View metadata, citation and similar papers at core.ac.uk

brought to you by CORE

provided by AIS Electronic Library (AISeL)

Association for Information Systems
AIS Electronic Library (AISeL)

AMCIS 2007 Proceedings

Americas Conference on Information Systems (AMCIS)

December 2007

The Role of Diversity and Technology in Global Virtual Teams

Praveen Pinjani
University of North Carolina at Greensboro

Prashant Palvia
UNCG

Follow this and additional works at: http://aisel.aisnet.org/amcis2007

Recommended Citation
Pinjani, Praveen and Palvia, Prashant, "The Role of Diversity and Technology in Global Virtual Teams" (2007). *AMCIS 2007 Proceedings*. 66.
http://aisel.aisnet.org/amcis2007/66

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in AMCIS 2007 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

THE ROLE OF DIVERSITY AND TECHNOLOGY IN GLOBAL VIRTUAL TEAMS

Praveen Pinjani, The University of North Carolina at Greensboro, p_pinjan@uncg.edu
Prashant Palvia, The University of North Carolina at Greensboro, pcpalvia@uncg.edu

Abstract

This study is an attempt to develop and test a comprehensive model for global virtual team (GVT) effectiveness based on development of collaborative partnership among diverse team members and the moderating role of collaborative technology and task. The research is an ongoing dissertation work. The conceptual model is based on traditional I-P-O framework for understanding GVT effectiveness. Team diversity in terms of surface level, functional, and deep level are treated as the central tenet of team inputs. Collaborative partnership elements are at the process level, moderated by task and collaborative technology. At the outcome level, this study is more interested in GVT effectiveness as measured by team performance and individual team member satisfaction.

Introduction

The introduction of information communication technology (ICT) ranging from electronic mail to groupware has benefited numerous organizations in enhancing productivity, achieving better workflow management, and obtaining competitive advantage (Townsend et al. 1998). These developments in information technology (IT) have led, particularly in recent years, towards the emergence of new organizational forms that are flexible and responsive like GVT. In 1993, 68% of Fortune 1000 companies reported that they used self managing work team, and 91% reported that they used employee participation in groups, as opposed to, in 1987, only 28% and 70% respectively (Cohen and Bailey 1997).

Today's global economy requires many organizations to coordinate work across a variety of intra and inter-organizational boundaries (Lipnack and Stamps 1997). Using new technology to work 'better, faster, cheaper, and smarter', many businesses are finding that GVTs can bridge these boundaries and provide a considerable competitive advantage (Lipnack and Stamps 1997; Townsend et al. 1998). GVTs are perhaps one of the most fascinating direct result of globalization and the continuing proliferation of ICT (Zakaria et al. 2004). In particular, GVTs allow organizations to improve efficiency and productivity, procure global expert knowledge from internal and external sources, and transfer 'best practice' information nearly instantaneously (Huber 1990).

While GVTs offer a wide range of benefits to multinational corporations (MNC), implementations will be at risk if organizations fail to adequately address the many challenges inherently present in virtual teamwork. (Powell et al. 2004). Challenges caused by barriers of distance, time zones, language, culture, communication technology adoption and implementation, member interactions, trust and shared understanding among the diverse team members (Lurey and Raisinghani 2001). Some of the GVT project failures have been reported (Kaiser and Hawk 2004) and calls for better understanding of GVT effectiveness have been made (Gibson and Cohen 2003).

Early work has established a positive link between inter-personal relationships among the global team members and outcomes of the virtual team project, while also confirming that GVT face unique difficulties in achieving these processes (Maznevski and Chudoba 2000). There are three areas that must be considered when designing a collaborative GVT environment: the *people*, the *process*, and the *technology* (Powell et al. 2004). Organizations must be able to adapt to different work styles and cultures, leverage team processes, and utilize appropriate technologies to create efficiencies in the global workplace.

The purpose and aim of this study is to design a normative framework to assist organizations in implementing diverse GVT, with specific focus on understanding the impact of member diversity and collaborative technology on team effectiveness. In this regard, this research will aim at developing and empirically testing a comprehensive model for GVT effectiveness based on development of collaborative partnership among diverse team members. Further, the research will also aim towards understanding the moderating role of collaborative technology and task on the relationship between diversity and collaborative partnership.

Literature Review

GVT are groups that (a) are identified by their organization(s) and members as a team (Lipnack and Stamps 1997); (b) are responsible for making and/or implementing decisions important to the organization's global strategy (Gibson and Cohen 2003); (c) use technology- supported communication substantially more than face-to-face communication (Jarvenpaa and Leidner 1999); and (d) work and live in different countries (Maznevski and Chudoba 2000). As differentiated from a VT, a GVT differs not only in degree of virtuality, but also in terms of member's national and cultural background.

A significant amount of research has been done on team and team structures and it has attracted researchers from areas of organization design, organizational theory, management and psychology. Since beginning of the research on teams in organization focus has been on understanding the performance and effectiveness of teams. Multiple researchers have synthesized research on team performance (Guzzo and Dickson 1996; Kerr and Tindale 2004; Ilgen et al. 2005). Guzzo and Dickson (1996) provide a comprehensive literature analysis on teams in organizations and give special emphasis to factors that influence the effectiveness of teams in organizations. Ilgen, Hollenback, Johnson, and Jundt (2005) attempt at reviewing the team literature from a perspective of understanding the mediating processes that affect team effectiveness and viability.

Input-Process-Output (I-P-O) models of categorizing and synthesizing the Virtual Teams (VT) literature have been developed and proposed in the main stream IS literature (Martins et al. 2004; Powell et al 2004; Hertel et al. 2005). Both Martins et al. (2004) and Powell et al. (2004) reviewed the literature from I-P-O perspective, Hertel et al. (2005) developed a five stage life cycle model for management of teams with high virtuality: preparation, launch, performance management, team development, and disbanding.

Extending the line of research on teams, GVT research has seen a very rich set of publications since the late 90s. Information Systems (IS) literature has given considerable attention to the area of GVTs. Initial studies of GVT emerged from the body of knowledge on traditional teams and traditional team effectiveness frameworks (Cohen and Bailey 1997) and from the theoretical perspective of interplay between IT and Organizations (Desanctis and Poole 1994). Research on VTs and GVTs is still in an early stage (Martins et al. 2004; Powell et al. 2004). VT research has examined a range of issues including factors affecting effectiveness (Furst et al. 1999), critical success factors in cross-organizational VT (Lipnack and Stamps 1997), project management and success, knowledge transfer (Griffith et al. 2003), teams dynamics, communication, and outcomes (Maznevski and Chudoba 2000), learning in cross-functional virtual teams (Robey et al. 2000), and socialization in virtual groups (Ahuja and Galvin 2003). Overall, the focus of GVT research has been on social issues (Malhotra and Majchrzak 2004) or socio-emotional team processes (Suchan and Hayzak 2001).

Based on the I-P-O framework research on GVT has considered following variables. Team input variables that have been researched include team size (Leenders et al. 2003; Riopelle et al. 2003), heterogeneity (Lind 1999; Bhapu et al. 2001; Nowak 2003; Carte and Chidambaram 2004; Paul et al. 2004), empowerment and autonomy (Kirkman et al. 2004), task (Hertel et al. 2004; Rico and Cohen 2005), and leadership (Kayworth and Leidner 2000, 2002; Jhonson et al. 2002; Tyran et al. 2003). Two additional construct that have been unique to research on VT are technology (Saunders 2000; Pauleen and Yoong 2001; Baker 2002; Workman et al. 2003) and culture (Maznevski and Chudoba 2000; Zakaria et al. 2004). Process variables that have received attention are trust (Jarvenpaa et al. 1998; Jarvenpaa and Leidner 1999; Suchan and Hayzak 2001; Alge et al. 2003; Aubart and Kelsey 2003; Sarkar and Sahay 2003), collective efficacy (Mortensen and Hinds 2001), conflict (Montoya-Weiss et al. 2001; Paul et al. 2004; Hinds and Bailey 2003), motivation (Hertel et al. 2003). communication (Carlson and Zmud 1999; Robey et al. 2000; May and Carter 2001; Ahuja and Galvin 2003; Alge et al. 2003) and transactive memory and shared mental models (Griffith and Neale 2001; Griffith et al. 2003). Output variables include effectiveness (Furst et al. 1999), satisfaction (Lind 1999; Tan et al. 2000), and team learning (Sole and Edmondson 2002).

Some of the distinguishing features between research on traditional teams and GVT have been based on the barriers faced by GVT due to change in the underlying concepts of dispersed work. While many of these challenges are present in traditional team environment and work settings, they become more pronounced in the virtual environment (Townsend et al. 1998). Recent studies suggest that GVT are not simply an evolutionary form of collocated teams and they represent novel patterns of interactions and social exchange (Ratcheva and Vyakarnam 2000). Changes in organizational structure and

advances in information technology define the environment in which GVT operates, thus GVT present management with new challenges in the form of team structure and technology (Staples et al. 1999). Recent literature in GVT highlighted the importance of relationship building, cohesion, and trust as fundamental processes that foster team effectiveness (Powell et al. 2004). Literature also points that GVT face significant difficulty in achieving these processes (Solomon 2001).

GVT literature has made considerable progress in past 10 years (Powell et al. 2004). Inspite, of the breadth and depth of the constructs, issues, and dimensions explored, calls for specialized research in this area have been made. Based our review of literature we ascertain that:

- Research on GVT is fragmented and much of the focus of this research has been on comparisons of traditional teams with GVTs.
- Research on diversity on GVTs is still at its nascent stage and lacks empirical evidence.
- Further, focus has been on treating diversity as an individual construct, without understanding the various facets or types of diversity present in GVTs.
- Research on relationship building in GVTs and its effect on team effectiveness has looked at isolated constructs without understanding their combined effects. Elements of collaborative partnership – mutual benefits, shared goals, mutual trust, & shared knowledge, are scantily researched in GVT literature but a more in-depth and holistic understanding is still lacking.
- Role of collaborative technology and task in moderating the relationship between diverse GVT members and relationship building has not been fully explored and lacks empirical validation.

Based on the above discussion, this research seeks to answer following research questions.

1. What is the effect of various types of member diversity on collaborative partnership in GVT?
2. What is the mediating effect of collaborative partnership on GVT effectiveness?
3. How does collaborative technology moderate the relationship between member diversity and collaborative partnership in GVT?
4. How does task moderate the relationship between member diversity and collaborative partnership in GVT?

Conceptual Research Model

An I-P-O model based on McGrath's (1984) perspective is the dominant way of thinking about team performance (Guzzo and Dickson 1996). Inputs refer to things that team members bring to the group, as well as the context in which the team operates. Main inputs are task design, team characteristics, organizational context and supervisory behaviors. Process refers to "members' interdependent acts that convert inputs to outcomes through cognitive, verbal, and behavioral activities directed toward organizing task work to achieve collective goals" (Marks et al. 2001). Outputs refer to team effectiveness, and include things such as performance, the satisfaction and attitudes of group members, and their behavioral outcomes This basic I-P-O model is also basic model for understanding GVT effectiveness and processes (Powell et al. 2004).

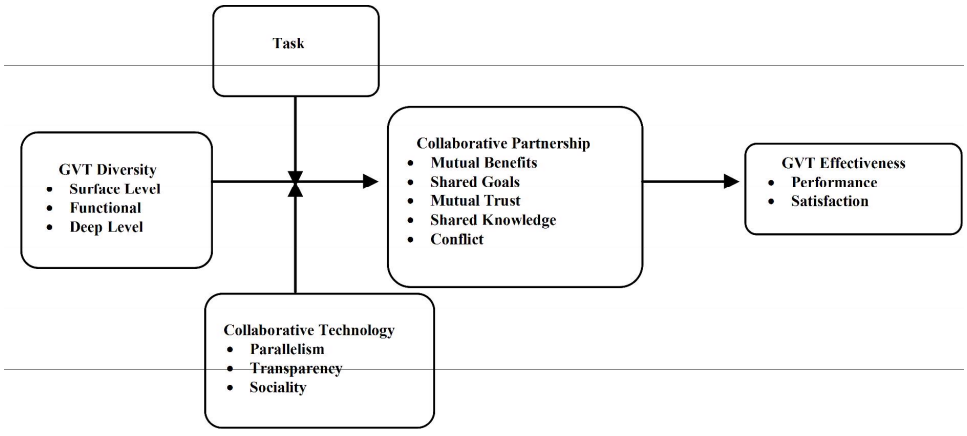

Figure 1. Conceptual Research Model

In team literature there has been growing recognition towards understanding the role of moderators (Illgen et al. 2005). A careful review of the team and VT literature identifies the following three conceptually based moderators: (a) team type, (b) task and (c) frequency and duration of interactions (Powell et al. 2004). Given that the type of teams in question is GVT, which interacts with the use of technology, we can easily conclude that out of the three identified moderators only two are of paramount importance- task and frequency and duration of interactions. The conceptual research model adopted for this study is included as Figure 1.

Collaborative Partnership

Researches in multiple disciplines highlight partnerships as patterns of cooperative interaction between independent actors (Anderson and Narus 1990). Partnerships are viewed as "working relationships that reflects commitment, a sense of mutual cooperation, shared risks and benefits, and other qualities consistent with participatory decision making (Handerson, 1990). The partnership concept as defined in literature is based on the notion that partnership provides the power to transform ordinary learning experiences into dynamic relationships, resulting in a synergistic process of accomplishment. Social exchange theory (SET) is one of the most widely used theory in sociology dealing with interpersonal interactions involving behavior, affection, products, and communications from social psychological perspective (Blau 1964). Derived from SET, collaborative partnership is determined by various elements basis of which is that partners help each other to see and do what they would have never been able to see or do on their own (Anderson and Narus 1990; Handerson 1990). The elements of collaborative partnership are: mutual benefits, shared goals, mutual trust, shared knowledge and conflict.

Diversity

Researchers have examined the impact of diversity in identity of group memberships, such as age, sex, or race to reactions toward team level functioning and team performance (Milliken and Martins 1996). This type of diversity based on demographic differences has been defined as *Surface level* or *Demographic Diversity* (Harrison et al. 2002). Another form of diversity researched involves individual characteristics, such as idiosyncratic attitudes, values, and preferences termed as *Deep-level Diversity* (Harrison et al. 2002; Ely and Thomas, 2001). A third form of diversity that is researched is F*unctional Diversity*; it is the extent to which team members differ in their functional backgrounds. The underlying assumption is that different functional backgrounds imply non-overlapping knowledge and expertise, which suggests that team members have a broader pool of resources from which to draw in making decisions and taking action (Bunderson and Sutcliffe 2002). Diversity impacts the team performance and outcomes in multiple of ways and offers certain benefits by increasing the pool of resources (Ely and Thomas 2001).

Using the theoretical argument of cognitive resource diversity theory, researchers have argued that diversity in teams has a positive impact on performance because of unique cognitive resources that members bring to the team (Cox and Blake 1991). The underlying assumption of value of diversity is that teams consisting of heterogeneous members promote creativity, innovation, and problem solving, hence generating more informed decisions. Empirical evidence from research on team diversity has also produced mixed results. Some researchers have found diverse teams to be higher performing (Hambrick et al. 1996) where as others have found them to be lower performing in short run and equal in performance in long run (Harrison et al. 2002; Bunderson and Sutcliffe 2002).

Relation between GVT diversity and collaborative partnership

Research in traditional collocated teams has also shown that team diversity can lead to a collage of perspectives, which can help identify trend and generate ideas (Bolman and Deal 1992). Diversity impacts the team performance and outcomes in multiple of ways and offers certain benefits by increasing the pool of resources (Ely and Thomas 2001). On the whole, the group diversity literature suggests that increased group diversity leads to 1) increase in innovation and creative thinking and/or 2) an increase in group cohesion, and subsequent decrease in conflict.

As a source of broad cognitive resources, team diversity has been thought to enhance creativity and innovation. It has been established that, with a broad array of information and experience, diverse teams can generate wider range of options that synergistically combine the members' orientations while avoiding groupthink and behavioral inertia (Hambrick et al. 1996). Diverse teams depend upon the collaborative contribution of each member so that multiple perspectives and knowledge bases can be applied to increase effectiveness (Lovelace et al. 2001). To explain why diversity might influence outcomes such as turnover rates and performance, most scholars posit a relationship between diversity and team processes

such as communication, use of information, cooperation, cohesion, and conflict (Jackson et al. 2003). Maznevski (1994) reviewed that the common element in high performing groups with high member diversity, is integration of that diversity.

It is argued that, based on the SET perspective, member diversity in GVT will trigger a variety of interpersonal processes that can affect team effectiveness. For example, during the initial phase of problem solving, members with diverse perspectives may generate a more comprehensive view of the problem thus leading to a more balanced creation of goals for the GVT. The presence of diverse perspectives may also improve the GVT's ability to consider alternative explanations, interpretations, and generate creative solutions and lead to a closer understanding of benefits associated with working in teams.

Based on the above understanding, it is proposed that harnessing the benefits of a diverse team would require development of collaborative partnership among the team members. Diverse team members that have a high level of mutual trust, shared goals, mutual benefits, shared knowledge and low levels of conflict will be more effective. Thus based on the above we hypothesize that

H1. There is a positive relationship between GVT member diversity perceptions and development of collaborative partnership in GVT.

Collaborative Technology

GVT are possible only because of recent advances in computer and telecommunications technology. Because these technologies define the operational environment of the GVT, it becomes imperative to examine how the functionalities of these technologies impact the infrastructure of virtual teamwork. Anecdotal evidence suggests that when teams use a variety of communication technologies effectively, overall effectiveness of the team increases (Maznevski and Chuboda 2000).

Given the lack of face-to-face interaction, GVT must compensate by establishing a virtual collaboration environment that is suitable for the particular context of the project. Caouette and O'Connor (1998) found that collaborative technologies can neutralize the negative impact of group demography and improve cohesion. Walther (1992) found that the repeated electronic interactions (i.e., the accumulation of messages and opinions) among the members gradually reveal group feelings and attitudes leading to an increased sense of belonging. Carte and Chidambaram (2004) proposed a capability based theory of technology deployment in diverse GVT and developed an integrated model of ongoing team interaction that described how the purposeful deployment of certain collaborative technology capabilities, can help leverage the positive aspects of diversity while limiting its negative aspects.

Sarker, Valacich, and Sarker (2005) developed a model of technology adoption by groups based on valence perspective. Based on their model they proposed that the technological characteristic, which is particularly relevant when a team is faced with a technology adoption decision, refers to the extent to which a technology is perceived to support team processes, including task performance. They termed this as group supportability characteristic of a technology and it is assessed based on the capability of the technology to enable parallelism, transparency, and sociality within the group context. They defined parallelism as the degree to which the technology is capable of enabling GVT members to perform tasks in parallel, within a shared framework, transparency as the degree to which the technology is capable of making individual group members' work visible and modifiable by other group members, and sociality as the degree to which the technology is capable of enabling members to build social relationships and knowledge networks.

Technology is depicted as an enabler, allowing individuals to capture, share, transfer, and leverage their knowledge within and across organizations. With the advent of advance computer technology (e.g., intranet, extranet and Internet), organizations are able to work within collaborative spaces for communication, discussion groups, decision-making capabilities, and knowledge leveraging. Collaborative tools and technologies that focus around collaborative capability are enabling people to advance their strategic initiatives by creating synergistic environments that permit group cohesion and dependable social dynamics. Thus it is hypothesized that:

H2. Collaborative technology will moderate the relationship between diversity and collaborative partnership in global virtual teams in that the relationship is stronger for teams with highly collaborative technologies than teams with low levels of collaborative technologies.

Task

Task has been extensively researched in various studies on teamwork in organizations (Gladstein 1984). Task can be categorized based on the information processing approach (Galbriath 1977) as task interdependence, task complexity, and task variety. These dimensions determine the amount of information processing requirements of the task. If the task information processing requirements are simple and less interdependent, team members can use standard operating procedures and make decisions without collaboration from other team members. Where as, when the information processing requirements, determined by the three dimensions, is high for the task then members will have to collaborate and seek information, knowledge, and resources from team members.

Several researchers have found that when task interdependence, complexity, and variety are high, team members depend on each other for expertise, information, and resources to complete a task (Campion *et. al.,* 1993). In a low interdependent, less complex and low varied task, however, team members tend to operate as individuals with less intense interaction and coordination, thereby reducing negative affective outcomes and potential for conflict arising from member heterogeneity (Stewart and Barrick 2000). Thus it is proposed that:

H3. Task will moderate the relationship between GVT diversity and collaborative partnership in global virtual teams in that the relationship is stronger for teams with high task interdependence, complexity and variety than teams with low levels of these task features.

Team Effectiveness

The team literature defines effectiveness in terms of team-produced output and the consequences a team has for its members (Cohen and Bailey 1997; Guzzo and Dickson 1996; Sundstrom et al. 1990). Team performance and individual satisfaction are the two most common variables when examining VT outcomes (Powell et al. 2004). There has also been a substantial amount of research done to determine what antecedents are necessary for successful performance (Majchrzak et al. 2000; Maznevski and Chudoba 2000; Suchan and Hayzak 2001) and satisfied team members (Kayworth and Leidner 2002). However, none of the research has examined the impact of partnership development on GVT performance or team satisfaction. Performance is defined as the degree to which the groups' products or services meet the standards of quantity, quality, and timeliness of those who receive, review, and /or use the output. Individual satisfaction is defined as the degree to which the groups' experience contributes to the growth and personal well being of team members.

Research has shown that when team members have trust, common goals, and shared knowledge they tend to agree on norms regarding work, and this agreement in turns promote harmony (Nemeth and Staw 1989) and decreases interpersonal tensions. Thus high value of consensus among partnership elements seem to be beneficial to work teams, in that it is likely to increase team performance. Thus we hypothesize that:

H4. Collaborative Partnership will mediate the relationship between GVT member diversity and GVT effectiveness.

Research Methodology

This research is a part of an ongoing doctoral dissertation. At present the research is in the final stages of data analysis. The selected methodology is field survey methodology, which is defined as -study of single or multiple and related processes/ phenomena in single or multiple organizations (Palvia et al. 2004). This methodological selection is driven by the perspective that it is necessary to get real world knowledge about the GVT as they would be difficult to construct or replicate in laboratory settings. In the area of GVT, there is a general scarcity of field survey research. As pointed out by Maznevski and Chudoba (2000) that a number of GVT studies, are conducted in highly controlled settings in a single instance or over short period of times, leaving many critical questions unanswered.

In order to balance the data requirements from this study and calls from management to minimize time demands on their employees, an "informant sampling approach" is utilized. Based on the work of Van de Ven and Ferry (1980) "An informant sampling approach recognizes that many members of a given collective are qualified to provide assessments of those global properties that they experience together". The informant approach therefore "relies on a limited selective sample of people who are the most knowledgeable of the global properties of interest" rather than seeking to obtain measures from all members of a collective (Van der Vegt and Bunderson 2005).

Following Churchill's (1979) suggestions for developing instruments with desirable psychometric properties, the items of the construct that captured the domain of the construct and had high reliability scores were selected from existing literature. All the responses are captured on a 7 point Likert scale. Table 1 lists the definitions, literature references, and number of items.

Table 1. Instrument Development

Construct	Definition	Literature Reference	Item #
Diversity			
Surface Level Diversity	Degree to which team members differ on demographic differences.	Harrison et al. (2002); Jackson et al. (1995); Milliken and Martins (1996)	3
Functional Diversity	Degree to which team members differ in their functional backgrounds	Bantel (1994); Kirkman et.al. (2004)	3
Deep Level Diversity	Degree to which team members differ based on individual characteristics, such as idiosyncratic attitudes, values, and preferences.	Martins et al. (2003); Harrison et al. (2002)	9
Collaborative Partnership			
Mutual Benefits	Degree to which benefits from the relationship are being derived by each member in the team	Lee and Kim (1999); Van de Ven and Ferry (1980)	3
Shared Goals	Degree to which team members agree on the project aims with other team members	Huang et al., (2002)	6
Mutual Trust	Degree of confidence and willingness between partners	Jarvenpaa and Leidner (1999)	4
Shared Knowledge	Degree of understanding or appreciation among team members for the issues that affect performance	Bock et al. (1999)	3
Conflict	Degree to which members perceive that their opinions and interests are being opposed or are being negatively affected by another member	Jehn and Mannix (2001); Van der Vegt and Bunderson, (2005)	7
Task Interdependence	Degree to which team members interact and depend on one another to accomplish the task	Van der Vegt et al. (2001)	3
Task Complexity	Degree to which a task involves mental processes such as problem solving, applying discretion, and using technical knowledge	Van de Ven and Delbecq (1974); Dean and Snell (1991)	3
Task Variety	Degree to which task involves performing a number of different sub tasks and frequently encountering exceptional circumstances requiring flexibility.	Van de Ven and Delbecq (1974); Dean and Snell (1991)	3
Collaborative technology	Degree to which a technology is perceived to support team processes	Sarker et al. (2005)	6
GVT Effectiveness	Team-produced output (performance) and the consequences a team has for its members (Satisfaction)	Lurey and Raisinghani (2001); Ancona and Caldwell (1992)	10

Researchers have stated that diversity effects rely on perceptions. These perceptions have rarely been studied in team diversity research (Harrison et al. 2002). A total of 15 items are included in the instrument to measure the perceptions of these three types of diversity. GVT effectiveness is measured using two set of variables – team performance and member

satisfaction. Subjective measures of performance were used because of the substantial problems using objective measures (Ives et al. 1983). Since the sample would involve teams from multiple organizations, use of internal accounting data to measure performance would be inconsistent.

GVTs and traditional team's literature suggests using external managers to assess the teams performance (Hackman 1990, Furst et al. 1999). A separate instrument is designed to measure external manager's assessment of the team in question. The teams will be assessed based on their efficiency, effectiveness, and elapsed time. External managers are individuals who were not formal members of the GVT but are directly affected by the output of the team (Handerson and Lee, 1992).

To aggregate the individual level responses to team level, Inter-rater reliability and agreement will be assessed using James Rwg(j) index (James et al. 1984) and ICC(1) and ICC(2) (James 1982; Bleise 2000). Once these assessments are confirmed, hypotheses testing for moderator and mediator effects will be conducted using Baron and Kenney's (1986) approach of Hierarchical Moderated Regression Analysis (HMRA)..

Conclusion

For practitioners, GVT is a hot topic, specifically in the IS development industry. With the advent of collaborative environments and the fundamental role of virtual teamwork, organizations are implementing global network infrastructures to generate more effective linkages for improved communication and productivity. In this research, enabling collaborative capability among diverse GVT members has been examined from a strategic and conceptual overview of development of collaborative partnership and using collaborative technologies. Taken as a whole this research will expose the positive or advantageous aspects of diversity in GVT. It will provide further insights into the building of collaborative environments as bringing people from diverse backgrounds together to solve business problems or make business decisions is key to enhancing team productivity and building human resource competency. This research will provide understanding towards dynamics behind the impact of enabling partnerships among diverse GVT members and enabling collaborative capabilities of these members through use of innovative collaborative technologies. These insights will form best practices recommendations that practitioners can apply in their own GVT. They will likely have implications for practitioners in improving training, better designing GVT, identifying missing or unnecessary technology tools, and deciding how organizational policy could better support GVT performance.

For academics in information systems (IS) and related fields, this research will yield three primary benefits. First it will contribute to the understanding of diversity in GVT from three different perspectives – demographic, functional and deep-level. Existing literature is full of gaps and calls have been made by numerous researchers to explore the dynamics behind understanding diversity and harnessing its advantages towards better team productivity (Powell et al. 2004; Martins et al, 2004). This research will provide the basic groundwork for understanding different levels of diversity in GVT.

Second, the introduction of collaborative environment development through partnership perspective will help researchers to focus on elements which are critical towards developing relationships among diverse members of the GVT. The importance of establishing member partnerships for advancing collaborative environments represents an initial step toward establishing a strategy for virtual collaboration and teamwork. This study will suggest important relationships to be studied in future research. Third, there is evident lack of field studies in the area of GVT research. This research will make significant methodological contributions in this area which may help interested future researchers.

References

Available upon request