

Human Capital Accumulation and Incentive Contracts: A Differential Game
Approach

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Abstract

This paper utilizes the differential game model of incentive contracts in which both the principal and the agent have long-term supplier relations, which lead the agent to make relation-specific investment in cost-reducing effort activities. We then demonstrate the importance of the agent's human capital accumulation in determining the agent's cost-reducing effort level and moral hazard and the principal's optimal incentive contracts. The results show that (1) the degree of the agent's moral hazard is determined not only by cost flexibility but also by the rate of discount, the rate of depreciation of human capital, and the period commitment; (2) the principal cost-sharing ratio will be higher if the agent's moral hazard is serious; and (3) the trade-off relationship between risk-sharing and moral hazard does not necessarily hold in the dynamic framework.

Keyword : Differential game, Human capital accumulation, Incentive Contract