

6-13-2015

DECOMPOSING THE PERFORMANCE OF U.S. METROPOLITAN ENTREPRENEURIAL ECOSYSTEMS (SUMMARY)

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Recommended Citation

Vedula, Siddharth; Vogel, Peter; and Robb, Alicia (2015) "DECOMPOSING THE PERFORMANCE OF U.S. METROPOLITAN ENTREPRENEURIAL ECOSYSTEMS (SUMMARY)," *Frontiers of Entrepreneurship Research*: Vol. 35 : Iss. 11 , Article 13.
Available at: <https://digitalknowledge.babson.edu/fer/vol35/iss11/13>

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≈ SUMMARY ≈

**DECOMPOSING THE PERFORMANCE OF U.S.
METROPOLITAN ENTREPRENEURIAL ECOSYSTEMS**

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Principal Topic

Extant research has primarily focused on characterizing *input elements*, typically referred to as pillars, of metropolitan entrepreneurial ecosystems (e.g., Isenberg, 2010; Vogel, 2013). In comparison, we know far less about the *performance* of ecosystems. The few studies that do exist are limited in that they are: a) descriptive and not based on statistical analyses, b) usually cross-sectional in nature and c) are case-based and hence hard to generalize. In this study, we aim to overcome these issues by conducting a historical assessment of U.S. metropolitan ecosystems, with archival data from 1998-2012.

Method

We assess the performance of metropolitan entrepreneurial ecosystems using two methods well suited for input-output analyses of complex systems, stochastic frontier analysis (e.g. Aigner et al., 1977) and qualitative comparative analysis (QCA) (e.g. Fiss, 2011). Stochastic frontier methods allow us to estimate a *production frontier* across all metro regions. We are therefore able to identify which metropolitan regions use their input resources (e.g. labor, finances, R&D, infrastructure, entrepreneurial culture) most *efficiently* to generate entrepreneurial outcomes of interest (e.g. startup creation, job growth). In comparison the QCA approach allows us to identify stable underlying configurations that is sets of input resources that act in either a substitutive or complementary fashion, to generate outcomes of interest. We combined data from a variety of sources such as the Census Bureau, Harvard Cluster Mapping Project, National Business Incubator Association, Small Business Administration, and VentureXpert for these analyses.

Study Implications

We offer a number of contributions through this study. First, rather than focusing on ecosystem inputs, we examine the drivers of performance heterogeneity between ecosystems. Second, our analytical methods allow us to offer useful policy insights. In particular, using frontier analyses techniques we are able to identify sources of inefficiency within systems and thus offer guidance on how metropolitan regions can optimize their entrepreneurial outputs given the resources (i.e. inputs) at their disposal. Similarly, QCA approaches provide insights on ecosystem inputs that are complementary, that can either perfectly or imperfectly substitute for one another, and that are most important at different stages of ecosystem evolution. In combination, our results should therefore help decision makers better understand which sets of input factors to focus on when attempting to build new ecosystems or revitalize existing ones.

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