Collaboration trumps competition in high-tech project teams

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Abstract: The tension between competition and collaboration in teams raises a question how to balance between these two different strategies to enhance the performance of teams. It has been established that both competition and collaboration have a positive impact on team performance. However, given that measures that enhance competition tend to jeopardise collaboration and vice versa, it remains unclear how to balance the two in order to attain an optimal impact on performance. Building on quantitative data from 176 IT projects in Motorola and its affiliates, we analysed the influence of intra-team collaboration and competition on project performance. The results suggest a strong and broad positive influence of intra-team collaboration on project performance; but only a limited influence of intra-team competition. Subsequently, we discuss further implications to forming and managing effective teamwork in IT projects and potentially in other functional areas.

Keywords: collaboration; competition; teamwork; IS projects; success factors; innovation teams; team performance.


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incubation of new concepts to maturity. In his previous role as Chief Architect at Motorola, he was responsible for the enterprise architecture and knowledge management. Previously, he managed strategy and operations for enterprise business development and led cross-sector teams to explore growth opportunities in emerging markets. He was a lead researcher in various companies where he was involved in the development of numerous technologies and systems, which led to several products and spin-off ventures. He received his Doctor in Management from Case Western Reserve University and MBA from Kellogg School of Management at Northwestern University.

1 Introduction

The tension between competition and collaboration in teams raises a question, how to balance these two different strategies to enhance the performance of teams. Collaboration and competition are not mutually exclusive. They can co-exist. For example, players in professional sports teams compete for opportunities to boost their personal records but at the same time must collaborate to score as a team. Neither high personal record in a trailing team, nor poor personal record in a winning team reflects positively on any team member. Team members must engage in competition and at the same time collaborate not only in sports teams; it is common in project teams, sales teams, and almost any team formation in the organisational context.

It has been established that both competition and collaboration have a positive impact on team performance. However, given that measures that enhance competition tend to jeopardise collaboration and vice versa, it remains unclear how to balance the two in order to attain an optimal impact on performance. This seemingly paradoxical contention was the springboard for the following empirical study that explored the role of collaboration and competition among team mates in the context of IT development. Specifically, we conceptualised intra-team collaboration and competition as two distinct and independent constructs, and subsequently assessed and qualified the unique effect of each on project performance.

Collaboration is considered as a source of performance. Many researchers and practitioners have addressed the significance of collaboration and its significant role in the execution of business transformations (e.g., Austin, 2000; Evans and Wolf, 2005; Huxham and Vangen, 2005; Smith, 2004). Collaboration and teamwork are organisational imperatives in response to the complexity of work and the diverse and changing business environment. Most organisational initiatives require collaboration among individuals across various functional areas. Collaboration has become particularly essential in light of globalisation, when individuals from multiple cultures, regions, and functional areas work together on projects, and inevitably bring divergent interests, perspectives, differing orientations towards goals, interpersonal relations, and key external constituents. As a result, there is increasing emphasis on collaboration within and across teams to enhance participation and information sharing for streamlining operational processes and ensuring superior competitive results, while simultaneously increasing organisational responsiveness and agility (Veneeva, 2006). Competition too is generally considered as a source of performance. Competition is believed to reduce slack, provide incentives for efficient organisation of production, and enhance innovation. It is associated with overall productivity growth of a firm (Nickell, 1996).
Collaboration and competition are alternative structuring approaches for project teams. While collaboration may be useful in understanding, sharing and joint action of individuals as well as team processes and project effectiveness, competition may explain the motivation, drive, and creativity of the individual team members (Gladstein, 1984). This raises the questions: Can project teams structured for competitive behaviour be productive as well? Can teamwork prevail in a competitive environment? Whereas competitive and collaborative behaviours have been often viewed as two opposite ends (e.g., Lado et al., 1997), qualitative analysis of collaboration among business units in a multi-unit organisation (Singh, 2005) revealed competitive collaboration (Hamel, 1991) in intra-team relationships, i.e., the collaborating people or sub-units were simultaneously engaged in competition. For example, the heads of business units, while advocating collaboration for leveraging resources across business units, were also engaged in competition for a single CEO position.

In this paper, we examine a particular form of collaboration and competition that are conceptualised as two distinct and independent constructs. The collaboration examined is the propensity of project team members to share information, resources, and tasks – as the proportion of members reporting high levels of sharing increases, so will the collaborative behaviour among project members, and ultimately project performance. The competition examined is the propensity of project team members for individual contributions, lack of reciprocity, conflict, and pursuit of self-interest – as the proportion of members reporting high levels of self-interest pursuit increases, so will the competitive behaviour among project team members, and ultimately project performance. Preliminary evidence suggests that such propensities for collaboration and competition among project team members may be helpful in understanding project performance.

The study is based on quantitative data from 176 IT projects in Motorola and its affiliates that were analysed for the influence of intra-team collaboration and competition on project performance. IT development in a global organisation is an excellent context for this study because of its inherent collaborative nature in leveraging common elements of the infrastructure for reducing costs, while simultaneously competing to serve individual and situated needs. The results suggest a strong and broad positive influence of intra-team collaborative behaviour on project performance; but only a limited influence of intra-team competition. Though derived from an IT projects context, the study provides generally applicable insights that can potentially serve as guidelines in structuring effective project teams in other functional areas.

2 Theoretical background and model development

2.1 The nature of competition and collaboration

Collaboration and competition are dual approaches for structuring the relationships among individuals or groups in a collective and orienting their behaviour toward performance-related goals. In terms of the level of analysis, competition and collaboration are viewed as modes of interaction among various social units, such as nations, organisations, groups, teams and individuals. This paper focuses on competition and collaboration among members of project teams who engage in the pursuit of the project objectives. Another key parameter is the nature of competition and collaboration among the project team members. At any particular level of analysis, both competition