

IOF Final Summary Report

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Project Acronym: “Institutions&E.ship”

Outgoing period: 01/09/2010 – 31/08/2011

Outgoing host: Center on Organizational Innovation, Columbia University, New York (USA)

Return period: 01/09/2011 – 31/08/2012

Return host: Innovation Studies Group (ISG), Utrecht University (The Netherlands)

Coordinator: Andrea M. Herrmann

Assistant Professor at the Innovation Studies Group (ISG) since August 2006

Nationality of coordinator: German

Outline of the Project: Objectives and Initial Expectations (Hypotheses)

This project has studied whether national institutions influence the way in which entrepreneurs set up companies. Do the types, order, and timing of start-up activities undertaken by entrepreneurs – such as the recruitment of employees or the acquisition of capital – differ systematically between Germany and the US? Neo-institutional theories in general, and the varieties-of-capitalism literature in particular, suggest that this would be the case, because the differing labour-market and corporate governance institutions in these countries influence the availability of the human and financial capital needed for venture creation (Hall and Soskice 2001; see also Freeman and Soete 1997; Iversen 2005; Hancké, Rhodes et al. 2007; Herrmann 2008). Consequently, I hypothesized that entrepreneurs would first acquire those resources that are scarce in their respective countries. If this is the case, this would imply that generic entrepreneurship policies, seeking to stimulate venture creation through `one-fits-all` measures, would ignore the specific constraints of entrepreneurs at different moments of venture creation and would, therefore, be less effective.

Main Results and Conclusions

To test the above hypothesis, I explored the biggest existing database on venture creation processes (the PSED database), and I collected both qualitative and quantitative data. The results obtained highlight four major points.

First, the qualitative data confirms the expectation that institutions influence the timing of venture creation processes. Based on 20 in-depth interviews that I conducted with 10 German and 10 US entrepreneurs of information technology (IT) and environmental technology (ET) companies, I found that entrepreneurs indeed take different approaches to venture creation. For example, often entrepreneurs in Germany only dare to begin with venture creation when a product idea has matured to the point where it can almost be marketed. In other words, German entrepreneurs show a stronger tendency than US entrepreneurs to develop their venture's new product either during their leisure time or within the framework of their previous employment. The reason is that German entrepreneurs seek to minimize the chances of venture failure, because attractive employment alternatives are limited in a rigid labour market.

Importantly, though, the qualitative interviews also revealed that approaches to venture creation do not only differ between countries (i.e. between institutional environments), but also between industries, the product types developed (service or tangible good), and the product's innovativeness. More concretely, entrepreneurs developing environmental technologies (such as solar, wind, or biomass technologies) have a higher need to acquire external finance, including bank loans and venture capital, than IT entrepreneurs. Also, entrepreneurs developing tangible goods show a high tendency to hire employees and external contract workers early on, whereas service developers are less in need of hiring manpower. Similarly, founders of companies that develop innovative products seek access to capital and hire labour earlier than founders of companies that imitate already existing goods. In short, these qualitative results suggest that distinct venture creation typologies exist: There seems to be a limited number of distinct ways to set up a new venture.

The quantitative analyses I conducted confirm these qualitative findings. Sequence analyses of the PSED dataset allowed me to identify 16 different ways in which entrepreneurs typically set up new companies in the US. ***The second major finding of my work thus is the insight that venture creation typologies do exist.*** From the perspective of process-oriented entrepreneurship, this is a major contribution to the literature (Carter, Gartner et al. 1996; Gartner, Shaver et al. 2004; Reynolds and Curtin 2011), because, until to date, scientists have not been able to identify how many, and which, kinds of venture creation approaches exist – even though they generally agree that venture creation processes are not random. Importantly, I could identify systematic venture creation typologies due to the use of a novel method: sequence analyses. While the latter were originally developed to decode the human genome, sequence analyses have thus far only been used in the social sciences to study career patterns. My research is the first that applies this method to study venture creation processes.

A third major finding of my research thus is the insight that sequence analyses can be fruitfully applied to study social science phenomena in general and venture creation patterns in particular.

Given that the PSED data has only been collected for the US, it is suboptimal to study influences of national institutions. To assess whether venture creation approaches differ systematically between Germany and the US, I therefore needed to collect my own database. Thus far, I have completed 160 structured telephone interviews with US entrepreneurs and 30 interviews with German entrepreneurs, asking them about the types, order, and timing of activities they undertook to set up

their venture. While data collection for the US is complete, data collection in Germany will go on until, at least, 150 interviews have been completed.¹

Albeit preliminary, the quantitative analyses I have completed on the basis of the data available confirm the above findings and point to **a fourth major finding**. Accordingly, sequence analyses of my own database confirm that there is a distinct set of venture creation typologies. Furthermore, survival analyses show that institutions matter, but differently than originally foreseen. While German entrepreneurs are more hesitant than US entrepreneurs to develop a new product already within the framework of their own company, they commit themselves to venture creation earlier than their US counterparts, once they have taken the decision to actually start a venture. In other words, ***US entrepreneurs consider opening a company - within which they then develop a new product - for a rather long time, whereas German entrepreneurs rather develop a product within the framework of their previous employment and then fully dedicate themselves to venture creation once the new product has a promising market potential.*** This finding suggests that labour market rigidities and, more concretely, the lack of alternative employment in case of venture failure constitute important hurdles that may keep German entrepreneurs from deciding to open a new venture. But, once German entrepreneurs have taken this decision, labour market rigidities no longer seem to be an obstacle to advance venture creation. This finding is corroborated by studies published in the Global Entrepreneurship Monitor, which show that both venture creation rates and venture failure rates are systematically lower in Germany than in the US (Bosma, Acs et al. 2008: 20; Bosma and Levie 2009: 21; Kelly, Bosma et al. 2010: 23).

Potential Impact and Use of the Results Obtained

The aforementioned results have ***important implications*** and can be useful ***for entrepreneurship researchers and policy-makers alike.***

The most important impact of my work ***for entrepreneurship research*** is the finding that sequence analyses are an extremely useful tool to identify venture creation typologies. Given that researchers have been unable to discern typologies on the basis of a large database due to the lack of an adequate method, I am confident that my findings will motivate further research into this direction. ***My research has thus pointed to a fundamentally new way of analyzing venture creation processes: It has paved the way for a new line of inquiry in process-oriented entrepreneurship research.***

Policy-makers may rely on my research to target entrepreneurship policies more directly to specific periods of venture creation. For example, early-stage entrepreneurs in Germany may be invited to networking events with the specific aim of meeting or identifying potential customers. Similarly, measures that help entrepreneurs to find attractive employment alternatives in case of venture failure could be a successful measure to increase venture creation in Germany. At the same time, my findings suggest that there may be less reasons for concern about reduced venture creation rates in Germany than generally assumed: While the lack of employment alternatives motivates entrepreneurs to start venture creation only once they have developed a mature product idea, German entrepreneurs can, and do, fully dedicate themselves to venture creation once they are convinced about the feasibility of their business idea. Labour market and, possibly, financial market constraints are less of an obstacle to venture creation than commonly assumed. Policy-makers may therefore want to learn from my research that entrepreneurship cannot, and does not need to, be facilitated in Germany with the same measures as in the US. Silicon Valley cannot be imitated in Europe because of our differing institutional environments.

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