The Role of Leadership in Virtual Teams

Kristi M. Lewis Tyran
Western Washington University, USA

Craig K. Tyran
Western Washington University, USA

INTRODUCTION

As globalization and the prevalence of electronic communication technology has become more widespread, organizations are adapting and changing at a rapid pace. Many organizations are using "virtual teams" of people working across space and time as an organizational structure to enhance organizational flexibility and creativity in this changing environment (Duarte & Snyder, 1999; Townsend, DeMarie, & Hendrickson, 1998). As virtual teams become a more popular organizational tool, many researchers have begun to explore ways in which the performance of such teams may be enhanced (Cohen & Gibson, 2003). One aspect of teamwork that has traditionally had an important impact on team performance is team leadership. Leaders often facilitate effective task performance within a team. By assigning tasks to individuals with the skills, knowledge and abilities to perform best, as well as structuring the team to best accomplish its tasks, a leader can greatly increase the effectiveness and efficiency of a team (Hooijberg, Hunt, & Dodge, 1997; McGrath, 1984; O'Connell, Doverspike, & Cober, 2002). In addition to task-focused behaviors, leaders also motivate, coach and mentor team members toward higher levels of performance (Bass, 1985; Conger & Kanungo, 1998).

The role of leadership for virtual teams and computer-supported teams has not yet been studied extensively (e.g., Kim, 2006; Powell, Piccoli, & Ives, 2004). However, the body of literature in this area has been growing during the past few years. While the early studies suggest that leadership for virtual teams is different from that of traditional face-to-face teams, the contextual factors that may influence virtual team leadership have not been fully explored (Cascio & Shurygailo, 2003; Kayworth & Leidner, 2002; Powell et al., 2004). In this article, we provide a summary of role of leadership in virtual teams and identify some of the ways in which a leader may influence a virtual team.

BACKGROUND

For purposes of this article, a virtual team is defined as a team which has the following attributes: It is a functioning team of people who are interdependent and share responsibility for team outcomes, the members of the team are geographically dispersed, and the team relies on technology-mediated communications instead of face-to-face communications to complete tasks (Cohen & Gibson, 2003). Within the bounds of this definition, virtual teams can vary in numerous ways. For instance, the types of technology-mediated communication media that may be used by a virtual team include a wide variety of media such as telephone, e-mail, videoconference, groupware, or other media. In addition, virtual teams can differ with respect to dimensions such as temporal distribution, diversity of culture, team lifecycle, and member roles (Bell & Kozlowski, 2002). Recent research has focused on a variety of variables that can influence virtual team performance, including sources of structure and social interaction (Avolio, Kahai, & Dodge, 2000), empowerment of the team and face-to-face interaction (Kirkman, Rosen, Gibson, & Tesluk, 2004), interpersonal trust (Paul & McDaniel, 2004), and types of technology (Majchrzak, Malhotra, Stamps, & Lipnack, 2004). Leadership is an aspect of both structure and social interaction within a team, and as such, is a component of virtual teams that has the potential to significantly influence team performance. Leaders help individuals make sense of the world around them, and in a complex, highly technical environment such as a virtual team, leadership may be the key to enhancing the collaborative efforts of team members (Avolio et al., 2000).

Although virtual teams have existed as an organizational structure for decades, recent technological advances have enabled the increased use of virtual teams within organizations. As information technology has expanded, researchers have explored virtual team implementation and performance. A recent literature

review of 43 research papers on the topic of virtual teams published between 1991 and 2002 found that researchers have investigated a variety of aspects of virtual teams including inputs (e.g., design of interactions, skills of team), socio-emotional processes (e.g., trust, relationship building), task processes (e.g., communication, coordination), and outcomes (Powell et al., 2004). An example of a study that investigated a virtual team input was research by Piccoli et al. (2004) that demonstrated the importance of team control structures in facilitating virtual team performance. With regard to socio-emotional processes, work by Jarvenpaa, Knoll, and Leidner (1998) found that trust needed for coordination and communication within virtual teams could be enhanced through the use of trust-building intervention. An illustration of virtual team research that addressed task processes was conducted by Yoo and Alavi (2004). This research found that emergent leaders in virtual teams typically sent more electronic messages and longer messages than the followers.

As compared to the traditional face-to-face environment, the "virtual" environment can introduce new types of challenges for those responsible for the management of virtual teams (Pauleen, 2004; Zaccaro & Bader, 2003). One of the key challenges concerns the leadership of virtual teams (Avolio & Kahai, 2003; Cascio & Shurygailo, 2003; Kayworth & Leidner, 2002). Leadership is defined as the process of influencing others toward a goal or objective (Bass, 1985). Although much research has been conducted regarding the role of leadership for traditional teams and organizations, relatively little research has examined the effect of leadership on virtual teams (Kim, 2006). The early studies in this area suggest that leadership for virtual teams is different from that of face-to-face teams. However, many questions remain unanswered (Powell et al., 2004). For example: What are the traits of a good virtual team leader? What can be done to promote efficient and effective group interaction? What role does trust play with respect to the leadership of virtual teams? Answering the foregoing questions can be difficult: As team members work together interdependently, they may require more or less guidance, coaching, monitoring, and structure depending on contextual factors, task progress, and social interaction quality.

LEADERSHIP AND INFLUENCE IN VIRTUAL TEAMS

In their study of "e-leadership" (defined as influencing others across space and time primarily through the use of electronic media), Avolio and his colleagues (2000) have proposed a framework based on adaptive structuration theory (AST). Their framework is relevant to a discussion of virtual team leadership since the framework can be used to enhance understanding of the role of e-leadership in organizations. The framework specifies a number of relevant structural elements of virtual teams, as well as social interaction components (see Figure 1). Within this framework, team structure influences a team's social interaction, which ultimately influences team outcomes. In addition, social interaction and outcomes have a reciprocal effect upon the

Figure 1. Leadership influences on virtual teams
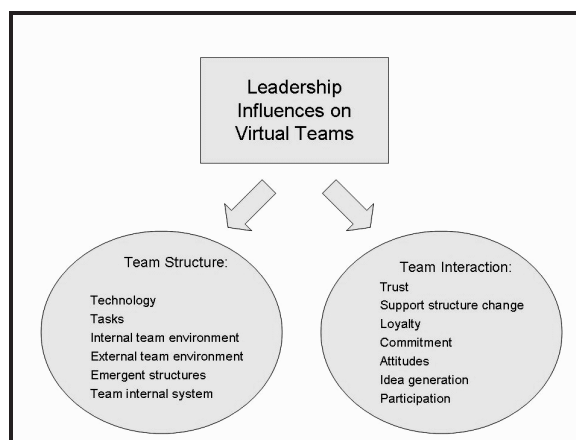
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