

Not Just a Financial Support: Another Role of Public Subsidy in University-Industry Research Collaborations

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Abstract (300 words)

The performance of University-Industry Research Collaboration (hereafter UIC) essentially depends on its contractual and organizational characteristics. Specifically, mutual trust between and commitment by the partners are among the most important success factors. In this respect, government can play essential roles in UIC: Public R&D subsidy is not only an important financial support for UIC, but also a useful channel to promote mutual trust along with contractual agreements and information sharing among the members, which results in effective coordination and thus the success of UIC.

To our knowledge, however, few empirical studies have investigated the latter role of public R&D subsidy in UIC. Thus, this paper empirically examines how public R&D subsidy affects coordination in UIC, including trust formation, contractual agreements, and communication quality between the partners as well as commitment by the partners, controlling for initial conditions and various project characteristics of UIC.

The empirical analyses are based on original survey data. In this survey, UIC is defined as project-based R&D collaboration between universities and companies aiming at the generation of new technologies, products, or processes. We use the data on 277 firms in high-tech industries which have finished UIC during the preceding three years. We employ GMM or SUR estimation to analyze the effect of public R&D support on the coordination in UIC.

The estimation results show that public R&D subsidy encourages trust relationship, mutually agreeable contracts, information sharing, and commitment among the participants in UIC even when considering endogeneity. Thus, our results suggest the effectiveness of public R&D support as an innovation intermediary because collaborative R&D is inherently under risk of opportunistic behavior by research partners. A major implication of this research is that, in designing and evaluating public policy on UIC, specifically with regard to R&D subsidy, we should also consider its indirect effect on UIC projects.