Stakeholder management studies in mega construction projects: A review and future directions

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Abstract

The complex and uncertain nature of mega construction projects (MCP) require an effective stakeholder management (SM) approach to accommodate conflicting stakeholder interests. Previous reviews regarding SM in construction sector are generic as their attentions have been placed on relatively small scale projects. A systematic review on SM studies in relation to MCP seems to be lacking. This paper analyzes the latest research development of this domain by reviewing selected articles published from 1997 to 2014. Four major research topics are identified: “stakeholder interests and influences”, “stakeholder management process”, “stakeholder analysis methods” and “stakeholder engagement”. This study reveals that SM approaches in MCP are subject to national context of the project, indicating a need to identify the impact of national culture on this discipline. Moreover, traditional stakeholder analysis techniques are widely adopted in MCP notwithstanding their weaknesses; therefore a social network approach for managing stakeholder interrelationships in these projects is needed.

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1. Introduction

According to the Development Bureau (DB) in Hong Kong, mega construction projects (MCP) refer to projects with contract sums over HK$1 billion, involving a huge number of participants, having significant social and economic impacts, extensive works, large geographical coverage and close connection to other major developments (DB, 2002). Based on this definition, MCP often involve various stakeholders of diverse occupational and professional backgrounds who have different levels and types of interests in the project. The complex and volatile nature of these projects require systematic approaches and appropriate skills of project managers to accommodate stakeholder interests and to achieve the best value of project outcome. Stakeholder management (SM) is regarded as an effective approach for doing this by bringing stakeholder concerns to the surface and developing robust stakeholder relationships in complex project environments (Bourne and Walker, 2005). Previous research has made considerable contributions regarding the theories and practical approaches in engaging and managing stakeholders in ordinary size construction projects. For example, Yang et al. (2010) identified social responsibilities, prompt communication, and information input as three important critical success factors for SM in the perspective of project managers. Jepsen and Eskerod (2009) stated that ambiguous instructions in stakeholder prioritization and insufficient inquiring skills are two major problems encountered by project managers in applying stakeholder analysis guidelines in a hospital building project. Olander and Landin (2005) discussed the influence of open

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communication with the media on SM in a housing project. Despite the valuable contribution of previous research, a considerable portion of their attention were placed on relatively small scale projects, yet managing stakeholders in MCP is a much more complicated task.

In MCP, project managers often face challenges in the processes of identifying stakeholder and their needs, assessing stakeholder impacts and their relationships, and formulating appropriate engagement strategies (Yang et al., 2011b). A recent example is the large sea-crossing bridge project designed to connect Zhuhai in mainland China to Hong Kong and Macao. Due to underestimation in the influence of affected vicinity and their concerns on environmental issues, the project commencement was delayed for one year by a legal dispute regarding ecological impact of the bridge (MDT, 2011). This legal challenge and associated delay aroused vigorous controversies from politicians, pressure groups, media and the community. The government has ended up spending extra effort and resources in catching up project progress and handling negative responses from the public. These challenges in managing stakeholders can be attributed to the great uncertainty and complexity in the project environment (Burton and Obel, 2003). Notwithstanding their professional knowledge and experience, the accuracy of assessment and judgment of project managers often decrease as the project grows in size and complexity. The foundation for stakeholder identification and prioritization is also not strong due to limited cognition of project managers and incomplete stakeholder boundary. Ward and Chapman (2008) pointed out that stakeholders are a main source of uncertainty in large construction projects where stakeholder entities, their claims and interrelationships at every project phases are the major stakeholder-associated uncertainties. MCP are higher in complexity and comprise many more stakeholders than relatively small scale projects, leading to a larger number of stakeholder-related uncertainties and risks (Cicmil and Marshall, 2005). Project managers have encountered greater obstacles for balancing stakeholder claims and maintaining robust relationships in mega than in ordinary size projects, necessitating an industry need for more SM studies in MCP.

Literature review is regarded as a useful methodology to gain in-depth understanding on a research topic. A systematic examination of existing publications can help researchers in identifying the current body of knowledge and stimulating inspirations for future research. Notwithstanding the importance of a critical review, no such work has been conducted regarding SM research in MCP. This can be explained by the higher attention of previous studies on addressing SM problems in ordinary size projects than in MCP. Yang et al. (2009) conducted an overview on SM publications in general and identified their practical implications for the construction sector. Littau et al. (2010) carried out a meta-analysis of publications on stakeholder theory in selected project management journals, and found that literatures focusing on project evaluation and strategy are the major contributors to stakeholder theory development within their research scope. Theses previous reviews seem to be generic and their research focus is not specific on MCP.

SM problems in real life MCP have exposed research and industry needs to systematically review existing literature of this field. Therefore, this paper undertakes a critical analysis of SM articles in relation to MCP published from 1997 to 2014. This study begins with the background of SM and MCP, followed by an account of the research methodology. In the findings section, the authors reviewed the selected publications under four themes: (1) stakeholder interests and influences; (2) stakeholder management process; (3) stakeholder analysis methods; and (4) stakeholder engagement. Finally, directions for further studies of this topic are suggested. For consistency, this study adopted the definition by DB on MCP as the predominant definition.

2. Background of stakeholder management and mega construction projects

2.1. Stakeholder concept and stakeholder management literature

The stakeholder concept was firstly brought into the management domain by the Stanford Research Institute in 1963, where stakeholders were described as any groups or individuals who are crucial for organizational survival (Freeman, 1984). Following its origin, the stakeholder notion diverged into four key directions concerning organizational studies: corporate planning, systems theory, corporate social responsibility and organizational theory. A renowned book of Freeman (1984), Strategic Management: a Stakeholder Approach, has been widely acknowledged as a milestone in the evolution of SM research, where Freeman (1984) defined stakeholders as the ones “who can affect or is affected by the achievement of the firm’s objectives”. After this notable publication, different perspectives of SM research emerged; for example, the three aspects (descriptive, instrumental and normative) of categorizing stakeholder theory (Jones, 1995), the concepts of stakeholder dynamics (Freeman, 1984), the stakeholder salience and the typology (Mitchell et al., 1997). Elias et al. (2002) summarized the overall development of SM research through a stakeholder literature map. Inspired from stakeholder research of strategic management field, construction management scholars have devoted extensive research efforts on managing construction project stakeholders in recent years; while SM in MCP has become a particular theme of growing research interest, in view of the challenges encountered in managing stakeholders of complex project environment as explained in the sections below.

2.2. Mega projects in general

Research of mega projects has become an increasingly widespread interest in the engineering and project management domains. The fast pace of mega project development can be attributed to the advanced construction technology and rapid globalization. Mega project is defined as a substantial capital project, of several billion dollars, which requires concerted efforts from major participants in terms of resources, skills and expertise (Flyvbjerg, 2007; Sykes, 1990). There are numerous types of mega projects, including transport infrastructures, oil