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Entrepreneurial Ecosystem Mechanisms

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Entrepreneurial Ecosystem Mechanisms

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ABSTRACT

Entrepreneurial ecosystems have developed from a powerful idea and concept into a transdisciplinary research program, increasing our understanding into entrepreneurship-led development and providing actionable knowledge for improving the conditions for entrepreneurship and development. In this monograph we take stock of the progress to date and synthesize the findings of 181 empirical scientific entrepreneurial ecosystem studies through a systematic literature review. We organize the review around five key mechanisms that explain the nature and development of entrepreneurial ecosystems: (1) interdependence of its elements, (2) upward causation explaining entrepreneurial ecosystem outputs and (3) outcomes, (4) downward causation and path dependence, and (5) inter-ecosystem links. We summarize the findings and outline opportunities for research and discuss policy implications in the light of a transdisciplinary entrepreneurial ecosystem research program.

This monograph is of interest for scholars of all academic disciplines that provide knowledge that is relevant for the

understanding of entrepreneurial ecosystems, entrepreneurship and entrepreneurship-led development, but also for all stakeholders involved in the development of entrepreneurial ecosystems.

Keywords: entrepreneurship; entrepreneurial ecosystems; causal mechanisms; economic development.

1

Introduction

The concept of entrepreneurial ecosystems has gained enormous popularity within research, policy, and business practitioner fields over the last decade. Indeed, half of the ten most cited papers in entrepreneurship over the past five years are on entrepreneurial ecosystems (García-Lillo *et al.*, 2023). The idea—that there is a particular arrangement of actors and factors within a region or country that promotes entrepreneurship that acts as an engine of economic growth—was quickly adopted by governments and non-governmental organizations such as the United Nations (UNCTAD, 2010), the World Economic Forum (World Economic Forum, 2014), the OECD (Mason and Brown, 2014), the European Commission (European Commission, 2014), the Kauffman Foundation (Stangler and Bell-Masterson, 2015), and the World Bank (Mulas *et al.*, 2015), and commercial organizations including Startup Genome (Startup Genome, 2012) and StartupBlink (StartupBlink, 2014). This policy excitement led to a situation where research is led by policy rather than policy being guided by rigorous academic research (Stam, 2015; Stam and Spigel, 2018). Even within the academic literature, the concept of entrepreneurial ecosystems is mainly used metaphorically

with unclear relationships to other theories of innovation, entrepreneurship, and (regional) economic development (Alvedalen and Boschma, 2017; O'Connor *et al.*, 2018; Scaringella and Radziwon, 2018; Stam, 2015), and confusion with related business concepts including innovation ecosystems (Adner and Kapoor, 2010; Autio and Thomas, 2014) and business ecosystems (Adner, 2017; Moore, 1993) that aim to explain firm performance with ecosystem approaches.

Although entrepreneurial ecosystems quickly achieved “buzzword” status within research and policy communities and the implementation of ecosystem policies quickly outpaced their research foundation (Autio *et al.*, 2018; Stam, 2015), the basic ideas underlying the entrepreneurial ecosystem concept are grounded in strong research traditions. Current thinking on entrepreneurial ecosystems can be seen as the result of developments in several related literatures: entrepreneurship context (Autio *et al.*, 2014; Welter, 2011), high-growth entrepreneurship (Autio and Rannikko, 2016; Henrekson and Johansson, 2008), industrial clusters (Delgado *et al.*, 2010; Rocha, 2004; Rocha and Sternberg, 2005), regional innovation systems (Cooke, 2007; Sternberg, 2007; Ylinenpää, 2009), and entrepreneurial environments (Gnyawali and Fogel, 1994; Van de Ven, 1993). The entrepreneurial ecosystem approach synthesizes these often disconnected literatures and opens up new research questions and avenues for investigating economic policy issues as well as more fundamental social science questions such as the relationship between structure and agency in modern capitalism (Spigel, 2020). Moreover, entrepreneurial ecosystems emphasize the role of “place” and provide a lens for understanding regional economic transformation through entrepreneurial action (Audretsch, 2015; Feldman and Lowe, 2018; O'Connor *et al.*, 2018). We define an entrepreneurial ecosystem as a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship within a particular territory (cf. Stam, 2015; Stam and Spigel, 2018; Stam and Van de Ven, 2021).

Given the extent of policy and research interest in entrepreneurial ecosystems it is important to critically reflect on what work has been done and what knowledge has accumulated about the contextual nature of the entrepreneurship process. In this monograph we structure and synthesize the field of entrepreneurial ecosystem studies with a focus

on the empirical evidence of the underlying causal mechanisms. Uncovering causal mechanisms is fundamental for understanding change in society in general (Elster, 1989; Sayer, 1992), and entrepreneurship and innovation in particular (Hedström and Wennberg, 2017; Van Burg and Romme, 2014). Uncovering causal mechanisms is not only fundamental for understanding how entrepreneurial economies work, but also for improving them with an actual entrepreneurial ecosystem approach that builds on the principles of complex socio-economic systems.

Building on the work by Wurth *et al.* (2022),¹ we first define some key academic “tools,” which underpin our analysis: concept, framework, model, theory, and mechanisms. We start with the general notion of entrepreneurial ecosystems. The concept of entrepreneurial ecosystem is an abstracted idea of a real-world phenomenon. We identify, categorize, and organize the factors deemed most relevant to understanding entrepreneurial ecosystems: a framework (cf. the entrepreneurial ecosystem frameworks of Isenberg, 2010; Spigel, 2017a and Stam, 2015). This framework provides the foundations for a model, in which the specific functional relationships among particular variables or indicators are hypothesized to operate in some well-defined set of conditions. These hypotheses can be derived from or organized through theories, which are different ways to talk about causal mechanisms explaining development and change (cf. Hedström and Wennberg, 2017; Van de Ven and Poole, 1995). We conceptualize five causal mechanisms that are grounded in earlier work by Wurth *et al.* (2022), namely (1) interdependencies between ecosystem elements, (2) the link between entrepreneurial ecosystems and entrepreneurial outputs and (3) wider socio-economic development, (4) downward causation, and (5) links and flows of ideas, people, and resources between different entrepreneurial ecosystems.

We use a systematic literature review to synthesize empirical studies on the causal relationships among the ecosystem elements and how they are linked to outputs and outcomes (Webster and Watson, 2002). The goal is to develop a comprehensive and mechanism-based understanding of the entrepreneurial ecosystem concept and how it can contribute to entrepreneurship and economic development policy and our wider

¹This work builds on, extends, and updates Spigel (2020) and Wurth *et al.* (2022).

understanding of the contextual nature of entrepreneurship. This is an instrumental step in building a coherent research community around entrepreneurial ecosystems that would allow for the accumulation and development of scientific and practical knowledge. It is also an invitation for replication and extension studies, and for novel questions and approaches.

While recent reviews of the entrepreneurial ecosystem literature (e.g., Cao and Shi, 2020; Garavan *et al.*, 2019; Hakala *et al.*, 2020; Maroufkhani *et al.*, 2018; Nicotra *et al.*, 2018) have sought to bring together this rapidly shifting field, we advance on these works in two key ways (cf. Wurth *et al.*, 2022). First, we embrace a broad literature covering the entirety of the entrepreneurial ecosystem concept, rather than specialties such as ecosystems in emerging economies or specific domains. Second, we draw on this literature to identify the empirical evidence for the five casual mechanisms, which link the contexts in which entrepreneurship takes place with specific outcomes such as firm growth, innovation, and increases in overall welfare.

We discuss the implications of the results of our review in light of existing research agendas as opposed to developing a new one. In line with the aim of the review, our goal is to synthesize existing work. This is crucial for the credibility of the entrepreneurial ecosystem concept and its future within academic research and policy and business practice more broadly.

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Articles denoted with an asterisk are included in the systematic review.

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