

# Alternate Way of Managing through Virtual Teams

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## Abstract

With organizations coming closer and consequent needs of coordination, communication and flexibility, and opportunities provided by information and communication technology has paved the way for the proliferation of new organizational forms mostly constructed on technological backbone, such as virtual teams. Virtual teams are now becoming an integral part of organizational life. Given competitive business context, virtual teams can be an attractive business strategy to optimize the overall organizational effectiveness and efficiency. This paper seeks to discuss the nature, differentiating features, complexity and challenges associated with Virtual team work environment and also it provides some insights on how the challenges can be conquered. Based on a literature review and reported findings from secondary database, the article has identified and discussed the differentiating features, challenges and the ways to make it successfully workable. Successful implementation of global virtual work environment can provides competitive advantage as well as wider market reach and visibility.

**Keywords:** Virtual Workplace, Virtual Team, Team Effectiveness

*'In the future, the source of human achievement will not be extraordinary individuals, but extraordinary combinations of people' - Hargrove*

## 1. Introduction

Growth is all about awareness and learning. Competitive edge comes from being aware of happenings around us, and taking the best of it as per organizational suitability. It doesn't take much time to become redundant and being thrown out of race. Success is rooted in the capability to adopt changes. Management today is as much about keeping an eye on right talent, catching right talent, retaining them as about finding the right fit between human resources and available technology. Leadership of teams have an added dimension of finding the 'right fit' all the time among men at hand as well as between man and machine. Virtual teams are new addition to the long list of creative combination of man with technology. No doubt organizations round the world have found something about virtual teams which they think is the way for future.

Globalization, the need for flexibility, and opportunities provided by information and communication technology has paved the way for the proliferation of new organizational forms, such as virtual teams (e.g., Lipnack & Stamps, 2000). Virtual

teams are now becoming an integral part of organizational life. Cut-throat competition and technological advancement have exploded virtual team as a type of work group.

A virtual team is often described as a group of people striving towards a common goal, dispersed in several locations within or outside the nation, and communicating with each other via various means of information and communication technology. Reliance on computer-mediated communication capabilities makes it easier and effective for team members to work virtually together. In the words of Townsend *et al.* (1998) 'Virtual teams are composed of coworkers geographically and organizationally linked through telecommunications and information technologies attempting to achieve an organizational task' Several authors have defined virtual team as group of interdependent people who are guided by common organizational goals and work across space, time and organizational physical boundaries.

Advent of the virtual team has provided both flexibility and comfort to leaders and team members. Earlier organizations didn't have the flexibility to hire highly specialized or skilled people from another country at low cost and therefore they were restricted to their physical location only. Hiring of foreign workers generally proved to be unproductive and cost ineffective. Ability to acquire the best talent without any worry about the geographical locations is a most lucrative aspect of virtual team. Unlike physical team, virtual team can work easily with large labor pool at a very affordable price. It is an easier and effective way to combine the various skills, tool, technique and talent to achieve organizational goals. Despite the unfamiliarity of team members virtual teams work across space, time, and organizations with greater freedom of choosing from vast talent pools across the globe and also restricting the numbers easily as per the requirements with lesser hassles. Information and communication technologies have come up with all the necessary tools to communicate and collaborate for virtual teams that separate them from conventional team.

Virtual teams provide strategic advantage by enabling the rapid formation and dissolution of task oriented teams with the best talent available across the globe. In addition, options of reducing operational costs, optimization of productivity, and maximization of profits, improved customer service and alignment with environmental concerns give the virtual way of working a real competitive advantage. But these new organizational forms may also have a dark side (Victor and Stephens 1994). Virtual teams that work across multiple countries bring people with diverse cultural, social, educational national backgrounds on the same platform. While diversity enriches the human talent pool of an organization, it also creates a lot of complexities to be worried about. Team members with differences of race, ethnicity, gender, languages and age, and unobservable differences such as skills, information and knowledge, values, cognitive processes, and experience and pose a lot of coordination and operational problems. Managing this kind of diversity and making best use of it may prove tedious task for the virtual team leaders.

## 2. Collaborating from Distance : Strategy to Optimize Organizational Effectiveness

Given competitive business context, virtual teams can be an attractive business strategy to optimize the overall organizational effectiveness and efficiency. The significance of virtual team arises from environmental and competitive external and internal forces such as, strategic alliances, joint ventures, and outsourcing and alternative work arrangements, such as job sharing and telecommuting. The competitive pressure on organization to minimize the cost of product and services are forcing organizations to think strategically about the alternate forms of management. Geographically dispersed organizations can maximize their skills and efficiency by drawing from a rich pool of talent at lower cost without having to physically relocate the people. Recent results in organization studies have shown that distributed work teams are assigned some of the most important tasks in innovative knowledge intensive organizations (Maznevski and Chuboda, 2000). A review of the existing literature suggests that working in virtual team environment develops learning communities, collaboration, and the co-construction of knowledge.

Global strategies integrate a company's resources, regions, and customer interfaces while maintaining *local responsiveness* where necessary (Bartlett and Ghoshal 1989, Ghoshal 1987, Kobrin 1991, Kogut 1985). Such global strategies rely on the technology based networks to work. It is also pertinent to note that the sensitivity to various nodes of the network, be it in the form of customer interaction or employee engagement, can only materialize if the vast reach of global company is knitted just like a 'one building company'. Virtual teams are making global strategies succeed by providing just the ideal backbone. But it's just not being sensitive that is going to suffice. All must be reflected in the return on investment (ROI) for the strategy to sustain and succeed. Organizations have found the virtual teams helpful in many ways which help reduce the cost and increase the output/cost ratio. For example, virtual teams help in overall cost reduction, efficiency maximization, cycle-time reduction, talent integration, and improved decision-making and problem solving skills (Lipnack and Stamps, 1997; Townsend *et al.*, 1998).

When people can work through internet by sitting oceans apart, without needing to travel for interactions, cost will obviously come down. Reduced travel expenses are one of the major advantages of working virtually. Business travel is one of the biggest overheads international businesses have to afford. The use of global virtual teams may provide a significant opportunity to coordinate complex business tasks and resources without losing much comfort, time and money. Significant investments on best talents available across nations and cultures maximise return on investment and also in maintaining a high-performing team. Through this kind of organizational set-up management can avail several other benefits like low real estate cost, low maintenance expenditure, cut down in relocation, and savings in other operating expenses. In addition, virtual teams may allow organizations to unify the varying perspectives of different cultures and business customs to avoid *counterproductive ethnocentric biases* (Solomon, 1995). Because now in this kind of set-up more people will get opportunity to virtually interact with other cultures and hence get more accustomed to diverse ways of living and working. This may increase their 'coping abilities' in

cross cultural scenarios while also reducing their vulnerability to stereotype creation.

Forward thinking organizations have rapidly developed strategies to cash in on the virtual way of working and are fostering teams which can cater customer need as well as compete in complex global market place. IBM was one of the pioneers in virtual style of working. It came up with very innovative concepts, one being that of *Virtual Onboarding*. IBM used an on line artificial system for the company's new orientation and training programmes for interns in China and India. In the Chinese program, human resource staff based in the United States and Chinese interns created individual avatars to build relationships, learn about their functions and hold meetings. Meanwhile, IBM is also using the virtual tool *Plane Shift* to allow virtual teams to simulate projects. For example this enabled them to get proper feedback from customers from diverse regions even before the actual launch of the product through simulated projects. Geographically dispersed teams allow organizations to hire and retain the best people regardless of location. Microsoft also uses virtual teams to support major global corporate customer sales and post-sales services (Jarvenpaa and Leidner, 1998). Selecting, training and socializing employees in virtual-team work are fast becoming an important human resource strategy (Shin, 2004; Webster and Wong, 2008). Managers from around the world must build close networks and interact intensively to achieve a global strategy's potential, functions served well by global virtual teams (Adler 1997, Bartlett and Ghoshal, 1989)

### 3. Differentiating Features : Paradigm Shift from Conventional Team

Virtual teams have changed the whole concept of team work. Now teams are not restricted to one department or organization or even one nation. Coordination has achieved new levels in facilitating teamwork and manifold increase in visibility beyond physical boundaries. Virtual teams are *a great way to enable teamwork in geographically separated location and it enables the organizations to build global presence*. Virtual teams are frequently distinguished from traditional teams because members are temporally and spatially distributed, relying on technologically mediated forms of communication to coordinate their activities (Bell & Kozlowski, 2002). Virtual teams are considerable different from traditional physical team .Although there are many differences but the most obvious difference is geographical dispersion. Though some have differentiated categorically between groups, teams, and communities according to the nature and extent of interdependence, identity, and shared purpose (Hertel et al., 2005), "teamness" is clearly a matter of degree rather than an absolute criterion (Hackman, 2002). Many authors have differentiated virtual team from conventional team on the basis of proximity of members and the way they communicate with each other. Ebrahim, Ahmed, and Taha (2009) suggest nature of interaction, utilization of resources, control and accountability over and within a project, working environment, cultural and education background and technological compatibility are the factors that differentiates virtual team from physical team.

Virtuality is clearly a matter of degree also, with researchers noting the potential for variation in the extent to which virtual

teams (a) have a membership that spans functional, organizational, and cultural boundaries; (b) involve temporally distributed, rather than real-time, interactions; (c) have a limited lifespan; and (d) require members to perform multiple roles, both within and across teams (e.g., Bell & Kozlowski, 2002; Corder J.L. and Soo, C., 2008).

The question arises what distinguishes a virtual team from conventional ones? What are the unique characteristics which help categorize and qualify a team as virtual team? Some authors suggest that a team will become virtual if it meets some common criteria. First, virtual teams may vary considerably in terms of the geospatial distribution of their members (*geographic dispersion*), ranging from those that occupy the same physical space but who operate at different (none overlapping) times to those whose members are distributed across different continents and time zones. The degree to which the team depends on electronic communicating devices for task-related communication also significantly varies (*electronic dependence*), with some teams depends on mix electronic interactions with periodic face-to-face interactions, whereas others relies completely on electronic media such as telephone/mail/fax.. There can be considerably variation in many approaches to virtual team functioning (*dynamic structure*).The degree of dynamism also varies from formally constituted organizational teams with defined membership and standardized operating routines to contractual membership, shifting performance objectives, limited lifespan, and relatively informal rules of operation. Finally, virtual teams in many organizations these days are global in nature, with membership that spans many different nationalities (*national diversity*).

The imperative for moving from the conventional team to virtual teams derives from specific factors such as the increasing importance of flat organizational structures, emergence of environments that require competition through inter organizational cooperation, significant change in expectations of team members, a paradigm shift towards knowledge work environments and external environmental change and competitive pressure. (Townsend, DeMarrie and Hendrickson, 1998).

Lipnack and Stamps (2000) suggest that the virtual teams are clearly on the rise, with perhaps a quarter of a billion people already working virtually. Many companies have instituted virtual work places, and have reaped the variety of benefits such as reduced real estate expenses (IBM saves 40 to 60 percent per site annually by eliminating offices for all employees except those who truly need them), *increased productivity* (Internal IBM studies show gains of 15 to 40 percent. USWest reported that the productivity of its teleworking employees increased, some by as much as 40 percent), *higher profits* (Hewlett-Packard doubled revenue per salesperson after moving its sales people to virtual workplace arrangements), *improved customer service, access to global markets and environmental benefits* (Cascio, 2000). All these benefits have changed the formation, structure and operation of working teams. Teams have changed.

#### 4. Challenges and Issues in Effectiveness of Virtual Team

Virtual practices give strategic flexibility and allow maximizing and effectively utilizing talents dispersed in diverse geographical locations, different time zones and national boundaries. Geography, location, culture and time are the crux of growing virtual teams. At the same time these factors may also act as barrier to assembling best talent across the globe. Discontinuities of geography, time zone, organizational and national culture, work practices and technology all become daunting challenges for successful working in virtual team. Further, lack of external control mechanism and individual result orientation attitude create daunting challenges for effective functioning of team. Several authors have pointed out establishing trust among team members that are geographically distributed is more difficult than conventional physical team. Also, differences in time zones produce diverging perceptions of time and may reflect differences in team members' value systems (Dubé and Robey, 2008). Additional setup and maintenance costs and lost of cost efficiency is another concern.

Despite multiple benefits of virtual teams, current literature suggests that virtual team may have dark side also. Every type of projects is not suitable for virtual work environment. For example a project that needs high level of integrated interdependent work and regular face to face integration are not feasible for these kind of work setting. As many authors point out, uncertainty, ambiguity, lack of trust, mutual confidence and loyalty are typical of virtual team. Since in all virtual teams the members, or various subgroups, are dispersed and mainly interact via information and communication technology the non-verbal cues such as facial expressions, voice inflections, and gestures, normally present in traditional settings, may be lost or distorted through computer mediated communication systems (Kiesler and Sproull, 1992; Warkentin *et al.*, 1997).

Virtual team always faces issues related to human interaction. Loss of personal contact such as day to day interaction, networking among team members produce dissatisfaction and feeling of isolation that badly affect members' motivation level and then productivity of overall team. Independent and self motivated members can only perform effectively in virtual work environment. Further, lack of awareness among employees about the functionalities of virtual teams and subsequently sub-optimal use of available potential, there is the need for innovative and suitable OD/HRD interventions to facilitate this new kind of work environment and other concerns.

#### 5. Cultural and Communication Issues

Geographically dispersed team consist of employees of different cultural backgrounds having different beliefs, values, attitude, behaviour, norms and perceptions. Diversity brings different expectation, cultural knowledge and background that are responsible for many biases, assumptions or views of world, stereotyping, and the inability to reach agreement or make decisions. Brett, Behfar and Kern (2006) believe that cultural diversity brings different kind of challenges such as direct versus indirect communication, trouble with accents and fluency, and conflicting norms for decision-making. Communication between the team members can be seen as a crucial element of

successful functioning of team. Although virtual teams allow team members to communicate across the boundaries without leaving comfort of their present office they often face dangers like, general lack of coordination, communication and contact with high authority and policy maker that result in feeling of isolation, dissatisfaction, and frustration among team members. Regardless of the environment (e.g. traditional vs. virtual teams), effective communication is essential and core element of successful group functioning (Trevino *et al.*, 1990). Warkentin *et al.* (1997) state that because exchanging information is more difficult, virtual teams tend to be more task oriented and exchange less social-emotional information, slowing the development of relational links. Diversity in national and cultural background brings its own kind of complexity. Some cultures find it difficult to say direct 'No', whereas some other cultures always prefer direct, candid communication. In some cultures, hierarchy/ranks/titles are not that much important for conveying ideas, suggestion and feedback. Team members are expected to ask directly their queries, opinions concerns and feedback but this is not true for people living in other culture, for them it might be disrespect. Communication in western cultures is typically direct and explicit (Brett, Behfar and Kern, 2006). Regardless of the source, the fact remains that the 'cultural factor' may lead to information and communication distortion and various instances of miscommunication and confusion that directly affect decision making. Snyder (2003) suggests that "even when employees have good language skills, they naturally interpret written and verbal communication through the filter of their own culture."

Consistent with the existing literature we also found that diversity may provoke disrespect, mutual disagreement, and distrust annoyance. Sometimes personality clashes beget the belief of superiority complex about the nationality, prejudice and stereotyping. People from diverse background bring with them own culture norms, values and knowledge as a result they communicate with their own perspective and interpret the communication from that particular perspective and it becomes difficult to interpret the knowledge without knowing the context. Information technology has its own limits and may not be able to transfer the same rich social, emotional, and non-verbal information present in traditional face-to-face settings (Walther and Burgoon, 1992; Townsend *et al.*, 1998).

#### 6. Issue of Trust and the Unintended Effect of Behaviour

Success of any team is dependent upon trust that member will perform their role and responsibility and behave predictably. Trust is the one of the fundamental and driving factor that determines destiny of virtual team. Trust leads to open, candid and regular communication that directly affects team performance, effectiveness and decision making ability. Geographical dispersion, difference in time zone, culture and other dimensions can create barriers to trust. Several authors have cited that development of trust in virtual team is one of the most important and challenging issues for virtual teams (Khazanchi & Zigurs, 2006; Pinsonneault & Caya, 2005).

Lack of trust usually negates the positive effects of other factors that are responsible for successful team performance. As a result some team members develop 'get it over' and 'who is my boss

mentality' rather than concentrating on quality of outcome, they are more preoccupied with getting to the end of the task. For example at Orange, mobile communication branch of France telecom for example, low levels of trust among the virtual team members hindered the product development and reduced the overall capacity of the company to meet its goals (Lawley, 2006). Trust functions like glue that links the team members and becomes the foundation of any collaborative effort. Also working in virtual environment is not a feasible option for every employee because of an employee's psychological make-up and other predispositions. Team member must communicate and cooperate about group task requirement, its probable content, feedback and control mechanism. As the working relationship unfolds, team members develop expectations about individual workload, work processes, and individual contributions. As expectations arise about reciprocal obligations between teammates, a psychological contract is formed (Rousseau, 2001). Time investment in connecting at a human level and building a trust and mutual confidence can be a great investment here.

## 7. Diversity in Virtual Teams and Role of Leadership

*Diversity is like a double edged sword.* While benefits abound in number, dangers are always lurking to eat into the positives if not handled properly. Diversity in team may raise issues like low level of trust, disrespect, loyalty and dissatisfaction that may badly hit the members' ability to perform adequately in team. Current literature suggests that there are both side of diversity. On the one side diversity provides potential opportunities for creativity and innovation and brings flexibility and options. On the other side it brings complexities and challenges for the leader such as miscommunication, confusion, decreased cohesion, distrust and increased conflict that ultimately affects individual motivation level and organizational effectiveness and productivity. The potential benefit of diversity can be obtained only after certain period of time when emotional bond has been developed. Also different team members belong to different organizational set-up bring differing attitudes towards hierarchy and authority. Members from hierarchical cultures usually come with decision seeking attitude; while members who belong to flatter structures organization are satisfied with their own decision. These differing attitudes often result in disagreements. Here the role of *interpersonal skills* comes into play and leaders need to be sensitive to such issues all the time.

Managing different kind of diversity becomes a big challenge for virtual leader. Leadership play a crucial role in successful implementation of collective group tasks. Given the inherently complex nature of virtual team environments, the *quality of team leadership* becomes a vital issue (Hooijberg *et al.*, 1997). There are umpteen issues involved in virtual teams which demand leadership of highest order. Day-to-day operations, monitoring, periodical evaluation, setting targets, and other aspects related to talent management take a totally new meaning and require special skill sets. The functioning and performance of team and individual performances can be seriously hampered in the absence of a suitable leader. Early examination and correction of any issue associated with group and individual performance not only save time but also it is cost effective. Another major responsibility of leaders in virtual teams is to be able to work with diversity and possessing enough soft skills and sensitivity to instill a sense of cultural awareness, and empathy among

employees. Ability to be aware of diverse competencies, ability to match human and technological competencies and to understand and communicate properly the about team objectives can prove to be decisive qualities of leadership in such cases.

## 8. Conquering the Challenges : What makes Virtual Team Work

Virtual teams are able to deliver several strategic advantages by providing *diverse resource at lower cost*. Based on the literature study, a group of factors influences the team effectiveness. The basic condition for effectiveness of a virtual team is the provision of effective communication among team members (Kayworth & Leidner, 2000; Maznevski & Chudoba, 2000). It is more difficult to establish trust, mutual confidence and loyalty among members because of limited communication and it comparatively takes more time to establish personal and emotional bond than conventional physical team.

Teamwork is a collective effort and all the players have to understand all pros and cons of the every managerial decision. To prevent problems associated with miscommunication, confusion and frustration team members have to be encouraged cross-check with each other for clarity either through paraphrasing or by asking questions. Communication technology should be means to an end not an end in itself- it is there to enable and enhance human interactions, not to replace them (Morris, 2008) There should be proper effort for fewer misinterpretations and confusion; otherwise it will hamper team effectiveness. Leader should proper emphasize on open, prompt and regular communication. Team members can also foster this environment by starting conversations themselves and being open to the new ideas shared by their team-mates. To avoid "**out-of-sight**" syndrome (when employees/subordinate are not physically close) project leader must set the periodic meeting schedule and fix the rules so that members of team are properly engaged. Periodic face-to-face meetings with project leader and engagement in team building activities can be the best way to solve any issue related to job role related ambiguity. The greater the communication effectiveness, the bigger the number of telecommunication tools and their diversification (Andres, 2002; Dustdar, 2004; Henttonen & Blomqvist, 2005; Roebuck *et al.*, 2004; Wiesenfeld *et al.*, 1999). Cultural, technical, and human factors are all factors in effectiveness of communication in virtual team.

Until the rapid development of information and communication technology virtual team were neither feasible nor cost-effective strategy. Virtual team members must seek a variety of means to transmit information, meaning, and symbols over time and space through one or more electronic channels. (Schlenkrich and Upfold 2009). Compatibility and accessibility of computer programs is essential to encourage *free-flow of communication* among group members in virtual work environment (Kayworth & Leidner, 2000). Proper utilization of multiple computers mediated communications system is important. Periodic training to team members about the various communications technology, infrastructure compatibility in geographical locations and well documented assessment of political and economic barriers to international telecommunications play a vital role in successful implementation of technology in team.

There is always chance of missing out on all important concepts of socialization, culture development, and transmission of tacit information when employees don't get to meet face to face. This function has been found to be more difficult to manage in virtual teams than in traditional teams. One of its aspects is constituted by a phenomenon of **social presence**, describing the sense of belonging to a group, awareness of other people's presence as well as the possibility of making easy and quick contact (Andres, 2002; Hakkinen, 2004). Social networking has tremendously gained prominence as virtual way of socializing with people from all corners of the world. Internet based 'Social Networking' has become new way of communicating and socializing. Networking sites like Facebook, LinkedIn, Orkut etc are becoming new communities. Social presence and visibility in these circles are being taken as seriously as in case of traditional communities.

Another significant aspect that must be taken into consideration in the process of building virtual teams is the *cultural diversification* of its members and overcoming difficulties resulting from it (DeSanctis & Monge, 1999; Kayworth & Leidner, 2000; Lurey & Raisnghi, 2001). Understanding the differences in cultures and the way they communicate always works. Teams may be formed by assembling members having complimentary culture background. Empathy and respect for diverse cultures take profound importance in virtual way of working. Also new ways to keep employees motivated and keeping track of the needed support to team members are essential for successful virtual team. Members need to show higher levels of cooperation and coordination with culturally different colleagues. Alternatively, and more important, organization should provide training to team members about the communication styles of various cultures.

Project leaders should develop *climate for trust and co-ordination* by conveying cultural norms that create awareness about organizational diversity. Also, the role of the leader, who builds a team and then moderates its work, is very important (Cordery, 2007; Johnson, 2002; Kayworth & Leidner, 2000, 2002;). It is major responsibility of leader to instill a sense of cultural awareness among team members and create teams from complementary cultures to solve any cultural related biases in the team. There must be clear well defined roles and boundaries that lead to enhancement of job effectiveness and efficiency. Further leaders need to encourage experimentation and individual *innovativeness* at every level. It benefits both organization and individuals. Organization will be benefited by more efficient and better work product and employees develop more creative seeking behavior. As in old teams, leaders need to provide periodical performance feedback and control mechanism with *flexibility and empathy* towards virtual team members and at the same time he should be prepared to adapt to different leadership style while dealing with different cultures. *Empowerment of team members*- an essential prerequisite of traditional teams' success- plays a big role here as well. So does positive feedback. Creating a supportive space for open sharing and discussion (for e.g. web spaces in some case) and being responsible to agreed group goals are vital. Leaders need to show trust and confidence in team members and be comfortable with the concept that employees are working even if no direct observation or control is there. Forging a connection, not exciting the emotion or expressing command should be the aim.

## 9. Conclusions and Implications for Future Research

The ubiquitous presence of competition, collaboration and diversity at workplaces give us enough signals that virtual way of business is here to stay. The ever expanding economies and continuous integration of businesses across the globe make it imperative that management chalk out strategies of cooperation and labour utilization through non-conventional means. To be a major player at large stage has added dimensions of being informed about technologically capable of handling unseen operational practices and human relation intricacies. In this arena when the global presence of every organization seems must, working virtually provides competitive advantage as well as wider market reach and visibility.

Today virtual teams are a common element of a large number of organizations (Beise, 2004; Cascio & Shurygailo, 2002; Paul, Seetharamann, Samarah, & Mykytyn, 2004; Potter & Balthazard, 2002). Not only virtual way of working rapidly becoming the general feature of modern organizations it is fast becoming a business differentiator. Virtual teams have developed to such an extent that they are already being considered a vital force behind the success of many organizations (Lurey & Raisnghi, 2001; McAvoy and Butler, 2006). Scholars have shown proper concern about virtual way of working during recent years. Though the popularity and expansion of the concept has been unprecedented, however, facts point out enough reasons for caution. Implementation and maintenance of successful high performing virtual teams are still a big challenge for the organizations. Many virtual organizations just end up as a poor substitute of their conventional counterpart. It is much more than just a technological upgradation. It is a new way of organizing and doing work.

Future research would now seem to be essential for developing a comprehensive study, combining literature survey with empirical field based survey, case studies etc. in different types and sizes of companies (e.g. multinational companies and small and medium enterprises) and various types of activities (e.g. research and development and new product development). Such a study would provide a realistic assessment of what patterns, practices, or types of activities must virtual teams carry out to achieve effectiveness in the competitive environment? It will also focus light on the major lacunae in the practice which need to be addressed. Some basic questions need to be researched in-depth like, what types of process structure and technology support should be provided for facilitating such teams? What different methods of managing virtual team are used today and how effective are they? How to make the transition from a more traditional team structure to the more distributed team structure smoother without losing the wisdom of history? How to understand communication, control, coordination, and delegation in this new context? These questions and many other practical questions wait for future empirical investigations.

To quote Lipnack and Stamps, "organizing challenge of our time is to learn to work in virtual teams and networks while retaining the benefits of earlier forms." In the same vein we would conclude by saying that it's a test of managerial skills as to how they embrace this tremendous opportunity of virtual working at the same time not losing the age old conventional management wisdom. It is an opportunity to take the better of the two - being rooted in tradition while reaping the rewards of innovations.

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