Effects of Cultural Diversity on Performance of Virtual Teams

Review of the Literature

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Introduction

Since the advent of internet technology and its widespread adoption as the foundational tool of today's digital environment, the recruitment of individuals who bring specific knowledge and skillsets to a particular task is no longer a question of the geographic location or habitat of those individuals. Today, anyone engaged in work within a digital environment can work from practically anywhere.

When an individual works remotely with others who are simultaneously working from similarly remote and disparate geographic locations on a shared task or series of objectives, the productivity of the group effort and of the individuals contributing to it becomes heavily influenced by a range of interactive dynamics operating within that global virtual team (Bejouleva, 2013). Those dynamics affecting individual and group performance arise from cultural differences among team members and may adversely affect communication, performance, goal attainment, productivity, and rewards. Where individual cultural circumstances and factors of group cultural diversity impact team performance and collaboration, it is critical to the outcome of any collective task to determine how to turn differences among team members into working assets (Solomon, 1998).

Common sense, life experience, an awareness of cultural anthropology, and considerable research all point to both subtle and gross differences between global cultures. Individual and societal values, ways of looking at the world, patterns of thought, and styles of communication are among the many cultural distinctions which

make the world an interesting place on the one hand, but which can present barriers to trans-frontier cooperation and productivity more formidable than any physical impediment on the other hand (Inglehart, 1997).

Research Question

How can Human Resources professionals minimize cultural barriers to enhance the effectiveness of virtual teams?

Research Topic

Virtual teams did not evolve through design, but are a product of the rapid development and nearly universal availability of technology and its almost passionate adoption throughout the planet.

With the rapid spread of information technology and cross-cultural workforce teams able to work remotely, questions as to the operational efficiency of those geographically dispersed, cultural asynchronous teams arose. Research into the literature is intended to determine whether or not the challenge faced by those responsible for the recruitment, training, and management of multi-cultural, technologically-connected virtual team members can be met by primarily technological means.

Thesis Statement

Human Resources professionals can minimize cultural barriers among virtual teams to increase their effectiveness through the use of technology to integrate integrating cultural awareness.

Scope

Parameters are intentionally constrained in the effort to find support for the thesis assertion. No cultural issues will be addressed; the presumption is that the majority of

cross-cultural dispersed virtual teams' productivity is affected by differences in communication, language interpretation, and job satisfaction expectations. The research will be focused upon those studies assessing the effectiveness of technology in addressing those challenges.

Aims

The paper endeavors to establish a theoretical basis upon which the thesis is supported and virtual team leaders can weigh the value of introducing "the next big thing" to their dispersed group. Should the thesis be found wanting, any apparent alternatives pointing toward more effective modes of cultural integration will be identified.

Objective

A review of the literature is made with the intent of determining whether or not studies dating from the late 1970s through to date come to any actionable findings and guidelines regarding the efficacy of existing, trending, or future communications information technologies pursuant to leadership efforts to establish cultural integration within virtual working groups. Foundational, and secondary academic findings will be sought, with a concerted effort to review both the historic and the most contemporary among them.

Justification

It is hoped that this review of the literature will provide some guideposts for those Human Resources managers and virtual team leaders who continue to confront obstacles to productivity and efficiency due to the disparate cultural perspectives, habits, prejudices, and communication styles among their dispersed virtual team members. As

these leaders continue to be presented with an ever-expanding array of technological tools with which they may hope to overcome these cultural obstacles, value may be gleaned from the research into remote team outcomes where those technologies have been introduced.

Literature Review

Methodology

A thematic approach to the literature was taken, with materials sourced primarily from academic journals and measured against the earlier thesis. The findings call for a narrowed thesis focus upon non-theoretical practical solutions requiring more than a dependence upon technology itself; the realities of human behavior, values, and historic cultural perspectives affect all team endeavors, virtual or not.

Technological Impacts

The development of virtual teams, defined as groups working toward a common objective across international and geographical boundaries using inter-connected communications technologies (ICT), accelerated in the mid-1980s with the advent of telephone modems, computers, and wireless communication (Lipnack, 1997). As early as 2001, there was recognition of a workplace movement away from collaboration among those in close physical proximity to task-sharing with individuals on the other side of the planet (Johnson, 2001). The following decade saw the rapid adoption of the World Wide Web and the explosive acceptance of email as a standard of communication between individuals working within a group on a shared task (Staples, 2006).

Early Obstacles to Virtual Team Efficiency

The arrival of new technologies and their nearly ubiquitous and simultaneous introduction into the daily endeavors of those engaged in business, education, science, the arts, and government presented unanticipated challenges for those responsible for the productive output and cohesion of a workforce no longer meeting face-to-face around the office water cooler (Zhang, 2008).

Much of the early research into the keys to virtual team efficacy appears to have been concentrated on what was initially described as "team architecture," wherein the focus of recruiters and managers was initially upon individual technical skillsets, task orientation, and project knowledge, with resource leverage metrics as evidence of productive operational efficiency (Powell, 2004). This could have been a direct product of a singular focus upon pure Information Technology engineering in the early years of the New Millennium when everyone jumping onto the web was just thrilled that it even worked. Even as late as 2008, research of cross-cultural virtual team dynamics and productivity appears to have been covering much of the ground initially plowed by Lipnack and Stamps in their 1997 *Virtual Teams*, throughout much of which the authors use as reference their own earlier work. Readable as Lipnack and Stamps are, and as good an overview as they present of the origins, evolution, and designs of virtual teams through their use of numerous informal case studies, they manage to only deal superficially with the operational challenges facing those responsible for virtual team performance. The fact that Lipnack and Stamps make only passing reference to a need to address virtual team cultural obstacles at all is likely attributable to the timeframe of their research and published findings. Their work details the arrival of the virtual teamwork phenomenon and identifies the various virtual team paradigms and principles in place at the time; cultural challenges to productivity and their solutions were not approached.

Hofstede's Influence

Lipnack and Stamps gave little attention to cultural values and communication styles at work within networked groups or virtual teams. Both of these areas were thoroughly examined and became the basis for theories of "cultural dimension"

formulated Geert Hofstede 25 years earlier and later recognized as sources of team conflict persisting among diverse teams (Staples, 2006). Hofstede's early research into cross-cultural psychology and its influence upon teamwork became foundational and cleared a path for others to follow in the consideration of how workplace attitudes, values, and performance are influenced by individual cultural perspectives (Hofstede, 2001). Through the analysis of IBM employee survey results collected from 1967-1973 (prior to the introduction of virtual technology into the workplace) across multiple countries and continents, Hofstede offered a panoply of principles which have influenced researchers of virtual organizations following in his wake.

The Sabre Corporation Study

Studies focused on technological strategies to minimize cultural barriers among virtual team members include the work done at the Georgia Institute of Technology by Bradley Kirkman, et al which looks toward Hofstede's principles of cultural dimension, broken down into dimension of national culture of power distance, individualism, masculinity, uncertainty avoidance, long term orientation, and indulgence (Hofstede, 2001). Kirkman's research involved the study of a team building exercise conducted by Sabre Corporation—the inventor of the airline industry's electronic commerce technology--involving people struggling to stay afloat on a raft at sea. The study revealed five obstacles to virtual team success: building trust within a team, maximizing process gains while minimizing process losses, overcoming feelings of isolation and detachment, balancing technical and interpersonal skills, and recognition of team performance. Their research involved three organizational levels of face-to-face interviews. 58 members of 18 of Sabre's 65 cross-functional virtual teams, multiple

teams leaders, and senior level management executives participated in the process, during which all individuals were asked the same questions with assurances of the confidentiality of their answers (Kirkman, 2001).

The product of their research into Sabre Corp's virtual team efficiencies points to the challenge of management and cost evaluation in the absence of face-to-face contact as significantly inhibiting assessments of individual performance and team productivity (Kirkman, 2001). Additionally, issues of trust were found to be difficult to overcome absent the establishment of predictable patterns of performance, and were only marginally resolved by the assiduous implementation of video conferencing or other electronic communications technology.

The Trust Obstacle

Nearly a decade after the publication of Kirkman's research, halfway around the world in 2009, South Africans Schlenkrich and Upfold noted the accelerated use of vastly improved communications technologies by virtual teams, yet pointed to trust issues within a team and the ongoing obstacle to productivity deriving from a lack of face-to-face contact among team members (Schlenkrich, 2009). They do point to the failure of communications technology to overcome time zone challenges or to help team members to effectively interpret information or the intent of messaging absent any visual, non-verbal context. In referencing the earlier work of Gibson and Gibbs (2006), Schlenkrich and Upfold effectively enumerate the several problems of the virtual workplace created by disparate cultural perspectives, none of which they indicate will be overcome by any foreseeable technological innovation (Schlenkrich, 2009). Along with problems of cultural diversity, Schlenkrich and Upfold point to the 2007 research of Kankanhalli et al

defining the challenges of functional diversity arising from real and perceived differences in educational background and expertise among team members that ultimately lead to problems of communication, cooperation, and cohesion (Kankanhalli, 2007).

Virtual Team Paradoxes

The issues facing virtual teamwork leaders were further explored by Dubé and Robey in their 2008 study in which they postulated five paradoxes as keys to identifying workable solutions to obstacles recognized as negatively affecting virtual teamwork outcomes (Dubé, 2008). Among the obstacles facing virtual teams, the one of national culture presents itself as the least likely to be affected by the application of technology. They point to earlier research proposing the implementation of periodic face-to-face meetings and group exercises as effective trust-building mechanisms to mitigate differences of time, location, and culture—all factors fundamentally defining the very notion of "virtual" teams (Watson-Manheim, 2002).

The Dubé-Robey research was conducted absent any concrete theoretical proposition via exploratory in-person interviews of up to two hours in duration of the leaders and members of virtual teams in multiple organizations working in Quebec, Canada, ultimately number 42 individuals in 26 different organizations. The result of their work was a body of qualitative data which they measured against the supposition that virtual teams work on a set of co-existent conditions logically anathema to one another, distilled as a set of paradoxes: virtual teams require physical proximity; structure is essential to virtual teamwork flexibility; teamwork is accomplished through individual contribution to the objective; social interaction promotes the accomplishment of virtual team tasks; trust within the virtual team begins with mistrust (Dubé, 2008).

Once the researchers identified these five paradoxes, several of the proffered solutions were no less paradoxical given the traditionally inherent nature of virtual teamwork and included such solutions as holding face-to-face meetings for critical tasks and organizing regular face-to-face meetings. There are, however, coping strategies identified by Dubé and Robey that speak in support of our instant thesis statement, including the strategic development of personal relationships through available information and communication technologies (ICT), using ICTs to solicit, record, and gauge team member inputs, maintaining shared team calendars with the use of ICTs, and the creation and management of a working rhythm with the help of ICTs (Dubé, 2008). The concomitant to the strategic application of ICTs to the paradoxical challenges of virtual teamwork is submitted as increased levels of collaboration, team cohesion, and trust building based upon experience, position, and cultural awareness.

New Toys, Persistent Challenges

At the time of the Dubé-Robey research, processing power and internet bandwidth realities limited the availability of videoconferencing tools, and team communications took place primarily via email or through website postings to the group. Due to technical challenges and their associated costs, videoconferencing was, when first introduced, subject to value analysis to determine its effectiveness in improving virtual team trust and efficiencies (Karpiscak, 2007). Since the late 1990s,with the evolution of broadband communication and video compression technology, videoconferencing has become mainstream and available to anyone with a laptop or smartphone.

In a 2007 study in which cross-cultural virtual team member participation in video conferencing was observed and recorded, analysis of qualitative data and of exit survey

responses confirmed the viability of videoconference presentations to both transmit material and to positively affect remote team cohesion (Wolfe, 2007). That is not to say that Wolfe's study revealed the elimination of familiarity or trust issues among virtual teams of varying cultures, for it did not (Wolfe, 2007). Hofstede's dimension index principles appear to be in play, even when team members are given the opportunity for virtual face-to-face contact through videoconferencing technology. The hope that visual messages and content presented contemporaneously to a culturally disparate virtual team—regardless of any innovative technology in play—will be perceived similarly by all team members is unsupported by the research (Hofstede, 2010).

Conclusion

The original thesis, that Human Resources professionals can minimize cultural barriers and enhance the effectiveness of virtual teams by utilizing technology to culturally integrate teams appears weak in the face of findings pointing to face-to-face interaction as the most effective means of establishing trust, understanding, and, if not true cultural integration, and acceptance of cultural differences among members of virtual teams that ultimately lead to unification and collaboration.

Cross-cultural issues among members of virtual teams are now front-and-center among the concerns of those responsible for team productivity, and seem persistent regardless of the technological tools applied to them. The latest high-tech widgets and innovative techniques, while valuable from a top-down management perspective, may not be as effective in culturally integrating virtual teams as early virtual team engineers and team leaders anticipated.

The body of research into the productivity of widely-dispersed virtual teams and the impediments they encounter as a result of asynchronous cultural perspectives among team members and their managers grew dynamically with the proliferation of communication technology; it appears to have slowed over the past decade, perhaps with the creeping suspicion that not all things human have an advantageous technological solution.

No studies were found to present conclusive empirical evidence that technological tools in and of themselves solve the primary issue of trust among members of culturally disparate virtual teams; the implication is that the value of any technology is realized only through its properly managed application. There remains a formidable requirement for

the interpersonal acknowledgement and appreciation of cross-cultural differences, and for face-to-face human interaction. The presence of new technologies in the virtual workplace appears, at the end of the day, to be no guarantee of their effectiveness, and is no substitute for human interaction.

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