

## **An Impact Assessment Study of Cultural Diversity and Information and Communication Technology On Global Virtual Teams**

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### **ABSTRACT:**

Modern organizations are facing so many challenges because of global and competitive environment. From these challenges, multicultural work force, information and communication technology (ICT) with its modern organization design i.e. global virtual teams are the major concern for companies. Companies are trying to learn that how they can sustain the team effectiveness in global virtual environment where cultural diversity and ICT are major impact factors on team effectiveness. This paper focused on the impacts of these factors on effectiveness of global virtual teams (GVT). For this purpose employees from selective IT companies were interviewed and result showed that cultural diversity and ICT that included email, video conferencing, e-meeting etc. both have positive and negative impacts on team effectiveness of global virtual teams.

**KEYWORDS:** Cultural diversity, Information and communication technology and global virtual teams

### **INTRODUCTION:**

The major development in organization design is global virtual teams (GVTs). Team members of GVTs are from different geographic location of world. They share their information through modern communication technology. ICT encourage the employee participation in decision making of GVTs. Workforce cultural diversity that arises due to members belongs to different locations has changed the way of working of companies as well as increases the complications also. To avoid these complications, GVTs can hire the best expertise for task performance irrespective of geographic location and effective use of ICT must be there.

GVTs face more complications in communicating to their team members than any other teams. Due to this particular complication trust building among team members, emotional state of isolation and detachment becomes challenges for organizations. Thus GVTs in global organizations shows great impact on teamwork effectiveness with its culturally diverse structure of these teams enhances to their complexity as cultural biases may also create communication complications.

There are numbers of studies which shows the impact of Virtual team on effectiveness, communication, trust, innovations, leadership and technology adaptation in teams. Empirical findings support that the main critical predictor of virtual team effectiveness is cultural diversity, therefore the focus of this paper is to understand the impact factor of cultural diversity on GVT's effectiveness and how ICT moderates this impact factor of cultural diversity.

### **LITERATURE REVIEW:**

Most of the time cultural diversity includes racial, sexual, organizational, professional, and national heterogeneity. Cultural diversity here means that heterogeneity in national cultures of team members. However, employees from diverse culture communicate differently because of difference in verbal and nonverbal communication style and have difference of opinions i.e. why make decisions differently. Very

few empirical researches were addressed the virtual teams in relations to cultural diversity as well as information and communication technology. The studies revealed that there are differences in use and perception regarding task technology due to differences in cultures.

Lee (2002) studied that configurations of e-mail use differ, probably due to power distance. Massey et al. (2001) found that there are significant differences in the perception of task technology between virtual team members from the United States, Asia, and Europe but there is no significance impact of cultural diversity on trust between the virtual team members. Since cultural diversity has been assumed to critically impact team effectiveness (R. Evaristo, 2003) and aspects of diversity are likely to be amplified in the virtual setting. (Hofstede, 1999) these results demand for explanation. Earley and Mosakowski,(2000) examined that high level of heterogeneity as well as homogeneity in teams displayed high levels of productivity, while moderate level of heterogeneity in teams showed lower levels of productivity. Barna (1985) found that there are six reasons for the failure of mutual understanding in the teams due to intercultural communication: false assumptions of similarity, language, nonverbal misunderstanding, the presence of misconceptions and stereotypes, the tendency to evaluate, and the high anxiety that exists. Chidambaram and Kautz(1993) examined the extent to which electronic meeting system affected the cultural diversity, it may be reducing or increasing its impact. For example, the anonymity feature such as stereotyping strongly reduced negative aspects of cultural diversity, on the other hand it strongly increasing participation and the meeting quality. Daily et al. (1996) found that groups that used group decision support systems (GDSS) outperformed those that did not. Culturally diverse groups produced a significantly higher number of no redundant, realistic ideas than homogeneous groups. Daily and Steiner (1998) found that groups using GDSS outperformed groups that did not and achieved a higher number of ideas than homogeneous groups that used it. Furthermore, heterogeneous teams that used technology had higher levels of satisfaction. Also, a collaborative conflict management style positively impacted satisfaction with the decision-making process, perceived decision quality, and perceived participation of the virtual teams (Paul, 2004)

### **PURPOSE AND OBJECTIVES:**

The purpose of this paper is to find how cultural diversity within GVTs influence on team effectiveness and to find answer the following objectives is designed accordingly:

1. To examine the influence of cultural diversity on GVT effectiveness.
2. To examine the influence of ICT as mediating variable on relationship between cultural diversity and GVT effectiveness.

### **METHODOLOGY:**

An exploratory study used to understand the some factors of cultural diversity and ICT that may influence GVT effectiveness. For this purpose, 43 employees from selective IT companies from NCR were interviewed and from which 24 face-to-face and rest via telephone over a 9-month period lasting from November 2014 to July 2015. The data was collected from GVT members of a leading multinational Fortune 500 corporation in the IT industry. The interview protocol was developed with open-ended questions built upon the research questions and our review of the literature. The interviews were transcribed and interpretation of the text was performed during the analysis (Miles, 1994)

### **FINDINGS:**

#### **1. THE IMPACT OF CULTURAL DIVERSITY ON GVT EFFECTIVENESS:**

There were both positive and negative impacts on GVT effectiveness due to cultural diversity. Study showed that negative impacts of heterogeneity were due the complications attached with intercultural communication, on the other hand the positive impacts were due to prospective for better decision making

### **1.1.INTERCULTURAL COMMUNICATION:**

Cultural diversity shows negative impacts due to the complexities that arise from heterogeneity and diffusion. Cultural and language differences resulted in miscommunication, which endangered the trust, cohesion, and team identity. In the perspective of this particular study, these complexities incorporated the higher cost of interaction and shows negative impacts of intercultural communication.

Employees suggested that cultural and language barriers created communication gap, which ultimately becomes challenge. The lack of accuracy in both written and spoken language, created difficulties and it requires to the team members to spend more time and effort in encoding and decoding messages. Thus, the cost of interaction for both senders and receivers increased. Another challenge that increased the costs of interaction was the slower pace of non native speakers' communication, in particular when using synchronous communication channels. More purposely, employees provided the details on dimensions of intercultural communication that may have a negative impact due to cultural diversity. The different dimensions mentioned by GVT members corresponded to the four stylistic modes of verbal interaction identified by Gudykunst and Ting-Toomey: direct/indirect, succinct/elaborate, contextual/ personal, and instrumental/affective. Direct/indirect style refers to the extent to which people reveal their intentions using explicit verbal communication. Succinct versus elaborate style refers to the differing amount of information provided in communication. Elaborate style provided more than just the required information, and succinct style provided less verbal information while using silence and pauses.

The third difference was between the contextual and personal styles. The contextual style was formal, reflecting the social and organizational differences between people, and maintaining the social context; the personal style assumed similarity and equality. The fourth difference was instrumental versus affective intuitive. The instrumental style was sender and goal oriented, and the affective style is receiver and process oriented.

Adding up to verbal style differences, employees commented on nonverbal communication difficulties such as cultural differences in time orientation and body language. Some employees of the GVTs were from polychronic cultures such as Portugal and France, while others were from monochronic cultures such as the United States and the United Kingdom. Due to this their different behaviour sometimes created tension with other team members.

According to employees in European projects, People tend to be more precise with respect to time, with respect to quality. For some [countries], it's very important that you respond as quickly as possible. For some others, it doesn't matter; they can wait for a week later. Or for some of them, they would say, "Okay, when I respond, that's okay; it doesn't matter." But for some others, they would say, "I will send a note. I will send a reply that I cannot do it now, but I will put my reply at some point in time, later, in a few days, when they are available to respond." That's the kind of different behaviour. In the UK, people are like that, sending you a note and giving you an appointment for later.

### **1.2. DECISION-MAKING:**

The positive impacts of team heterogeneity on team effectiveness were not associated with team intercultural communication but were due to the potential of heterogeneity and dispersion on decision-making .Improved decision-making is made possible by using multiple points of view, increased availability of knowledge and skills, and constructive conflict.

Employees mentioned that leveraging diverse skills and knowledge was an important consideration for improving decision-making, particularly in the design and marketing of products for global markets. Pooling knowledge and skills that were located in remote sites was one particular advantage. The availability of these skills to the GVT enabled the team to perform complex tasks. Diversity in knowledge and skills improved decision-making by providing additional information in the form of unique knowledge or skills.

**2. ICT MEDIATION OF THE IMPACT OF CULTURAL DIVERSITY ON GVT EFFECTIVENESS:**

GVT employees use various technologies for communication and information sharing. Employees in this study explained how they use of e-mail, chat, e-Meetings, teleconferencing, and team room activities, in addition to face-to-face meetings. The media channels were mainly through corporate-wide use of Lotus groupware, which supports e-mail, sometime (chat and e-Meetings), team room (shared electronic workspace), and other applications. Employees recommended that ICTs moderate the negative impact of cultural diversity and enabled its positive impact.

**2.1 E-MAIL:**

employees explained that GVT members used e-mail more than any other medium. Communicating with technology [e-mail] with people in other countries help in removing the problems relate all the cultural, physical aspects of communications. The use of e-mail condensed miscommunication due to language differences among GVT members. They also added that non-native English speakers were able to express themselves better through e-mail than by talking.

**2.2 TELECONFERENCING:**

Employee of GVT members used teleconferencing frequently after email. GVT members reported that language encoding was more difficult via phone than in face-to-face communication or e-mail. Nevertheless, teleconferencing mitigated some of the negative impacts and supported the positive impacts of cultural diversity. Employees explained the ways to overcome the challenges of teleconferencing. One way they avoided miscommunication was to avoid teleconferencing with team members who spoke with unfamiliar accents.

**2.3 TEAM ROOMS:**

A team room is an electronic shared group workspace. According to employees' point of view, effective GVTs often engaged team rooms. GVTs that used them experienced decreases in communication misrepresentation and increases in team cohesiveness, inclusion, and common ground. The use of team rooms enabled the creation of team identity and helped overcome difficulties associated with dispersion and cultural diversity.

**2.4 CHANNEL SELECTION:**

It is the most important concern that the use of an appropriate channel to improves GVT effectiveness. Employees in this study reported on contingencies that influenced their channel selection, such as task (Daft, 1996) social and physical proximity, sender and receiver accessibility to a channel, individual preferences regarding a channel.

**CONCLUSIONS AND IMPLICATIONS:**

ICT is a tool that makes possible to overcome the challenges presented by culturally diverse team members. The study showed that ICT reduced the negative impact of intercultural miscommunication. Although the purpose of ICT was to overcome from geographical and time zone differences, while increasing team cohesiveness, inclusion, and common ground

Differences in language, verbal styles, and nonverbal styles influenced team effectiveness; nonverbal differences mainly affected face-to-face communication.

Based on findings, international companies commonly use e-mail for intercultural communication, with teleconferencing coming second; face-to-face meetings are also common. There are some verbal and nonverbal communication styles that enlarged in some channels (e.g., distortion of accents when using a telephone), and others are mitigated or eliminated via other channels (e.g., nonverbal differences when using

e-mail). Some of the differences in style and language that cause miscommunication are reduced by email, while others (e.g., nonverbal cues) are eliminated.

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