Chapter 5.3
Project–Based Organisations:
Overcoming Lack of Trust and Social Networks within Small and Medium Project Teams

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ABSTRACT

In sustainable development projects, as well as other types of projects, knowledge transfer is important for the organisations managing the project. Nevertheless, knowledge transfer among employees does not happen automatically and it has been found that the lack of social networks and the lack of trust among employees are the major barriers to effective knowledge transfer. Social network analysis has been recognised as a very important tool for improving knowledge transfer in the project environment. Transfer of knowledge is more effective where it depends heavily on social networks and informal dialogue. Based on the theory of social capital, social capital consists of two parts: conduits network and resource exchange network. This research studies the relationships among performance, the resource exchange network (such as the knowledge network) and the relationship network (such as strong ties network, energy network, and trust network) at the individual and project levels. The aim of this chapter is to present an approach to overcoming the lack of social networks and lack of trust to improve knowledge transfer within project-based organisations. This is to be done by identifying the optimum structure of relationship networks and knowledge networks within small and medium projects. The optimal structure of the relationship networks and knowledge networks is measured using two dimensions: intra-project and inter-project. This chapter also outlines an extensive literature review in the areas of social capital, knowledge management and project management, and presents the conceptual model of the research approach.

INTRODUCTION

Urban and infrastructure developments are usually fixed projects which have a beginning and end date, and can be broken down into sub-projects which can be accomplished by specialized companies. Most of these companies are project-based organizations (PBOs). How these PBOs perform determines not only the quality of the urban and infrastructure development, but also the sustainability of the urban and infrastructure development. In this chapter, we focus on how to improve the performance of PBOs. If the sustainable development of PBOs can be achieved, then, in turn, sustainable urban futures are also achievable.

It has been generally realized that knowledge from one project is valuable and can be reused in other projects (Baccarini, 1999; Bower & Walker, 2007; Kotnour, 1999; Schindler & Eppler, 2003; Walker, 2004). However, in project-based organisations, the reality is that, as each new project starts, there is a tendency to reinvent the process, rather than learn from the experiences of previous projects (Prusak, 1997). The problem lies in the fact that the knowledge acquired during one project has not been effectively transferred and utilised by other projects. Poor performance of knowledge transfer is likely to result in knowledge waste and cost increase. For example, the cost of rework in Australian construction projects has been reported as being up to 35% of total project costs, and contributes as much as 50% of a project's total overrun costs. In fact, rework is one of the primary factors contributing to the Australian construction industry's poor performance and productivity (Love, Irani, & Edwards, 2003). Many PBOs have invested significant amounts of financial and human resources to implement IT-based knowledge repositories in order to capture and store knowledge and facilitate knowledge transfer across projects. However, some empirical findings suggest that these knowledge repositories scarcely meet investor expectations. Pelz and An-

drews (1966), Mintzberg (1973), and Allen (1977) indicate that people prefer to turn to other people rather than documents for information. More recently, the same tendency has been found even for people with ready access to the Internet and their firm's IT-based knowledge repository (Cross & Sproull, 2004). The limited use of IT-based strategies and the importance of social networks for cross-project knowledge transfer have also been identified by others (e.g., Keegan & Turner, 2001; Newell et al., 2006). It is then apparent that the interpersonal relationship network plays a pivotal role in knowledge transfer (Newell et al., 2006; Turner & Keegan, 2000).

The research that focuses on interpersonal relationships is the study of social capital. Social capital includes both interpersonal relationships and the resources embedded in these relationships (Bourdieu, 1986; Burt, 1992, 2000; Coleman, 1988, 1990; Nahapiet & Ghoshal, 1998; Mcfadyen & Cannella, 2004). As certain studies have pointed out, social capital is a productive resource, facilitating knowledge transfer and creation (Tsai & Ghoshal, 1998), and actions that range from an individual's occupational attainment (e.g. Lin & Dumin, 1986; Lin, Ensel & Vaughn, 1981; Marsden & Hurlbert, 1988) to a firm's business operations (e.g., Baker, 1990; Burt, 1992; Coleman, 1990), and affects the organization's competitive advantage and performance (Burt, 1997; Peng & Luo, 2000). Particularly important for strategy are social capital's unique features compared to other forms of capital: social capital is neither as easily alienable from the firm as physical or financial capital, nor as mobile as human capital. Rather, it is tightly bound with the organization, development, and strategy of the firm (Nahapiet & Ghoshal, 1998; Walker, 1998). Thus, to the extent that the firm can influence its development and can appropriate its value, social capital may well prove to be the firm's most enduring source of advantage.

Oh et al. (2006) define group social capital as the set of resources made available to a group through group members' social relationships

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