

WHERE DO UNICORNS LIVE?

RESEARCH ON GLOBAL INNOVATION CENTERS

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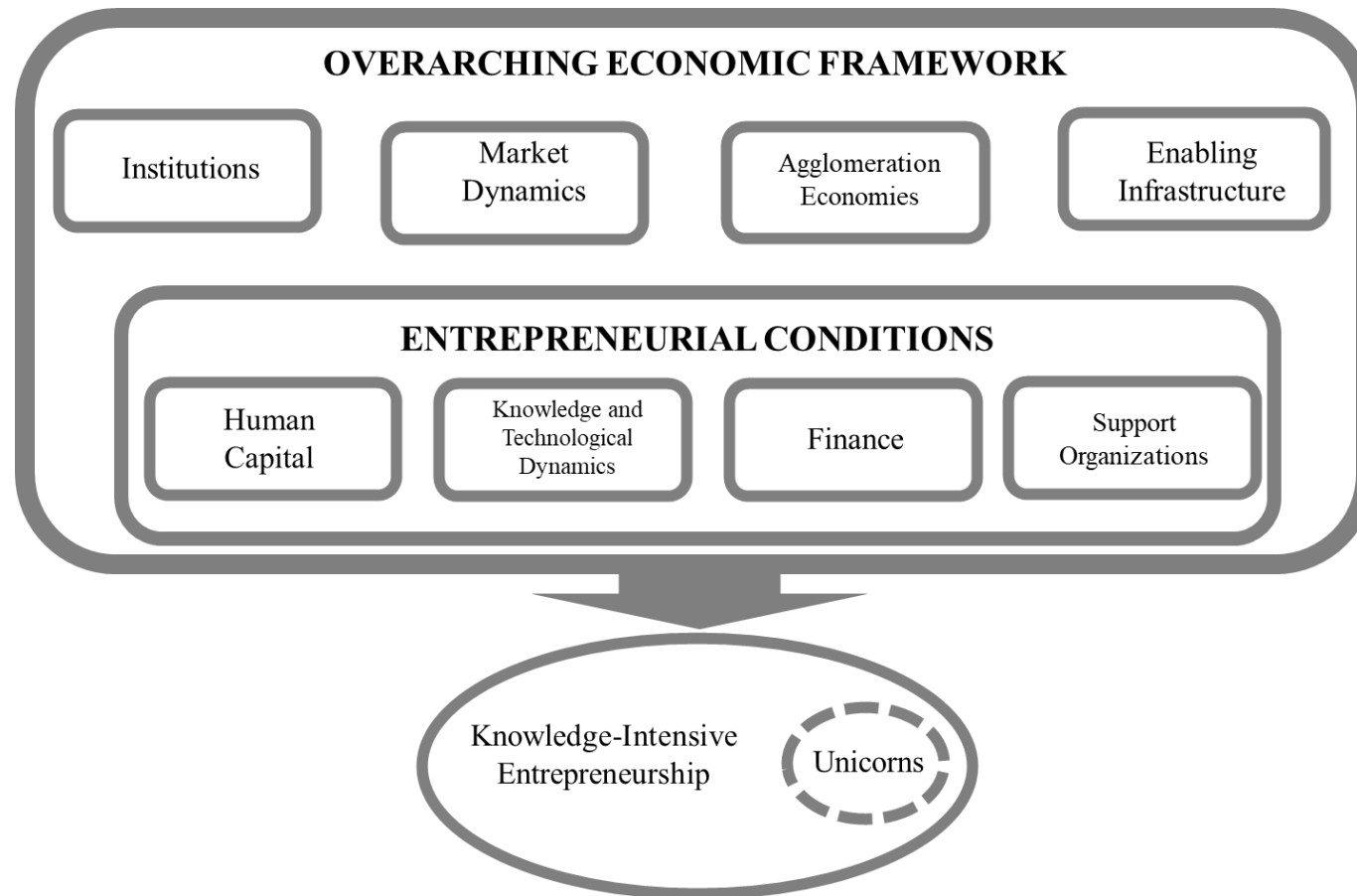
INTRODUCTION

- Within the scope of Knowledge-Intensive Entrepreneurship (KIE), a phenomenon that has generated considerable attention in recent years is that of the so-called unicorns.
 - Start-ups that rapidly achieve a market value of at least one billion USD
 - Their existence has also spread outside of the US to take center stage in other countries (Bock and Hackober, 2020)
- **Extremely concentrated in geographical space** (Henrekson and Sanandaji, 2020; Lehmann et al., 2019; Adler et al., 2019; Ács et al., 2017), following a pattern that has also been observed in KIE in general (Fischer et al., 2018; Isaksen and Trippl, 2017; Radosevic and Yoruk, 2013; Ács et al., 2017; Brown and Mason, 2017; Boschma and Martin, 2010).
- These conditions put emphasis on the role played by **ecosystems of entrepreneurship (EE)** in providing contextual conditions that allow such firms to surge

RESEARCH QUESTION

- Our goal in this research is to isolate the critical ecosystem determinants in terms of shaping the conditions for the appearance of unicorn ventures.

Are there specific elements that nurture these firms? What features do ecosystems require to foster the emergence of these firms?



CONCEPTUAL SCHEME OF ECOSYSTEMS OF ENTREPRENEURSHIP



DATA

Conceptual Dimensions	Operational Variables	Units	Period	Source
EE outcomes	Number of startups	unit	2020	Crunchbase, Startupblink
	Number of unicorn startups	unit	2020	Crunchbase
Benchmark	Number of largest companies	unit	2018	Fortune Global 500, Global Innovation 1000
Finance	Volume of venture capital investment	million USD	2015-2019	Crunchbase
Human Capital	Number of Leading universities	unit	2019-2020	QS, THE, ARWU
Knowledge and Technological Dynamics	Number of R&D departments of largest companies	unit	2018	HSE, based on open source data
	Number of patent applications	unit	2014-2016	PatStat Global
Support Organizations	Number of incubators	unit	2020	Crunchbase
Institutions	Corporate income tax rate	percent	2018	STC Database
Enabling Infrastructure	Number of WiFi access points	Unit	2020	WiFi Map app
Agglomeration Economies	Office space rental cost	USD per month	2020	Global Occupier Metrics



METHODOLOGICAL APPROACH

1. First, we select optimal combinations of explanatory variables by their predictive power using the Lasso procedure of cross-validation + seemingly unrelated regressions
 - Unicorns
 - Startups (benchmark I)
 - Large companies (benchmark II)
2. fsQCA
3. Cluster analysis

MAIN RESULTS

- Highly significant positive associations of the number of unicorns with
 - the number of R&D departments
 - venture investments
 - Wi-Fi hotspots (*negative*)
- Ecosystems conducive to the emergence of unicorns are characterized by a completely different set of factors, combining elements that can trigger the location of both startups and headquarters of large companies.
 - a. Like startups, they need venture capital investments
 - b. At the same time, these companies do not appear to be bounded by local-level urban infrastructure, a feature that is likely attached to the global orientation of these ventures.
 - c. Yet, similar to incumbents, the local technological context plays a key role in their concentration.
 - *In this specific case, what turns out as a significant determinant is the proximity to R&D divisions of large companies. Unicorns can spin out of these R&D departments or simply establish valuable relationships with incumbents*

CONCLUDING REMARKS

- Unicorn ecosystems demonstrate some idiosyncrasies that connect their business environment with global markets.
 - This seems to be key for nascent ventures that aim at escalating their operations and reaching billion-dollar valuations, i.e., *while local conditions matter, they need to facilitate international expansion*
- An important limitation of our assessment concerns the use of cross-section data.
 - Further studies dealing longitudinal evidence can provide insightful results as per *the evolutionary character* of the events at play

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