

Knowledge redundancy, environmental shocks, and agents' opportunism

Lucio Biggiero

University of L'Aquila, lucio.biggiero@gmail.com
Knownetlab Research Group www.knownetlab.it

Abstract

Notwithstanding the warning of myopic view when giving too emphasis to the short run and stable environments, efficiency is usually claimed by standard economics as the main goal of competitive firms. This must be challenged by management and organization scholars, who argue that, in presence of strong uncertainty due to environmental turbulence, slack resources can be a competitive advantage. In order to put some sound block in this debate, through an agent-based model of industry competitiveness based on suppliers' quality this paper tests four groups of hypotheses. It innovates current literature in two ways: firstly, it considers redundancy in terms of organizational knowledge, and not in terms of personnel or financial assets or other types of resources, which are usually taken as object of study. Secondly, it compares the effects of two forms of perturbations: environmental shock and opportunism. The results show that these two forms impact differently on industry profitability and that knowledge redundancy can (limitedly) compensate the effects of environmental shocks but not of opportunism. Moreover, it demonstrates that, as agents exchange (and accumulate) more information, knowledge efficiency declines, but less than proportionally to the increase of knowledge exchange.

Key-words: agent-based models, decision making processes, environmental shock, information exchange, knowledge redundancy, opportunism, organizational knowledge, slack resources, uncertainty.

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