ENTREPRENEURSHIP AS STRATEGIC NETWORK CREATION: THE CASE OF A SCIENCE-BASED START-UP

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Interpersonal and interorganizational networks are considered to be important for furthering entrepreneurial success, especially for overcoming the liability of newness and smallness. With this paper, we go a step further, arguing that some startups even replace organization creation by means of what we call strategic network creation. Using a revelatory case study, we analyze how a science-based startup has seized opportunities by creating and orchestrating a strategic network and why this venture – after six years of growth and economic success – still has no employees. We underline the role of dialectical network dynamics in terms of legitimacy, reflexivity and reciprocity in the process of strategic network creation.

Introduction

Entrepreneurship research provides an understanding of how and by whom opportunities are discovered or created when launching a new product or service or introducing a new business model (Garud et al., 2014; Sarason et al., 2006; Shane & Venkataraman, 2000; Snihur et al., 2016). The most popular way of doing this is by creating a new organization (Gartner, 1985), although the entrepreneurship process starts before and continues beyond the creation of a new firm since, to a large extent, entrepreneurship relies on interpersonal and interorganizational networks (see Jack, 2010, and Slotte-Kock & Coviello, 2010, for excellent reviews). Respective relationships not only promote the discovery or creation of opportunities by building an organization but also help to overcome the liability of newness and smallness.

Based upon a revelatory case study, we will introduce entrepreneurship as strategic network creation and analyze the specifics of managing this process. Toward this end, we will first clarify that we conceive networks as a form of economic governance rather than a perspective and develop a practice perspective on entrepreneurial network creation. Then we will introduce our research methods and setting, a science-based start-up in Berlin, now one of the leading start-up ecologies in Europe in terms of venture capital investments (Ernst & Young, 2016). The case analysis demonstrates that some entrepreneurs reflexively create interorganizational networks as a form of governance which not only complements but even substitutes network creation for organization creation.

Adopting a practice perspective based on structuration theory (Giddens, 1984; Sarason et al., 2006; Anderson et al., 2010) the case, analyzed in depth over a longer period of time using a broad spectrum of methods, not only demonstrates the opportunities and challenges of entrepreneurship as strategic network creation, but also highlights the tensions and contradictions in terms of legitimacy, reflexivity and reciprocity implied in such an approach to entrepreneurship and how
these are managed in practice. Overall, we contribute to entrepreneurship research by highlighting strategic network creation as an entrepreneurial process as well as an outcome, thus complementing the abundant literature on the role of networks for starting up companies to create organizations. Beyond that, we demonstrate the value of a practice perspective on entrepreneurship that considers the interplay between entrepreneurial action and network or organization structures as a duality rather than a dualism and is sensitive to tensions and contradictions that have to be managed in the process of strategic network creation.

**Theory Development**

Network research has contributed significantly to a more contextualized, less heroic understanding of entrepreneurship (Hoang & Antoncic, 2003; Hoang & Yi, 2015; Slotte-Kock & Coviello, 2010). However, while research on the individual entrepreneur in the Schumpeterian tradition has overemphasized agency, research on entrepreneurial networks in the tradition of social network analysis tradition has overemphasized structural embeddedness. With this one-sidedness in mind, we propose a balanced approach, conceptualizing network creation as a recursive process acknowledging the duality of structure and agency (see Figure 1).

Given the (often only implicit) structural bias of network analyses, especially when the network of relationships is treated as an independent variable, in this kind of research entrepreneurial agency is in danger of not being fully acknowledged. After all, the interpersonal and interorganizational networks of entrepreneurs or entrepreneurial firms result from the strategic action of individuals, teams or organizations (Hallen & Eisenhardt, 2012; Jack, 2005; Ozcan & Eisenhardt, 2009; Vissa, 2012); action that focuses on activating, adding, upgrading and/or dropping ties (Elfring & Hulsink, 2007). What is more, research has not yet fully acknowledged the importance of studying entrepreneurship as a process or “journey” (McMullen & Dimov, 2013). The recursive interplay of action and structure in entrepreneurship in general (Giddens, 1984; Sarason et al., 2006) and the dual role of governance, like any kind of structure, as both constraining and enabling entrepreneurial activities, could and, from our perspective, should be theoretically acknowledged to a greater extent and captured better methodologically in empirical studies. The governance-focused and yet practice-based view we develop on entrepreneurship as strategic network creation differs from existing concepts in several respects. First, and despite its focus on governance, the view will be of processual nature and sensitive to the duality of structure and agency as well as to the need for structure to be reproduced or transformed by agents (Giddens, 1984; Sarason et al., 2006, 2010). More precisely, it will adopt a dialectical process perspective (Van de Ven & Poole, 1995), which has hitherto been under-represented in research on entrepreneurial networks (Slotte-Kock & Coviello, 2010). Second, we are interested in those special cases in which the process of interorganizational network emergence – or in structurationist terms “constitution” (Giddens, 1984) – is governed predominantly by a focal start-up, as in so-called “strategic networks” (Jarillo, 1988). Such cases of lead-organization network governance (Provan & Kenis, 2008) have hitherto not been analyzed in entrepreneurial settings. Instead, start-ups have mostly been seen as rather weak actors in networks (Yli-Renko et al., 2001), driven by network structures rather than driving the development of such structures with the help of strategic actions and practices (see, however, Ozcan & Eisenhardt, 2009; Anderson et al., 2010; for exceptions). Third, when it comes to strategic network creation, we conceive governance, defined as the more formal rather than informal means of coordinating interorganizational networks, to be a dynamic phenomenon (see also Berthod et al., 2017). More specifically, we are interested in a structuration process that is driven by recursive interplay between the start-up that is embedded in the created network and a prospective network-based business opportunity for both the start-up and its partners. Governance mechanisms have
been described before (i.e., equity and contracts, Li, 2013; Reuer et al., 2006), but have seldom been analyzed within research designs that are able to capture the dialectical process in which structures guide entrepreneurial actions as much as they are they are produced, reproduced or transformed by these actions or practices.

**Method**

We analyze with the help of a longitudinal case analysis how a science-based start-up has created a strategic network and why this venture – after six years of income growth and economic success – still has no employees. The case analysis demonstrates that some entrepreneurs reflexively create interorganizational networks as a form of economic governance which not only complements but even substitutes network creation for organization creation. It is only possible to capture respective management practices with the help of an in-depth case study design that extends over a longer period of time (Eisenhardt, 1989; Yin, 2014). From more than a dozen cases of entrepreneurship which we screened initially we chose to study Healthfood (anonymized) in depth, because it turned out to be the most extreme in terms of creating a minimum of organization and a maximum of network governance.

Healthfood is a technological or, more precisely, science-based start-up located in Berlin, Germany. The company, which was founded by a team of two academic entrepreneurs in 2010, markets organic health food (e.g. pulverized smoothies, cereal bars), initially via the Internet and soon afterwards via organic and health food shops as well. The products were developed in close collaboration with suppliers and customers and, more importantly, a research institute of a neighboring university. As the start-up is still only staffed by the two founders working in one small rented office, Healthfood ‘manufactures’ these products with the help of a dozen selected suppliers and organic farmers, and distributes the products via the Internet and organic and health food shops with the services of a specialized wholesaler and an independent logistic provider. The vision for the business is to grow rapidly, even internationally, but to remain a small organization which strategically orchestrates a network of an increasing number of organizations (Paquin & Howard-Grenville, 2013).

In order to (also) account for the embeddedness of entrepreneurial agency, the methodology has not only to capture dialectics of the process, but also the structural, relational and temporal-spatial contexts of entrepreneurial activity (Welter, 2011; Autio et al., 2014). To be more precise: In order to understand how start-ups substitute or at least complement organization creation with building and maintaining “cooperative interorganizational relationships” (Ring & Van de Ven, 1994) we have to analyze how start-ups govern or structure the process of network creation in the face of dialectics, tensions and contradictions arising in particular contexts, and how respective practices recursively influence these contexts.

In line with recent pleas for more qualitative studies of networked entrepreneurship (e.g., Jack, 2010), we conducted a study of an revelatory case that seems at first sight to be extreme (Eisenhardt, 1989; Siggelkow, 2007; Yin, 2014) in terms of network creation, but may well be an approach that already is and most likely will be used by an increasing number of start-ups in the future. The case was first approached in 2014. Up to now, 12 in-depth interviews with the two founders and their partners have been held in addition to 2 interview-like workshops with the founders. Non-participant observation, characteristic of an ethnographic approach (Bailey, 2007; Gobo, 2008; Marion et al., 2015; Silverman, 2016), was carried out over a period of two weeks. In addition, we analyzed the company’s website, some of its brochures, its media coverage and further data from all available sources (e.g., LexisNexis), allowing for data triangulation. More
interviews were conducted, especially with its source of technological knowledge, some of the
start-up’s suppliers, its service providers and immediate customers. We stored all the interview
transcripts and secondary data in a case study database to increase validity and reliability. For that
purpose, we used the software package MAXQDA and analyzed the data from a dialectical process
perspective (Van de Ven & Poole, 1995). Using an incremental inductive coding approach (see
Table 1) we were able to identify three phases (initializing, advancing, and adjusting) where three
different issues are predominantly addressed (legitimacy, reflexivity, reciprocity).

RESULTS

 Initializing strategic network creation by overcoming legitimacy issues through the co-creation of
opportunities: Analyzing Healthfood’s creation of the network relationship with its first customer
reveals an interesting strategy in order to overcome the early lack of legitimacy: signaling
reliability (Spence, 2002) and, at the same time, innovativeness (De Clerq & Voronov, 2009) when
approaching a potential partner. One the one hand, the food business is a conservative market and,
even in Berlin, not very open to entrepreneurs, especially when their organization consists of only
two unknown founders with limited technological competencies and financial resources. Given
the high risks that are involved when dealing with health food shops, and with groceries more
generally, established firms look for a high degree of reliability when collaborating with partner
firms. On the other hand, food trends have become more volatile over the past decades, not least in
the market segment of organic health food. Thus, established firms are also seeking to exploit new
developments and try to increase their innovativeness by collaborating with fresh but nevertheless
reliable partners.

 Advancing strategic network creation by replacing reflexivity issues with coordination:
Finding an appropriate mode of coordination became important once the explorative initiation
of relationships had led to a phase of execution, operation and expansion. The relationships
became increasingly formalized, as written specifications were transmitted to the suppliers and an
explorative project with the nutrition researchers was replaced by a commercial quality assurance
organization. Looking at the reflexivity of strategic network creation we can see that, following
an explorative phase in which the content of quality assurance was not yet clear, the network
approach was strategically reflected in order to advance it and deal with the standardization of a
quality assurance process in an expanding network.

 Adjusting strategic network creation to overcome reciprocity issues by means of governance:
Once Healthfood had become increasingly successful, competitors and partners tried to copy
Healthfood’s product ideas. A retail firm, for example, has started to offer cereal bars that were
very similar. Since this retail firm is also one of Healthfood’s partners, this has led to problematic
issues in the reciprocity dimension of strategic network creation which relies on collaborative
relationships. In consequence, network governance has become increasingly important. By
working closely with a variety of secret or exclusive suppliers, Healthfood is meanwhile, quite in
line with the relational view (Dyer & Singh, 1998), to some extent able to impede imitation, since
competitors and competing partners are not able copy their product quality exactly. Furthermore,
regular meetings with competing partners now take place in which both parties try to find
reciprocity-based ways of avoiding destructive competition.

 Note that the above vignettes illustrate the dialectics of legitimacy, reflexivity and reciprocity,
predominantly on different dyadic levels. In addition, we have also analyzed how strategic network
creation takes place on the whole network level and how each new dyadic relationship draws on
and reinforces the network level (see Figure 2). For example, after successfully collaborating with
its first upstream and downstream partners, it became easier for Healthfood to establish legitimacy with additional partners; reflexivity, e.g., specifications, processes and preferred relationships that were established in the beginning could be reused in new product development projects with new partners; and reciprocity could be maintained in new collaborations by drawing on established successful trust- and contract-based governance mechanisms.

**Discussion & Implications**

Adopting a practice perspective based on structuration theory (Giddens, 1984; Sarason et al., 2006) the case demonstrates not only the opportunities and challenges of entrepreneurship as strategic network creation, but also highlights the tensions and contradictions of the network dynamics implied in such an approach to entrepreneurship and how these are managed in practice. We show that, within strategic network creation, almost all entrepreneurial practices are networking practices, including those addressing tensions with regard to legitimacy, reflexivity and reciprocity. We argue that some start-ups even replace organization creation by means of what we call strategic network creation.

The legitimacy of interorganizational networks seems to create the first important tension in entrepreneurship as strategic network creation. As it is well known from research on interorganizational networks more generally, legitimacy in such settings concerns the network as an organizational form, an entity, and an interaction (Human & Provan, 2000). We assume that these three different types of legitimacy not only hold true with regard to entrepreneurial networks but that it is even more important for them to establish legitimacy in the first place, because of the handicap of the lead organization’s liability of newness and smallness (Aldrich & Fiol, 1994; Fisher et al., 2016). In fact, in the case of Healthfood we find that the network as an entity and interaction – or practice – seems to be considered as legitimate, despite the fact that the network as a form has not yet received much recognition in the food industry.

Reflexivity, which dominates the advancing phase of the case analyzed, means that the interpersonal and interorganizational relations do not simply emerge in the entrepreneurial process but – like the creation of the organization – are an outcome of the intentional, strategic action of “knowledgeable agents” (Giddens, 1984). This is the case although, in reality, emergent and deliberate strategies usually mix (Mintzberg & McHugh, 1985), as do emergent and engineered networks (Ring et al., 2005). In the case of Healthfood, this reflexivity is nicely demonstrated by the fact that a guide book not only served as a blueprint for creating the strategic network (Faltin, 2012), but that the entrepreneurs continuously refer to this approach when they explain their business model and the reasons why they do not hire employees. As depicted in Figure 1, we nevertheless concede that the process of strategic network creation may be an outcome of more or less reflexive organizing.

Finally, reciprocity, which emerges in the case under scrutiny as the next dominant issue to be handled in the entrepreneurial process of strategic network creation, highlights the fact that collaborative interorganizational networks, much like interpersonal networks, do not follow the classic economic exchange logic, but instead emphasize the norm of reciprocity which allows for more than just exchanging products and services for a price (Powell, 1990). In the case in question, reciprocity is illustrated by Healthfood’s intensive non-monetary university relationships which rely on trust and mutual unselfish support. But also the relationship to its first strategic customer, Naturalsale, exhibits this property. Moreover, the prevalence of the norm of reciprocity is underlined by the fact that most of these relationships seem to be long-term, open-ended and multiplex, and that both partners seem to benefit from maintaining them.
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Figure 1: Strategic network creation between structure and agency

Table 1: Coding scheme

Figure 2: Dynamics of strategic network creation