

How to Raise External Fund for High-Tech Ventures

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High-tech ventures (HTVs) including R&D projects and start-ups in which a new technology is being developed typically need to approach different financiers to raise fund, or they receive partnership suggestions from various financial institutions so that they are in the position of choosing among those options. Choosing financial partners is an important strategic decision for HTVs because a good choice may enable them to grow faster and more efficiently while a poor decision can take a toll on them, delay their progress and threaten their intellectual property. This research focuses on the maturity of the core technology (that is quantified by technology readiness level index, TRL) to design a framework to determine how to choose among venture capitals, business angels, governmental institutions, and crowdfunding platforms regarding the TRL. I differentiate among the mentioned partners in terms of their goals, the degree of risk aversion, giving autonomy vs managerial supports, the probability of showing opportunistic behaviors, their domain of activities, and the amount of capital that they provide. Based on the mentioned comparison that is made by reviewing the existing literature, I determine that in each level of technology maturity, the chance of partnership with which financial partner is higher, and raising capital from which financier maximizes the chance of HTVs to grow successfully. According to the findings, in general, approaching governmental institutions in lower TRLs, business angels and crowdfunding platforms in medium TRLs, and venture capitals in higher TRLs is recommended. Although similar pieces of advice have been offered by some studies before, comprehensiveness of this research regarding the attention to all partnership options and focusing on the different stages of developing technology fill the gap in the related literature.

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