T17bP16 / Innovation, Entrepreneurship and Urban Policy: International Experiences

Topic : T17b / Sectorial Policy - Economics

Chair : Jue Wang

Second Chair : Cathy Liu (Georgia State University)

GENERAL OBJECTIVES, RESEARCH QUESTIONS AND SCIENTIFIC RELEVANCE

The promoting of entrepreneurship has become a wide-used economic development tool in urban policy around the world. Innovation is considered a fundamental component of entrepreneurship and a key element of business success, and also is a means to create and maintain sustainable competitive advantages. Innovative entrepreneurship has made significant contribution to the employment opportunities and the creation of new products, business models and markets. According to the World Bank, formal SMEs account for 45% of total employment and 33% of GDP in emerging economies. It has become a central theme in government policy in many countries to stimulate technology driven economic development via the application of innovation and entrepreneurship. But how government should act to best support innovation and entrepreneurial ecosystem still remains debatable.

This panel calls for the discussion of the overarching innovation policies and entrepreneurship policies from around the world, including but not limited to public spending on technology and innovation, the development and training of human resource, other policy programs for innovation such as incubators and science parks, and the institutional framework for innovation and entrepreneurship. We invite both promising scholars and established researchers to share their ideas, reflections, and cutting-edge research related to innovation and entrepreneurship policy. We welcome submissions from different disciplinary frameworks, analytical methods, and world regions.

CALL FOR PAPERS

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- Innovation financing mechanisms
- Migration an high skilled human capital
- University-industry collaboration
- Innovation and entrepreneurship in urban development
- Public procurement
- Regulatory framework for innovative entrepreneurship
- Entrepreneurial capability and infrastructure
- Other pertaining issues in innovation and entrepreneurship policy

Other proposals that are relevant to the conference theme and a broader innovation and entrepreneurship policy research agenda will also be considered.

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Session 1 Innovation policy

Friday, June 30th 10:30 to 12:30 (Block B 3 - 7)

Clustering of High-Tech Firms in China: The Role of State-Owned Enterprises

Xiong Min (Florida International University)

Shaoming Cheng (Florida International University)

Promoting innovation and strengthening high-tech firms have been a key strategy for economic development in China. Such strategy is evident with the implementation of the National Technology Research and Development Program (1986), which is also referred to as the “863” program, the Torch Program (1988), and the Program of Key Basic Research (1997), which is also known as the “973” program. Over the years, large-scaled high-tech state-owned firms, as the primary targets of the aforementioned national programs, have been the pillar in carrying out the innovation-focused strategy and the key to its success. However, research has been lacking regarding the effects of the high-tech state-owned firms on attracting and retaining other high-tech companies mainly through agglomeration economies. A panel regression model will be calibrated for all 31 Chinese provinces and for the period of 2010-2014.

The purposes of the paper therefore are two folds. First, it will seek to characterize the distribution of high-tech firms among Chinese provinces, including high-tech state-owned enterprises, small-scaled high-tech businesses, and high-tech firms from Hong Kong, Macau and Taiwan and other countries. The other purpose is related to the research question, that is, what is the role played by high-tech state-owned enterprises in fostering domestic small-scaled high-tech businesses and high-tech firms from Hong Kong, Macau and Taiwan?

This paper differs from previous studies in that it will differentiate high-tech state-owned firms based on their profitability and thus is able to shed light on the extent to which profitable, most likely innovative, high-tech state-owned enterprises affect the distribution of other high-tech firms. The central hypothesis is that Chinese provinces with more high-tech state-owned enterprises, particularly profitable ones, tend to result in a higher concentration of all other types of high-tech firms.

This paper is significant not only because it advances scientific knowledge on the distribution of high-tech firms and on the effects of China’s ongoing innovation promoting strategy. It is also significant because it will provide actionable policy guidance on taking advantage of the endowment of high-tech state-owned enterprises and facilitate the development of high-tech firms in general in China.

Can public procurement aid the implementation of smart specialization strategies?

Jon Mikel Zabala-Iturriagagoitia (University of Deusto)

Edurne Magro

Kieron Flanagan

Uyarra Elvira

One of the main purposes of demand side interventions is to increase the demand for innovations, to improve the conditions for the uptake of innovations and to improve the articulation of demand. A new European-level interest has recently emerged regarding demand-side approaches to innovation policy in general, and more specifically, the use of public demand as an engine for the development and diffusion of innovations.

In this general context, public procurement for Innovation (PPI) has become a fashionable policy tool that has been spread among policy-makers. PPI processes put the government as a “lead customer” for an innovative product or service. However, policy and scholarly interest on PPI has to a great extent been limited to the national

level, paying little attention to the rationales for, and implementation of, PPI policies and practices at the subnational level. While PPI is mentioned as one potential tool to be included in regional strategies for smart specialisation (RIS3), there is little discussion of the extent to which the region or the local area (opposed to the national level) may be a suitable level for PPI, and how it is embedded in wider national and international frameworks.

One of the main objectives of PPI processes is to enhance innovation and new developments in relation to societal challenges or needs. In other words, PPI is an instrument that can be related to new mission oriented policies or to science and technology (S&T) thematic priorities. This gives room to relate PPI to smart specialization strategies (RIS3), as these strategies look for a regional specialization in those S&T areas with the highest potential for the predominant economic activities of the region. However, as indicated, the use of PPI has to a great extent been limited (both in theory and in practice) to the national level, without many efforts being devoted to the potential offered by PPI in addressing local and regional needs. The main aim of this paper is therefore to explore the rationales for using public procurement in the context of smart specialization strategies.

This paper seeks to contribute to the literature by advancing our understanding of spatial aspects of public procurement of innovation and the extent to which public procurement can be used as a regional innovation policy tool. We provide case illustrations for the relationship between PPI and RIS3, and provide a conceptual discussion of the benefits that PPI processes can bring to regional development and diversification strategies. We consider that by putting PPI processes at the core of smart specialization strategies, the role of the state (or regional bodies in the context of this paper) can change from being stakeholders engaged in regional priority setting, to becoming active stakeholders also engaged in the entrepreneurial discovery process.

The role of government in innovation: Insights from the comparative study of Singapore and Hong Kong

Jue Wang

Government is one of the determinants for innovation capacity although its role and degree of involvement in innovation is debatable. Government intervention can be vital in supporting R&D and innovation as market alone cannot provide adequate incentives for knowledge production. Degrees of government intervention, however, vary in different economies and range from directive intervention by actively advising industrial policy and investing in selected areas, to facilitative intervention by creating positive environment and providing public goods for industry. This study uses Singapore and Hong Kong as two cases to explore the influence of government intervention on innovation dynamics. Singapore is known as a government-made city with strong government intervention while Hong Kong is famous for its positive non-intervention policy that minimizes the power of government in influencing the market. The comparison shows that innovation activities in Singapore are largely policy driven and dominated by big players, while in Hong Kong industry innovation is less active but the local industry has a dynamic innovation base contributed by small firms. Using a difference-in-differences analysis of USPTO patents filed by Singapore and Hong Kong, we find evidence for the effectiveness of government intervention on enhancing the technological significance and scope of innovation. The findings could shed light on the implication of government involvement in innovation.

Government-led Technological Innovation: The Case of Water Production in Singapore

Yu Meng

The geographical conditions of Singapore placed constraints on the island-state of collecting sufficient fresh water, making the water security issue one of the most critical problems for Singapore’s sustainability. Singapore has tackled the issue by developing advanced technologies in membranes as well as their operation and management, as these technologies allow for producing potable water from sources like used water and seawater. While the cost reduction of these technologies is the key to success, Singapore government has made efforts in initiating the collaboration with the private sector to effectively reduce the cost and successfully transfer the nation into a global hydrohub.

Based on relevant literature, official documents and interviews with key informants, this study focuses on what measures the Singapore government adopted/formulated to motivate the private sector to engage in then a new, high-tech and risky industry. The detailed description reveals that PPP (public private partnership), as a policy tool, cannot only provide benefits that have been reported elsewhere (simplifying procurement of capital, diversifying financial and operational risks, raising quality of public service/goods, allowing long-term vision to be built into the project) but promote technological innovations (in this case important incremental innovations that help reduce the overall project cost). The experiences of Singapore are discussed with its historical background and socioeconomic conditions to help understand how these experiences can be generalized.

Strengthening Prosperity in Binational Corridors: Public Policy Lessons on Generating Innovation and Entrepreneurship

Charles Conteh (Brock University)

Innovation has been studied in a variety of contexts including the impact of clusters on the development of new ideas, products and processes (Luecke and Katz, 2003). Drawing from Porter's assertions that geographically concentrations of companies with up and down stream associations are 'striking features' of successful economies (Porter, 1998), we seek to understand what effect a border has on the development of innovation and prosperity in a particular binational corridor. Borders can be challenging for organizations because of the differences in legislative approaches, exchange rates, labour markets, wages, social security and political systems (Slusarcius, 2016). Of particular interest to binational areas is whether a 'cliff effect' – where price or other differences, has a positive or negative effect on the development of a binational cluster.

The binational Buffalo Niagara region, which comprises Erie and Niagara Counties in New York State in the United States and the Regional Municipality of Niagara in Ontario, Canada is unique in North America for the depth and breadth of its cross-border assets. With four international bridges and two airports, the region reigns as a major port of entry along the Canada-US border, facilitating more than 15 percent of commerce between two of the world's largest trading partners. These complementary cross-border economic development efforts, in turn, generate opportunities for integrated supply chains in innovative industry clusters for export to global markets. Augmented by strong cross-border shopping, heritage, and tourism economies, an advanced logistics industry, and sophisticated "soft" infrastructure – customs brokers, 3PLs, warehousing, attorneys, insurance brokers, bankers, and the like – the region has unmatched potential for strengthening prosperity by strategically leveraging cross-border economic ties.

Notwithstanding the fact that the region maintains these cross-border assets (among others), there remains a sense that it has not lived up to its promise. Cross-border stakeholders in both the United States and Canada are calling for a deeper dive to assess the binational region's strengths, opportunities, barriers, gaps in understanding, and challenges to collaboration in order to create a comprehensive understanding and clear-eyed strategy that fully captures the region's potential.

This is the focus of our research. We examined where it makes sense to collaborate with cross-border neighbors for innovation-driven economic development. Asset data was collected by NAICS code from Reference USA for both Canadian and American data. To date, our preliminary analyses of the cross-border data allows us to propose coordinated, strategic action in the binational realm. Our ultimate aim is to advance policy insights not only into the role of government, but also the ideal conditions for supporting innovation and entrepreneurial ecosystems.

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Session 2 Entrepreneurship policy

Friday, June 30th 13:45 to 15:45 (Block B 3 - 7)

Immigrant Entrepreneurship and Economic Development: A Local Policy Perspective in the U.S.

Cathy Liu (Georgia State University)

In recognition of the potential benefits immigrants can bring to local communities, many cites in the United States have adopted various immigrant welcoming and integration initiatives in recent years. Beyond economic and social integration of immigrants, these new local responses also seek to leverage immigrant contributions to local economic development and job growth. In the new welcoming cities wave, 40 out of 50 cities have implemented or are planning to implement programs aimed at promoting immigrant entrepreneurship. These programs include offering entrepreneurship and leadership training to potential business owners, providing micro loan and financial literacy training, connecting immigrant business owners to local services, and providing networking and mentoring opportunities to guide immigrant entrepreneurs through the business process.

In this research, we will make use of a survey conducted by Welcoming America as well detailed case studies. We will thoroughly review each city's documents of policy initiatives specifically aimed at immigrant entrepreneurship to build case studies of the cities that incorporate immigrant entrepreneurship into economic development efforts. These cities tentatively include Dayton, St. Louis, Detroit, Cleveland, Baltimore, and Atlanta. We will then extract city-level demographic, social, and economic characteristics from Decennial Census and American Community Survey (ACS) in an effort to link local conditions to such policy adoption. Last, the Survey of Business Owners (SBO) and Annual Survey of Entrepreneurs (ASE) data offer important information on ethnic businesses owned by Asian and Latino owners and immigrant-owned businesses. 2007 and 2012 data are available for SBO and 2014 data are available for ASE, providing a good before-after time period for capturing ethnic business growth in these cities to gauge potential impact.

Asian cities and innovation policy in the global knowledge economy

Kris Hartley (City University of Hong Kong)

Jun Jie Woo (Nanyang Technological University)

Sun Kyo Chung (Cornell University)

The Four Asian Tigers are a palimpsest of statist developmentalism. The influence of industrial planning is deeply embedded in their institutions, but globalization and economic liberalization are now rewarding the capacity for innovation and structural adaptability. While the old developmentalism focused on infrastructure and industrial policy, softer strategies such as attracting educated millennials through urban amenities and creative clustering mimic the post-industrial West. Does this trend represent the end of developmentalism, or is top-down industrial policy simply being rebranded under the guise of creativity and reform? This paper examines this topic at the urban scale, comparing policies used by Asian cities to encourage innovation, start-ups, and entrepreneurship. This scale is appropriate for two reasons: first, cities are capturing an increasing share of economic activity; second, devolution is granting cities more autonomy in their economic policies. The paper seeks to understand whether the old East Asian developmental model is retaining its integral state and whether its replacement – in whole or in part – generates a globally competitive platform for innovative and start-up entrepreneurship in Asian cities. Government documents from Seoul, Hong Kong, and Singapore are examined and findings compared using a framework that evaluates adherence to old developmentalism and the degree to which inter-sectoral flexibility and adaptability have replaced it. As such, this paper contributes to literature about post-industrial economic restructuring by examining cases with strong statist legacies embodied by the capital-intensive production that the developmental apparatus was once configured to support. The paper concludes by calling for a more extended research agenda, based on comparative case studies and other methods, to understand

whether the lingering vestiges of developmentalism should be reformed or eliminated to encourage innovative flexibility and opportunism.

Sectoral variations in entrepreneurial activity

Haifeng Qian (University of Iowa)

Sectoral variations in startup activity are well documented. Some industries, such as information technology and retails, exhibit higher new firm formation rates than other industries, such as manufacturing. The sources of sectoral variations in startup activity have not been well studied in the literature. This research seeks to explain variations in startup rates across four-digit NAICS (North American Industry Classification System) industries. Sectoral startup activity is measured the number of new establishments standardized by total establishment. We also control for some sectoral characteristics, including the knowledge bases of the industry, establishment size and capital intensity, among others. Knowledge according to the knowledge spillover theory of entrepreneurship represents entrepreneurial opportunities. However, not all types of knowledge encourage entrepreneurship. We investigate the effects of various types of knowledge bases of an industry based on a unique dataset called Occupational Information Network, or O*NET. Establishment size is an indicator of industrial organization that may impact startup activity. Capital intensity reflects the financial barriers that entrepreneurs face. Additionally, we are interested in whether the geographical concentration/distribution of one industry is associated with its startup activity. One the one hand, the geographical concentration of one industry may lead to tangible competition, which could discourage startup activity. On the other hand, the spatial concentration brings benefits from localization economies that provide incentives for entrepreneurs to start new businesses. Therefore, the association between sectoral startup activity and the sector's geographical concentration is not clear. We use the Gini index to measure spatial concentration/distribution of business establishments across U.S. labor market areas in an industry.

Can the government be a good friend for entrepreneurs?: A Study of Korean entrepreneurs in a public rental house

Iljoo Park (Korea University)

Why do people hesitate to be an entrepreneur these days? Despite omnipresent beliefs, such as "entrepreneurs are born, not made", "impeccable entrepreneurs = impeccable risk-takers", most, if not all, successful entrepreneurs in real life lose sleep over worries about cash flow, career path or general prospect of their business just like any aspiring entrepreneurs. The only difference is they mitigate risks, instead of avoiding them entirely. Had more people known the reality clouded by widespread tales that successful entrepreneurs 1) can be made 2) without a fortune to take incredible risks, more challengers could have sprung. This point of view warrants a new policy that supports future entrepreneurs to 1) understand the real risks and rewards of entrepreneurship and 2) start with small capital and grow sustainably by learning from each other in the same shoes.

1) Eliminate misconceptions to welcome "challengers"

Encouraging entrepreneurship not only benefits entrepreneur-to-be but also the general public. It has been proved that entrepreneurism spurs economic growth at national level. South Korea has a supporting policy intervention for nascent and incumbent entrepreneurs which is called 'Creative Economy'. However, despite the 'grand' policy effort worldwide, a number of recent reports are documenting a pervasive decline in startup industry in the U.S. (Hathaway, I., & Litan, R.; 2014) as well as in South Korea. If more cases prove that entrepreneurs can be made and nurtured with policies that welcome more challengers, more people will be encouraged to follow suit.

2) Incubate "network" for clustered growth

Recently, one local government in South Korea, Seongbuk-gu in Seoul, has initiated a rental housing project (Dojeonsook; incubator of challengers). The project aims to provide housing at affordable prices to single or couple nascent entrepreneurs with low socioeconomic status. It turns out that the housing not only provides space for entrepreneurs, but also network opportunities. Since incubating and launching one's business can be tough for a single entrepreneur who has just started out, the program that can let them save the living expense and network with other entrepreneurs is expected to yield a positive impact on entrepreneur's sustainability in terms of their business. As a result, the project has become popular and even spread to other areas.

To shed light on a local government's policy action upon entrepreneurship, this research yields a story of how supportive housing project leads to sustainable entrepreneur network. Case study and in-depth semi-structured interviews are used; all interviewees have experienced the rental housing program and have been involved, either directly or indirectly, in their own business incubation. Through the interview collection, this study conducts

phenomenological analysis regarding the experience of getting support from local government for better network and improved living. Several key themes which can distinguish them from other entrepreneurs who have never experienced those supports subsequently emerged through the analysis.

The role of urban policy in coordinating entrepreneur ecosystems

Jennifer Auer (Optimal Solutions Group LLC)

Mark Turner

Entrepreneurship is an important component of regional economic development in the United States and abroad. At the start of this decade, new business starts in the U.S. and in countries such as Germany and the United Kingdom hit 15-year lows according to the Global Entrepreneurship Monitor. Over the same period, public and private sectors have increasingly invested resources to help educate, connect and ensure capital access for new and growth-oriented businesses. In addition to government-funded business assistance (e.g., Small Business Development Centers in the U.S.), entrepreneur service providers have grown to include accelerators, crowd-funded venture capital, university-sponsored entrepreneurship curriculum, and more. Today's challenge for urban policy and local governments is to manage their local ecosystem to determine areas of redundancy, identify coordination and collaboration opportunities, more effectively leverage one another, and ultimately fill remaining service gaps.

To further the debate on an effective role for local governments in their entrepreneur ecosystems, this paper takes a novel approach, using the perspective of the entrepreneur herself. The paper is organized as a business plan for an innovative local-area data sharing tool. A commercial off-the-shelf application is proposed to address the challenge governments' face in coordinating, integrating, and marketing their ecosystems. The proposed tool will collate, catalog, and analyze resources available to new and growing businesses. The results are user-friendly, interactive visualizations that depict the provider ecosystem at the local level. For example, users can search and display programs by their industry-focus, targeted growth stages, and the time commitment required by the entrepreneur. Given its flexible categorization platform, the portal is scalable such that resources can be easily added and managed. Ultimately, the paper poses the question, what is the value proposition of this entrepreneur resource tool given the primary functions of a local government in a democracy?

Information for the "business plan" is derived through several pilot projects with the U.S. Small Business Administration. The applicable categories proposed and search features identified for the tool are based on data collected from the administrators and small business participants in six U.S.-based entrepreneur programs. The programs are available in diverse urban areas of the U.S. and range from technology-based cluster development strategies to business counseling programs for entrepreneurs seeking to start a business. The paper also uses information from private sector resources in the U.S. to refine the categories and expand the usability of the tool to different regional contexts.