Coordinating Knowledge Creation in Multidisciplinary Teams: Evidence from Early-Stage Drug Discovery

Based on a multi-year field study of early-stage drug discovery project teams at a global pharmaceutical company, this paper examines how multidisciplinary teams engaged in knowledge creation combine formal and informal coordination mechanisms when faced with unpredictable interdependencies among specialists' knowledge domains. While multidisciplinary teams are critical for knowledge creation in increasingly specialized work environments, the coordination literature has been divided with respect to the extent to which such teams rely on formal coordination structures and informal coordination practices. Our findings show that when interdependencies among knowledge domains are dynamic and unpredictable, specialists design self-managed (sub-)teams around collectively held assumptions about interdependencies based on incomplete information (conjectural interdependencies). These team structures establish the grounds for informal coordination practices that enable specialists to both manage known interdependencies and reveal new interdependencies. Newly revealed interdependencies among knowledge domains, in turn, promote structural adaptation. Drawing on these findings, we advance an integrative model explaining how team-based knowledge creation relies on the mutual constitution of formal coordination structures and informal coordination practices. The model contributes to theory on organizational design and practice-based research on coordination in cross-disciplinary knowledge creation.

Shiko Ben-Menahem