and organizations in trust will economize transaction costs with respect to services delivery and globalization governance, which are functions of hybrid organizations.

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