



SME POLICY FACED WITH DEVELOPMENT OF
FINANCIAL TECHNOLOGY

Promoting Support for Start-ups

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Abstract

Start-ups are often expected to contribute to the revitalization of the national and regional economies. Some start-ups play a critical role in innovation and market competition through the development of new products and services, which in turn creates employment and spurs economic growth. In this article, we discuss policies for fostering business start-ups by means of the promotion of various types of entrepreneurs, entrepreneurial ecosystems, and global start-ups.



Challenge

In principle, entrepreneurs are required for start-ups that are viewed worldwide as an important engine of economic growth through job creation and innovation (Van Praag and Versloot 2007; Acs and Audretsch 2010). However, many, if not all, potential entrepreneurs face difficulties in securing various types of resources, including funds and technologies, when starting new businesses. Even if potential entrepreneurs have higher entrepreneurial ability, they may lose opportunities due to the lack of required resources. In particular, individuals who have less personal wealth, including collateral, may encounter financing constraints due to market imperfections, even if they have entrepreneurial ability (Evans and Jovanovic 1989; Carpenter and Petersen 2002). Moreover, some individuals do not have any opportunities to realize entrepreneurial activities.

In recent years, there has been growing interest in how the social and economic environment affects entrepreneurship in a region, namely, “entrepreneurial ecosystems” (Isenberg 2010; Mason and Brown 2014; Acs et al. 2017; Spigel 2017; O’Connor et al. 2018). Entrepreneurial ecosystems, which are a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship within a particular territory (Stam and Spigel 2018), are often expected to spur economic growth. Entrepreneurial ecosystems encourage entrepreneurs and other actors to take the risks of starting, funding, and other assisting activities (Spigel 2017). The involvement of various types of actors and factors, in addition to the interaction between them, could create opportunities for new businesses. Among the actors in entrepreneurial ecosystems, external suppliers of capital, such as angel investors and venture capitalists, often play a critical role in financing start-ups, and universities also play a significant role in the creation of high-tech start-ups in knowledge-intensive industries (Bonaccorsi et al. 2013, 2014).

Although start-ups are often expected to promote economic growth, only a small number of firms achieve high growth in a short period of time (Haltiwanger et al. 2017). In fact, a small group of high-growth firms contributes to the major part of economic growth (Shane 2008). Such high-growth firms may substantially contribute to job creation and productivity



growth (Storey 1994; Davidsson et al. 2006; Henrekson and Johansson 2010; Haltiwanger et al. 2013; Decker et al. 2014). It is also recognized that a small number of start-ups create a large share of breakthrough innovations (Baumol 2004). Along with economic growth and business expansion across borders, high-growth firms should be considered from a global perspective. The emergence of born global firms—particularly, global start-ups with growth potential—could play a pivotal role in stimulating the stagnant economy across countries (Knight and Cavusgil 2004; Cannone and Ughetto 2014).

Proposal

Promotion of Various Types of Entrepreneurs

Creating opportunities for various types of entrepreneurs, including women and young individuals, could develop a range of employment and economic activities. However, women are less likely to be involved in entrepreneurial activities than men in many countries and regions (Arenius and Minniti 2005; Van der Zwan et al. 2012; OECD/European Union 2017; Halbisky 2018). According to data provided by the Global Entrepreneurship Monitor, some countries have a lower proportion of female entrepreneurs; for example, in Japan, women are less than one-fourth as likely as men to be entrepreneurs (Kelley et al. 2015). Thus, the distribution of entrepreneurs is biased toward particular characteristics, including gender, in some countries and regions, although higher levels of female entrepreneurship can be found in countries with greater provision of childcare services and generous family leave (Terjesen et al. 2016). Moreover, some individuals, such as young ones, are more likely to encounter financing constraints due to less personal wealth and the lack of collateral (Hurst and Lusardi 2004).

It is important to establish an environment in which potential entrepreneurs, regardless of gender, race, and age, can access entrepreneurial networks, including capital markets, which are critical for the success of new businesses. We should also provide more opportunities for individuals with a wide range of backgrounds to acquire knowledge and skills, which could create various types of entrepreneurs.



- All types of individuals, regardless of gender, race, and age, should have the equal right and freedom to start businesses. Furthermore, in many contexts, policies could be envisaged to provide support for entrepreneurial training and networks, and childcare, so as to allow women with entrepreneurial ability to consider the opportunity of starting a business (Terjesen et al. 2016).
- Various types of potential entrepreneurs, including women and young individuals, should have more opportunities to develop their entrepreneurial knowledge and skills. Educational and vocational programs for entrepreneurship may be effective for those individuals who have few opportunities to access entrepreneurial networks. Such programs may lead to a wide range of employment and economic activities, even though those individuals do not directly conduct business start-ups.
- The impact of aging population is evident in some developed countries. The utilization of seniors' human resources may help aging society to compensate for a shortage of labor, which could sustain economic growth longer by offsetting the impact of aging population (Maestas and Zissimopoulos 2010).
- Deregulations for business start-ups—specifically, easing administrative requirements for corporations—may help to stimulate interest in entrepreneurial activities.
- Simultaneously, policymakers should pay attention to the opportunity costs of new firm creation, indicating that policies for new firm creation is valid for individuals who have entrepreneurial ability. The development of entrepreneurial ability, rather than the number of entrepreneurs, should be the focus. It is also important to distinguish support for high-growth start-ups from the promotion of entrepreneurship in general.

Building Effective Entrepreneurial Ecosystems

Entrepreneurial ecosystems facilitate the effective utilization of resources available in regions or countries. The growth of high-tech industries in some



special regions brings much attention to the importance of entrepreneurial ecosystems. The link between entrepreneurs with technological knowledge and investors, including venture capitalists, could lead to high-growth start-ups. Potential entrepreneurs with high ability acquire knowledge and know-how for new businesses from other actors. Some start-ups achieve sustainable growth by acquiring linkages with large established firms or local governments. Effective networks play a crucial role in entrepreneurial ecosystems to help the actors to leverage knowledge spillovers and identify opportunities for new businesses.

To build an environment for new firm creation in entrepreneurial ecosystems, policymakers should develop effective systems, such as incubator services. From the perspective of economic growth, policymakers should focus on the growth of start-ups, rather than the creation of new firms and self-employment. Given the limited resources in regions or countries, it is also important to encourage and support entrepreneurial ecosystems by focusing on start-ups that have a significant economic impact. Among them, young firms are more likely to stimulate economic growth through job creation and reallocation (Haltiwanger et al. 2013; Bos and Stam 2014). In addition, individuals require entrepreneurial ability, including knowledge and skills, to manage their start-ups. Entrepreneurial networks can develop the required entrepreneurial ability.

- Stimulating younger firms is necessary for the development of entrepreneurial ecosystems because young firms are more likely to contribute to economic growth through job creation and reallocation (Haltiwanger et al. 2013; Bos and Stam 2014).
- Financial channels related to private equity capital, including venture capitalists, angel investors, and crowdfunding, are necessary for the promotion of high-growth start-ups, even though the direct effect of these channels on the emergence of small businesses may be generally limited (Colombo and Grilli 2010; OECD 2011; Roma et al. 2017).
- Access to technological knowledge, including licensing of intellectual property from universities and public research institutes, and support for collaboration in a timely manner are effective for the promotion of high-



tech start-ups in entrepreneurial ecosystems (Meoli et al. 2019).

- The link between actors in entrepreneurial ecosystems may lead to the commercialization of unused technologies developed in universities and large corporations (Chesbrough 2012; Hossain and Simula 2017). Joint research projects within entrepreneurial ecosystems are also helpful for the commercialization of such technologies.
- High-tech start-ups often take longer to generate positive cash flow (Honjo 2017). Moreover, early-stage shareholders of high-tech start-ups, including angel investors, face high risk. Policymakers should provide effective support for high-tech start-ups, including financial incentives related to tax breaks, which could encourage investment in high-tech start-ups.
- Various types of stakeholders, including investors, entrepreneurial mentors, and local governments, participate in entrepreneurial ecosystems. A self-regulating way is required to manage the interests of different stakeholders in entrepreneurial ecosystems (Colombo et al. 2019). The establishment of governance rules will help to sustain vibrant entrepreneurial ecosystems.
- The successful exit of entrepreneurs and early-stage investors, that is, an initial public offering or an exit through a merger or acquisition, helps to establish sustainable entrepreneurial ecosystems (Mason and Brown 2014; Mason and Botelho 2016). For this purpose, private equity markets in regions or countries should be improved to facilitate such strategic exits.
- The circumstances constitutioning an impediment to exit reduces opportunities to achieve a significant level of entrepreneurial recycling (Brown and Mason 2017). It is important to reduce both exit and entry barriers.
- Local governments can play a leading role in the development of entrepreneurial ecosystems. Successful practices in one region are useful for the improvement of entrepreneurial ecosystems in other regions. Information sharing is more effective in the development of such ecosystems.



Promotion of Global Start-ups

From a global perspective, the emergence of global start-ups with growth potential can play a pivotal role in stimulating the stagnant economy across countries. The enforcement of matching global start-ups to multinational enterprises in the supply chain may also accelerate economic expansion through entrepreneurship across countries.

While international experience and management skills are required to manage global start-ups, entrepreneurial ability for developing innovative products or services may be more important for such start-ups. In addition, the main driver of the early international expansion of global start-ups may be a business model based on the sales of niche products that incur low communication, transportation, and adaptation costs. In this respect, international experience and entrepreneurial orientation may not always be sufficient conditions for fast internationalization (Hennart 2014). Rather, innovative knowledge and skills may be required.

Meanwhile, some entrepreneurs face drastically different realities across economies when they set up and operate their businesses. Differences in regulatory and institutional quality can affect how many new businesses are created (World Bank 2018). The simplification of incorporating procedures, including the administrative ones related to new businesses, leads to the promotion of global start-ups by foreign entrepreneurs and investors. Some entrepreneurs and investors may also encounter difficulties in starting businesses due to institutional reasons, including immigration policy. The ease of starting businesses in terms of legal procedures and cultural gaps promotes the emergence of global start-ups.

- Innovative products and services may be able to emerge through the combination of resources, including technologies, in different countries or regions.
- Proficiency in foreign languages (Cannone and Ughetto 2014) and (work and educational) experience gained abroad (Elia and Grilli 2017) may matter for the decision to internationalize. Cultural gaps may also affect the behavior of global start-ups.



- While time-consuming and costly administrative procedures for new businesses can impede the emergence of global start-ups, easing these administrative requirements would contribute to the promotion of such start-ups.
- The ease of starting a business varies across countries or regions, and the cost and time for incorporating a company constitute barriers to entry for potential entrepreneurs in some countries. The simplification of systems and procedures for business start-ups—for example, the introduction of electronification for incorporating—can help to promote global start-ups. Simple and fair tax systems are also necessary to promote global start-ups.
- A deeper understanding of the conditions under which global start-ups are likely to prosper could stimulate policymakers to sustain start-ups' internationalization through appropriate support programs (Cannone and Ughetto 2014).

References

- Acs, Z.J., Stam, E., Audretsch, D.B. and O'Connor, A. (2017), The lineages of the entrepreneurial ecosystem approach. *Small Business Economics* 49 (1), 1-10.
- Acs, Z.J. and Audretsch, D.B. (Eds.) (2010), *Handbook of Entrepreneurship Research: An Interdisciplinary Survey and Introduction*. New York: Springer.
- Arenius, P. and Minniti, M. (2005), Perceptual variables and nascent entrepreneurship. *Small Business Economics* 24 (3), 233-247.
- Baumol, W.J. (2004), Entrepreneurial enterprises, large established firms and other components of the free-market growth machine. *Small Business Economics* 23 (1), 9-21.
- Bonaccorsi, A., Colombo, M.G., Guerini, M. and Rossi-Lamastra, C. (2013), University specialization and new firm creation across industries. *Small Business Economics* 41 (4), 837-863.
- Bonaccorsi, A., Colombo, M.G., Guerini, M. and Rossi-Lamastra, C. (2014), The impact of local and external university knowledge on the creation of knowledge-intensive firms: evidence from the Italian case. *Small Business Economics* 43 (2), 261-287.
- Bos, J.W. and Stam, E. (2014), Gazelles and industry growth: a study of young high-growth firms in The Netherlands. *Industrial and Corporate Change* 23 (1), 145-169.
- Brown, R. and Mason, C. (2017), Looking inside the spiky bits: a critical review and conceptualisation of entrepreneurial ecosystems. *Small Business Economics* 49 (1), 11-30.



- Cannone, G. and Ughetto, E. (2014), Born globals: A cross-country survey on high-tech start-ups. *International Business Review* 23 (1), 272-283.
- Carpenter, R.E. and Petersen, B.C. (2002). Capital market imperfections, high-tech investment, and new equity financing. *Economic Journal* 112 (477), F54-F72.
- Chesbrough, H. (2012), Open innovation: where we've been and where we're going. *Research Technology Management* 55 (4), 20-27.
- Colombo, M.G., Dagnino, G.B., Lehmann, E.E. and Salmador, M. (2019), The governance of entrepreneurial ecosystems. *Small Business Economics* 52 (2), 419-428.
- Colombo, M.G. and Grilli, L. (2010), On growth drivers of high-tech start-ups: exploring the role of founders' human capital and venture capital. *Journal of Business Venturing* 25 (6), 610-626.
- Davidsson, P., Delmar, F. and Wiklund, J. (2006), *Entrepreneurship and the Growth of Firms*. Cheltenham: Edward Elgar Publishing.
- Decker, R., Haltiwanger, J., Jarmin, R. and Miranda J. (2014), The role of entrepreneurship in US job creation and economic dynamism. *Journal of Economic Perspectives* 28 (3), 3-24.
- Elia, S. and Grilli, L. (2017), Go abroad or remain small: do foreign studying and working experiences impact the international vocation of entrepreneurs? *Proceedings of 43rd EIBA (European International Business Academy) Annual Conference "International Business in the Information Age"* Millan (Italy) 14-16 December 2017, ISBN: 9788864930428.
- Evans, D.S. and Jovanovic, B. (1989), An estimated model of entrepreneurial choice under liquidity constraints. *Journal of Political Economy* 97 (4), 808-827.
- Halbisky, D. (2018), Policy Brief on Women's Entrepreneurship. *OECD SME and Entrepreneurship Papers* No. 8.
- Haltiwanger, J., Jarmin, R., Kulick, R. and Miranda, J. (2017), High growth young firms: contribution to job, output and productivity growth. In: Haltiwanger, J., Hurst, E., Miranda, J. and Schoar, A. (Eds.), *Measuring Entrepreneurial Businesses: Current Knowledge and Challenges*, Chicago, IL: University of Chicago Press, 11-62.
- Haltiwanger, J., Jarmin, R. and Miranda, J. (2013), Who creates jobs? Small versus large versus young. *Review of Economics and Statistics* 95 (2), 347-361.
- Hossain, M. and Simula, H. (2017) Recycling the unused ideas and technologies of a large corporation into new business by start-ups. *Technology in Society* 48, 11-18.
- Hennart, J.-F. (2014), The accidental internationalists: A theory of born globals. *Entrepreneurship Theory and Practice* 38 (1), 117-135.
- Henrekson, M. and Johansson, D. (2010), Gazelles as job creators: a survey and interpretation of the evidence. *Small Business Economics* 35 (2), 227-244.
- Honjo, Y. (2017), High-tech start-ups in Japan: the case of the biotechnology industry. In: Honjo, Y. (Ed.), *Competition, Innovation, and Growth*. Singapore: Springer.
- Hurst, E. and Lusardi, A. (2004), Liquidity constraints, household wealth, and entrepreneurship. *Journal of Political Economy* 112 (2), 319-347.
- Isenberg, D.J. (2010), How to start an entrepreneurial revolution. *Harvard Business Review* 88 (6), 40-50.



- Kelley, D., Bruch, C., Greene, P., Herrington, M., Ali, A. and Kew, P. (2015), *Special Report: Women's Entrepreneurship*. London: Global Entrepreneurship Monitor.
- Knight, G.A. and Cavusgil, S.T. (2004), Innovation, organizational capabilities, and the born-global firm. *Journal of International Business Studies* 35 (2), 124-141.
- Maestas, N. and Zissimopoulos, J. (2010), How longer work lives ease the crunch of population aging. *Journal of Economic Perspectives* 24 (1), 139-160.
- Mason, C. and Brown, R. (2014), *Entrepreneurial ecosystems and growth oriented entrepreneurship: final version*. Background paper prepared for the workshop organized by the OECD LEED Programme and the Dutch Ministry of Economic Affairs on Entrepreneurial Ecosystems and Growth Oriented Entrepreneurship.
- Mason, C. and Botelho, T. (2016), The role of the exit in the initial screening of investment opportunities: the case of business angel syndicate gatekeepers. *International Small Business Journal* 34 (2), 157-175.
- Meoli, M., Paleari, S. and Vismara, S. (2019), The governance of universities and the establishment of academic spin-offs. *Small Business Economics* 52 (2), 485-504.
- O'Connor, A., Stam, E., Sussan, F. and Audretsch, D.B. (Eds.) (2018), *Entrepreneurial Ecosystems: Place-Based Transformations and Transitions*. New York: Springer International Publishing.
- OECD (2011), *Financing High Growth Firms: The Role of Angel Investors*. Paris: OECD Publishing.
- OECD/European Union. (2017), *The Missing Entrepreneurs 2017: Policies for Inclusive Entrepreneurship*. Paris: OECD Publishing.
- Roma, P., Petruzzelli, A. M. and Perrone, G. (2017), From the crowd to the market: The role of reward-based crowdfunding performance in attracting professional investors. *Research Policy* 46 (9), 1606-1628.
- Shane, S.A. (2008), *The Illusions of Entrepreneurship: The Costly Myths That Entrepreneurs, Investors, and Policy Makers Live by*. New Heaven, CT: Yale University Press.
- Spigel, B. (2017), The relational organization of entrepreneurial ecosystems. *Entrepreneurship Theory and Practice* 41 (1), 49-72.
- Stam, E. and Spigel, B. (2018), Entrepreneurial ecosystems. In: Blackburn, R., De Clercq, D. and Heinonen, J. (Eds.), *The SAGE Handbook of Small Business and Entrepreneurship*, London: Sage, 407-422.
- Storey, D.J. (1994), *Understanding the Small Business Sector*. London: Thomson Learning.
- Terjesen, S., Bosma, N. and Stam, E. (2016), Advancing public policy for high-growth, female, and social entrepreneurs. *Public Administration Review* 76 (2), 230-239.
- van der Zwan, P., Verheul, I. and Thurik, A.R. (2012), The entrepreneurial ladder, gender, and regional development. *Small Business Economics* 39 (3), 627-643.
- van Praag, C.M. and Versloot, P.H. (2007), What is the value of entrepreneurship? A review of recent research. *Small Business Economics* 29 (4), 351-382.
- World Bank. (2018), *Doing Business 2019: Training for Reform*. Washington D.C.: World Bank Publications.