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<p>Tiivistelmä-Referat-Abstract</p> <p>In this thesis we analyze how patent policy affects the strategic behavior of firms. We develop an infinite horizon model of innovation where each period firms are randomly matched to ideas which can be developed into innovations. The model allows for simultaneous independent discovery so that the number of firms producing the same innovation is determined endogenously. The issues that we consider are (1) innovators' optimal choice of protection between patents and (trade) secrecy, and (2) the effect of patents on the firms' ability to sustain tacit collusion. In studying the choice of protection, we find that firms may find it optimal to patent even if patent protection is weaker than protection under secrecy. This follows because of the prisoner's dilemma created by the patent policy: If no one else patents, the firm gets the patent and the corresponding monopoly profits for sure whereas secrecy yields only oligopoly profits in the event that there are others that have developed the same innovation. On the hand, if the competitors patent when successful, then secrecy yields positive profits only when no competitor is successful with the same innovation. Applying for the patent gives the innovator a chance of receiving a monopoly even when others are successful. This explains how the patent policy can at the same time enhance incentives to innovate and increase the spreading of information through increased spillovers. We show that welfare maximizing patent policy may either reduce or increase spillovers.</p> <p>Turning to the effects of patents on the competitiveness of an industry, we argue that a patent system makes collusion among innovators more difficult. Our argument is based on two properties of the patent system. First, a patent not only protects against infringement but also against punishment by former collusion members. Second, a deviator has an equal chance with the former collusion members to get a patent on future innovations. We show that if a patent system reduces spillovers, it renders collusion impossible. Moreover, it is possible to design a patent system that simultaneously increases knowledge spillovers and eliminates collusion.</p>			
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