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DOES HIGH-TECH BUSINESS INCUBATION/ACCELERATION WORK? A CLUSTER DEVELOPMENT APPROACH (INTERACTIVE PAPER)

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INTERACTIVE PAPER

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Principal Topic

The rapid introduction of technological innovations since the 1980's has fostered the shared perception among policy makers, practitioners, and academics that high-tech innovations generate wealth and employment. The desire to increase the population of small high-tech firms has attracted substantial private and public funding of incubators, accelerators, science parks, and co-working spaces. The National Business Incubation Association (NBIA) reports that in 2012 there were over 1250 incubators in the U.S., up from only 12 in 1980 and internationally, thousands more incubation initiatives have recently been established in Europe and Asia.

Yet these institutions remain little understood, without an agreed underlying theoretical framework or established metrics for evaluation. We utilize a novel theoretical framework, adapted from cluster theory, to establish sound metrics for evaluation of incubation/acceleration institutions. We undertake an empirical incubator evaluation using a new dataset as a model for systematic incubator evaluation.

This paper develops and tests a set of hypotheses on how high-tech firms benefit from participation in a business incubator. First, building on cluster development theory, which focuses on *a geographically proximate group of interconnected companies linked by externalities of various types* we expect incubator participants to demonstrate enhanced employment growth and innovation metrics. Second, we develop the concept of a *networked incubator*, which fosters *territorial synergy, relational symbiosis, and economies of scope*, based on network theory and social capital theory, to explain the link between employment/innovation performance and human/network capital measures.

Method

We test our hypotheses on a unique dataset of 123 incubator participants and benchmark their performance versus US Census and Kauffman Firm Study data. This panel dataset (2009-2012) follows employment growth rates based on ex-ante firm characteristics, including human and network capital measures for an incubator in the NY metropolitan area.

Results

This paper adds to our knowledge of how business incubation/acceleration enhances the performance of participating companies. In particular, this study identifies human and network capital measures that may enhance employment growth rates. From a practical point of view, our study can become a model for policy makers to evaluate the performance of individual incubators and can be used to compare alternative incubation activities and improve management of this key sector.

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