

Incentive for Innovation and the Optimal Allocation of Patent

Kojun Hamada*

Faculty of Economics, Niigata University

Abstract

This paper clarifies the relationship between an incentive for innovation and the optimal allocation of patent by using the property rights approach in the theory of incomplete contract. We explore a model in which two research laboratories make R&D investment to generate an innovative patent and when succeeding in creating a patent, they determine the optimal ownership structure of the patent with taking the effect of the ownership allocation on their noncontractible relation-specific investments into consideration. First, we show that the optimal ownership structure of patent is joint ownership between two parties. If the ‘selfish’ relation-specific investment is relatively more important than the ‘cooperative’ one, the optimal allocation of patent is joint ownership with no veto power, and conversely, if the ‘cooperative’ investment is relatively important, the optimal allocation is joint ownership with bilateral veto power. Second, when there is no agreement upon the ownership of patent between two parties before a patent is created, both laboratories have higher incentive to make R&D investment than when there is an ex ante agreement upon the optimal allocation of patent.

Keywords: Innovation; Patent; Property rights; Joint ownership; R&D investment

JEL classifications: L14; O32; D23

* Corresponding author.

Address: 8050 Ikarashi 2-no-cho, Nishi-ku, Niigata City 950-2181, Japan