

Coordination and control in virtual teams in software industry

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Abstract

The last couple of decades has witnessed a steady, irreversible trend towards globalization. Economic forces have relentlessly turned national markets into global markets while emerging competition and corporations reach across national boundaries. More than a decade ago, seeking lower costs and access to skilled resources, many organizations began to experiment with remotely located manufacturing and service facilities. The ready availability of skilled IT personnel at very competitive prices in developing nations like India, and the rapid infrastructure development in these countries made it a ready industry to make this transition. With this trend, emerged the concept of virtual teams. Virtual teams are work arrangements where team members are geographically dispersed and work interdependently through the use of electronic communication media to achieve common goals. There is a difficulty in developing strategies for various team processes in virtual teams. The objective of this research was to identify the factors influencing working of virtual teams and strategies to facilitate better coordination and control among them in the context of software development. Literature revealed the factors that affect the coordination process of virtual teams in software development. The factors identified include level of authority of team members, leadership style, media synchronicity of the team, distribution of information within the team and experience in working together. Then a conceptual model was developed to analyze the impact of each factor in virtual team coordination. A detailed questionnaire was used to obtain views of industrial experts. The results concluded that the developed model is significant and it explains sixty-six percent of the working of virtual teams. It was shown that, level of authority and media synchronicity are the most significant of the factors. The applicability of the model was verified by conducting interviews with software industry personnel. The study also focused on finding reasons for using virtual teams, pros, cons and problems faced by virtual teams in Sri Lankan context. The findings can be used to better coordinate software projects with the use of virtual teams.

Keywords: Control, Coordination, Virtual teams

Introduction

With the technological advancement, different economic forces are turning national markets into global markets while emerging competition and corporations reach across national boundaries. This trend is having a major impact on the way products are designed, conceived, constructed, tested, and delivered to end customers. Software and high-end information and communication technology has been playing a major role in globalization. While being a vital part of almost every business, success increasingly depends on using software as a competitive weapon. The trend was fueled by the factors such as reduced cost, increased focus on core business, access to experts and latest technology, reduced risk and employee morale. This ever increasing trend leads software companies to form virtual teams for software development.