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# Toolkit for managing virtual teams

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# Toolkit for managing virtual teams

## **Abstract**

Leaders in multi-national organisations have to work with team members in many different locations, with few if any face to face meetings. This poses problems for leaders used to working face to face. This article briefly reviews the literature, finding some consensus that leadership is significant in managing virtual teams but that the practices adopted by leaders need to be adapted, that trust is one of the key predictors of success, and that technology and training also help improve performance of virtual teams.

## **Keywords**

virtual teams, trust, leadership, remote, mutlinationals

## **Disciplines**

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# **Toolkit for Managing Virtual Teams**

## **Grace McCarthy**

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#### **Introduction**

Virtual teams (VTs) are teams working towards a shared purpose who rarely if ever meet face to face and hence use some form of technology to interact. There are many potential benefits to the use of VTs, including saving travel cost and time, tapping into the expertise located in different parts of the organisation, exploiting the time differences by sharing the design process around the world, access to a large low-cost skilled workforce in developing countries, and gaining buy-in from different parts of the organisation to changes in processes.

Many multinational teams meet seldom if ever face-to-face. It is simply not practical to bring all the team members together as traditional teams do. For better or worse, we need to develop our ability to manage from a distance, including our ability to choose and use technology. This review highlights key issues and recommendations for managing VTs effectively.

#### **Virtual team leadership**

As VT leaders cannot see how well people are working, they have to shift their focus to results rather than the process of accomplishing them, according to Daft (2008) and Shriberg et al. (2005). VT leaders should encourage internal or external customers to let them know about their team members' achievements, so that they can recognise them appropriately. Carte et al. (2006) found that effective performance was linked with an early focus on relationship building and a later focus on task management. Jarman (2005) also advised leaders to focus on teams before technology, as teams with strong relationships will overcome any technology barriers which arise.

The leadership practices identified by McCarthy (2005) such as those relating to creating a vision and strategy need to be implemented in the virtual context. For example, leaders should make sure they involve all their team members in developing strategy. It may take longer but the varied inputs, reflecting diverse backgrounds, cultures, customer and supplier interests, will make the overall strategy more robust. Rotating face to face meetings to the locations of each VT member allows the team leader to interact with other people at that site, including their team member's team, general management and HR management, and with external networks, e.g. customers and suppliers.

According to Brake (2006), leaders can reduce confusion by promoting clarity, ensuring all members are clear on the organisation's goals and the team's goals, its working processes, schedules and deadlines. He warns however that roles and responsibilities change over time and that it is not sufficient to define them at the start of the project but that it is necessary to review them periodically.

Bergiel et al. (2006) suggest that VT leaders need to resolve conflict, either collectively or individually, and to tackle problems as soon as they arise. It is important for the leader to have collective meetings with all team members but also to use one-on-one conversations (telephone, videoconferencing, face to face) in order to develop relationships which enable team members to work through conflict.

## **Trust**

Jarvenpaa et al. (1998) suggest that trust can reduce transaction costs, increase team members' confidence in their relationships with each other, and promote the exchange of useful information. According to Stahl and Sitkin (2004), trust can also improve employee performance, problem-solving, communication, commitment, ability to adapt to change and reduce the need for monitoring and control. A further benefit according to Greenberg et al. (2007) is that people are more tolerant of mistakes or delays caused by fellow team members than where trust is absent. Powell (2006) found that trust explains much of the variance in team commitment. Commitment leads to improved performance, satisfaction and retention, hence leaders should do more to develop trust in collocated and Virtual Teams.

Part of the difficulty in establishing trust is the lack of shared history and the different expectations of team members, according to Bosch-Sijtsema (2007). Many VTs have huge trust-related issues, often un-related to the virtual nature of the team but more to the team's origin and purpose, e.g. there is usually a strong degree of distrust in a merger situation which can negatively impact the team's performance. Engineers from an industrialised country in a global team with members from an emerging country may fear that their jobs will transfer to the emerging country for cost reasons, and may be reluctant to share their knowledge (Karandikar and Nidamarthi, 2006).

Kiely (2001) advises that face to face meetings are essential when starting to work remotely and that email is not sufficient to build trust. Hart and McLeod (2003) found that trust in VTs developed through a series of pro-active interactions and problem-solving. Their research supported the theory of "swift trust" advanced by Jarvenpaa et al. (1998). Bergiel et al, (2006) state that trust is the result of team members' confidence that each member of their team will complete their part of the task. If, on the other hand, one or more team members have difficulties completing tasks on time, it is better to find this out at an early stage on something small, rather than on a major part of the project. The leader then needs to deal with the underlying performance issues, which often relate to divided loyalties or pressure coming from other managers collocated with the VT member.

## **Communication and conflict**

Quality of communication is by far the most important contributor to VT effectiveness according to Horwitz et al. (2006). Communication difficulties arise from a variety of sources. E-mail is used extensively among VTs, yet email has been found to escalate conflict due to the lack of social cues, reduced feedback and the asynchronous nature of email.

VTs interact differently to face to face. Andres (2006) found that VT members had a lower sense of belonging and lower productivity than collocated groups. An interesting and perhaps related finding was that collocated team members were less willing to challenge or express disagreement, perhaps being unwilling to upset the group. Bergiel (2006) argue that conflict is inevitable but that it can be managed, especially with an acceptance of difference and a willingness to consider new ideas. Natale and Ricci (2006) found that a low level of conflict was positive, stimulating information processing. However they warn that too much conflict impedes information processing and team performance.

Another difficulty for VTs according to Brake (2006) is isolation, which he suggests can be reduced by creating a sense of community. Kirkman et al. (2002) suggest some practical ways to do this, including scheduling face to face meetings at company sponsored conferences and giving VT members face to face customer contact. Sivunen (2006) recommends further strategies for improving VT members' sense of identity. Some, such as showing concern for the individual, also apply in face to face teams, but according to Sivunen, are even more important in VTs because of the sense of detachment team members may feel.

## **Technology**

VTs need to know when to use different forms of technology. DeLuca and Valacich (2006) found that media with high levels of synchronicity, e.g. face to face and telephone, were more suited to the early stages of complex problem solving where team members were developing shared definitions and agreeing common methodologies, than media such as email or bulletin boards. The latter may be more useful for imparting information and at later stages in projects. Nedelko (2007) recommends desktop videoconferencing for simple tasks and tasks where VTs collaborate on a regular basis, while room-based videoconferencing is more suitable for complex tasks. People have different comfort levels using telephone or electronic medium compared with face-to-face meetings for giving information or good or bad news, performance reviews, negative feedback, interviews and recognition (Jones et al. 2005). Teams may agree common approaches or may agree to use different approaches for some of these.

There may be differences in the level of technology and Internet access available to VT members, particularly in emerging economies. Technology problems also surface albeit in a different way in high technology companies like Intel, according to Lu et al. (2006) who found that the number of different information and communication technology tools reduced productivity. Bélanger and Watson-Manheim (2006) warn that the increased level of electronic communication found in VTs may lead to information overload and reduced productivity. An added risk, according to Horwitz et al. (2006) is that it is difficult for VT members working across time zones to prevent the workplace from intruding on their personal life.

While electronic communication is often seen as a substitute for face to face communication, (Bélanger and Watson-Manheim, 2006) noted some new behaviours, such as individuals participating in more than one virtual meeting at the same time. Whether the individual's contributions are as useful as if they were focusing fully on one meeting is not clear. Carte et al. (2006) suggest that good performance in VTs depends on each team member contributing their individual expertise and being a good team member, rather than "I've done my part, now it's their turn". If this is the case, team members should be made aware of an expectation that they take part fully in the meetings they attend, not merely represent one function or skill, but to take a broader organisational view. Not only can this improve the quality of decision-making in the team, it also increases the level of interaction between group members, improving mutual respect for each other's expertise, and increasing trust.

Zigurs (2003) advises VTs not to seek to replicate the face to face environment, but to take advantage of the new ways of interacting which are enabled by new technologies. For example, a three day face to face meeting may make sense when participants are travelling thousands of miles. However, a virtual meeting could be organised as two-hour sessions on a number of different days. As well as saving on travel and people being away from their families, this can allow a clear focus on one topic and can be highly effective. An added benefit is that where team members have different first languages, short meetings are less exhausting than full day/multi-day meetings. It is useful to distribute discussion papers in advance. This allows both for language difficulties and also for cultures, where team members may wish to take soundings locally before voicing an opinion in a meeting.

With so much electronic interaction, a traditional medium like a hand-written note can have huge impact on VT members, so wise leaders make use of alternatives to technology when appropriate.

## **Training**

Many authors suggest that training helps VTs perform effectively, although they differ in the content of the training. Beranak and Martiz (2005) found that training on teamwork, drawbacks of electronic communication and netiquette, improved VTs' cohesiveness and satisfaction with group processes. Roberts et al. (1998) advocate the use of cultural training when implementing global VTs in order to eliminate the misunderstandings which can otherwise arise through the use of email. Zigurs (2003) recommends training on participating

in VTs, rather than assume that best practice from traditional teams will transfer seamlessly to virtual environments. Training should also prepare team members for the changes likely to take place within the team, as highlighted by Karandikar and Nidamarthi (2006). Kirkman et al. (2002) claim that training in team building, team processes and decision-making helps overcome process losses. Bélanger and Watson-Manheim (2006) found users were confused as to when and how to use the various communication media available and recommend training to address this issue.

## **Conclusion**

VTs are increasingly the way MNEs organise both permanent functions and temporary projects, within the company or across the supply chain. Researchers have started to investigate the phenomenon, although many research papers are based on student projects rather than real company virtual teams.

There appears to be some degree of consensus that:

- Leadership is a significant factor in the performance of VTs. It is not sufficient to apply leadership practices as developed for face to face teams.
- Trust is vital in securing the commitment of team members.
- Frequent high quality communication is necessary. Conflict will arise but can be managed.
- Technology is a necessary enabler and we have to be aware of how best to use it. We must understand what is needed and what is possible in the virtual environment which may not be needed (or needed as much) or possible with face to face teams.
- Training helps improve the performance of VTs.

Some practical issues have not been addressed by the research to date e.g. if you are the leader of a multinational VT, your team members will work for different legal entities within the MNE. You need therefore to understand how to get a wage raise or promotion for your team members, particularly if they report to you permanently. In trying to ensure equity for your team members, there may be concerns about equity within the subsidiary where they are located. Organisations are grappling with issues like these on a daily basis with little advice available in the literature.

Defining success in VTs is problematic. Jarman (2005) reported case studies of two VTs which had not met their deadlines, produced work of poor quality and could not wait to leave their teams. Nevertheless they felt they had been successful. Horwitz et al. (2006) also found that respondents thought their teams were successful, hence the researchers were unable to compare factors contributing to poor and good performance. Further research comparing the actual performance of teams with the perceptions of team members and the perceptions of stakeholders would be useful. A project to compare the performance of teams using the guidelines given in the literature with the performance of teams not given any training or guidelines is currently in the planning stage.

## References

- Andres, H.P. (2006). The impact of communication medium on virtual team group process. *Information Resources Management Journal*, 19(2), 1-17.
- Bélanger, F., and Watson-Manheim, M.B. (2006). Virtual Teams and Multiple Media: Structuring Media Use to Attain Strategic Goals. *Group Decision and Negotiation*, 15(4), 299 - 321.
- Beranek, P.M. and Martiz, B. (2005). Making virtual teams more effective: improving relational links. *Team Performance Management*, 11(5/6), 200 - 213.
- Bergiel, B.J., Bergiel, E.B. and Balsmeier, P.W. (2006). The reality of virtual teams. *Competition Forum*, 4(2), 427-432.
- Bosch-Sijtsema, P. (2007). The Impact of Individual Expectations and Expectation Conflicts on Virtual Teams. *Group and Organization Management*, 32(3), 358.
- Brake, T. (2006). Leading global virtual teams. *Industrial and Commercial Training*, 38(3), 116.
- Carte, T., A. , Chidambaram, L., and Becker, A. (2006). Emergent Leadership in Self-Managed Virtual Teams. *Group Decision and Negotiation*, 15(4), 323.
- Daft, R. (2008). *The leadership experience* (4th ed.). Mason, Ohio: Thomson.
- DeLuca, D. and Valacich, J., S. . (2006). Virtual teams in and out of synchronicity. *Information Technology and People*, 19(4), 323.
- Greenberg, P.S. Greenberg, R., H. , and Antonucci, Y.L. (2007). Creating and sustaining trust in virtual teams. *Business Horizons*, 50(4), 325.
- Hart, R.K. and McLeod, P.L. (2003). Rethinking team building in geographically dispersed teams: one message at a time. *Organizational Dynamics*, 31(4), 352-361.
- Horwitz, F., M. , Bravington, D. and Silvis, U. (2006). The promise of virtual teams: identifying key factors in effectiveness and failure. *Journal of European Industrial Training*, 30(6), 472.
- Jarman, R. (2005). When Success Isn't Everything - Case Studies of Two Virtual Teams. *Group Decision and Negotiation*, 14(4), 333.
- Jarvenpaa, S., L., Knoll, K. and Leidner, D., E. . (1998). Is Anybody Out There? Antecedents of Trust in Global Virtual Teams. *Journal of Management Information Systems*, 14(4), 29.
- Jones, R., Oyung, R. and Pace, L. (2005). *Working virtually, challenges of virtual teams*. Hershey, PA: Cybertech.
- Karandikar, H. and Nidamarthi, S. (2006). A model for managing the transition to a global engineering network spanning industrialized and emerging economies. *Journal of Manufacturing Technology Management*, 17(8), 1042-1057.
- Kirkman, B.L., Rosen, B., Gibson, C.B., Tesluk, P.E. and McPherson, S.O. (2002). Five challenges to virtual team success: Lessons from Sabre Inc. *Academy of Management Executive*, 16(3), 68-79.
- Lu, M., Watson-Manheim, M.B., Chudoba, K., M. and Wynn, E. (2006). Virtuality and Team Performance: Understanding the Impact of Variety of Practices. *Journal of Global Information Technology Management*, 9(1), 4.
- McCarthy, G. (2005). Leadership in German and U.K. organizations. In N.S. Huber and M.C. Walker (Eds.), *Emergent models of global leadership*. Maryland: International Leadership Association/James MacGregor Burns Academy of Leadership.
- Natale, S., and Ricci, F. (2006). Critical thinking in organizations. *Team Performance Management*, 12(7/8), 272.
- Nedelko, Z. (2007). Videoconferencing in Virtual Teams. *The Business Review*, Cambridge, 7(1), 164.
- Powell, A., Galvin, J. and Piccoli, G. (2006). Antecedents to team member commitment from near and far. *Information Technology and People*, 19(4), 299.
- Roberts, K., Kossek, E.E. and Ozeki, C. (1998). Managing the global workforce: challenges and strategies. *Academy of Management Executive*, 12(4), 93-106.
- Shriberg, A., Shriberg, D.L. and Kumari, R. (2005). *Practising leadership, principles and applications* (3rd ed.). Hoboken, N.J.: Wiley.
- Sivunen, A. (2006). Strengthening Identification with the Team in Virtual Teams: The Leaders' Perspective. *Group Decision and Negotiation*, 15(4), 345.
- Zigurs, I. (2003). Leadership in virtual teams: oxymoron or opportunity. *Organizational Dynamics*, 31(4), 339-351.