The societal governance of megaproject social responsibility

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Received 4 June 2016; received in revised form 6 January 2017; accepted 15 January 2017
Available online xxxx

Abstract

Megaprojects bear extensive and profound social responsibilities throughout the project lifecycle. The prolonged lifecycle and heterogeneous stakeholders of megaprojects have posed great challenges for the governance of the economic, social, and environmental issues involved. Hence, this study has elaborated on a conceptual governance framework to answer such crucial question: How to govern megaproject social responsibility? To be specific, the concept and characteristics of the governance of megaproject social responsibility have been proposed. Furthermore, a systematic framework of societal governance beyond corporate governance and public governance has been developed based on the “Business–Government–Society” view regarding megaproject social responsibility. We conclude that an integrative mechanism of corporations, the government, and the public is essentially required to facilitate and maintain efficient and effective societal governance, thus creating shared and sustainable value for all stakeholders throughout the megaproject lifecycle.

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Keywords: Megaproject; Social responsibility; Governance; Stakeholders

1. Introduction

Although massive megaprojects have been initiated, designed, constructed, and operated all around the world over the past century, the “performance paradox” never disappears in economic, social, and environmental aspects of megaprojects (Davies et al., 2009; van Marrewijk et al., 2008). Megaprojects, especially mega-infrastructure projects, play very important strategic roles in economic and social development, and their social responsibility and sustainability have recently attracted widespread attention (Demetriades and Mamuneas, 2000; Flyvbjerg, 2014; Lin et al., 2016; Miller and Hobbs, 2005). Zeng et al. (2015) describe megaproject social responsibility (MSR) as “the policies and practices of stakeholders through the whole project lifecycle that reflect responsibilities for the well-being of the wide society.” And a series of important social and environmental concerns in megaprojects are proposed, such as anti-corruption, ecological protection, disaster mitigation, immigrant settlement, occupational health and safety, pollution control, and poverty eradication. The distinctive characteristics of MSR (the dynamism of the prolonged lifecycle, the heterogeneity of various stakeholders, and interactivity of diverse social issues) pose great challenges with regard to the governance of megaprojects from both theoretical and practical perspectives (Zeng et al., 2015). Thus, the following question needs to be addressed: How to govern MSR?

To answer this question, it is first necessary to identify what constitutes (good) governance. Corporate management involves the managing of organizations within frameworks defined by governance systems; governance allocates rights, responsibilities, and rules in order to ensure that management is operating effectively and properly (Too and Weaver, 2014). As social responsibility is often beyond the traditional scope of organizational management or even the project management, a governance framework is necessary for coordinating and guiding the multiple stakeholders’ inter- and intra-relationships regarding the social and environmental concerns of megaprojects. Moreover, good governance of MSR involves uniformity, transparency, and
accountability so as to create shared and sustainable value for all stakeholders of megaprojects (Porter and Kramer, 2011).

Furthermore, governance of MSR requires specific governance regimes (Miller and Hobbs, 2005). First, unlike those of corporate governance in management disciplines and public governance in political disciplines, the governing bodies of MSR are ambiguous. Nowadays especially, large volume megaprojects are implemented using the public–private partnership (PPP) model (Zhang et al., 2015). Second, there are higher levels of complexity, conflicts, uncertainty, and risks for megaprojects than for general project management or project governance itself (Sanderson, 2012), which are deemed to create more challenges for the governance of MSR. Third, social and ethical criteria are somewhat different from the traditional objectives (quality, cost, time, etc.) of project governance. Social responsibility calls for interaction/relationships between business, government, and society, in specific contexts shaped by government regulation, social participation, and market drivers (Lin et al., 2015; Matten and Moon, 2008). Nevertheless, our literature review shows that prior studies on the social and ethical concerns raised by megaprojects have been fruitful but our literature review shows that prior studies on the social and ethical concerns raised by megaprojects have been fruitful but fragmentated; in particular, an integrative discussion regarding the governance mechanisms for MSR has been insufficient and is presently imperative.

Accordingly, this study, with a view to contributing to MSR, conducts a systematic and comprehensive analysis of societal governance from the “Business–Government–Society” (BGS) perspective; we develop a conceptual governance framework to create shared and sustainable value for all the stakeholders throughout the project lifecycle. The rest of this paper is structured as follows. Section 2 presents a review of the literature on MSR, corporate governance, public governance, and project governance. Section 3 describes the research context and the methodology. Section 4 explores the concept and Section 5 the characteristics of the societal governance of MSR. Section 6 provides a conceptual framework that enables us to analyze the governing bodies, relational issues, principles, and processes of societal governance. Finally, Section 7 discusses the findings and the limitations of the study, as well as the implications and potential streams for future studies.

2. Literature review

2.1. Megaproject social responsibility

Corporate social responsibility (CSR) has been a hotspot for both those in the business world and academics since the 1990s (Aguinis and Glavas, 2012; Campbell, 2007). However, discussion and analysis regarding MSR are relatively insufficient comparing to CSR. This might be due to the complexity and dynamism of megaprojects (Bosch-Rekveldt et al., 2011; Miller and Hobbs, 2005) and to the multiple levels of social responsibility itself (Aguilera et al., 2007; Ma et al., 2016).

First, the complexity of megaprojects creates challenges regarding sustainability, which has been argued as an important issue in megaproject management with regard to the promotion of economic, social, and environmental performance throughout the full project lifecycle coverage (Levitt, 2007). A number of studies have focused on the traditional trigonal project success criteria related to cost, time, and quality (Atkinson, 1999; Flyvbjerg, 2011); ethical and environmental issues – such as risk control (Abdenego and Ogunlana, 2006; Flyvbjerg et al., 2003; Ng and Loosmore, 2007), safety management (Sun et al., 2008), environmental protection (van Marrewijk et al., 2008; Xue et al., 2015), and residential resettlement (Strauch et al., 2015) – have recently received more attention in the megaproject management literature. All of these issues are closely related to the technical, organizational, and environmental complexity of megaprojects. Additionally, unlike CSR, the social and environmental aspects of megaprojects dynamically evolve with the advancement of the project lifecycle. Both the primary participants in megaprojects and the key social responsibility issues change dynamically through the different phases of a megaproject (Zeng et al., 2015).

Second, MSR involves various stakeholders and has huge and sometimes irreversible impacts on social change. Micro (individual), meso (organizational), macro (national), and even supranational levels of social responsibility may make identifying the governance mechanisms very difficult (Aguilera et al., 2007). A wide variety of salient stakeholders of megaprojects exert distinctive influences on the responses to social and environmental concerns as they have diverse and sometimes mixed motives for the decisions they make and the actions they take. Unlike CSR, which rests with specific corporations and usually single individuals (CEOs), MSR can never rest with any single individual or organization. The fact that the process of initiating, designing, constructing, and operating a megaproject requires diverse actors to cooperate closely in order to improve project performance (Davies and Mackenzie, 2014; Davies et al., 2009) means that an integrated, multi-level systems view is needed to analyze MSR.

As Zeng et al. (2015) argue, MSR has unique issues and characteristics that differentiate it from CSR; and the governance of MSR therefore requires a systematic view of the lifecycle dynamism, the stakeholder heterogeneity, and the social responsibility interactive dynamics.

2.2. Corporate governance and social responsibility

Corporate governance (CG) refers to “the determination of the corporation’s broad uses to which organizational resources will be deployed and the resolution of conflicts among the myriad participants in organizations” (Daily et al., 2003). CG has been developed in many fields, including management (Harjoto and Jo, 2011), economics (Pagano and Volpin, 2005), and law (Licht et al., 2005). CG studies focus on the diverse roles of governing boards, relational issues, principles, and processes of societal governance. Finally, Section 7 discusses the findings and the limitations of the study, as well as the implications and potential streams for future studies.
view, resource dependency view, principal-agency view, institutional view, etc.), researchers have explored deeply and extensively the relationship between boards of directors and the socially responsible behavior of corporations (Moir, 2001; Sacconi, 2006, 2007). Jamali et al. (2008) present three models of the relationship between CG and CSR: CG as a pillar of CSR, CSR as an attribute of CG, and CG and CSR as coexisting components of the same continuum. There have also been numerous empirical studies on this relationship. From the stakeholder perspective, Johnson and Greening (1999) explore different effects of four aspects of CG on corporate social performance. Through a comparative analysis between US and UK firms, Aguilera et al. (2006) find the instrumental, relational, and moral motives regarding the business related, social, and environmental actions of CG systems. Other scholars have considered many other organizational factors in their discussion of CG and CSR, such as firms’ value/performance (Harjoto and Jo, 2011), organization slack and attainment discrepancy (Arora and Dharwadkar, 2011), and information disclosure (Meng et al., 2013).

Previous studies regarding CG and CSR provide the theoretical basis for our systematic analysis of the governance of MSR. However, they remain at the business organization level; non-business and project level analysis needs to be taken into account in further discussion.

### 2.3. Public governance and social responsibility

Public governance (PG) refers to “the formal and informal arrangements that determine how public decisions are made and how public actions are carried out, from the perspective of maintaining a country’s constitutional values in the face of changing problems, actors, and environments” (OECD, 2005). Compared with CG, PG is more oriented towards the social and environmental impacts of organizations’ decisions and actions. PG may be defined as “the ways in which stakeholders interact with each other in order to influence the outcomes of public policies” (Bovaird and Löffler, 2003). Although there is controversy about a move of PG towards a future of “governance without government” (Rhodes, 1996), the government remains the key player in the policy networks of PG (Bovaird, 2005). Some political cultures encourage the expansion of business-like practices in the public sectors, but the core responsibility of the government is still considered to be citizen services and that of public interest (Box, 1999).

The social responsibility of private sectors has nowadays become a priority in PG. Undoubtedly, corporations and non-government organizations (NGOs) are increasingly involved in PG; and they have been influencing, and been influenced by, public policies (Flinders, 2004). The government has changed to focus on acting and the impact of their actions on social and environmental concerns regarding business; it has also incorporated multi-stakeholder strategies and promoted CSR-related public policies (Scherer and Palazzo, 2011). Governments have taken voluntary approach, PPP approach, and soft policy approach to the understanding of CSR-related public policies and achieving CSR goals (Albareda et al., 2007) by raising awareness of CSR, improving transparency of commercial activities, and fostering CSR investment (Steurer, 2010). Additionally, as the strict division between private business and government no longer holds in the modern world (Scherer and Palazzo, 2011), both CG and PG couple an interest in the operation of policy networks with the management of stakeholders in order to solve social problems (Bovaird, 2005; Steurer, 2010). Overlaps exist between CG and PG. Benz and Frey (2007), for instance, argue that CG can “learn from” PG, in the sense that institutions established for the governance of behavior in the public sphere can help firms to prevent business scandals and improve their operational efficiency. Similarly, in the view of Box (1999) and Kornbir (2009), as the line between the public and private spheres continues to be blurred, governments absorb knowledge of CG and tend to run a public sector as if it were a business in order to preserve and enhance the essence of social affairs.

Briefly, as most megaprojects embrace PPP approach practically nowadays, the linkage between PG and CG is of great importance as it helps the public and private sectors to address the social and environmental concerns of megaprojects effectively.

### 2.4. Project governance and social responsibility

Megaprojects are rarely implemented by a single organization; they are characterized by decentralized decision-making power, rapid resource allocation, and complex stakeholders (Muller, 2012). Thus, the governance of a project requires a different framework from that of CG and of PG. Scholars have explored types and functions of governance in project management (Too and Weaver, 2014) and examined diverse topics. Winch (2001) proposed a conceptual framework for the governance throughout project lifecycle from transaction cost perspective. Clegg et al. (2002) highlighted the importance of an alliance culture (one of organizational collaboration) for project governance. Abednego and Ogunlana (2006) developed a concept of good governance that was based on proper risk allocation in PPP projects. Crawford et al. (2008) analyzed the effectiveness of project governance from the sponsorship perspective. Crawford and Helm (2009) reported the expectations and realization of value in project management and supported the requirement of public-sector governance involvement.

There has been abundant discussion of overrun costs, completion delays, and delivery failure of megaprojects (Ansar et al., 2014; Davies et al., 2009; Flyvbjerg et al., 2009; Miller and Lessard, 2001); recently, more attention has been given to the governance of MSR and to megaproject sustainability (Muller et al., 2014; Zeng et al., 2015). Stakeholder value management, transparency, accountability, and many other social responsibility topics have emerged in public investment projects (Galloway et al., 2012; Klakkegg et al., 2008; Shiferaw et al., 2012). Although the governance of megaprojects is an increasingly popular theme in the project management literature (Gil and Lundrigan, 2012; Williams et al., 2010), there has been insufficient discussion of the governance of MSR; and what discussion there has been has not been systematic enough.

To summarize, scholars have extensively and thoroughly explored corporate governance (in the field of business management) and public governance (in the fields of public administration and political science). However, the governance
of megaprojects is distinctive in its hybridity of both business and politics; and regimes of MSR have complex and dynamic project contexts. Therefore, the study of it requires integration with a multidisciplinary perspective. Prior studies on the social and environmental concerns raised by megaprojects have been fruitful but fragmented; in particular, the discussion on project level with integrative multiple governing bodies is insufficient to face the great challenges that are emerging in the governance of MSR. Thus, we propose a comprehensive and systematic model of governance mechanism for MSR that would integrate various stakeholders (business, government, the public, etc.) throughout the lifecycle, in order to pursue the shared value and sustainable development of megaprojects.

3. Research context and methodology

This study grew out of an academic conference on mega-infrastructure project management in China that was held in the summer of 2014 and at which the initial conceptual model was proposed. After we reviewed the literature regarding project management, corporate governance, public governance, and social responsibility, a theoretical framework was established in the “Business–Government–Society” (BGS) approach, which was developed by Steiner and Steiner (1980). The BGS approach provides principles and models through which to learn social responsibility by analyzing the interrelationship and interactions among business, government, and society (Steiner and Steiner, 1980). As complex systems, megaprojects involve heterogeneous stakeholders (from the business world, government, and society at large). Their roles and interactions form important triadic relationships in megaproject governance. Businesses create megaprojects through competition and cooperation; the government is responsible for creating and maintaining legislation; and society is involved through collective action and participation (van Marrewijk, 2003). In the social responsibility issues related to megaprojects, the complex conflicts that arise and the complex relationships of the shareholders require a systematic and synergistic analysis from a BGS perspective (Zeng et al., 2015). Therefore, taking into account the hybrid nature of the governing bodies and the complexity of MSR, we have in this study developed a framework of the governance mechanism that is based on a countervailing forces model; this is one of the four basic BGS models and it embodies a pluralist view of how power and influence flow between the public, government, and corporations.

Furthermore, to refine our theoretical framework and improve our understanding of the practical aspects of megaproject implementation, we carried out a series of forums and interviews between January 2014 and December 2015. First, we held two forums on the topic of social responsibility of mega-infrastructures in July 2014 and May 2015; approximately 50 senior managers, lawyers, and policymakers who engaged in megaprojects attended the forums and offered their professional opinions on MSR. Second, semi-structured interviews on governance system structures were distributed to approximately 100 engineers, from contractors and designers to supervisors and operators of megaprojects. Third, project-based field interviews were also conducted with the practitioners, governors, and residents affected by megaprojects (the Hong Kong–Zhuhai–Macau Bridge Project, the South-to-North Water Diversion Project, the Zhuxi Reservoir Project, and others). Fourth, about 10 academic meetings were held during the two years, in which we invited scholars who study infrastructure projects in order to discuss with them and refine our conceptual model. Finally, following the example of Davies et al. (2009), we used an inductive approach to summarize and analyze the information collected at these forums and interviews.

4. Governance of megaproject social responsibility: the concept

The Association for Project Management (APM) (2002) has defined the Governance of Project Management as concerning “those areas of corporate governance that are specifically related to project activities.” Obviously, this definition is confined only to CG. However, the governance for megaprojects (social responsibility) requires a broader scope than CG, due to the long lifecycle, heterogeneous stakeholders, and profound social impacts (Zeng et al., 2015). Thus, a comprehensive form of governance is needed for megaproject management. The participants and stakeholders in megaprojects are conceived, using a BGS approach, as follows. Business involves self-governance within a network structure and concerns corporate affairs about social responsibility, whereas the government involves the hierarchical governance of inner affairs (which are concerned with social responsibility) and outer affairs (which are usually covered by public governance within a semi-organized structure). Of course, the interactions that take place between business, government, and society need co-governance for social responsibility (Steiner and Steiner, 1980; Steurer, 2010). All these structures of co-governance are, in turn, conceived as societal governance (Kooiman, 1993). Societal governance in fact requires societal co-governance through the stakeholder networks that bring together all the actors involved in regard to social responsibility and sustainable development (Considine and Lewis, 2003; Kooiman, 2003; Moon, 2002; Steurer, 2010). Thus, the societal governance of MSR can be proposed as follows.

The governance structure with rules of collective decision-making, action-taking and effective controlling in settings where a plurality of participants and stakeholders (including ones from business, government, and society) in the social responsibility affairs, in order to create shared and sustainable value throughout the lifecycle of megaprojects.

5. Governance of megaproject social responsibility: the characteristics

The uniquely combined characteristics of the societal governance of MSR (it being 4D: dual-centric, distributed, diverse, and dynamic) distinguish it from CG and PG.

5.1. Dual-centric

Usually, the top manager team is considered as the central governing body of CG; the government officers play an analogous...
role in PG. By contrast, where the responsibility for societal governance lies is not so clear (Too and Weaver, 2014). There is no single center of control, because many collaborators are involved in megaproject management (van Marrewijk et al., 2008). Various MSR issues should be undertaken by different participants/stakeholders, whose roles are dynamic and evolve throughout the project lifecycle (Zeng et al., 2015). Both business and government, who are also involved, should play two central roles in regard to the social issues of megaprojects, especially in PPP megaprojects. First, they both actively have important functions throughout the megaproject lifecycle. Designers, contractors, operators, suppliers, and so on directly participate in a megaproject; and their socially responsible or socially irresponsible behavior may affect a megaproject’s sustainability. Governments are often the sponsors, promoters, and supervisors of infrastructure projects (this is not so with general construction projects); furthermore, both business and government have to respond to public concerns about the profound impacts megaprojects have on local communities. Second, as direct internal contractual stakeholders for MSR, both corporations and governments have direct contact with almost all the other stakeholders; they are at the central hub of the social network of megaprojects’ stakeholders (Zeng et al., 2015). With regard to most social and environmental concerns, corporations and governments perform as responsible actors, whereas other stakeholders are impacted or interested ones (El-Gohary et al., 2006).

5.2. Distributed

All the heterogeneous stakeholders in megaprojects compromise the social network, in which various social responsibilities are distributed through complex relationships. These formal or informal connections and conflicts of interest bring about essential and effective communication between all stakeholders when facing social responsibility problems. Although the public’s participation in megaprojects is mostly passive, they do need timely and effective guidance and communication on social issues throughout the project lifecycle. Additionally, to achieve a good social performance, a balance between stakeholders’ claims and robust interrelationships must be maintained in megaprojects (Mok et al., 2015). Unlike CSR, which involves social issues that often involve only two parties (a single corporation on one side and affected stakeholders on the other), the problems MSR must address always involve a number of responsible stakeholders; thus, the responsibility for addressing the social and environmental problems associated with megaprojects is distributed among them. During some conflicts (which may involve lawsuits) over the environmental impacts of megaprojects, complex relationships and interactions between and among citizens, local governments, contractors, NGOs, and the media need to be handled properly.1

5.3. Diverse

Megaprojects have more profound social impacts than general construction projects; MSR covers not only the health and safety of construction workers (Oliver, 1997) but also immigrant settlement, pollution control and ecological protection for the local areas affected by megaprojects, anti-corruption, disaster prevention and mitigation, and poverty eradication (Zeng et al., 2015). These issues include the economic, legal, ethical, and political dimensions of social responsibility; thus, responsible megaproject governance has multiple dimensions. Moreover, megaproject governance involves a high level of stakeholder management, which is an inter-disciplinary domain (El-Gohary et al., 2006). MSR needs to be interpreted and analyzed from multiple angles. As social responsibility topics are closely related to regulation and legitimacy, law is therefore necessary. Most construction megaprojects are meant to provide infrastructure, create employment opportunities, and help the local economy; economic considerations are therefore essential. As megaprojects often face social issues related to both market and social–political reactions to stakeholders (Miller and Hobbs, 2005), political and sociological perspectives should also be considered. To sum up, the governance of MSR involves diverse disciplines.

5.4. Dynamic

Different from any general organization, a megaproject features a definite and temporary organization throughout the project lifecycle (Muller et al., 2014). The development processes, institutional framework, and contextual environments are dynamic, nonlinear, and iterative; and the social responsibility involved also evolves throughout the project lifecycle. Furthermore, the social networks of stakeholders and the key MSR issues also evolve, along with the advancement of the megaproject (Zeng et al., 2015). The dynamism that characterizes the different project phases of megaprojects creates challenges for governance. Megaprojects usually start with a high level of uncertainty and risk (Miller and Hobbs, 2005); the project process can be viewed as the progressive reduction of uncertainty through time (Winch, 2001). Accordingly, the risk of MSR in the initial phase is extremely high, due to the irreversible impact of the initial decisions and behaviors. Hence, a governance framework for megaprojects must take account of the variability and non-linearity of the processes that shape the progress throughout the project.

6. Governance of megaproject social responsibility: the framework

6.1. Governing bodies of MSR

Those who implement a megaproject constitute a meta-organization with the structural properties of member stratification and boundary permeability (Lundrigan et al., 2015). Megaproject governance should ensure that responsible choices are made and that megaproject stakeholders behave in a socially responsible manner (Miller and Hobbs, 2005). It is imperative to analyze the
social and action-taking throughout the lifecycle of megaprojects. Yet, when responding to relational issues, in practice stakeholders’ roles might have to shift according to the governance mechanisms operating in specific situations. (See Fig. 2.)

6.2. Relational issues in the societal governance of MSR

MSR covers extensive aspects and it is impossible to comprehensively illustrate all of the issues involved in this study. This subsection explores some of the key issues related to the “responsible stakeholder” of the BGS model.

6.2.1. Business issues

Essentially, business issues related to MSR are governed by corporates themselves but are greatly influenced by government and society. As responsible stakeholders, corporations involved in megaprojects should follow the construction industry’s CSR requirements, in respect of the revenue entitlements of shareholders, the health and safety of employees within the workplace, the quality of construction for products, and communications with suppliers and partners (Zhao et al., 2012). The social responsibility within business has a significant impact on employees, communities, competitors, and up-down-stream partners; and it interests other stakeholders, including the government, the media, and NGOs. These business issues are certainly critical in the creation of shared value for megaproject stakeholders. For instance, business misconduct in a global market could not only create a negative reputation for the firm but also hamper the sustainability of the construction industry.2

6.2.2. Government issues

Megaprojects involve enormous capital investment and are almost always initiated or sponsored by the government; unethical behavior by members of the government – such as accepting bribes for the allocation of contracts – is therefore not rare (Zeng et al., 2015). As megaprojects usually involve a great deal of positive promotion of the local economy, some conflicts exist between the internal parties of the government. It is very important to coordinate the different departments of central and local government so as to resolve potential conflicts, or else unfair competition, inefficient resource allocation, or even public riots may occur. For example, a phenomenon called “Fight for High-Speed Rail” has recently appeared in China;1 this involves neighboring local governments engaging in various forms of unethical behavior to compete for high-speed train stations to be located within their jurisdiction so that they can secure investment funds from the central government and long-term local economic development. These conflicts even have some negative impacts on local communities, such as local media wars and clashes between residents of neighboring communities.

2 There have been some suspected low-ball bids in the megaproject market recently, for the MBTA projects in Boston in the US (http://www.bostonherald.com) and the high-speed rail project in Mexico (http://fortune.com).

1 See http://baike.baidu.com/link/Fight for high-speed rail.
6.2.3. Society issues

Unlike government and businesses, society is semi-organized; most public people are not organizational but may be strongly influenced or guided by social organizations, such as the media, and NGOs. In most social responsibility issues, society is a passive stakeholder: it does not directly participate in megaprojects. However, communities are greatly impacted by social responsibility and play a supervising role. As abundant megaprojects are public infrastructures that provoke a NIMBY (not in my back yard) reaction (Hunter and Leyden, 1995), the negative externality of the local community would cause irrational behavior, which may lead to absurd extremes with regard to the social performance of megaprojects, like many conflicts with local residents over PX projects in China.4 For organizations within society, reasonable guidance regarding megaprojects is necessary to help the general public to think rationally and create positive reactions with regard to their social and environmental behaviors. In particular, fair reporting by the media and proactive coordination by NGOs are important for the governance of megaprojects.

6.2.4. Business–government issues

Many of the social responsibilities that we are concerned with cannot be discharged by any individual stakeholder, which aim to create relational social responsibility among mixed stakeholders. As most megaprojects are implemented on the PPP model, diverse issues of MSR are distributed. Government policy and corporate behavior inevitably influence one another and increasingly attract the attention of society (Albareda et al., 2007); examples are policies regarding incentives for corporations’ sustainability reports, regulations for the transparency and accountability of projects, environmental standards, and construction safety codes. As a manifestation of social responsibility, the disclosure of information about megaprojects is increasingly expected by stakeholders (Meng et al., 2013). Due to information asymmetry among the government, corporations, and society, conflicts of interest in megaprojects may be unnecessarily magnified, and can even result in serious public events such as major accidents in which members of the public are injured or killed. There are already regulations concerning the disclosure of economic and technical information (such as information about money management, contracts, and major design changes). However, more information about ethical matters needs to be disclosed in a timely manner and made widely available; such information includes evidence of the legitimacy of the bidding process, environmental impact assessments, quality, and safety.5 Furthermore, the disclosed information should be regularly updated along with the promotion of projects. The interpretation of the information and responses to stakeholders’ questions are also needed to offer proper guidance to the public. Meanwhile, the government should encourage the use of and/or develop more disclosure channels; it should also employ hard or soft tools to help other participants (such as designers and contractors) report megaproject information voluntarily or compulsorily.

6.2.5. Business–society issues

Megaprojects can be considered as the outcome of social conflicts and can also cause a series of social issues between the involved corporations and societies (Jia et al., 2011). In many of these conflicts, corporations play responsible roles, that have direct impacts on the local community and indirectly interests

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4 See http://opinion.people.com.cn/.

5 See http://www.gov.cn/zhenge/content/.
NGOs, the media, and the general public. In megaproject implementation, the main concerns of the local communities affected are the effects of construction activities on those living nearby, the local environment, accidents, and so forth (Zhao et al., 2012). For the firms involved in megaprojects, building harmonious relationships with local communities can help to avoid unnecessary resistance and substantially limit operation risk (Zhai et al., 2009). Furthermore, corporations’ megaproject activities offer extra employment opportunities for local areas (Leigh and Neill, 2011) and foster numerous local talents in construction (Zhai et al., 2009). However, firms that are involved in project quality problems or are held responsible for accidents in megaprojects can suffer badly, as these failings attract much greater attention than the firms’ successes do and are sometimes exaggerated by the media.

6.2.6. Government–society issues

Government–society relations involve government interaction and collaboration with local communities and related NGOs, through which policies are made and implemented to limit the negative influence of megaprojects on the environment (Albareda et al., 2007). Because megaprojects are vitally related to people’s livelihood and have irreversible impacts, both formal and informal public participation needs to be promoted by the government throughout the whole project lifecycle, this is especially important when taking key decisions (such as on project approval and ratification) that may have profound social and environmental consequences for the local area (Tam et al., 2009). However, such public participation has been very rare until quite recently, and it is often conceptualized quite narrowly (Szyliowicz and Goetz, 1995). To rectify this situation, policymakers should adopt effective measures to improve the form and function of public participation in megaprojects. Furthermore, the management of crises, disasters, and other major problems – such as strikes by construction workers, major accidents, and severe pollution – has been an important topic in the governance of megaprojects. Realistic contingency plans for such problems as these are needed primarily in order to decrease the risk of ensuing dire or disastrous consequences, and the reactions to such events and problems should be immediate and transparent.6

6.2.7. Business–government–society issues

In addition, numerous megaproject issues closely and simultaneously involve business, government, and society; and the first priority in any specific MSR issue should be to establish where the ultimate responsibility for it lies. Other impacted and interested stakeholders need to involve to achieve synergetic effects that help megaprojects avoid negative consequences and improve social performance. Here, the relocation of residents made necessary by megaproject construction can be an example. Megaprojects often involve both the relocation of residents and the demolition of buildings on a large scale. Such relocation of residents is regarded as constituting a social problem that poses problems of social equity, regional disparity, and social stability; it may also have adverse ecological effects (Zeng et al., 2015). There are over 160 million migrants in China, due to water infrastructure construction; of these, about 100 million are trapped in poverty.7 The government is usually considered to be the responsible stakeholder for resident relocation problems; the residents and corporations that are involved are the impacted stakeholders. Public hearings are held and relocation plans are drawn up in the initial phase of megaprojects; and compensation is paid to relocated residents, residents are resettled, and support is given to them during and after the construction phase. None of these could be achieved shared value creation unless there is cooperation with corporations and coordination with the local communities affected.

6 See the 7.23 Yong-Wen line major transportation accident, in which about 40 people were killed. http://dignitaries.china.com.cn/.
6.3. Principles and processes of the societal governance of MSR

The objectives of the governance of MSR are to ensure that the behavior throughout the megaprojects’ lifecycles meets the stakeholders’ expectations (Galloway et al., 2012) and that megaprojects create shared and sustainable value for all the stakeholders (Porter and Kramer, 2011). To meet these aims, certain principles need to be upheld and processes should be engaged in with respect to the diverse relational social issues discussed above.

6.3.1. Principles of the societal governance

The OECD (1999) proposes that the basic principles of corporate governance are the protection of shareholders’ rights, the equitable treatment of shareholders, the protection of stakeholders’ rights, the disclosure of accurate information, and the diligent exercise of board members’ responsibilities. All of these principles’ responsibilities lie with corporations and are oriented towards impacted and interested stakeholders. However, the governance of MSR goes beyond the CG related to CSR. Due to the heterogeneity and complexity of the governing bodies of megaprojects, the principles are oriented towards the stakeholders’ behaviors during a megaproject’s lifecycle rather than towards the stakeholders themselves.

Governing a megaproject mainly comprises decision-making, action-taking, and controlling throughout the entire lifecycle. Decision-making refers to the concept, design, and plan regarding the implementation of a megaproject. Action-taking refers to the practical behaviors involved in project implementation. Controlling refers to the rules and regulations regarding policies, procedures, and processes in megaprojects that are aimed at ensuring the effectiveness of decisions and actions. The normative principles of good governance are described next.

6.3.1.1. Prudence of decision-making. The decisions should be founded on the examination of all reasonable alternative responses, the weighing of the shared value of each alternative, and the selection of an alternative that is judged to be on balance in the best interests of all stakeholders (Galloway et al., 2012). For megaprojects, prudence requires a collective decision-making process, so as to meet the expectations of various stakeholders; this is especially true in the early phases, when the decisions made have profound and irreversible impacts. It is essential to ensure that the prudence of decision-making involves ongoing communication between all stakeholders; this means that decision-makers should obtain the information (especially from impacted and interested stakeholders) necessary to achieve a sound understanding of the social issues megaprojects raise, identify the potential options clearly, and weigh the risk and return of each option.

6.3.1.2. Reasonableness of action-taking. Actions should be founded on seeking and understanding the information that is critical to formulating all the possible responses to social responsibility issues (Galloway et al., 2012). The criterion of the reasonableness of the actions is that they prevent potential social conflicts arising from the implementation of a megaproject or solve the existing social problems of a megaproject. It is important that the responsible stakeholders have enough reliable and relevant information to allow them to identify all the various courses of action that other stakeholders could take in response to the specific issues at hand (Galloway et al., 2012).

6.3.1.3. Uniformity, transparency, and accountability of controlling. The rules and regulations should ensure that prudent decisions are made and reasonable actions are taken. Uniformity refers to creating a clear path through the policies, procedures, and processes that, taken as a whole, establish the boundaries of all stakeholders’ specific behaviors in megaprojects. Transparency means that responsible stakeholders should report on the information that exist and should explain why they exist. As a governance tool, transparency helps to prevent or combat corruption and the abuse of power in megaproject administration, enhances accountability, and stimulates consultative processes in governance (Chhotray and Stoker, 2009). Accountability means that all responsible stakeholders should be accountable for the decisions and actions they take as responsible stakeholders. Given the complexity of the stakeholders’ roles and relationships in MSR, this accountability is difficult to achieve; but it is essential for societal governance.

6.3.2. Processes of the societal governance

The BGS model of societal governance for MSR calls for a socialization mechanism to facilitate and maintain governance processes. Because megaprojects have long lifecycles and profound social impacts, the governance of megaprojects should be a flexible, dynamic process; this mainly covers social participation, social learning, social interaction, and social integration. All of these processes should help the responsible stakeholders to develop a governance strategy for solving the social problems and improving the social performance of megaprojects.

6.3.2.1. Social participation. MSR involves taking account of all stakeholders’ interests; thus, to achieve good responsible governance, it is essential to start with social participation. This requires business and government to pay the attention to social issues. The key part, which is commonly talked about but usually ignored in practice, is public participation (Szyliowicz and Goetz, 1995). An effective mechanism is needed for both the local community and wider public to be involved in fundamental decisions and routine actions regarding MSR.

6.3.2.2. Social learning. When stakeholders are able to participate in megaproject governance, a constructed, continuous, iterative process of social learning is needed to improve their social performance (Gond and Herrbach, 2006; Sanderson, 2012). As an important way of improving performance on both project and organizational levels (Davies et al., 2009; Scarbrough et al., 2004), learning behaviors generated within megaprojects is a solution to reduce the complexity and defuse the conflicts in MSR (Sanderson, 2012). During this process, all stakeholders should not only acquire comprehensive project information to avoid or reduce unnecessary misunderstanding or conflicts, but also help to build an appropriate culture within megaprojects (Atkinson et al., 2006).
6.3.2.3. Social interaction. Social interaction involves creating and maintaining close bonds within megaproject stakeholders by promoting interaction between them (van Marrewijk et al., 2008). Beyond the connection and communication within the project team in traditional project management, this process towards a governance of social responsibility involves building an alliance culture and rationalities with the stakeholders outside the project team (such as the media and the public), so as to ensure the uniformity, transparency, and accountability of project behaviors.

6.3.2.4. Social integration. To achieve success in megaproject management, including the governance of social responsibility, all project issues must be considered as a system and the project governance structure requires system integration throughout all phases of the lifecycle (Davies et al., 2009). The system consists of all the aforementioned social issues, along with the consideration of stakeholders’ expectations in megaprojects; and integration is required in order to maximize the effectiveness and efficiency of the decision-making and of the action-making to discharge MSR.

7. Discussion and conclusion

7.1. Findings and contribution

Considering the challenges of MSR – including the dynamism of the prolonged lifecycles, the heterogeneity of the various stakeholders, and the interactivity of diversified social issues – this study developed a systematic framework of the societal governance in order to answer the question: How to govern MSR? Oriented towards creating shared and sustainable value for all stakeholders, the concept of the societal governance is proposed and its 4D characteristics (dual-centric, distributed, diverse, and dynamic) are also analyzed. Furthermore, the governing bodies, relational issues, principles, and processes of this societal governance are meticulously unscrambled in order to provide a comprehensive “Business–Government–Society” model of MSR.

Our study of societal governance makes both theoretical contributions and practical implications. First, given the way in which the “performance paradox” of megaproject implementation is always evident, and in multiple forms, we focus on social responsibility, which has attracted widespread attention but has not been analyzed sufficiently and deeply enough in megaproject management. As Zeng et al. (2015) have already proposed a theoretical model of MSR, we try in our paper to extend the research in this field one step further, from understanding what MSR is to exploring how to govern it. Second, prior research on the social and environmental concerns raised by megaprojects has been quite fruitful but relatively fragmented. Our study aims to improve this situation by developing a systematic framework of societal governance of MSR. Notably, this framework can be adopted within the road map for megaproject practice, so as to improve the governance performance of social responsibility and create shared and sustainable value for all stakeholders. Third, this study helps to think outside the box of corporate governance or public governance of megaprojects. Our framework synthesizes the understanding of corporate governance, public governance, and megaproject management in the concept of the societal governance of MSR; and it identifies the governing bodies and relational issues from a BGS perspective. Our central argument simply suggests that an integrative mechanism involving business, government, and society is essentially required throughout the project lifecycle. This study can hopefully also encourage business managers and policymakers first to rethink their roles and responsibilities in megaprojects and then to effectively cooperate and coordinate with society in respect of the social issues.

7.2. Conclusion and future direction

There has been very thorough discussion of corporate governance and public governance, but neither of them is entirely relevant to the governance of MSR. The societal governance is a multiple-agent-based structure that calls for stakeholders with compatible objectives and principles, complementary functions and performance, and the sharing of resources and accountability.

First, with regard to the social and environmental concerns of megaprojects, a plurality of stakeholders with diverse motives are involved. To create shared and sustainable value, these stakeholders’ core ideas and principles must be compatible and their various decisions and actions must be in harmony in megaprojects. Along with continuous social interaction, adjustments to strategies and value management are needed in order to adapt to changing situations during the project lifecycle. Shared and compatible principles provide a foundation of trust among the stakeholder network, and help to bond the social integration in the governance. The government plays a crucial role in maintaining independence as protector and coordinator of the public good (the megaproject) in the orientation of such compatibility (Flyvbjerg et al., 2003; Miller and Hobbs, 2005). Furthermore, megaproject managers (the core business component in megaproject governance) should act as executors and mediators to effectively and efficiently perform in the relational issues of MSR throughout the lifecycle (van Marrewijk et al., 2008). Second, the distributive roles of stakeholders in the implementation of megaprojects – such as in the design, construction, operation, and supply chains involved – are quite clear throughout a megaproject’s lifecycle; however, functional complementariness with regard to social responsibility could be a challenge for governance. Societal governance requires stakeholders to actively participate and cooperate to address the social and environmental concerns raised by megaprojects. Effective connections and orderly interactions between the various stakeholders are of great importance: they are needed in order to meet ethical standards and solve social conflicts. Additionally, the social responsible performance of megaprojects will never improve unless the process of information feedback, blackspot make-up, and post-evaluation advances smoothly in the framework. Third, in the BGS model of societal governance, the resources for shared value creation are diverse and need to be integrated in order to maximize the utility of megaprojects. Such integration does not mean the shared ownership of resources but rather permission to access and use these resources. Meanwhile, the transparency of the governance
mechanism must be assured in order to prevent collusion and corruption. Sharing resources brings about shared accountability. Multiple agents involved in the societal governance creating complexity in the structure of accountability in megaprojects; and these agents have set the bar very high with regard to contract supervision, network coordination, the regulation of resource guarantees, and behavior restriction in megaprojects.

Here, we are not trying to give a cybernetic model but a trigger to new thinking and new development in regard to studies of MSR. Admittedly, this study has several limitations. First, although a series of interviews with experts and some case studies of megaprojects are conducted, our research is based mostly on a literature review and interview induction, and developed through theoretical analysis. Future, empirical studies are needed to support our findings and provide a full understanding of this topic. Additionally, to govern the social responsibility of a specific megaproject, multiple internal and external factors should be considered. For example, project type, corporate strategy, government ideology, the local environment, and institutional context (Winch, 2001) as well as the cultural backgrounds can be studied (Zeng et al., 2015). Therefore, multiple, extensive, and detailed pieces of research on the societal governance of megaprojects are encouraged in this stream of promising areas.

Conflict of interest

The authors have declared that no conflict of interest exists.

Acknowledgments

The authors would like to thank the three anonymous referees for their very helpful suggestions that substantially improved this article. This study is supported by the National Natural Science Foundation of China (Nos. 71390525, 71620107004).

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