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Policies, Politics, People, and Potential:
The 4 P's of Entrepreneurial Ecosystem Development

Introduction. Entrepreneurial ecosystems have only very recently emerged as a key research topic in the field. After observing that national high growth policies have proven ineffective (Mason & Brown, 2014), the focus has shifted to smaller areas that show disproportionate concentrations of high growth firms (HGFs). The nature of regional differences in industry specialization, geography, infrastructure, or human capital, makes cities and city-level ecosystems more accurate units of analysis (Audretsch & Belitski, 2016).

Research Question. Entrepreneurship is a powerful vehicle for resource reallocation, innovation, job creation, and economic growth, yet there is an overabundance of wasteful policies that prove to be a cost to the society without high growth results (Acs et al., 2016a). We are interested in discovering the mechanisms behind regional economic success, in order to enable the development of targeted local policies. We focus on the presence and impact of high growth firms, which relates to previous work by the author ("High and sustainable growth: Persistence, volatility, and survival in high growth firms").

Theory. Our theoretical framework builds on, extends, and is developed in parallel with the very recent work on entrepreneurial ecosystems (Acs et al., 2014; 2016b; Audretsch et al., 2016; Autio et al., 2014; Dilli & Elert, 2016; Fuerlinger et al., 2015; Giner et al., 2016). We identified and classified the factors that have been included in other studies, and added more depth. We propose the 4P framework below.

Policies. Policies can greatly differ between regions depending on the political ideology (for example liberal vs conservative in the US). We extract the policy focus from the local government budget expenses and the year-to-year changes. Additionally, we include tax rates for cases where there are differences at local levels. We also look at implemented policies for high-growth and evaluate them as treatment effects, where possible.

Politics. We add a unique layer in the mix by looking at the political situation of the local governments. Our hypothesis is that having the local ruling party different than the national one can create deadlocks in funding allocations and local investment.

People. Concepts such as entrepreneurial readiness (Schillo et al., 2016), diversity (Stangler, 2015) (number of immigrants), mobility, tolerance (inclusion of minorities), entrepreneurial culture (risk attitude, startup rate), or general human capital (number of graduates) are expected to positively predict a more successful region.

Potential. Potential refers to many of the standard measures of the local environment that influence the entrepreneurial perspective: job demand, home demand, average house prices, available capital, density (population, firm, sector), safety (crime rates), transportation infrastructure (miles of roads), etc. The potential of a region/city is validated if it relates to a large number of HGFs and high aggregate economic growth.

Data & Methodology. The analysis involves both data already available to the researchers and new data to be collected. We have access to large-scale databases of firms in Romania (2000-2012) and Portugal (1986-2012), which will allow for calculating growth and performance measures. We are in the process of collecting details on political party affiliation and local government expenditure for Romania. Similar work will follow for Portugal. Information on local infrastructure is publicly available from national statistics bureaus. Portugal and Romania are suitable subjects for comparison due to similar structural characteristics, with one an example of established democratic developed country, and the other of a transitional developing economy. The NBER PIE grant would enable adding United States to the list, a much more extensive, diverse, and dynamic home of entrepreneurial ecosystems. In terms of methodology, we will explore the influence of each of the factors mentioned above on the creation, performance, and survival of high growth firms, with logit, panel, and survival (hazard) models.

Research Objectives. The project aims to establish strong theoretical, analytical, and data frameworks that can act as background for future work. For this purpose, the researcher has been already dedicating significant effort on literature review and theory building. The data collection is underway and would be greatly enhanced by the NBER PIE grant. The Romanian and Portuguese datasets have already been used by the researcher in previous work, thus there is prior experience with the structure of the variables and the relevant econometric models. Moreover, we are open for collaboration opportunities with researchers in the field that are interested to extend the work with theory, methods, or data.

Project Timeline. Considering the July 1, 2016 to June 30, 2017 timeframe, we estimate that research design and most of the public data for Romania and Portugal will be ready at the start of the project. Q1 will be dedicated to gaining access to non-public data[1] in Romania and Portugal, and establishing required data sources for United States, Q2 to initial data analysis and US data collection, Q3 to data analysis and paper writing, Q4 to paper submission and project review. The grant will cover the costs of data collection and project resources.

Conclusion. With a birds-eye view of the influencing factors and unique datasets in multiple countries with various background conditions, the proposed research project takes entrepreneurial ecosystems research one step further. With the support of the NBER PIE grant, the researcher will conduct a large-scope analysis in 3 countries and on 4 levels. Our comparative analysis is expected to generate the discovery of general patterns and condition-dependent patterns of firm performance. The development of efficient entrepreneurial ecosystems relies on carefully understanding, evaluating, and redesigning the policies, politics, human dynamics, and background potential of the local-level environments.

[1] The researcher is already in contact with the Romanian Ministry of Finance about gaining access to local government detailed income and expenses for the period 2004-2014.

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Serban I. Mogos

PhD Candidate and Social Entrepreneur active in theoretical and practical projects
at the intersection of Entrepreneurship Education, Research, and Policy

Education

PhD in Entrepreneurship Policy (ABD) — **Carnegie Mellon Portugal Dual Degree** — **since Sep 12**
- SETChange Research Unit (Strategy, Entrepreneurship & Technological Change) — Carnegie Mellon University, United States; Instituto Superior Técnico, Portugal
- Full Scholarship (FCT Portugal)
- GPA **3.8**

MSc in Engineering & Public Policy — **Carnegie Mellon University** — **Sep 12 - Jun 15**

MSc in IT Management (IMMIT) — **Erasmus Mundus Triple Degree** — **Sep 10 - Jun 12**
- MSc in Information Management — Tilburg University, Netherlands
- MSc in Economics & Business Administration — Turku School of Economics, Finland
- MSc in Management & IT — IAE Aix-en-Provence, France

BSc (Hons) in Computer Science — **University of Sheffield** — **Oct 07 - Jun 10**
- CITY College International Faculty, Thessaloniki — Greece
- Best Undergraduate Student & Best Final Year Dissertation
- GPA **4.0** (UK First Class, with Honours)

Experience

President and Co-founder — **Akcees** — **since Nov 11**
- **Akcees** is a Romanian non-profit organization that promotes entrepreneurial education — Romania
- Developed a community of 5000+ young professionals interested in entrepreneurship
- Akcees represented Romania at the Startup Nations Summit in 2014 (South Korea) and 2015 (Mexico), a global entrepreneurship policy forum

University Associate — **Founder.org** — **Apr 14 - May 15**
- **Founder.org** is a student startup mentoring program for Top 50 teams in 25 universities — United States
- Associates are responsible startup registration, evaluation, and selection
- At Carnegie Mellon, we evaluated 22 teams and 3 teams were selected in World Top 50

Technical Product Manager — **SponsorPay** — **Jan 12 - Aug 12**
- Managed improvements for the fraud detection system, reduced major fraud cases by 40%, a gain of $10,000 in monthly revenue — Germany
- Created daily, weekly and monthly performance and financial reports

Information Systems Manager — **Floramon** — **Sep 07 - Dec 11**
- Designed and implemented a custom warehouse management system to centralize information from company's remote locations — Romania
- Responsible for the installation, troubleshooting and maintenance of the hardware and software systems for the entire company

Expertise

Entrepreneurship
- Active in projects for education, research and policy

Startups
- Startup evaluation, mentoring, financing

Business Strategy
- Business plan development, nonprofit management

Product Management
- Lean software development, Agile**,** Scrum

Software & Web Development
- Databases, Java, Ruby on Rails, JavaScript

Data Analysis & Statistics
- Machine learning, BI, econometrics

Research

Research Interests

- **Growth** Firm growth, high growth firms, gazelles, economic growth, developing countries
- **Startups** Firm entry, firm survival, startup growth, founder teams, innovation
- **Policy** Entrepreneurship programs, sustainable development, economic crisis

"High Growth Entrepreneurship: **ongoing**
A Multi-level Perspective of Firm Growth and Growth Policy"
PhD Dissertation (proposed)

"Policies, Politics, People, and Potential: **since Jan 16**
The 4 P's of Entrepreneurial Ecosystem Development"
Current Research Project

"High and Sustainable Growth: **since Jan 14**
Persistence, Volatility, and Survival in High Growth Firms"
Submitted for publication in Small Business Economics Journal Apr 16

- Academy of Management - 2016 Annual Meeting, Entrepreneurship Division (Anaheim) Aug 16
- European Central Bank Conference on "Balanced and sustainable growth" (Frankfurt) Aug 15
- DRUID15 Conference (Rome) Jun 15
- Global Entrepreneurship Research Network - 2015 Annual Meeting (Milan) Mar 15
- RENT XXVIII Doctoral Seminar (Luxembourg) Nov 14

Teaching Assistant **since Jan 14**

- Course: "Entrepreneurship Theory" (Guest Lecture on "Entrepreneurial Survival and Exit") Spring 16
- Course: "Tech-based Entrepreneurship - Lean LaunchPad" (Project Course) Fall 15 & Spr 16
- Course: "Applied Data Analysis" (Guest Lecture on "Dynamic Panel Data Models") Spring 15
- Course: "Strategy and Management of Technological Innovation" (Guest Lecture on "Open and User Innovation") Spring 14

Personal

Leadership and Decision Making	Taking leadership positions (class president; student union; national student associations)
Analytical and Logical Reasoning	Technical background, excellent problem solving skills
Interpersonal Skills and Cultural Awareness	Living in an international environment for 9+ years
Passion for Learning and Knowledge	Always eager to discover and explore new ideas

English (Fluent - C2), French (Advanced - B2), Romanian (Native) **Languages**
Technology, entrepreneurship, education, travel **Interests**
Romanian, born 07 June 1989 **Nationality**

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