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A Proposed Study on Commitment in Virtual Teams

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Introduction

The conventional way that people work is changing – today’s employees are likely to work in virtual teams at some point in their careers. Today’s companies are more likely to have an employment force spanning the world, and the face-to-face (FtF) aspect of proximal teams is no longer always possible or desirable. But what are virtual teams? Simply defined, teams are a collection of individuals who are interdependent in their tasks and exist for some task-oriented purpose (Cohen and Baily, 1997; Guzzo et al., 1996). A virtual team, in addition to the above, works across time, space and organizational boundaries (Lipnack and Stamps, 1997). Team members are not necessarily located in the same building, time zone, or even country, and communicate with each other through advanced communication and information technology. While research on virtual teams is increasing, many questions remain regarding what is needed to ensure their effectiveness. The FtF meetings and socialization that occur when team members are co-located can serve to strengthen the bond between team members, whereas socialization in teams may be diminished with virtual teams (Chidambaram, 1996; Lipnack and Stamps, 1997). When team members can’t “bump” into each other in the hall, meet informally in the break room, or even see each other, can a bond exist between them? Can team members feel as committed to a virtual team as a traditional FtF team?

Importance of Research

Research on commitment has focused on employee commitment to an organization. A lack of research on an individual’s commitment to a team has been noted (McGrath and Hollingshead, 1994), despite research that supports the argument that the two levels of commitment are separate constructs with unique antecedents and outcomes (Becker, 1992; Becker and Billings, 1993; Morrow, 1993, Zaccaro and Dobbins, 1989). The research that has been done on team commitment has examined only FtF teams and focused primarily on outcomes, finding a positive relationship between team commitment and performance, productivity, and satisfaction, and a negative relationship between team commitment and intent to leave an organization (Becker, 1992; Becker and Billings, 1993; Klein and Mulvey, 1995). Researchers have found desirable outcomes when an individual expresses commitment to their proximal team, is the same true for individuals in virtual teams? If so, can organizations do anything to engender team commitment among virtual team members?

The proposed research is motivated by the following questions: what factors influence the development of team commitment in a virtual team, and how do we engender team commitment in a virtual setting?

Literature Review on Commitment

Research on team commitment in FtF teams has been largely ignored (McGrath and Hollingshead, 1994). The little work that has been done on team commitment has concentrated on proximal teams only. The following sections briefly describe research that has examined the relationships between different features and commitment.

Individual Features.

Although no research has been found that addresses the relationship between individual features and team commitment, there is research that examines the effect of individual features on organizational commitment (OC). Allen and Meyer (1990) found that a “commitment norm” found in individuals in some cultures leads to normative commitment to the organization. Studies examining individualism/collectivism and masculinity/femininity done by Hofstede (1980) supports the cultural aspect of normative commitment. In a meta-analysis of OC, Mathieu and Zajac (1990) identified the following as significant variables related to OC: work ethic, initiative, age, gender, organization tenure, and education. It is likely that some of these individual features will be significantly related to team commitment also.

Team Features.

Zaccaro and Dobbins (1989) examined the antecedents of team and organizational commitment and found significant support for the hypothesis that team commitment and OC could be predicted from different factors. Factors that were significantly related to FtF team commitment included satisfaction with team members, cohesion, and perceptions of team processes. Team processes studied included aspects of confidence, trust, goal motivation, decision making, communication, adaptability, job competence, and helpfulness. Other factors found to be significantly related to OC, yet not examined in relationship to team commitment, include constructive conflict (Alper et al., 1998, Wheelan and Hochberger, 1996), procedural justice/fairness (Allen and Meyer, 1990; Koorsgaard et al, 1995), and substantive feedback (Allen and Meyer, 1990).

Task Features.

McGrath and Hollingshead (1994) stated that certain tasks may be better suited for virtual teams than others, but no empirical work has been conducted to test that hypothesis. Zaccaro and Dobbins (1989) found that an individual's liking for the task was significantly related to FtF team commitment. Research in OC has found other task-related factors to be significant in explaining OC. These include perceived task competence (Wech et al., 1998), job challenge, task autonomy, and satisfaction with the task (Mathieu and Zajac, 1990) and may also affect team commitment.

Socialization Features.

According to the 50-foot rule of collaboration, communication between people drops off dramatically when they are more than 50 feet apart (Allen, 1977). Because of the dispersed nature of virtual teams, socialization among members and visual cues are reduced considerably, if not gone completely. McGrath (1991) defined and detailed the important role group support and member well-being play in teams. Lipnack and Stamps (1997) stressed the need for greater socialization efforts among virtual team members over FtF teams. Along the same lines, Galegher and Kraut (1994) stated that a Group Support System undermined group members' abilities to establish positive social relations. Chidambaram (1996) found relational intimacy takes longer to develop in computer-supported teams, but given adequate time, teams eventually exchange social information to develop strong relational links. Kling (1991) called for more field research that acknowledges the socialization aspect of teams.

Outcomes.

Becker and his colleagues researched outcomes of team commitment. In Becker (1992), a positive relationship was found between team commitment and job satisfaction and a negative relationship between team commitment and intent to quit. In Becker and Billings (1993), a distinction was made between locally committed employees (attached to the supervisor and/or team) and globally committed employees (attached to top management and/or the organization) and found they were differentially related with intent to quit, job satisfaction and organizational citizenship behaviors. Klein and Mulvey (1995) found commitment mediated the effects of cohesion on team performance and Becker et al. (1996) found a positive relationship between internalization of supervisor's values and performance. Although empirical work supports a relationship between performance and commitment, Meyer and Allen (1997) suggest that this relationship might be moderated by the team's standards toward performance.

Research Approach

A field experiment will be completed to determine factors that influence an individual's commitment to his/her virtual team. MBA students from several universities in the United States, South America, and Asia will work together on a project in virtual teams. Most virtual teams are project teams – teams that have zero history with just a small likelihood of working together again (Lipnack and Stamps, 1997). For this reason, the use of MBA students from multiple countries working together in teams is acceptable. Prior history of working together, potentially crucial if phenomena in a traditional organization was being studied, is not needed.

Task

The task will be a case with three deliverables due at weeks 2, 4, and 6. The tasks to be completed by the team can be described as falling in Quadrant 2 (Choose) of McGrath's Task Circumplex (1980). More specifically, the tasks will be decision making tasks; the team will make decisions on issues with no right answer. At this time, it is expected that the PVVI case created by Chidambaram (1989) will be used. This case has been used in several studies examining computer-mediated collaboration (see, for example, Chidambaram et al., 1990, 1991, 1993, 1996; Fjermestad et al., 1995; Huang et al., 1996; Miranda and Bostrom, 1994, 1995).

Independent Variables

This study will manipulate at least one independent variable: amount of formal socialization / team building within the team. The composition of teams (all individualist, all collectivist, combination) may be manipulated if enough students and teams can be formed.

Literature on virtual teams stresses the need for greater socialization efforts early on for virtual teams to be successful so specific socialization and team-building exercises will be conducted for half the teams. The relationship between these exercises and commitment development can then be empirically tested.

Schools will be chosen to participate in this study based on certain cultural characteristics. In addition to schools from the U.S., schools from Chile, Singapore, Hong Kong, and Taiwan, will be targeted. Based on Hofstede's 1980 work, U.S. students are expected to be predominantly individualistic, while students from the Asian and South American countries are expected to be predominantly collectivist. A survey before the task begins will measure students' individualism/collectivism level and this will be used to place students in teams.

Dependent Variables

Dependent variables include individual satisfaction and team performance. Commitment to the team will be both an independent and dependent variable depending on the hypothesis being examined. Other variables to be

measured include perceived task competence, task liking, and team cohesion.

Surveys

After each of the three project deliverables is completed, additional surveys given to the students will provide data on the development of commitment, work processes, and their satisfaction over time. Statistical analyses will be conducted to determine the effect of socialization/team building exercises and cultural influences on commitment development and outcomes.

Research Model and Objectives

Figure 1 depicts the research model for the current study. The three-component nature of commitment as defined by Allen and Meyer (1990) will be used. This model defines the components of commitment as *affective* (emotional attachment, identification, involvement with organization), *continuance* (awareness of costs associated with leaving, number of alternatives), and *normative* (feeling of obligation to remain with the organization). Or, an easier way to think of it: want to, need to, ought to.

The following propositions will be examined:

P1: Individuals from highly collective countries will have higher normative commitment to a team than individuals from highly individualistic countries.

P2: Team features will be positively related to affective team commitment.

P3: Task features will be positively related to affective team commitment.

P4: Individuals in virtual teams engaging in early socialization efforts will have a higher level of affective and normative commitment throughout the life of the team than individuals not engaging in those activities.

P5: Affective and normative team commitment will be positively related to outcomes. Continuance team commitment will be negatively related to outcomes.

Research Implications and Conclusion

Data in support of my propositions will build on previous team and commitment research by extending knowledge into the virtual setting. Data not in support of my propositions will, in part, imply that cultural norms and increased socialization do not make a difference in team commitment as conceptual work implies. Thus, results in either direction will contribute to the understanding of team commitment. Antecedents of team commitment, how commitment can be strengthened, and the outcomes of it in a virtual setting are unknown. Results will be useful in both academic and organizational settings. By the time of the conference, a limited set of tentative results should be available.

References

Available from the author upon request.

Figure 1

