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LEARNING FROM TECHNOLOGY ENTREPRENEURS: EFFECTUATION AS A NEW TOOLBOX IN CONTEXTS OF HIGH UNCERTAINTY (SUMMARY)

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SUMMARY

LEARNING FROM TECHNOLOGY ENTREPRENEURS: EFFECTUATION AS A NEW TOOLBOX IN CONTEXTS OF HIGH UNCERTAINTY

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Principal Topic

Adopting a process view on technology entrepreneurship, we examine ways of approaching uncertainty in the early-stage technology venturing process. A recent study on university R&D expenditures and new business formations provided us with results confirming once again a positive economic impact of technology-based entrepreneurial activity in terms of the creation of new firms, employment and change (Kirchhoff, Newbert, Hasan, & Armington, 2007). On the other hand, German policy makers worry about a decreasing number of technology-based companies due to a strong job market for technology experts and perceived high levels of uncertainty by the would-be entrepreneurs (Niefert, Metzger, Heger, & Licht, 2006). As there have been only very few empirical studies on the early stage of technology-based entrepreneurship, this study uses qualitative methodology to research in the given context the types of uncertainty and the ways to approach it, differentiating between causal and effectual ones (Sarasvathy, 2005).

Method

We collected data from 8 technology ventures that have based their activities on technologies from Germany's two leading technology universities, starting with 6 cases from RWTH Aachen University and replicating 2 cases from the Technical University of Munich. The information was gathered in 27 interviews with founders and stakeholders and from documents available online or through the entrepreneurs. We examined the early-stage development process starting from the research work before the decision for commercialization, drawing on ideas from resource-based view and findings from cognition-based entrepreneurship.

Results and Implications

Our research shows that technology entrepreneurs' capability to combine both causal and effectual reasoning in the early-stage development process influences their gestation performance. Entrepreneurs who quickly develop their venture build stakeholder commitments to create their business and use planning tools in the beginning mainly for communication purposes. Instead, technology entrepreneurs with lower performance as to their gestation process rely more intensely on causal tools that they were taught or advised to use. The observable process capability seems to consist in an integration of causal and effectual toolsets. Our research sheds light on the different forms of this capability, highlighting the challenges faced by entrepreneurs in early-stage technology venturing, but also for policy makers who need to rethink their support programs.

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