Social Receptivity and Innovation

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Abstract

Innovation is not just an invention but its introduction all over the society. In history, inventions often fail to be introduced despite their economic superiority, for folks reject a new thing by reason that it is new. Such low-level receptivity to new things has ever caused a failure of the society to accept a potentially valuable invention and to get it introduced. We develop a new model of innovation to explain this phenomenon. In the model, an invented technology can be introduced to bring about innovation only when it is socially accepted, in which invention and acceptance are costly investment activities. With the dynamic optimization of an infinitely lived consumer, we show there are two possible equilibria. The first is the society is caught in a kind of the low-level equilibrium trap of no innovation, in which it provides only invention without accepting it on an equilibrium path. The second is the society does invention and innovation irregularly alternately, which perpetually fluctuates, moving back and forth between the period of invention and that of acceptance. Finally, we identify three essential factors determining which equilibrium is realized: social receptivity, market size, and forgetting.

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