COMPETITION GAME MODEL BETWEEN INNOVATORS AT COMPETITION SELECTION OF PROJECTS ACCORDING TO UNCERTAINTY

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We propose a game-theoretic model of resource-based competition between innovators in contest-like screening mechanisms with information asymmetry. The model can be used not only for mechanisms of direct competition, but also in multilevel systems as part of the complex agent behavior model. The bias of individual agent ratings is assumed to be optimistic. Two sources of that optimistic bias are identified – deviations in the assessment of competitor resources and deviations in the assessment of the accuracy of their own forecasts. It is shown that under conditions of uncertainty, agent optimism leads to non-optimal solutions and an increase in the total utility loss in the whole system. The mechanisms of optimistic shifts in agent estimates and agent's Bayesian adjustment are described. Bayesian equilibrium conditions are obtained in the proposed model.

Keywords: information asymmetry, uncertainty, game theory, unobservable behavior, signaling, opportunism.

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