

Exploring the communication breakdown in global virtual teams

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Abstract

Virtual matrix-managed teams with geographically dispersed members are becoming increasingly common in the high-tech sector. These teams, referred to as global virtual teams (GVTs), are generally described as culturally diverse, geographically dispersed, electronically-communicating workgroups. They rapidly form, change, and dissolve due to dynamic changes in the market. In addition, most GVTs today have team members spread among several projects with competing priorities. Communication breakdown can wreak havoc on a project as team members struggle to effectively communicate and work with one another. As a result, project delivery risks with distributed teams tend to be greater when compared to co-located teams. To address this critical issue, this study investigates the types of factors that significantly contribute to communication breakdown by identifying five distinct areas through a series of interviews with project team members in high-tech companies. These areas are trust, interpersonal relations, cultural differences, leadership and technology. These criteria are analyzed using mathematical Decision Models taking expert opinions from professionals who worked in GVTs.

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1. Introduction

1.1. Objective of the study

In this paper, our overall objective is to study the communications breakdown and see what factors are responsible for this. We studied a total of five criteria and how these impact the communications breakdown in global team. These criteria were mapped to different statements. Statements were assigned different weights by group of experts who were interviewed for this study.

Most of the virtual teams we have studied in this paper are matrix organizations. In these organizations, members report to

the project manager for the project deliverables, but they report to another manager for their functional group. How does a project manager ensure the project success when he/she has to handle a project with global virtual teams? Multinational companies like Intel has a wide variety of products and the product development teams and design and operations teams for the projects are scattered all over the world. When hundreds of projects are run every year in different groups with global virtual teams, this can be very challenging. When the company started opening new software development centers and design centers in Asia and South America, there were lots of challenges. Still the company has mastered the art of managing global projects. Employees are regularly sent to other countries to understand the culture and working environment of new offices. For every new project, generally a one week face-to-face interaction of the team members is very common. This ensures that initial trust and team environment is built even with team members in different countries.

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1.2. Basis for criteria selection

Any project teams go thru four stages of life cycle. These are (a) Forming, (b) Norming (c) Reforming and (d) Performing. As per Katzenbach (Katzenbach and Smith, 2004) for any team to become a high performance team, trust, relations and leadership are the core pillars. Trust becomes all the more important as the project manager cannot keep face-to-face contact with the team members all the time. Since the team members meet only one or two times face-to-face during a project, maintaining a cordial relation is also very important. In virtual teams, team morale already suffers as remote team members sometimes feel neglected. Therefore, a motivating team leader — who believes in himself and in the performance of the team, is all the more important. Only a good leader can ensure the success of a global virtual team, otherwise different team members work towards different goals and in different directions losing the sense of the team mission. Based on these facts, we decided to use relations, trust and leadership as the criteria for our study.

Technology is at the core of virtual teams. Without internet, email, video conference and audio bridges, virtual teams can't even exist. Therefore, we included technology as one of the criteria in our study. When we have project teams in different countries that means employees follow different religions and cultures. In some countries, it is unreligious to work on weekends, whereas in some countries working round the clock is an expectation. So in these types of scenarios, a project manager needs to ensure that he/she is taking all cultural and religious issues into consideration when planning resources for the project. This is the reason culture was also taken as one of

the criteria for the study. We will discuss these five criteria in detail in main sections of the paper. Hierarchy of the model showing all the criteria is shown in Fig. 2.

2. Literature review

2.1. Multi-criteria decision models (MCDM)

MCDM methods like AHP (Analytic Hierarchy Process) are becoming very useful for project managers involved in technology related projects. The multi-criteria decision-making (MCDM) problem concerns the elucidation of the level of preferences of decision alternatives through judgments made over a number of criteria (Dezert et al., 2010). To make a decision in an organized way to generate priorities, we use a process called Analytic Hierarchy Process. This method was developed by Professor Saaty (Saaty, 1990). Some areas where MCDM with AHP model could be used are selection of projects, the choice of investment alternatives, technology/equipment selection, and the formation of technology licensing agreements (Cunningham and van der Lei, 2007).

2.2. AHP methodology

In this process, we need to decompose the decision into some steps (Saaty, 1990). These steps are outlined as: (1) define the problem and determine the kind of knowledge sought. (2) Structure the decision hierarchy from the top with the goal of the decision, then the objectives from a broad perspective, through the intermediate levels (criteria on which

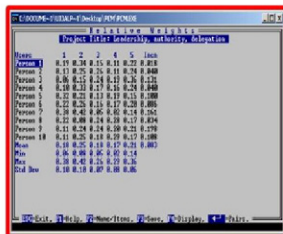


Prepare questionnaire (a set statements) for pair-wise survey through literature research



Face-to-Face Interview

- Interview a panel of experts on virtual teams
- Explain the questionnaire survey
- Get their scores on each pair-wise statement under each group
- Ask for further comments / ideas / suggestions



Judge the impact of statements under each group by PCM Tool



Fig. 1. Steps of the methodology.

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