Negotiation Support Systems and Teams in VO

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INTRODUCTION

Virtual organizations (VO) have become a reality in response to the rapidly changing demands of today's business environment characterized by globalization and market competitiveness. VO have often been considered a subset of the much older research area of networked organizations. There are almost as many definitions of VO as there are researchers. However, we find Bultje and van Vijk's (1998) definition to be encompassing, which highlights the business orientation of VO. According to them, a virtual organization is primarily a network of independent, geographically dispersed organizations with a partial mission overlap, within which all partners provide their own core competencies to deliver innovative and strongly customer-based products and services.

VO usually possess an internal structure of virtual teams that band and disband according to specific goals or needs (Grenier & Metes, 1995). The virtual teams are engaged in various tasks, among which negotiation is a major category especially in light of the temporary structure of most VO. As a matter of fact, the formation of VO is through numerous negotiations because the organization materializes by selecting skills and assets from different firms and synthesizing them temporarily into a single functional business entity to respond to business opportunities (Camarinha-Matos & Afsarmanesh, 1999).

The implications of VO for communication are prominent. Electronic communication is becoming the norm for all sorts of organizational tasks, including negotiations. Moreover, negotiations have been described as complex, ill-structured and evolving tasks requiring sophisticated decision support (Bui et al., 1992). Negotiation support systems (NSS) have thus been materialized and constitute a special class of group support systems catered towards bargaining, consensus seeking and conflict resolution (Bui et al., 1992). NSS are designed to assist negotiating parties in reaching mutually satisfactory decisions by supporting information analysis and communication protocols. NSS have been mostly studied in dyadic interpersonal setting, which spurs separate investigation on team negotiations.

Team negotiations describe situations in which two or more co-negotiators sharing interests and priorities negotiate with two or more co-negotiators on the other side who share their own interests and priorities (Shapiro & Von Glinow, 1999). Team negotiations are considered a more complicated subject matter than interpersonal bargaining, and warrant separate treatment (Lim & Benbasat, 1993). In a negotiating team consisting of three or more members, there exists a possibility of coalition formation. Coalition formation is conceivably detrimental to the negotiation process in that it leads to lower cohesion of negotiating team, compromised negotiation performance and in turn lower level of team members' satisfaction.

VO are often multicultural. Although transferring of policies and cultures has been emphasized, different styles of communication shaped by different cultures are inevitable. It is suggested that firms with different levels of cultural diversity experience dissimilar dynamics and organizational outcomes. In this article, we investigate the role of NSS in preventing coalition formation and mitigating its negative consequences in team negotiations. Cultural diversity is also examined as a major antecedent to the formation of coalitions.

BACKGROUND

This section provides an overview of the conceptual background for coalition formation, cultural diversity and negotiation support systems.

Coalition Formation

A coalition is defined as two or more parties who cooperate to obtain a mutually desired outcome that satisfies the interests of the coalition rather than those of the entire group within which it is embedded (Murnighan, 1986). It is characterized as an interacting group of individuals, deliberately constructed, independent of the formal structure, lacking its own internal formal structure, consisting of mutually perceived membership, issue-oriented, and focused on a goal or goals external to the coalition (Stevenson et al., 1985). Instead of a multiparty context, we look at coalition formation within a group which is supposedly bound by common interests, such as a negotiating team.

Lau and Murnighan (1998) posit that faultlines and the process of coalition formation are intimately connected. Group faultlines are hypothetical dividing lines that may split a group into subgroups based on one or more attributes (Lau & Murnighan, 1998). The theorization of faultlines is based on the self-categorization theory (Tajfel & Turner, 1986) and the similarity/attraction paradigm (Byrne, 1971). Self-categorization theory posits that individuals classify themselves and others into similar categories in order to make predictions about subsequent interactions. The similarity/attraction paradigm simply states that individuals who possess similar individual characteristics and attitudes will perceive one another as similar and be attracted to one another.

Members of new groups are likely to form initial impressions on the basis of group members' outstanding physical characteristics. However, virtual teams usually have no luxury of physical proximity, which makes the demographic characteristics of teammates less salient. It is suggested that the effects of demographic diversity on team outcomes weaken as time passes, whereas the effects of psychological diversity strengthen over time. Virtual team members, collaborating via electronic technologies, have to be engaged in psychological diversity from the very beginning of their collaboration.

Cultural Diversity

Cultural diversity means "the representation, in a social system, of people with distinctly different group affiliations of cultural significance" (Cox, 1994, p.6). Cultural diversity can be indexed by national culture, ethnicity, language, gender, job position, age, or disabilities (Cox, 1994). The role of cultural diversity has been studied in the specific context of virtual teams, which suggests that cultural diversity leads to coordination difficulties and creates obstacles to effective communication; in fact, subtle differences among team members from different regions of the same country could be enough to negatively impact a virtual team.

Cultural diversity need not be viewed as a dichotomous factor being either homogeneous or heterogeneous. A heterogeneous group may be represented by two major cultural backgrounds or as many cultures as its members. In this regard, cultural diversity is a continuous variable gauging the cultural composition of a group. Earley and Mosakowski (2000) found that moderately heterogeneous groups exhibited relationship conflict, communication problems, and low identification of members with an overall workgroup. Their findings can be explained by the self-categorization process in which notions of in-group/out-group as well as cognitive biases may emerge, thus creating barriers to social interaction (Tajfel & Turner, 1986).

Negotiation Support Systems (NSS)

Negotiations have been treated as persuasive social processes, involving dyads, small groups, organizations or governments in an attempt to "define or redefine the terms of their interdependence" (Walton & McKersie, 1965, p.3). The nature of negotiation task makes computer support extremely relevant (Bui et al., 1992), thus spurring a series of studies on NSS. Most of the previous work has focused on conceptual framework, design and implementation, as well as the building blocks of NSS (e.g., Lim & Benbasat, 1993). Another key area concerns the modeling and representation of negotiation problems (e.g., Sycara, 1991).

Lim and Benbasat (1993) have envisioned two major components for supporting negotiations: decision support systems (DSS) for each negotiator and an electronic linkage between the DSS so that the negotiators may communicate electronically. The authors emphasized the importance of evaluating the impact of each of the two instead of evaluating NSS as a single entity. Their taxonomy has been corroborated by the work of Starke and Rangaswamy (1999).

Adopting a slightly different approach, Holsapple et al. (1998) attempted to provide a formal basis for NSS research based on the theorization of negotiation activities in terms of eight parameters:

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