Chapter IV

Managing Cognitive and Affective Trust in the Conceptual R&D Organization

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ABSTRACT

In today’s knowledge-based and competitive economy, research and development (R&D) efforts are increasingly geographically distributed across multiple institutions. This chapter explores the management of cognitive and affective trust and distrust within a new type of geographically distributed and multi-institutional R&D organization, called the conceptual organization. Both cognitive and affective trust are important to the conceptual organization because it relies on collaboration among individual members to achieve its goals, and collaboration is not possible without cognitive or affective trust. Data from a two-year case study of a conceptual organization illuminates how the organization’s structure, use of power and information and communications technology (ICT) shape and are shaped by cognitive and affective trust. Tightly-coupled
collaboration appears to only emerge in situations where high cognitive and affective trust simultaneously exist, and no collaboration will emerge in situations with high cognitive and affective distrust exist. In comparison, limited collaboration emerges when affective trust and cognitive distrust exist concurrently, and competitive collaboration appears to emerge when cognitive trust and affective distrust exist concurrently. Different mechanisms to manage the collaboration emerged in these situations. These results help inform our understanding of cognitive and affective trust and distrust, and their management in R&D.

INTRODUCTION

In today’s distributed, knowledge-based and competitive economy there are many challenges facing scientific research and development (R&D). To address these challenges, innovative approaches to management of geographically distributed and multi-institutional, or inter-organizational, R&D are emerging. One approach is the conceptual organization (Sonnenwald, 2002).

A conceptual organization (Figure 1) is founded based on a long-term vision that addresses large, complex and challenging problems of national and global importance. Its purpose is to work towards this vision, quickly and effectively contributing to relevant dynamic knowledge bases and meeting diverse stakeholder needs with minimum capitalization and start-up costs. To achieve this, it has an explicit conceptual organizational structure in addition to

Figure 1: Components of a Conceptual Organization
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