E-Collaboration Media Use and Diversity Perceptions: An Evolutionary Perspective of Virtual Organizations

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ABSTRACT

Virtual organizations enable collaboration and interaction among a diverse set of people regardless of their temporal and spatial dispersion. Throughout the life of a virtual organization, diversity plays an influential role in determining outcomes that ultimately affect the longevity and success of the organization. The goal of this paper is to describe the role diversity plays during different organizational evolutionary approaches, and how e-collaboration media characteristics interact with diversity and organizational evolution to influence outcomes. The authors leverage media synchronicity theory to discuss how the characteristics of different e-collaboration media can reduce or enhance perceived diversity. The role that perceived diversity has in determining outcomes is a function of whether a virtual organization is evolving according to the life-cycle, teleological, or dialectic evolutionary approaches. Guided by organizational evolution, diversity, attribution, and media theories, the authors propose a theoretical framework with a set of propositions. The authors also provide an illustration of how the framework may be implemented by managers of virtual organizations.

Keywords: Diversity, E-Collaboration, Media Characteristics, Media Synchronicity Theory, Organizational Evolution, Social and Task Outcomes, Virtual Organizations

INTRODUCTION

E-collaboration plays a critical role in organizations. Media that support e-collaboration enable modern business-to-business commerce, electronic commerce, and supply chain management (Kock, 2005; Madlberger, 2009). E-collaboration media facilitate the formation of strategic partnerships (Choe, 2008) and global integration (Heidecke & Back, 2009) to competitively carry-out complex tasks (Reinig, Briggs, & de Vreede, 2009). Organizations that utilize e-collaboration can save time, money, and manpower (Ko, Olfman, & Choi, 2009).

One type of organization that exclusively relies on e-collaboration to function is a virtual organization. A virtual organization refers to a dynamic, flexible community composed of tem-
porally and spatially dispersed individuals and resources (Burkhard & Horan, 2006; Orman, 2009). Virtual organizations allow strategic partnerships among a diverse group of individuals to exploit complementary knowledge and capabilities as well as solve complex projects that span boundaries (Choe, 2008). People use e-collaboration media to coordinate work and exchange information. E-collaboration media can include a variety of technologies such as computer-mediated communication (e.g., group-support systems and email), videoconferencing suites, and teleconferencing suites (Kock, 2005). The use of e-collaboration media in a virtual organization is expected to enhance interaction among participants, thus minimizing the perception of temporal and spatial dispersion. Research has examined a wide variety of virtual organizations, ranging from virtual teams that are formed for a specific purpose and disbanded as quickly as they were formed (Jarvenpaa & Leidner, 1999), to virtual enterprises that connect organizations, teams, and other pre-existing entities (Shachaf, 2008).

Although virtual organizations may have many advantages in terms of costs, creativity, and resource utilization, they often encounter problems that may cause them to fail, which discourages organizations from adopting virtual structures (Orman, 2009). For example, research has suggested that virtual organizations have difficulty sustaining longevity and following a long-term strategy (Orman, 2009). Little research has examined how diversity in virtual organizations influences this longevity and causes the organization to evolve. Moreover, minimal guidance is available to help organizations leverage diversity over time by employing e-collaboration media with different characteristics. Our objectives in this paper are focused on addressing these limitations. First, we discuss the role of diversity in virtual organizations. Our second objective is to highlight the role of e-collaboration media on virtual organization evolution, particularly with respect to diversity. Our third objective is to offer propositions that will guide researchers who work at the intersection of virtual organization evolution, diversity, and e-collaboration media. Finally, we illustrate how our theoretical framework is relevant for virtual organizations by providing an application of our framework to a hypothetical organization.

VIRTUAL ORGANIZATIONS AND DIVERSITY

A key reason for leveraging e-collaboration media in virtual organizations is to enable the inclusion of the appropriate people—a diverse set of people—regardless of their temporal and spatial locations. Diversity, broadly defined, refers to perceived or actual differences among individuals (Williams & O’Reilly, 1998). Some dimensions are visible such as sex, race, and ethnicity (Mannix & Neale, 2005; Williams & O’Reilly, 1998); other dimensions—termed functional diversity—are associated with differences in occupation, education, and functional background (Dahlin, Weingart, & Hinds, 2005; Jehn, Northcraft, & Neale, 1999; Webber & Donahue, 2001; Williams & O’Reilly, 1998). The majority of studies on diversity have examined the influence of actual diversity on social and task outcomes as measured by the demographic characteristics of a team (e.g., Chattopadhyay, 1999; Riordan & Shore, 1997). However, perceived diversity, “a subjective measure of how different individuals perceive themselves to be from other team members” (Hobman, Bordia, & Gallois, 2004, p. 562) is important to consider because it mediates the effect of actual diversity on team-relevant outcomes (Carte & Chidambaram, 2004; Harrison, Price, Gavin, & Florey, 2002).

Perceived diversity influences outcomes because people are attracted to and tend to identify with others who are perceived as similar to themselves (Byrne, 1971; Tajfel & Turner, 1986), resulting in in-group and out-group biases (collectively referred to as in-group bias hereafter). The formation of in-group bias can be explained by two schools of thought—a) the identity confirmation function and b) instrumental function (Scheepers, Spears,
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