MANEUVERING IN A NEW TECHNOLOGICAL REGIME: THE PATENTING OF FINANCIAL INNOVATION (SUMMARY)

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ENVIRONMENT

SUMMARY

MANEUVERING IN A NEW TECHNOLOGICAL REGIME:
THE PATENTING OF FINANCIAL INNOVATION

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Principal Topic

Venture formation to exploit new technology has garnered much attention in the literature (e.g. Shane, 2001). In particular, research has emphasized the importance of the prevailing technological regime governing the innovation process including the sources and diffusion of knowledge, and how industry actors exploit knowledge to solve tractable business problems. Technological regimes describe pertinent factors within an industry including the level of technological opportunity for established firms, the ease of access to new technological opportunity by entrant firms, and the cumulativeness of learning. Technological regimes are important because they impose conditions on the pattern of innovation in an industry. In other words, technological regimes determine which firms create value through innovation and more importantly, which firms capture value by limiting emulation and appropriation (Teece, 1986).

To date, research has emphasized the importance of learning processes within firms’ innovation and production activities, the locus of knowledge sources, and the nature of the knowledge base in understanding which firms – incumbents or new ventures – are most likely to create and capture value within a prevailing technological regime. Specifically, researchers make a distinction between an entrepreneurial regime, which facilitates the entry of new innovative firms, and a routinized regime, which facilitates innovation by incumbent firms (Winter 1984). As such, research suggest that new venture formation thrives under an entrepreneurial technological regime; whereas, barriers to entry are such that in a routinized technological regime incumbents are in a position to appropriate the majority of the value created within an industry.

What remain less developed in the literature are the predictors and consequences of changes to technological regimes to the sourcing and diffusion of knowledge-based resources within an industry. In particular, what denotes a fundamental shift in technological regimes and what are the consequences of this shift? Investigating how technological regimes change is important because it provides insights on entrepreneurial emergence; under what conditions are new ventures more likely to exploit new technology. The complexity of the knowledge base and the homogeneity of technological trajectories represent possible sources of entry barriers in the industry and therefore contribute to shape the industry’s competitive dynamics.

Method

In this study, we conduct a natural experiment to evaluate the extent to which an intervention (i.e. governmental action) affected the sourcing and diffusion of knowledge within the existing technological regime. In particular, we investigate the extent to which patterns of knowledge sourcing and diffusion changed within the technological regime governing financial innovation.

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