

# Chapter 5.11

## Occurrence and Effects of Leader Delegation in Virtual Software Teams

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### ABSTRACT

Virtual teams are an important work structure in software development projects. However, little is known about what constitutes effective virtual software team leadership, in particular, the amount of leader delegation that is appropriate in a virtual software-development environment. This study investigates virtual software team

leader delegation and explores the impact of delegation strategies on virtual team performance mediated by team motivation, team flexibility and team satisfaction with the team leader. This research is a report of a pilot study run on student teams carried out to refine and test the research constructs and research model for a larger study run in corporations. The study found that virtual team leaders delegate more to competent vir-

tual teams and that such delegation is positively correlated with team member satisfaction with their leader and with team member motivation. Overall, the work provides important information for software-based organizations interested in developing virtual team leadership skills.

## **INTRODUCTION**

Virtual teams are composed of geographically distributed coworkers linked through information technologies to achieve an organizational task (Townsend, DeMarie, & Hendrickson, 1998). Virtual teams are a popular structure in software development for several reasons: they provide access to lower-cost labor as well as access to a range of disciplines and technical specialties (Curtis, Krasner, & Iscoe, 1988). While software team leaders and managers are now frequently given virtual teams to manage, they have not been given clear directions on how to effectively manage such teams. One important issue regarding virtual software team management is when and how team leaders should *delegate* authority and responsibility to the team.

Delegation means that one has been empowered by one's superior to take responsibility for certain activities, which were originally reserved for the superior (Ashton & Kramer, 1980; Bass, 1990). In traditional leadership studies, delegation is widely acknowledged to be an essential element of effective management (Yukl, 2002), and effective delegation offers a number of potential benefits, both to the manager and the subordinates. However, to the authors' knowledge, only a few studies have been conducted to investigate delegation as a distinct component of global virtual team leadership. In the limited number of conceptual works and empirical studies in which delegation is not the direct focus, delegation has been a controversial issue. Some researchers argue for the benefits of delegation: Eveland and Bikson, (1988); Jarvenpaa, Knoll, and Leidner,

(1998); Jarvenpaa and Leidner, (1999) report that an effective leader of a virtual team needs to be more flexible to accommodate the complexities and volatility of the virtual team environment, and to be willing to let others take the lead when necessary. Furthermore, they suggest that virtual team leadership should focus on facilitating and empowering team members to take action on their own. In contrast, Paré and Dubé, (1999) argue that, due to the distributed nature of virtual teams, management by observation is simply not possible, and that much more discipline and control is required in a virtual setting. Additionally, team effectiveness in virtual environments may be hindered by excessive autonomy coupled with exclusive reliance on electronic communication and lack of face-to-face interaction.

This article aims to address the research gap regarding delegation to a virtual software team by investigating the occurrence and effects of leader delegation in such teams. Finding out how and why leaders do or do not delegate to virtual teams and the impact of the leaders' delegation behaviors on the teams will help industry practitioners to better frame their strategy for managing distributed software teams and will also add to the field's knowledge about virtual team leadership.

The focus of the article is on software teams, in part, because it is felt that the global software team phenomenon has several unique characteristics that may not apply to virtual teams in general. Unlike other activities that have been outsourced or offshored, work activities cannot be as easily compartmentalized because of the high integration of the software product. Thus, there is a need for communication and working together in a structured fashion, which demands good leadership. In addition, software developers expect to have a high degree of independence in their work. Therefore, the degree of delegation by a leader may differentially affect these virtual teams.

Collaboration in software development also demands the ability to communicate highly de-

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