

# Entrepreneurship and Wealth-Generation in Socially Structured Economies

An Overview

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# Chapter 1: Introduction

- ▶ This monograph presents theoretical and empirical considerations in the field of entrepreneurship. Specifically, we investigate the interaction between institutions, networks, and entrepreneurship.
- ▶ **Fundamental idea:** The act of entrepreneurship expresses a crucial development of the social division of labour. This is reflected in a major modification of institutional environments and interaction infrastructures.
- ▶ In particular we investigate the conjecture that entrepreneurial activities lead to new socio-economic roles and, as a consequence, unique positions in the networked economy.
  - ▶ Unique positions are *uncontested* and can lead to exploitation.
  - ▶ However, they are also wealth-generating actions and positions facilitating deeper divisions of labour and the connection of communities that would otherwise be disconnected.

# Aim and objectives

- ▶ **Aim.** To provide a theory of entrepreneurship and entrepreneurial activity within socially structured economies.
- ▶ This consists of four objectives.
  1. Develop a relational perspective of embedded economic activity based on a population of specialised economic agents that form a functional social division of labour.
  2. Explain and illustrate the role of the entrepreneur within the relational perspective and highlight the impact that entrepreneurship has on the evolution of the social division of labour.
  3. Provide a distinction between the act of entrepreneurship and the entrepreneurial function of the economy and relate this to .
  4. Complement the theoretical discussion of the relational perspective and entrepreneurship with empirical analyses of entrepreneurial activities.

# Dissertation structure

- ▶ The analysis of entrepreneurship within the relational perspective is partitioned into three consecutive Parts:

**Part I.** Develops a theory of entrepreneurship and wealth-generation within a *socially structured economy*.

**Part II.** Investigates entrepreneurial activity and positional power in an economy consisting of a horizontal division of labour.

**Part III.** Investigates entrepreneurial activity and positional power in with more complex interaction structures and a vertical division of labour.

- ▶ Throughout we complement theory with empirical examples; this includes the analysis of elite Florentine families and the directorate network of New York City during the early Twentieth Century.

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# Part I overview

- ▶ Part I provides a set of fundamental notions that define the relational perspective. From this we describe the notion of the entrepreneur and entrepreneurial activity.
- ▶ This Part results in:
  1. Definition of socially structured economies given a network-institutional perspective of social and economic activity.
  2. Development of consumer-producers, socio-economic roles, and the division of labour.
  3. Clarity regarding the definition and impact of entrepreneurship and the entrepreneurial function within this framework.
- ▶ This is expressed over three chapters.



## Chapter 2: Toward a relational perspective

- ▶ Relational perspective is developed using an axiomatic method: this chapter discusses these underlying modelling axioms and hypotheses.

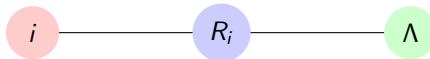
**Axiom I.** Bounded rationality: Limited cognitive abilities to compute the consequences of their own and others actions. This results into fundamental perceived uncertainty in the economy.

**Axiom II.** Harmonisation of production and consumption: Economic agents are bearers of consumptive needs as well as productive abilities.

- ▶ Fundamental notions are derived from these axioms.
- ▶ These include: (1) Economic agents as consumer-producers; (2) Socio-economic roles and specialisations; (3) Embeddedness, governance systems, and institutions; and (4) Interaction infrastructures as networks.

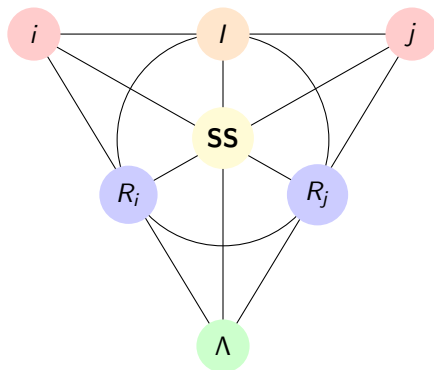
- ▶ Economic agents are identical and defined as consumer-producers, possessing both consumption and production functions consisting of increasing returns to specialisation over the set of economic goods.
- ▶ The production sets can be seen diagrammatically below.
- ▶ The assumption of strict IRS leads to the theorem that given a population of  $> 1$  economic agents and no transaction costs, each agent always has an incentive to specialise.

- ▶ To engage in functional wealth-generating interaction each agent adopts a specialisation and with it a socio-economic role.
- ▶ A socio-economic role expresses an agents *embeddedness* in a well-defined governance system.



- ▶ A socio-economic role is a reflection of the governance system ( $\Lambda$ ) that an agent exists within: includes behavioural rules, cultural norms, media that are associated with specialisations.
- ▶ Economic agents adopt a socio-economic role through either *adaptive specialisation* or *objective specialisation*.

- The fundamental problem of the Core needs to be resolved through the use of institutional mechanisms.

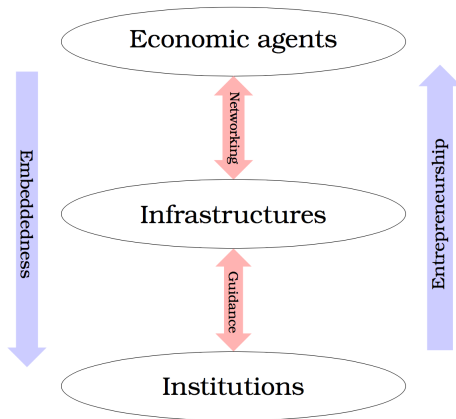


- Due to the problem of the Core economic agents are considered as *centrifugal* forces and the governance system as a *centripetal* force.

- ▶ The formation of economic relationships leads to a global social structure termed as an **interaction infrastructure**.
- ▶ An interaction infrastructure refers to a tuple consisting of:
  1. A population of consumer-producers; and
  2. A set of functional bilateral economic interactions and relationships formed between the population of consumer-producers.
- ▶ Interaction infrastructures are represented as *networks*.
- ▶ Leads to the modelling Lemma regarding the positional attributes of economic agents: Economic agents have a relational position within an interaction infrastructure. These positional attributes are derived from the economic interactions they form with others.

# Chapter 3: Growth & development of the socio-economic space

- ▶ All economic relationships and interactions are socially embedded and exist within some well-defined space. We term this interaction space as a **socio-economic space**.
- ▶ A socio-economic space refers to a given set of economic agents engaged in a well-described collection of general economic interactions that operate under a well-defined collection of media and institutions.
- ▶ As such the socio-economic space contains economic agents, interaction infrastructures, and a governance system guiding the formation of these relationships. This chapter provides an overview of the socio-economic space and, with it, an analysis and simulation of its growth and development through adaptive specialisation.



- There exists a two-way relationship between the population of economic agents, their relational position within the economy, and the set of institutions in the governance system.

- ▶ The socio-economic space is defined in a formal manner as a mathematical concept. Allows us to discuss these concepts in a more well-defined way.
- ▶ For a given collection of media and institutions, a socio-economic space can be represented by a pair  $(N, \mathcal{G})$  where  $N = \{1, \dots, n\}$  is a given set of economic agents and

$$\mathcal{G} \subset \mathcal{S}(N) \cup \mathcal{H}(N)$$

is a given collection of **general economic interactions** on  $N$ , where

$$\mathcal{S}(N) = \{S \mid S \subset N \text{ and } S \neq \emptyset\}$$

is the family of non-empty coalitions in the population  $N$ , representing **lateral** economic interactions on  $N$ , and

$$\mathcal{H}(N) = \bigcup_{k=2}^{\infty} N^k$$

is the class of all finite ordered sequences of economic agents, representing authority chains or **hierarchical** economic interactions in  $N$ .



- ▶ Whilst discussing the evolution of the socio-economic space we distinguish the notions of growth and development.
- ▶ The **growth** of a socio-economic space refers to a change in some fundamental or pre-existing parameters that define the socio-economic space such that the aggregate utility of all economic agents increases.
- ▶ The **development** of a socio-economic space refers to a productive change in the elements of the governance system and its derived structure such that the new institutional mechanisms, for example, produces an increase in aggregate utility.
- ▶ **Decline** and **regression** are polar notions to growth and development.

- ▶ We simulate growth of the socio-economic space through adaptive specialisation.
- ▶ A number of simulations are provided. Each simulation differs in a number of factors:
  1. The production abilities/technologies of the economic agents in the outputs considered; and
  2. The exchange mechanisms considered that characterise the socio-economic space.
- ▶ Simulations define two environments within which economic agents operate. These environments are informed through different exchange mechanisms:
  1. Egalitarian exchange economy: Supply-side only; and
  2. Cournot-Nash exchange economy: Prices are determined through demand and supply-side pressures.

- The institutional mechanisms dictate the resulting structure of the network, the positions of economic agents, and aggregate welfare within the socio-economic space.

# Chapter 4: Entrepreneurship & the entrepreneurial function

- ▶ If the division of labour is at the centre of the relational perspective, then its evolution is of major importance in our discussion.
- ▶ We have discussed many of the attributes the socio-economic space: the fundamental elements, including consumer-producers, governance system, and interaction infrastructures; and the foci within the space, including guidance, networking and embeddedness.
- ▶ However, we have still yet to talk about entrepreneurship and the entrepreneurial function: definition and illustration is the purpose of this chapter.

- ▶ Consider a socio-economic space with a population of economic agents and a governance system of socioeconomic institutions.
  - ▶ An **entrepreneur** is an economic agent who, through her actions, engages in entrepreneurship.
  - ▶ **Entrepreneurship** refers to actions that modify in a major way elements of the governance system and the underlying interaction infrastructure in the socio-economic space, thus directly or indirectly impacting the population of the socio-economic space.
  - ▶ The **entrepreneurial function** refers to actions that modify in a minor way elements of the socio-economic space, thus directly impacting the individual economic agent and her local environment.

