

It's Not Just the Destination but the Journey: Network Position, Network Mobility and Innovation

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ABSTRACT

Technological competition occurs in many settings. In settings where patents and intellectual property provide a strong regime of appropriability, the quality of a firm's intellectual property is a central feature of competition. This talk examines the quality of the patents generated by biotechnology firms from a network-based perspective.

Drawing on arguments from the knowledge-based theory of the firm, we hypothesize that accessing and exploring external knowledge affects the quality of discovery of biotechnology firms. Specifically, we argue that firms who are better connected to external knowledge sources will develop better innovative capabilities than firms who are poorly connected or unconnected. In this line, we suggest that the nature of the initial entry of a firm into a network and its subsequent mobility into the core of the network, affect the quality of its intellectual property independently of its position in the network at any given time.

We develop and test five hypotheses about the effect of network entry, mobility over lifecycle of the network, and position on the likelihood of generating high quality patents in the field of biotechnology.

Using event history data on 846 biotechnology firms over a 26 year observation period, we utilize a 2-stage estimation technique and find support for the majority of our hypotheses.