Chapter XV

A Model for the Analysis of Virtual Teams

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ABSTRACT

Presented in this chapter is a model for the analysis of virtual teams. The model is a helpful tool for mapping the different aspects of effective virtual teams and will be explained through several examples from practice. Before the model is introduced, an overview of the main challenges of virtual teams in performing their tasks is presented. There are hardly any technical obstacles for communication and collaboration across geographic boundaries, as these processes are being supported by high-tech collaboration solutions, such as groupware and other collaborative applications. However, these new types of groups create major organizational challenges for both managers and employees. It is the aim of this chapter to give insight into the design and performance of effective (global) virtual teams.

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INTRODUCTION

The developments in globally distributed commerce and science and the availability of communication technology encouraged the growth of virtual geographically distributed teams (see, e.g., the special issue of Communications of the ACM on global virtual teams and collaborative technologies, December 2001).

Virtual teams may be defined as groups of geographically and culturally dispersed coworkers using a combination of communication and information technologies to accomplish an organizational task (Townsend, DeMarie, & Hendrickson, 1999; Jarvenpaa, Knoll, & Leidner, 1998). Hutchinson (1999) distinguished three types of virtual teams: intraorganizational teams, interorganizational teams, and interorganizational distributed teams. The intraorganizational teams consist of geographically distributed members. Interorganizational distributed (project) teams cooperate, over a certain period, toward reaching a common goal, e.g., freelance or organization-bound experts who work together to provide a certain service. In interorganizational teams, the cooperation is sequential, and each participating organization is responsible for particular tasks (such as in “round the globe” design teams). In this chapter, we will have mostly all three types in mind when discussing our approach.

Virtual teams perform a variety of tasks and come in many different forms. As a worldwide supplier of fast-moving consumer goods, Unilever provides an example of an organization that utilizes traditional and virtual teams. The company uses virtual teams to connect specialists who work in comparable areas (for instance, personal care products, foods) but are geographically distributed across different offices in cities in Europe and the rest of the world. Unilever also uses virtual teams to build task forces of various specialists for building new products. Other examples are British Petroleum’s virtual team network that enables employees to connect, communicate, and share knowledge on oil exploration across borders (Prokesch, 1997), or the growing number of student teams with members from universities across the globe who work together on various group assignments.

Being “virtual” is a matter of degree, and refers, according to various authors, to dimensions such as spatial distance, time, cultural diversity, temporality, and mode of interaction (Mowshowitz, 1997; Jarvenpaa & Leidner, 1998; DeSanctis, Staudenmayer, & Wong, 1999; Vartiainen, 2002). “Virtuality” refers, according to these authors, to the extent to which a group is geographically distributed, is organizationally and culturally diverse, has different time frames for work, and communicates electronically (mode of interaction). The more of the above, the more a team is considered to be a virtual group. Jarvenpaa and Leidner (1998) added the dimension of temporality of the group and considered virtual teams to be temporary by definition. In our opinion, however, permanent groups can also be virtual.
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