Enhancing Communication Practices in Virtual New Product Development Projects

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ABSTRACT

Virtual new product development (NPD) teams integrated via information and communication technology (ICT), can offer effective solutions to higher quality, service, customer responsiveness and individualized productization. Experts in NPD teams usually collaborate across the globe and across time zones by e-mail, tele- and web-conferencing, as well as other ICT, sometimes with inadequate language skills and with various ways of communicating and sharing information. Therefore, finding a shared understanding, relevant information, common language, and personal contacts across different sites may be challenging. The aim of this research was to study how communication practices are organized in virtual NPD. In addition to this, the scope was to study what kinds of competences are needed to enhance the efficiency of virtual communication in cross-cultural NPD. The authors conducted a multi-method case study of a global telecommunication company. The main findings were that members in virtual projects have different kinds of communication practices based on personal competences, habits, and preferences rather than company-level recommendations. The main contribution of this study is that virtual collaboration competences on a personal and organizational level play a significant role in enhancing efficiency in communication and when designing and utilizing communication practices. The authors’ results may be used to support managerial decisions concerning practices of organizing global teams and when coordinating communication practices in complex global projects.

Keywords: Communication, New Product Development, Personal Virtual Collaboration Competence, Project Management, Virtual Collaboration Competence, Virtual Projects, Virtual Teams

1. INTRODUCTION

The importance of better understanding the functionalities of virtual organizations is increasing as more than 1.3 billion people are forecasted to work in virtual organizations within a few years (Johns & Gratton, 2013). Virtual teams integrated via electronic means can offer effective solutions when product lifecycles are shortened and there are price...

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and fulfillment time related pressures, along with demands for higher quality, service, and customer responsiveness, and individualized productization (Lee-Kelley, 2002). In global companies, the possibilities of responding to the competition are often limited to leveraging existing in-house competencies, resources, and capabilities in new product projects quickly by forming global virtual teams (Cooper, 2011). Collaborative virtual teams can enable integration and the alignment of human resources to better tap into the external business environment (Nemiro et al., 2008).

Information in organizations is usually processed through integration mechanisms presented by Daft and Lengel (1986) consisting of documents, reports, databases, company strategies, meeting practices, and media offered for communication. However, new collaboration technology offers additional electronic platforms for communication in virtual teams allowing people to work together by using electronic tools such as e-mail, chat, and video conferencing (Te’eni et al., 2007; Brown et al., 2007). Communication’s role is crucial and it has an effect on overall employee performance and job satisfaction (Pettit et al., 1997).

Companies require innovations, value, quality, and service and there is no room for inefficiency (Davenport & Prusak, 2005). Thus, product development is usually very complex by nature and tremendous amounts of information must be transferred within the product development team (Ulrich & Eppinger, 2000). However, there is the opportunity for collaborative work to be effectively arranged in various different ways in virtual organizations (Brown et al., 2007). Effective virtual collaboration has been referred to as virtual team competence by Hertel et al. (2005) and virtual competences by Wang and Haggerty (2009). In addition, Lohikoski and Haapasalo (2013) have suggested that virtual competences at the organizational and personal levels can enhance knowledge transfer in virtual NPD. Here, we have discussed how virtual collaboration competences can potentially enhance communication in virtual NPD. Research questions were formed as follows:

1. What are the characteristics of communication practices in virtual NPD?
2. What kinds of competences are needed to enhance communication?

The basis of this study lies in the virtual project team literature and in the virtual collaboration literature, which we aim to contribute to by refining theory from the perspective of virtual communication. In addition, we offer tools for those managing virtual organizations to increase efficiency in information sharing and collaboration among experts. A case study was conducted in a global telecommunication company with virtually operating global teams. Methodologically, we combined semi-structured interviews and electronic surveys on selected team members and their leaders (project managers, line managers, and program managers) in Finland, Poland, China, and the United States. In addition to this, electronic survey data was collected and analyzed including team members located in seven different countries globally.

2. THEORETICAL BACKGROUND

2.1. Definition of Virtual NPD Projects

Virtual teams are geographically, organizationally, or otherwise dispersed collections of individuals who use different forms of ICT to accomplish a specific goal (Martins et al., 2004; Zigurs, 2003; Jarvenpaa et al., 2004). ICT enables the creation of new kinds of spaces that are real to the people inhabiting them, but they are not the same as physical locations (Lipnack & Stamps, 2000). According to Kirkman and Mathieu (2005), even co-located teams can exhibit high levels of virtuality, because team members mainly use ICT in coordinating and
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