Determining Success and Failure Factors in Virtual Teams

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Abstract. Two virtual teams run by the same leader were studied longitudinally over a period of four months. One team languished whereas the other continues to be a productive and energetic team. The ethnographic analysis of the two teams and a verification of the uncovered success and failure factors through interviews with virtual team members in a variety of software companies tease out ten factors that explain the failure or success of the two teams. This work identifies issues that normally are not considered but probably should be when managing virtual teams.

Introduction

Prior research has primarily used case studies to explore the causes of problems in running distributed software development teams (Carmel 1999). Although this work has left us with a rich set of hypotheses about what causes problems with virtual software teams, few have looked at the ongoing operation of such teams (Levina 2006). This work is different from prior work in that it conducts a longitudinal in depth study of two virtual teams, one which has been a successful virtual team and the other which has not. Success was measured in terms of continuance and performance.

The teams studied have many characteristics in common, in particular, the same manager. Additionally, both teams were running successfully in face-to-face mode until relocation of the team manager caused the teams to become virtual. This study investigated the organisation, membership characteristics, operations and management strategies used for each team to determine what made only one team succeed virtually. The results are surprising since apparently minor problems were a factor in each team’s overall performance and survival.
Research Method

A detailed ethnographic study and analysis was conducted on each of the two teams (hereafter called Team S for success and Team F for failure). Explanation building using grounded theory practices was performed throughout the investigation to determine what reasons led to each team’s success and failure.

Success and Failure Factors

Five failure factors were found for Team F. They included (1) the formation of a co-located subteam that subordinated the original requirements of the project, (2) a failure to find an acceptable time to meet for all members, (3) a demotivation of the team leader because of meeting absenteeism, (4) the inadequacy of telephone communication because of its low voice quality and (5) the tightening of deadlines and controls by the team leader which lead to less motivated team members. Some of these factors induced other factors such as the increased monitoring of team deadlines and the demotivation of the leader. Five success factors were found for team S. They included (1) the continuation of all communication passing through the team leader creating a strong managerial and organizational position, (2) the presence of a strong micro-national culture in the team, (3) no changes to team membership, (4) face-to-face meetings when needed to attack complex problems and (5) a rich communication environment using Voice over IP and instant messaging. None of these factors alone led to the team’s success, but all combined to make meetings productive.

Conclusion

Primary among all of the factors uncovered was the leadership involvement in team motivation. The strong and motivating leadership of Team S helped members overcome difficulties they encountered. In contrast, this same leader, when de-motivated, and disinterested, propelled Team F to its demise. These results suggest the importance of engaged and involved leadership in helping virtual teams overcome time, technology and member disagreement problems.

References
