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Building Entrepreneurial Ecosystems Sustainably

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Building Entrepreneurial Ecosystems Sustainably

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ABSTRACT

While entrepreneurship has traditionally been studied from the perspective of the entrepreneur or entrepreneurial enterprise, a modern view emphasizes the importance of the context in which the entrepreneur or enterprise operates. From this perspective, the entrepreneurial ecosystem describes the entrepreneurial context by disentangling the complex interdependent interactions between various organizations (biocenosis) and the milieu/environment in which the entrepreneur or company operates (biotope). However, previous research has neglected to provide a holistic view of the complex dynamics of ecosystems. In response, this study sheds light on the state of the art of this emerging theoretical framework, identifies research gaps that require further investigation, and designs a research program (i.e., the BEES program, Building Entrepreneurial Ecosystems Sustainably) to provide concrete directions for the development of entrepreneurial firms. This program contributes (i) to the theorization of the entrepreneurial ecosystems theoretical stream through a holistic vision; (ii) to a better understanding of the complex strategic dynamics and behaviors in this context; (iii) and to its successful implementation in different contexts. The BEES program facilitates the adoption

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of an ecosystem approach to building an entrepreneurial society and provides the impetus for the construction of a new school of scientific thought based on the ecosystem approach.

Keywords: Entrepreneurial ecosystem; entrepreneurial support organizations; sustainability; ecosystem protocol; inclusion.

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Introduction

Over the last 15 years, entrepreneurial ecosystems have received an increased interest from theory and practice as a concept conducive to economic growth and sustainability (Theodoraki et al., 2023). This concept gained prominence as a "buzzword" illustrating entrepreneurial schemes and policies in fostering economic development (Wurth et al., 2023; Huggins et al., 2024). The genesis of entrepreneurial ecosystem research was born due to the continuous failure to reproduce successful entrepreneurial ecosystems such as Silicon Valley in California, Route 128 in Boston, Tel Aviv in Israel or Sophia Antipolis in France (Cohen, 2006; Theodoraki, 2024). This growing interest has brought insights from different contexts and contributed to a better understanding for the enablers and disablers of building successful entrepreneurial ecosystems. Thanks to this increasing interest and nurturing of the entrepreneurial ecosystem concept, research has intersected with various novel themes like industry-focus, emerging contexts, ambidexterity, entrepreneurial orientation, internationalization, digitalization, social entrepreneurship, etc.

This research is situated at the intersection of entrepreneurship and strategic management with a particular focus on territorial economic

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development. In particular, this research focuses on the entrepreneurial ecosystem and the strategies of entrepreneurial support organizations (ESOs) (Bergman and McMullen, 2022; van Rijnsoever, 2022). A special interest is highlighted regarding the strategic inter-organizational relationships that the different actors of the entrepreneurial ecosystem develop among themselves in order to contribute to the collective goal of economic development in a complementary way. These relationships include opportunistic behaviors, collaborative projects, conflicts between individual and collective goals, hybrid and contradictory behaviors such as co-opetition, defined by the simultaneous presence of cooperative and competitive strategies (Brandenburger and Nalebuff, 1996).

Additionally, entrepreneurship, as an applied interdisciplinary research field differs from basic research or a discipline and aims at providing solutions to societal problems. Therefore, entrepreneurship scholars need to be world thinkers and observe societal trends and behaviors (Theodoraki, 2023; Wurth *et al.*, 2023). According to David Audretsch's famous quote, knowledge spillovers lead to "Money and interest" (Theodoraki, 2019a, p. 469). With the rise of entrepreneurial ecosystems as a popular topic among policy makers and practitioners, it has become an appealing area of research for entrepreneurship scholars, offering an opportunity to combine "money and interest."

According to the complex nature of entrepreneurial ecosystems, this research avoids pure quantitative or pure qualitative schools of thought and embraces multi-paradigm and hybrid approaches that strive to provide concrete responses to societal problems (Theodoraki, 2023; Wurth *et al.*, 2023). Such approaches include a **pragmatism** and **critical realism** to provide concrete responses to societal problems (Blundel, 2007; Alvarez *et al.*, 2014). Concretely, this research philosophy provides deep insights on a popular and still under-theorized stream, i.e., the entrepreneurial ecosystem. Therefore, studying entrepreneurial ecosystems supposes the acceptance of adopting an entrepreneurial orientation including being innovative, taking risks, and being proactive (Covin and Wales, 2019).

Empirical evidence has been meticulously constructed over the course of over a decade, drawing from relentless data collection efforts by numerous research teams. This involved gathering **both qualitative**

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(more than 401 interviews + 13 focus groups) and quantitative data (1143 questionnaires) from various points in time, involving diverse ecosystem actors and encompassing different geographical scales, ranging from urban and rural settings to local, city-level, regional, national, and international contexts.

Historically, the first practice-oriented "burning" question reflected how to replicate the success of Silicon Valley's success in the 1970s. Driven by this question, scholars provided some initial results that could be summarized into the following 3-step protocol: (i) **make a list** of the elements present in Silicon Valley's successful context (e.g., Y Combinator incubator, Stanford University, fundings entities like Silicon Valley Angel, impactful firms such as Google, Amazon, Apple etc.), (ii) **duplicate** these elements and (iii) **reproduce** them in the new context. Following such a protocol, it should theoretically lead to similar outcomes, therefore, reproducing Silicon Valley's success in another context.

The failure of this protocol initiated the **birth of the ecosystem approach** that grouped together researchers trying to understand and investigate why such a protocol failed. One obvious response is that the success of the ecosystem is not conducive to the simple duplication and recontextualization of elements present in one successful context but rather, their unique foundation based on the geographical specificities and resources availability (Theodoraki and Messeghem, 2017). Further explaining this view, O'Connor and Audretsch (2022) adopt the rainforest metaphor to illustrate that just as each forest (natural) ecosystem evolves uniquely due to the specific conditions of each climate "zone," each entrepreneurial ecosystem is unique and needs to adapt to the zone's specificities.

Following this thread of continuity, this study addresses the following central question: *How does building entrepreneurial ecosystems enhance sustainably?* To respond to this research question, it is essential to unravel the entrepreneurial ecosystem concept and progressively respond to several sub-questions. Starting from fundamental questions regarding: (i) the **structure** of the ecosystem: *What is an entrepreneurial ecosystem and its functioning? How do ecosystem elements interact with each other? How can successful entrepreneurial ecosystems*

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be built?; (ii) the **evolution** of the ecosystem: How do the strategic behaviors and interactions evolve over time or during specific processes? Where and when to start building an entrepreneurial ecosystem?; the **outcomes** of the ecosystem: Why do some ecosystems thrive more than others? What strategies are more efficient within the entrepreneurial ecosystem?; the **boundaries** of the ecosystem: How are entrepreneurial ecosystems framed? How are entrepreneurial ecosystems spatially embedded? How are entrepreneurial ecosystems sub-divided, or embedded in different units of analysis? How may spatial boundaries be reflected between and beyond the geographical setting?

Likewise, this study will shed light on these questions and open research avenues in fulfilling the research gaps.

Yet, from a practical point of view, the response to this central question is reflected through the BEES research program (see Section 5). This program enables the adoption of an ecosystemic approach of building successful, inclusive, and resilient ecosystems that have the potential to evolve, survive and fortify over time. Likewise, the BEES program could be replicated to other contexts and countries in order to set up a roadmap on building sustainable entrepreneurial ecosystems sustainably worldwide (Theodoraki, 2023). For example, the city of Tacoma/Pierce Country in the United States has been pioneering in encouraging the implementation of this approach for establishing a sustainable entrepreneurial ecosystem in Tacoma. This serves as a preliminary (beta) version of the ecosystem approach, which enables further enhancement and improvement.

The aim of this monograph is twofold. First, it aims at providing an accurate articulation of previous work and more than a decade of knowledge accumulation in this stream, and building a consistent research program with a major impact for research and practice. Second, it offers a path of learning (a school of thought) and a concrete direction by providing a research agenda and a program for structuring future research.

To respond to the general research question as well as to the subset of research questions that emerged, this monograph is structured upon six sections (cf. Table 1.1). Section 1 offers invaluable insights by tracing the genesis of ecosystems from earlier theories, identifying

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research gaps, and mapping the historical evolution of the field. It elucidates the foundational principles shaping entrepreneurial ecosystems, such as industrial districts and innovation systems, informing our understanding of their dynamics. By pinpointing areas needing further exploration, it guides future research agendas, fostering new theoretical and methodological approaches. Additionally, it synthesizes diverse disciplinary perspectives, mapping the trajectory of the field's

Sections	Aim	Contribution
Section 1: Introduction	Introduces the geneses, research gaps and historical evolution of the entrepreneurial ecosystem research	 Traces the origins and foundations by examining the ecosystem genesis from earlier studies Identifies the main research gaps by pinpointing areas that need further exploration, which legitimizes the need for a structured research program Tracks the trajectory of the field's development
Section 2: Entrepreneurial Ecosystem-as- Theory	Sets up the theoretical foundation and an attempt of theorization of entrepreneurial ecosystem	 Elaborates on the state-of-the-art of an emerging integrative framework (definition, theories, etc.) Provides a holistic view from a theoretical standpoint Distinguishes the research gaps that require further investigation
Section 3: Entrepreneurial Ecosystem-as- Method	Introduces a novel view of studying entrepreneurial ecosystems as a method	 Raises the difficulties of studying a complex concept through holistic views Provides a variety of ecosystem metrics Sheds lights on a novel methodological protocol to study entrepreneurial ecosystems
Section 4: Entrepreneurial Ecosystem-as- Practice	Approaches the entrepreneurial ecosystem as practice and aims at raising the difficulties of adopting such approach in practice	 Provides useful advice on its implementation as policy or strategic plan Shed light on the myths or the reality around entrepreneurial ecosystems Shared insights, best practices, and tips to avoid barriers for implementation

 Table 1.1: Monograph's structure

Continued.

Introduction

Sections	Aim	Contribution
Section 5: The BEES Research Program	Exposes the future research agenda by describing the goal the BEES (Building Entrepreneurial Ecosystems Sustainably) research program	 Reveals a structured and accurate research path to contribute to entrepreneurial ecosystems for theory and practice It suggests an action plan to elaborate and implement an effective entrepreneurial ecosystem over time and space Raises the importance of elaborating entrepreneurial ecosystem as mindset
Section 6: Conclusion	Consolidate past work by establishing the knowledge base, and introduced the new era in entrepreneurial ecosystem research	 Consolidates past research by establishing foundational knowledge base Reveals the new era in entrepreneurial ecosystem research Mobilizes researchers for advancing entrepreneurial ecosystem research

Table 1.1: Continued.

development and identifying emerging trends. This synthesis not only enriches current knowledge but also shapes the future trajectory of entrepreneurial ecosystem research.

Section 2 sets up the theoretical foundation and attempts the theorization of entrepreneurial ecosystems. This section depicts the **entrepreneurial ecosystem-as-theory** and sheds light on the current contributions, the different theoretical views and standpoints, and provides a holistic view of what aims to be the "entrepreneurial ecosystem theory." Furthermore, it uncovers certain research paths that require further investigation.

Section 3 then introduces a novel view of studying entrepreneurial ecosystems which considers it for the first time as a method. This section raises the difficulties of studying a complex concept through holistic views and in particular how to measure it. To overcome these challenges, this section examines the **entrepreneurial ecosystem-as-method** (rather than a concept) and describes the techniques used to analyze it. This section will also reflect and relate to the ontological standpoint that aims to provide concrete responses to societal problems. Based on

this standpoint, it offers a detailed description of the ecosystem protocol that enables the set up of the methodological framework in examining entrepreneurial ecosystems.

Section 4 approaches the **entrepreneurial ecosystem-as-practice** and raises the difficulties of adopting such an approach in practice. It provides useful advice on its implementation as a policy or strategic plan while raising the importance of clarifying the myth related to the ecosystem concept. In addition, it organizes the empirical discoveries and models that have been developed over the course of a decade and explains how they can be gradually implemented to establish a thriving ecosystem. This organization of findings provides a protocol for creating an effective strategic plan for the ecosystem, step-by-step. While it makes a significant contribution towards building a successful entrepreneurial ecosystem, it falls short in providing guidance on how to sustain it over time. This prompts the introduction of Section 5.

Section 5 exposes the future research agenda by describing the goal of the BEES (Building Entrepreneurial Ecosystems Sustainably) research program. This program reveals a structured and accurate research path to contribute to entrepreneurial ecosystems for theory and practice. Likewise, it suggests an action plan to elaborate and implement an effective entrepreneurial ecosystem over time and space. Furthermore, it provides a synthesis of learnings and reflections in building a school of thought in entrepreneurial ecosystems.

Finally, Section 6 consolidates past scientific contributions, establishes a foundational knowledge base, and guides decision-making toward envisioning and designing an effective research program. It recognizes the entrepreneurial ecosystem as a dynamic framework and reveals a new era in entrepreneurial ecosystem research. Ultimately, the conclusion seeks to inspire and mobilize a team of researchers to implement an envisioned research program and propel the field forward.

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