

Transfer of Information and Knowledge in the Project Management

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INTRODUCTION AND BACKGROUND

Success and failure in information technology (IT) projects depend on many factors. Based on the analysis of literature as well as the author's research and experience, we can build a working hypothesis of a significant influence of the communication system on a final project outcome in the context of:

- Communication between the project team and the outside world (users, suppliers, other project teams, etc.)
- Communication within a project team

In project management literature, communication occupies a significant position (Candle & Yeates, 2003; Maylor, 2003). Most research projects, however, are focused on the analysis of communication between the project team and the outside world while communication within the project team seems to take a second place. From the literature dealing with building effective project teams, research carried out by Mullins (2001) deserves a closer look. Mullins researched the key contradiction within a project team; he discovered that project leaders demand from their team members the willingness to compromise and subordinate while at the same time they promote individualism and want to foster creativity. Chaffe (2001), on the other hand, concluded that most people during their professional career lose both their creativity and individualism and prefer to conform to the existing standards. This is the very reason why some leaders prefer to build their teams from young people knowing that they lack experience. By doing that, they realize they increase the risk of not achieving their goals. Therefore, the IT leaders need to combine these conflicting trends and build the project team to ensure the overall success of the project. Adair (1999) indicates three criteria that need to be taken into

consideration when evaluating potential team members: competence, motivation, and personal traits.

The subject of this article is to prove the hypothesis that the communication system within the team significantly influences its effectiveness. The key question that needs to be answered is: what conditions does the project leader need to create in order to maximize the positive and minimize the negative effects of teamwork?

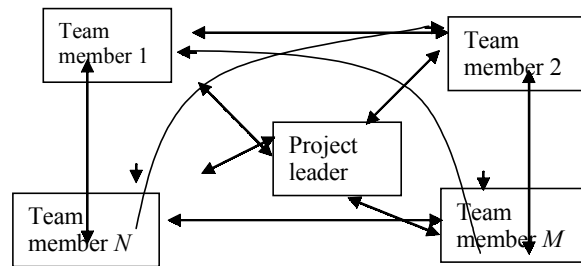
While at first glance this hypothesis might seem obvious, detailed analysis does not lead to decisive conclusions. While executing the project, teams could use different communication methods to both define the project tasks as well as evaluate results. The effectiveness of various communication methods can be very different; therefore, we want to prove the hypothesis that:

THE NETWORK COMMUNICATION SYSTEM PROVIDES THE MOST EFFECTIVE FRAMEWORK FOR THE MANAGEMENT OF THE INFORMATION TECHNOLOGY PROJECTS

Network communication system is a system where communication between all team members is direct and cross-divisional. In such system, the role of a project leader is not only to build the seamless flow of information between the team members but also to build trust between them. A simple network communication system is illustrated in Figure 1.

During my professional career in IT, I went through all steps of a corporate ladder, from a systems analyst to a senior project manager in charge of large software delivery projects. I researched the effectiveness of many IT projects but did not investigate large projects from other industries, for example, construc-

Figure 1. Simple network communication system



tion. Despite that, the results of my research can be adapted to any other industry, since the primary focus was on the internal project communication, which is generic rather than industry specific.

My research was related to the application of the Transactive Memory Systems (TMS), conducted primarily by Hollingshead (1998) analyzed the TMS as a structure to deliver data, information, and knowledge to the project teams. The research of 69 project teams indicated that team stability, team member familiarity, and interpersonal trust all have a positive impact on the TMS. Consequently, the TMS has a positive influence on team learning, speed-to-market, and a success of new products (Akgün et al., 2004).

RESEARCH DESCRIPTION: ANALYSIS OF COMMUNICATION SYSTEMS

The analysis of communication systems was based on 22 IT projects carried out between 1995 and 2002. The author actively participated in 12 of these projects; the information about the remaining 10 projects was based on project documentation as well as interviews with project participants. The main difficulty in the research is the fact that all projects are unique. (The ideal research would require an experiment where the same team would carry out the same projects at the same time with the only difference the communication method). Therefore, the conclusions of this research are based on estimates.

The majority of the projects included in the research targeted the business process improvement of the large organizations through the use of information technology. The project range was quite broad: implementation of IT in accounting for the major textile factory, improvement of the existing IT appli-

cation in the insurance and pension institution, implementation of MRP II/ERP in a pharmaceutical company, application of IT in a municipality of a large municipality, strategic application of a new IT for a national bank, application of IT to improve the management of a large top-security penitentiary, and application of IT for education (use of information technology program for senior executives), and so forth.

These projects represent a very diverse group of IT implementations; 18 of these projects were business applications for various industries, and 4 were for non-profit organizations. Success was defined based on schedule, cost, and scope; the project was considered successful if a variance at project completion for these three metrics was 10% or less. Despite the fact that 15 of these projects were classified as successes, during their implementation, the teams had to overcome significant problems.

The size of project teams in each of these projects was 20 people or more. The teams were cross-divisional; they included both IT personnel as well as industry specialists. The selection of such teams allowed the author to research a group that both required at least a three-level communication and could not be managed by one person. In such a project team, level one consisted of system analysts designing a system; level two consisted of operational managers or team leaders; and level three was a project leader accountable for the entire project. To complement the standard communication channels (i.e., project leader to team leader to system analyst), the author researched communication channels between project leader and systems analyst and between system analysts themselves.

The author searched for answers to the following questions:

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