

possible that the organization's staffing process may produce a workforce whose values, beliefs, and expectations differ from those of the surrounding community. In addition, political upheaval in various countries (e.g., Poland, Russia) may make it difficult to get an accurate or stable assessment of a given national culture. A facility-by-facility cultural audit may be the most effective course to determine practice-culture fit.

Source: Robert, C., Probst, T. M., Martocchio, J. J., Drasgow, F., & Lawler, J. J. 2000. Empowerment and continuous improvement in the United States, Mexico, Poland, and India: Predicting fit on the basis of the dimensions of power distance and individualism. *Journal of Applied Psychology*, 85: 643-658.

Keys to Effective Virtual Global Teams

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The globalization of business and the trend toward leaner, flatter organizations, combined with ubiquitous access to information technology, have spawned the growth of a different type of work unit, the virtual team. While a considerable amount of practitioner literature deals with virtual-team management and effectiveness, the empirical research is not so abundant. Clearly, as firms establish teams whose work is done completely or partially in a virtual environment, organizational success may hinge on understanding how to enhance virtual-team effectiveness.

In their study of global virtual teams, Martha Maznevski, of the University of Virginia, and Katherine Chudoba, of Florida State University, have made a significant contribution to that understanding. Virtual teams have been defined in many ways, with the virtual component ranging from occasional to total reliance on technology as the medium for interaction. In focusing on global virtual teams, Maznevski and Chudoba examined teams that were responsible for making and/or implementing decisions important to their organization's global strategy, used technology-supported communication substantially, and whose members worked and lived in different countries.

The authors conducted an intensive 21-month study of three global virtual teams in an eastern United States company and two of its strategic partners. The company, one of the top producers of technological manufacturing equipment in North America, was in the process of becoming a strong global competitor. Structured by product group, with a very flat hierarchy, it was designed to ensure rapid and strong links to customers. Within this environment, three teams were selected for

study. Those teams differed on three critical structural characteristics—task, composition, and length of time working together. Of the three teams, two were eventually judged to be effective on decision outcomes, while the third was clearly ineffective and ultimately disbanded. Access to these three teams provided the researchers with an opportunity to compare team effectiveness and the factors that may affect team outcomes.

Maznevski and Chudoba uncovered two pivotal themes relating to global virtual-team processes and performance. First, global virtual-team dynamics consist of a series of interaction incidents. Second, there is a rhythm to these incidents that are sequenced in a repeating pattern over time.

The incidents and the rhythms of both the effective and ineffective teams were examined in terms of the relationship between technology use, primarily choice of medium, and group outcomes. The researchers looked at how structural characteristics such as task, organization culture, and group characteristics, interacted with technology use and led to various decision outcomes, including decision quality, action quality, and team commitment and cohesion.

Within the interaction incident itself, effectiveness appeared to be determined by a fit between the decision process required and the complexity of the message, and the form chosen for the interaction (medium and duration). For example, building commitment requires a high level of involvement in the decision process, and inevitably involves complex messages. An effective interaction would involve a rich medium, such as a face-to-face meeting or a conference call, and would last a fairly long time. Lower levels of complexity and simpler stages of the decision process, such as pure information sharing, could be effectively handled by a medium such as e-mail. The unsuccessful team exhibited inappropriate fit in their interactions; for example, discussion of complex strategic issues was attempted with brief e-mails.

In effective teams, choice of medium and message characteristics was influenced by the nature of the task or group itself. As task interdependence increased, so did interaction frequency; as task complexity increased, so did message complexity. In turn, these factors influenced the choice of media. Similarly, as the number of cultural, professional, company, or country borders spanned within the group increased, richer media were required. The successful virtual global teams focused specifically on building relationships to increase trust and develop shared views across these borders, while the ineffective team did not. These relationship-building activities were typi-

cally conducted through face-to-face or telephone interactions. However, as trust and shared views were built, the message complexity decreased and choice of medium was again affected.

Contrary to what might be expected, the successful teams used only a limited number of interaction configurations: coordinating meetings, regularly scheduled conference calls, and impromptu conference calls. A more loosely defined category of interactions also existed, which team members called day-to-day stuff and involved communication between meetings.

Effective teams also exhibited a strong, repeating temporal pattern to their interaction incidents. The basic rhythm was set by intense face-to-face meetings, with the interaction between meetings defined by a response to previous meetings or anticipation of the next. The researchers characterized the face-to-face meetings as "a heartbeat, rhythmically pumping new life into the team's processes, before members circulated to different parts of the world and task, returning again at a predictable pace."

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Task or team characteristics strongly influenced the rhythm. The beats grew closer if, for example, the task became more complex or required a greater level of interdependence or stronger group relationships. When tasks were unambiguous and roles well defined, the frequency of meetings was

considerably slower. In one effective team, when frequent face-to-face meetings were not required, scheduled conference calls provided a secondary rhythm that supported the meetings.

The rhythm appeared to be absolutely critical to the ability of effective teams to function. It provided long-term stability and helped to structure expectations and response times. It also performed a control function, preventing inadvertent transitions, and seemed to provide a level of comfort and predictability that enabled individual members to carry out their roles within the group.

Maznevski and Chudoba offer some very practical advice for managers of virtual teams. They highlight the importance of face-to-face meetings, if possible, particularly in the early stages of a team's life and for teams faced with tasks that require a high degree of interdependence. Face-to-face meetings can facilitate strong relationships between team members and minimize potential conflict that may arise in the future.

The researchers also suggest that any scheduled rhythm should be structured around the most difficult performance challenge facing the team. This implies that rhythms must be consciously scheduled and managed, as in the two effective teams studied, and should not be allowed to emerge spontaneously.

Finally, the study indicates the importance of choosing appropriate communication media to fit the requirements of the task and the message. Rich media, such as meetings or conference calls, are necessary when a high level of interdependence defines the task or the message is complex. Under less demanding conditions, a less rich medium, such as e-mail, is quite acceptable.

Source: Maznevski, M. L. & Chudoba, K. M. 2000. Bridging space over time: Global virtual-team dynamics and effectiveness. *Organization Science*, 11: 473-492.

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