

## **“Ready for Take-off”. How Open Innovation influences startup success.**

Cristina Marullo\*, Elena Casprini, Alberto Di Minin<sup>and</sup> Andrea Piccaluga  
[\\*c.marullo@sssup.it](mailto:c.marullo@sssup.it) (Presenting and Corresponding Author)

*All at Istituto di Management, Scuola Superiore Sant’Anna - Pisa (IT)*

### **ABSTRACT**

New ventures’ formation is among the most significant sources of technological innovations and fast economic development. Nonetheless, most of the attempts will never be successful: It is a common saying in Silicon Valley that nine out of ten start-ups fail or suspend their activities without growing (they start “walking dead”) within 5 years. This paper links entrepreneurship and open innovation research in order to provide an integrated view of the probability of a startup to succeed. We suggest that the probability of startup success depends on five main factors, namely (i) the variety of OI practices performed by the founding team; (ii) the breadth of knowledge skills in the founding team; (iii) the amount (the depth) of the team’s prior joint experience; (iv) the moderating effect of the breadth of knowledge skills on prior joint experience (the team’s “learning potential”) and (v) the type of innovation ecosystem a start-up is embedded in. We draw on a unique database built from the business plans of 134 startups participating to the final round of INTEL Global Challenge (IGC) at UC Berkeley (California) from 2005 to 2012. We test five research hypotheses through logistic regression estimates. The model assesses the

influence of “openness”, learning potential and innovation ecosystems on the odds of startup “Take-off” (with respect to failure). We find that the extent to which teams build on external innovation sources and integrate external knowledge in the pre-startup phase is a strong determinant of startup success. From an organisational perspective, a higher learning potential (the moderating effect of diversity of skills in the founding team on prior joint experience working at the technology), positively influences the odds of “Take-off”. Moreover, being incubated during the pre-startup phase significantly increases this probability. Our analysis extends previous entrepreneurship research on successful new venture creation and suggests new fields for research on OI in SMEs. Moreover, we take into consideration the role of “open environments” (innovation ecosystems), one of the most actual topics in OI research.

**Keywords:** Open innovation; Entrepreneurship; Startups; Teams; Experience; Performance.