

Start-ups and open innovation

According to definition by Steve Blank, a start-up is a company, a partnership or temporary organization designed to search for a repeatable and scalable business model. Through the start-up phase, new ideas are brought to the market and transformed in economically sustainable enterprises.

The Open Innovation paradigm provides a context to understand how start-ups contribute to innovation processes. Open Innovation is based on “the use of purposeful inflows and outflows of knowledge.” Start-ups’ success depends on these knowledge flows in several ways: they develop and bring to the market innovations that affect and are affected by the products, services and business models of other organizations; they are part of geographical or virtual clusters of firms; they can be supported and influenced by people, institutions and other organizations (including business angels, venture capitalists and research institutions), forming a so-called start-up ecosystem.

A research gap still exists regarding the mutual influence between the start-ups management decisions and open innovation processes. There is a lack of both theoretical models and empirical findings to enhance our understanding of: the implications of managerial decisions for the activation, development and exploitation of knowledge inflows and outflows; the implications of the context (partnerships, networks, clusters and ecosystems) on the managerial choices in start-ups; and the implications of the alignment between strategy and context for the performance of start-up companies.

The goal of this special issue is to stimulate the discussion and collect theoretical studies, surveys and case studies on managing start-ups in an open innovation context.

The first article “Start-ups and open innovation: a literature review” by J.C. Spender, V. Corvello, M. Grimaldi and P. Rippa introduces the special issue by reviewing the content of 42 papers selected through a systematic methodology. The review discusses the state of the art at the intersection between the two knowledge domains this special issue focuses on: start-up companies and open innovation.

The article “Trust in open innovation – the case of a Med-Tech start-up” by N. Hasche, G. Linton and C. Oberg discusses the importance of trust in open innovation, focusing on a start-up company in the medicine technology sector. This paper shows how the start-up discontinues collaborations with external partners based on a perceived lack of goodwill.

The article “Oops, I did it again! Knowledge leaks in open innovation networks with start-ups” by F. Alberti and E. Pizzurno theorizes on the role of start-ups in open innovation networks as depending by knowledge “leaks” as unintended knowledge flows between large firms and start-ups. Research setting is based on an Italian aerospace cluster through the adoption of multiplexity analysis and case studies.

The article “Open accelerators for start-ups success. A case study” by C. Battistella, A. De Toni and E. Pessot investigates how the context offered by accelerators can affect the successful growth of start-ups. The analysis is conducted through an exploratory case study in an English accelerator. Main findings are related to the most effective open



innovation practices adopted by an accelerator program such as dyadic co-creation and crowdsourcing.

The article “Open innovation for start-ups. A patent-based analysis of bio-pharmaceutical firms at the knowledge domain level” by F. Michelino, A. Cammarano, E. Lamberti and M. Caputo investigates the impact of open innovation adoption on start-up ventures at the knowledge domain level in the bio-pharmaceutical industry in Europe. They came up with a methodological framework where the quality of innovation output is affected by the propensity to collaborate and the partner typology.

The article “Accelerating chemical start-ups in ecosystems: the need for biotopes” by M. Van Gils and F. Rutjes clarifies the relationship between start-ups and an innovation ecosystem through a case study in the Dutch chemical industry. The authors identify innovation biotopes as well-defined, business-oriented cross-sections of an ecosystem where stakeholders are carefully selected.

The article “Strategic assets in technology-based incubators in Brasil” by C. Fernandes, M. Oliveria Jr., R. Sbragia and F. Borini analyzes the relationship between strategic assets and the launch of new products in a technology-based incubator in Brazil through two surveys. Main findings are related to the strategies to be adopted by such institutions to be more effective for the creation of the relationship among firms located in the incubators and the external environment.

The article “How start-ups successfully organize and manage open innovation with large companies” by M. Usman and W. Vanhaverbeke deals with collaboration between start-up companies and large firms in open innovation processes. It provides two illustrative case studies, offering valuable knowledge for practitioners and researchers interested in real-life application of the open innovation paradigm.

Vincenzo Corvello

Department of Business Science, University of Calabria, Rende, Italy

Michele Grimaldi

*Department of Civil and Mechanical Engineering,
University of Cassino and Southern Lazio, Cassino, Italy, and*

Pierluigi Rippa

University Federico II of Naples, Napoli, Italy