Application of the Real-Option Technique to Investments in Learning

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Abstract:

The aim of this paper is to apply the option valuation technique to the problem of firm's investments in learning, defining the structure of its two-staged optimization problem. It is shown further that even in this more complete setting, there still are such factors as inertia and the peculiarities of supply-side uncertainty, that cannot be modeled under the assumptions of optimizing behavior. The analysis points out the linkage between path-dependent behavior, inertia and the phenomenon of hysterisis, as well as the influence those factors have on the decision of the firm to investments in learning. Paper concludes by drawing five results proposing the likely effects on firm's decision making, and the possible changes in the industry structure, that different sets of the analyzed parameters would have.

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