Impact of User Satisfaction and Trust on Virtual Team Members

STEVEN A. MORRIS, Middle Tennessee State University, USA
THOMASE. MARSHALL, Auburn University, USA
R. KELLY RAINER, JR, Auburn University, USA

Pressured by the growing need for fast response times, mass customization, and globalization, many organizations are turning to flexible organizational forms, such as virtual teams. Virtual teams consist of cooperative relationships supported by information technology to overcome limitations of time and/or location. Virtual teams require their members to rely heavily on the use of information technology and trust in coworkers. This study investigates the impacts that the reliance on information technology (operationalized in our study via the user satisfaction construct) and trust have on the job satisfaction of virtual team members. The study findings reveal that both user satisfaction and trust are positively related to job satisfaction in virtual teams, while system use was not found to play a significant role. These findings emphasize that organizations seeking the benefits of flexible, IT-enabled virtual teams must consider both the level of trust among colleagues, and the users' satisfaction with the information technology on which virtual teams rely.

INTRODUCTION

The need to compete in a rapidly changing, hypercompetitive, and global marketplace is prompting many organizations to transform their organizational structures from large, hierarchical structures to agile, flexible, new structures. Virtual organizations and virtual teams, examples of such new structures, support organizational agility and flexibility, encourage cooperative intra- and interorganizational relationships, use information technology (IT) to support these relationships, and allow businesses to compete more effectively (Lucas & Baroudi, 1994; Goldman et al., 1995). This study defines a virtual organization as an organization constructed of cooperative relationships supported by information technology to overcome restrictions of time and/or location to meet specific objectives (see Mowshowitz, 1997). Virtual teams are the application of the virtual organization structure at the workgroup level to create temporary teams that may cross functional and organizational boundaries for the completion of a specific task (Lucas & Baroudi, 1994).

It is important to distinguish between virtual structures and the use of telecommuting/telework, another means of overcoming geographic boundaries, within a traditional organization. While virtual structures, as discussed below, involve a breakdown of traditional supervisor/employee control structures and an increase in colleague interdependence, telecommuting/telework often produces a higher level of supervisory control and less colleague interaction (Igbaria & Guimaraes, 1999). This difference means that telecommuting/telework findings are not generalizable to the virtual organization setting.

Leavitt (1965) depicted the form of an organization as an interrelated combination of structure, tasks, technology, and people, such that changes in one component affects the other components. Recently, advances in IT have enabled the creation of virtual organizations and virtual teams through the ability to geographically disperse heavily interdependent tasks and facilitate communications and coordination among subunits and individuals (Lucas & Baroudi, 1994).
Goldman et al. (1995) noted that virtual organizations have five characteristics: opportunism, excellence, technology, borderless, and trust. Opportunism means that virtual organizations are formed to meet specific objectives, and once those objectives have been met, the virtual organization is disbanded. Excellence stems from the combination of competencies using a best-practices approach during the creation of the virtual organization to produce a synergistic organization exhibiting high competence in every aspect. The participating firms also provide the technology to enable the virtual organization, similar to the manner that core competencies are acquired by the virtual organization. The capabilities and technology provided to the virtual organization represent the best that the collective firms have to offer. The “borderless” aspect of virtual organizations alludes to the elimination of physical boundaries through the application of information technology. The characteristic of trust arises from the same removal of physical limitations that makes the virtual organization a borderless entity. The removal of physical limitations and the dispersal of the virtual organization across traditional organization boundaries disrupt many control mechanisms found in traditional organizations.

Virtual teams, in a similar fashion, involve the creation of a team to meet a specific objective or complete a specific task. Since these teams are goal-oriented, they are temporary and are disbanded once the goal has been achieved (Jarvenpaa, Knoll, & Leidner, 1998). Virtual teams also represent excellence of skills because they are formed in a manner analogous to virtual organizations. Organizations employing the virtual team structure do so by assessing the skills necessary to achieve the specific goal of the team, then choosing individuals that possess these skills. The selection of individuals to comprise the team can be made without regard to the geographic location of the individuals. Individuals in these teams may include constituents from other firms. These geographically and organizationally dispersed teams are made viable through the use of information technology (Townsend, DeMarie, & Hendrickson, 1998). The interorganizational and international aspects of the virtual team interfere with, and often invalidate, traditional mechanisms for control of team members. As a result, trust is believed to become a critical component in effective virtual team operation (Jarvenpaa & Leidner, 1998). Unlike the other characteristics of virtual structures, such as duration, and geographical and organizational dispersion that can be directly observed and controlled, the reliance on trust as a characteristic of virtual structures is a logical conclusion that is being explored in the research literature (Majchrzak, Rice, Malhotra, & Ba, 2000).

Given the dynamic interactions among organization components, the implementation of a virtual structure and the technology to support it may potentially impact the other components. Researchers have recognized that the unique characteristics of virtual structures will require the re-examination of existing theories and have called for additional research into areas such as trust, organizational context, and team norms (Majchrzak, Rice, King, Malhotra, & Ba, 2000; Townsend, DeMarie, & Hendrickson, 1998; Warkentin, Sayeed, & Hightower, 1997). This study focuses on the potential impact on the individuals participating in the virtual structure. Specifically, this study investigates the impact of trust and user satisfaction with the IT used to implement a virtual team structure on the job satisfaction of the virtual team members.

LITERATURE REVIEW

Virtual Teams and Trust

Trust has been assumed to be one of the key ingredients necessary for a virtual organization or team to be successful (Handy, 1995; Cohen, 1997). Currall and Judge (1995) defined trust as “an individual’s behavioral reliance on another person under a condition of risk” (p. 153). Empirical research into the role of trust in the virtual organization setting, however, is lacking.

The role of trust, or the lack of trust, in human behavior as it pertains to the development of organizations and teams can be clarified using transaction cost economics (TCE) (Williamson, 1975). TCE explains the development and growth of organizations and teams as a solution to the costs of conducting transactions in a market. A principle component of TCE is opportunism. Opportunism is the behavioral tendency of an entity, either an individual, a team, or an organization, to act in its own self-interest, even at the expense of another entity.

In terms of transaction cost economics, virtual organizations and teams represent the transition from hierarchical structures to flatter, collaborative structures (Drucker, 1988). By losing the authoritative control of the hierarchical structure, the members of the virtual organization and team must deal with greater risks of opportunism from the individuals that they must collaborate with and rely upon (Handy, 1995; Cohen, 1997).

Other research efforts have indicated that there is a relationship between trust and satisfaction. Driscoll (1978) investigated the influences of trust and participation in decision-making on job satisfaction. He concluded that trust is a strong predictor of overall job satisfaction. Rich (1997) found trust to be the key moderator of the effects of role modeling on job satisfaction and performance. Based on this discussion, this study derives Proposition 1. (For a thorough examination of the role of trust in traditional organization and team structures, see Reina & Reina, 1999).

Proposition 1. Trust in other members of the virtual team has a significant, positive impact on job satisfaction.

Virtual Teams and User Satisfaction

The use of the IT-enabled virtual structures involves changes in technology that impact the personnel of organizations and teams (Lucas & Baroudi, 1994). The exact nature of