Research Proposal

"Patent Spinoffs: Economics of Innovation and Technological Entrepreneurship"

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New ventures create an average of 3 million new jobs, and all other ages of firms are net job destroyers losing 1 million jobs net combined annually using "Business Dynamics Statistics" dataset by the U.S. Census Bureau (Kane 2010, p.6). These staggering statistics suggests that new ventures have enormous contribution towards economic growth and job creation within an economy (Schumpeter 1942).

A specific type of new ventures called "spinoffs" have drawn substantial attention in last decades. Spinoffs are the new entries whose impetus originates from within an existing company and it does not require the spin-off to be in the same industry as the incubator firm (Erikkson and Kuhn 2006, p.1022). Spinoff literature suggests that their distinctive performance as compare to start-ups, raises fundamental theoretical and policy related concerns (Klepper 2009; Sorenson and Fassiotto 2011; Agarwal et al 2008). However, there is a lack of systematic research on the long-term impacts of patent based spinoffs. Consider that patent approvals help startups create jobs, grow their sales, innovate, and reward their investors by acting as a catalyst that sets startups on a growth path by facilitating their access to capital (Farre-Mensa, Hegde and Ljungqvist 2015). Also, source of finance has important implications for the performance of start-ups. For instance, ventures that are funded by two successful angels experience superior outcomes to those that are rejected (Kerr William, Josh Lerner & Antoinette Schoar, 2014). We still lack such evidence based research the in spinoff literature.

Therefore, this proposal aims to address the lack of systematic research on the long-term impacts of patent based spinoffs. Considering the importance of patent-spinoffs in entrepreneurship research and innovation policies, and the significant amount of resources used to promote these firms; limited knowledge about their impacts is an impediment to the design of efficient policies and support mechanisms.

A *unique database* is created covering the *US based patents and spinoffs in high tech industries such as aerospace from 1908 to 2014.* This dataset covers characteristics of patents, parent-spinoff firms, and inventor & top management teams. Major sources for data collection are *USPTO, Compustat, Bureau Van Dijk's ORBIS, Lexis nexis, company websites* (company prospectus, profile, annual report etc.), LinkedIn, and US Securities and Exchange Commission (SEC). While data on public firms are readily available in machine-readable databases such as Compustat; information on young private firms, specifically patent based spinoffs, is much harder to gather. This novel combination of data sources will make it possible to draw deeper insights into the determinants and performance of patent based spinoffs.

This approach makes it possible to explore largely unaddressed research questions such as: *What is the link between initial founding conditions, resources (e.g. financing) and the long-term performance of patent based spinoffs? How does the source of funding (e.g. venture capital, angel, & corporate sponsored) influence performance of spinoffs? Do the most successful spinoffs become acquired?*

Implications of the study will inform the discussion about whether the prominence given to spinoff research and innovation policy is warranted; and how entrepreneurship policies and support initiatives to promote the growth and potential impacts of spinoffs should be designed. Finally, results will have important implications for scholars, managers and policy makers in the field of technology based entrepreneurship.

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