Resource acquisition of entrepreneurs: exploring the strategies for collaboration in a business incubator

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The lack of resources of young and becoming firms is one of the reasons for the emergence of business incubators. However, the micro-level processes of collaboration between entrepreneurs and business incubator staff are still not fully explored in entrepreneurship studies. This study aims to fill this gap. Business development support is analyzed in terms of entrepreneurial decision-making about collaboration with BI staff. Our aim is the identification of correlations between certain resource acquisition strategies and more successful entrepreneurial opportunity development.

1. Introduction

1.1. Background

Entrepreneurs who pursue a business opportunity are commonly in need of resources and capabilities, due to liabilities of newness, smallness and legitimacy (Stinchcombe, 1965; Van de Ven, 1992; Aldrich & Fiol, 1994). Resources can be tangible –in the form of financial assets, technologies or organisational processes – as well as intangible, for example in the form of human capital such as knowledge and (in)formal network ties (Barney, 1991).

The lack of resources of young and becoming firms is one of the reasons for the emergence of business incubators. Business incubators offer entrepreneurs access to tangible resources such as facilities, equipment as well as to non-tangible resources, such as assistance with legal, organizational and human resource aspects of venture creation, such as coaching and mentoring (Grimaldi & Grandi, 2005; Hackett & Dilts, 2004a, 2004b; Mian, 1996).

The question whether business incubators are effective in achieving their goals has to this point not been answered sufficiently (Sherman, 1999; Hackett and Dilts, 2004). For example, the micro-level processes in entrepreneurial development and business support are still not fully explored and accounted for in the business incubation literature – hence the phrasing 'black box of incubation' (Hackett and Dilts, 2004).

We want to know if there are different strategies in the decision-making of entrepreneur on resource acquisition through BI collaboration, and whether certain resource acquisition strategies correlate with more successful entrepreneurial opportunity development (EOD).

1.2. Research problem

As Sexton et al (1997) show, organizational and administrative support in EOD is as important to the entrepreneurs as financial assistance, confirming Chrisman's (1989) findings about the value of strategic assistance for entrepreneurs.

In particular, studies show that intangible resources in terms of business development support services - such as coaching, counseling and mentoring - positively affects new venture development (Mian, 1996; Kirwan & van de Sijde, 2008; Scillitoe & Chakrabarti, 2009).

Rice (2002), studying types of business assistance provided in business incubator (BI) programs, showed that the allocation of time of the BI manager, the intensity of the intervention and breadth of modalities influence the impact business assistance has on entrepreneurs. The author also mentions the importance of an entrepreneur's readiness to engage in collaboration with the BI manager, thus emphasizing the collaborative character of business assistance. In fact, as Rice argues, many resources in BI programs are offered in an

intangible form - such as of business assistance, training and coaching - and require coproduction, meaning collaboration between entrepreneurs and BI staff.

In this study, entrepreneurial decision-making about co-productive collaboration in a BI program is the central subject. We seek to find patterns in entrepreneurial decision-making about collaboration.

Entrepreneurial decision-making strategies involved in resource acquisition in BI programs has been largely absent from entrepreneurship literature. This research aims to fill this gap by examining the effects of different choices about EOD support in BI programs. Additionally, a deeper understanding of those decision-making strategies about collaboration with the BI staff can help to design more targeted and effective BI support programs.

1.3. Research question and motivation

Resource acquisition starts with an understanding of the types and configurations of resources called for by the opportunity the entrepreneur wants to develop (West & Noel, 2009). We aim to identify correlations between types of strategic decisions-making, acquisition of different resources and successful entrepreneurial opportunity development. This will be done by examining the strategic positioning (Zalewska-Kurek, Geurts & Roosendaal, 2010) of entrepreneurs in resource acquisition in BI programs and their effect on EOD.

The following research question guides this study: To what extent can strategic positioning of entrepreneurs in the collaboration with business incubator staff predict entrepreneurial opportunity development variation?

This study seeks to contribute to longitudinal research on the micro-level, particularly on strategic decision-making about collaboration by the individual entrepreneur during his the initial process of EOD in BI programs. There is a lack of studies on strategic decision-making of entrepreneurs regarding collaborative activities during the initial resource acquisition process. It is this gap that this study aims to fill. By analyzing different forms of collaboration with BI staff during EOD, we hope to observe patterns in entrepreneurial decision-making strategies.

Knowledge about types of entrepreneurial 'readiness for collaboration', as Rice (2002) coined it, could help predict resource acquisition processes of entrepreneurs in general but particularly in BI programs since these can be manipulated. By analyzing the strategic choices of entrepreneurs, we aim to find patterns in their collaboration-readiness vis-à-vis the BI staff. This, in turn, can facilitate the development of best practices for BI program structures so as to maximally cater to the strategic choices of starting entrepreneurs in collaboration during the process of resource acquisition.

Insights into entrepreneurial strategies in BI collaboration can help BI managers and civil servants design more fitful EOD support structures. On a more academic level, insights into decision-making components of entrepreneurial resource acquisition processes further the understanding - and possible improvement - of entrepreneurial business development processes and the design of them.

2. Theoretical framework

The field of entrepreneurship examines the process of discovery, evaluation and exploitation of an entrepreneurial opportunity (Shane & Venkataraman, 2000). Eckhardt & Shane (2003)

define entrepreneurial opportunities as "situations in which new goods, services, raw materials, markets and organizing methods can be introduced through the formation of new means, ends, or means-ends relationships" (2003: p. 336).

Most commonly, a distinction is made between three phases of EOD: the phases of opportunity identification and formation – which are seen to combine into opportunity recognition (Lumpkin & Lichtenstein, 2005) - and opportunity exploitation.

This research examines the process of entrepreneurial opportunity development by entrepreneurs in a BI program. Characteristically, entrepreneurs in BI programs are not yet in the exploitation phase of their entrepreneurial opportunity. Therefore, this study focuses on the opportunity identification and formation of EOD in BI programs and the collaboration with BI staff in order to successfully develop their opportunity.

Collaboration in business incubators: a value creation approach 2.1.

According to the Merriam-Webster¹, collaboration is defined as 'working jointly together in an endeavour'. Ideally, the 'endeavour' of BI interaction between entrepreneurs and BI staff yields successful EOD in terms of commercial success of the opportunity - which, in turn, can lead to value creation in terms of economic growth (Baron, 1998).

Value creation is a central notion in entrepreneurship literature (see for example Shane & Venkataraman, 2000), but also in alliance literature (see for example Zott & Amit, 2010; Osterwalder, 2005; Chesbrough & Rosenbloom, 2001).

Above, we have already described how entrepreneurship studies value is created in terms of In alliance studies, the focus is on the mechanisms with which partners create value together that neither of them could have done by themselves. Since BI collaboration can be seen as such as alliance – for its goal is the creation of value by means of EOD - alliance literature offers a fruitful conceptual context for developing a framework for the understanding of resource acquisition in EOD processes in BI programs.

Many resources offered in business incubator programs are intangible – such as coaching, or networking - and thus depend on co-production between BI staff and entrepreneurs (Rice, 2002). Therefore, this study treats BI support interaction as a value-creation process in a temporary collaborative network of entrepreneurs and BI staff members. The entrepreneur commits his time and energy to the collaboration, in exchange for which the BI staff representative will offer different kinds of resources - such as trainings, information, or coaching - to him. The value they are creating, in terms of successful EOD, is assumed to be the reason for their collaboration.

We want to know if strategic decision-making about the degree of collaboration in the BI program influence the acquisition of resources, and in what ways. For this, we use the concepts of value proposition, strategic positioning and value chain. These will be elaborated below.

2.2. Value proposition: The pursuit of goals in BI collaboration

¹ Online version of the British dictionary Merriam-Webster, dating 17-05-2011

We see entrepreneurs and BI staff as engaging in a temporary alliance in order to create value in terms of successful EOD. Both parties have thus a shared goal that forms the common interest of the alliance.

In the case of service provision and learning in incubators, the value proposition of the involved actors is the creation of a successful entrepreneur. This value proposition holds regardless whether it concerns the business creation of a starting entrepreneur or new activity or product development for an already existing venture of a participating entrepreneur.

The starting-up of a venture or product requires an entrepreneur to pass through three stages, namely opportunity recognition, opportunity preparation and opportunity exploitation (Shane & Venkataraman, 2000). These phases refer to respectively the discovery of the business idea and the preparation of that idea for an actual business, and the commercial exploitation of that idea – by means of selling a product or service – by the entrepreneur.

In addition to the shared goal of successful EOD, entrepreneurs and BI staff members have their own personal goals they pursue during their collaboration. For example, an entrepreneur might pursue his EOD in order to set up an independent business. Then his goal is to be self-employed, He might also be driven by other goals, such as artistic self-fulfillment.

In all cases however, participation in collaboration with BI staff the entrepreneur demonstrates his aim of successfully developing his entrepreneurial opportunity. In the same way, whatever the more informal goals of BI staff members, they are supposed to provide assistance in some way to entrepreneurs in their process of EOD. We assume therefore that there is a shared value proposition of the collaboration of entrepreneurs with BI staff in BI support programs, however general, abstract or over-shadowed at times by more personal goals.

The extent to which this shared value proposition – successful EOD- is realized, depends on many factors. Most commonly, the realization of success of EOD is measured as employment and financial growth, but also – in the case of starting entrepreneurs - in number of gestation activities realized (Davidsson & Honig, 2003).

In order to realize his goal(s), the entrepreneur collaborates with the BI staff. In this collaboration for resource acquisition from the BI staff, the entrepreneur will strive to maximize his gains of benefits from the collaboration. We assume that this involves strategic decision-making about how much collaboration is most beneficial. We will now propose the concept with which we analyze this strategic decision-making.

2.3. Strategic decision-making as strategic positioning: The role of interdependency and autonomy in BI interaction

Entrepreneurs are goal-oriented in entrepreneurial learning and development. They make autonomous choices about the pursuit and acquisition of resources and skill during a business incubation program. However, entrepreneurs are also dependent on their environment for resources, in order to attain venture growth (Penrose, 1959; Barney, 1991) and they must know, or learn to know, where to get them (West & Noel, 2009).

The value of a resource might differ substantially for starting entrepreneurs because it is what an individual "is able and allowed to do with a resource that determines much of its value" (Kraaijenbrink et al, 2010: p. 365). It follows that an entrepreneur must make decisions about

which resources to acquire, in accordance with his judgment about what is necessary for the attainment of his goals.

Resources offered in business incubator programs are increasingly intangible (Ratinho, Harms & Groen, 2009). In addition to use of facilities and the possibility to network, business incubators increasingly offer support services in terms of training and coaching and training involved. These participative forms of business support require collaboration between participating entrepreneurs and service-rendering BI staff.

We are interested in strategies of entrepreneurs in the collaboration with BI staff. The importance of strategic decisions regarding EOD has been shown in an empirical study by Hall (1992). For example, Porter (2001) delineates six principle of strategic positioning regarding the most effective marketing strategy. All principles of Porter focus on the commercial value-creation process in established industries. In fact, Porter's notion of strategic positioning (2001) is similar to Chesbrough & Rosenbloom's (2002) concept of competitive strategy.

However, whereas Porter's (2001) and Chesbrough & Roosenbloom's focus on contextual variables such as the establishment and defense of an advantageous position vis-à-vis market competitors, we are interested in collaborative efforts by nascent entrepreneurs to establish a resource-base in the initial phases of EOD.

In other words: Whereas Porter and Chesbrough & Roosenbloom study strategy-making during the exploitation phase of a entrepreneurial opportunity, this research concentrates on strategic decision-making at a much earlier moment of venture strategizing, namely opportunity recognition and preparation.

In order to analyze strategies in collaboration in the early phases of opportunity development – namely, the phases of recognition and preparation -, we will use the model of strategic positioning (Zalewska-Kurek et al, 2010).

This model of strategic positioning (SP) offers a useful tool for analyzing strategies in decision-making about the degree and content of collaboration in early phases of EOD which *precede* the phase of opportunity exploitation for which Porter's and Chesbrough & Roosenbloom's approaches are applicable. The model of SP has been used to examine academic's strategies in knowledge transfer activities (Zalewska-Kurek et al, 2010) and can model the very basic considerations of an actor in his strategy for resource acquisition.

We propose that the SP model of Zalewska-Kurek et al (2010) is more suited for the analysis of entrepreneurial decisions and activities in the stages of opportunity recognition and preparation. That is because the EOD process requires the setting up of not yet existing firm structures for the formation and implementation of strategy towards the market; in fact, the entrepreneur needs to strategically gather resources – in the form of business support – in order to realize the entrepreneurial opportunity.

An SP as conceptualized by Zalewska-Kurek (2010) contains two dimensions, Haspeslag & Jamison's (1991) notion of organizational autonomy (OA) and strategic interdependence (SI). The specific alignment of degrees of OA necessity and SI necessity yields four conceptually distinctive modes of positioning. These modes of strategic positioning are treated as different decision-making strategies. Below, we will elaborate the concepts of OA and SI in more detail.

Organisational autonomy

Lumpkin & Dess (1996) already argued that autonomy is an important aspect of entrepreneurial orientation. However, it is also possible to look at autonomy from the point of view of strategic decision-making, and it is this view which is of importance in this study.

An individual entrepreneur's decisions about - thus their strategies - in resource acquisition and deployment, play a crucial role in value creation of those resources, and thus in successful business opportunity creation.

Not only does that put human action and interaction at the center of resource acquisition and employment for new venture growth. It also emphasizes the role individual decision making in strategic resource acquisition in opportunity development plays. This brings us to the other dimension of SP, the strategic interdependence which involves resource acquisition.

Strategic interdependence

Following Haspeslagh & Jemison (1991), this is the deliberate sharing of heterogeneously distributed resources. The goal of the entrepreneur is to maximize the acquisition of necessary resources needed in the successful establishment, development and growth of his or her venture (Penrose, 1959).

Sarasvathy (2001) argues that business opportunity development involves effectuation, meaning the creative employment of resources available to the entrepreneur. This perspective implies that the individual and available resources play a key role to which business model is created and which strategy pursued. The possibility to manipulate resources in order to make them valuable in terms of venture development also includes the knowledge offered by a business incubator aimed at entrepreneurial development.

It follows that the environment of an entrepreneur, in terms of resources that can be drawn from it – alongside his socio-economic background such as education, prior experience, etc. – plays an important role in business opportunity creation and development.

To sum up, the necessity for interdependence reflects an entrepreneur's willingness to collaborate with the BI staff, whereas the degree of necessity for autonomy mirrors an entrepreneur's need for autonomy in decision-making in relation to means and ends for successful EOD.

We examine the relationship between an entrepreneur's choices in resource acquisition in terms an entrepreneur's necessity for interdependence and the necessity for autonomy.

2.4. The collaboration's value chain: using the 4S framework in the analysis of resource acquisition by entrepreneurs

Above, we have described the conceptual model used for the analysis of an entrepreneur's strategic decision-making about collaboration with the BI staff. However, we also want to know how this collaboration in turn affects the amount and type of resources acquired.

Studies in the field of entrepreneurship have shown that entrepreneurs in the process of new venture creation are in need of different relevant and necessary resources and that they deploy different ways in order to integrate those resources (Sandberg, 1986; Chrisman et al, 1999; Gartner, 1988; Baum et al, 2001).

Many studies using a resource-based view on entrepreneurship have elaborated on different capitals that influence business opportunity development, such as social, human, financial, intellectual or even entrepreneurial capital (for example Yli-Reko et al, 2001; Davidsson & Honig, 2003; Foss et al,b 2007; Pirolo & Presutti, 2010; Unger et al, 2011; Erikson, 2002). For example, Barney argues that a firm requires social, financial and organizational capital in order to conceive of or implement realize value-creating strategies (Barney, 1991: p.101).

Whereas valuable resources are seen firm-specific (Barney, 1991), capitals are conceptualized as more transferable bundles of resources. On a more concrete level, capital acquisition can be seen as the acquisition of entrepreneurial skills, and successful EOD thus requires the development of relevant entrepreneurial skills (Smith et al, 2007).

Another approach, designed for the study of high tech start-up ventures, is the 4S framework. This model, developed by Groen et al. (2002) is employed in order to systematically measure and analyze resource acquisition of nascent entrepreneurs.

In this study, we will analyze economic and social capital as important resource transfer. But organizational capital is considered too broad a category. Instead, in our analysis we use the concepts of cultural and strategic capital, as proposed by the 4S framework.

We focus on decision-making strategies for collaboration in resource acquisition, and assume that managerial skills (cultural capital) and strategy-making skills (strategic capital) are skills that entrepreneurs can learn and thus are able to be acquired. Strategy is essential to venture performance and varies depending on the goals set and circumstances encountered. It can be said that learning to strategize and measuring strategizing skills is distinctive from, yet just as important as managerial skills – such marketing, accounting, presentational skills.

Groen et al. (2002) argue that nascent high tech entrepreneurs who seek to develop sustainable firms need four different types of skills in this. The authors model these skills in the 4S framework for the analysis of entrepreneurial development. This model suggests that four types of capitals are essential to relevant skill-development of entrepreneurs and thus to the successful functioning – and growth – of high tech start-up firms (Groen et al, 2008). This approach was for example used by Kirwan (2009) in his analysis of resource acquisition international new ventures.

Below, we will shortly present the four different capitals figuring in the 4S framework.

Strategic capital

Strategic capital pertains to the ability to make strategic choices and form strategic alliances (Kirwan, 2009).

Coaching and counselling are considered effective support services for nascent entrepreneurs in terms of strategic skill learning. Eisenhardt (1989) for example found that advice-processes such as counsellors are related to more successful decision-making of firms in terms of developing more alternatives. As for nascent entrepreneurs, counselling is positively related to business planning (Rice, 1992), and potentially future value creation.

In this study, coaching and counselling constitute distinctive contributions to the process of EOD, by helping to reflect on the EOD process, creating focus, helping to weigh choices, setting priorities for goals and motivating further actions. In short, stimulate strategic planning activities. Locke & Latham (2006), studying the effectiveness of different sorts of goals,

showed that it is better to have 'hard', detailed goals and that learning goals are particularly important since those facilitate meta-cognition such as planning, monitoring and evaluating skills.

All these studies suggest that learning has an important relationship with strategy-making, since strategic planning, as Eisenhardt (1989) suggests, can be learned at least partly. As such, strategic skills can be seen as a transferrable resource, relevant in the business opportunity development process. In this study, coaching and other direct feedback interactions with BI staff are seen as relating to the acquisition of strategic capital.

Cultural capital

The term cultural capital refers to educational and intellectual assets, such as skills, education, values and previous experience (Kirwan, 2009).

Cultural capital has become an important notion in the field of management and entrepreneurship in the form of cultural capital. Aldrich (2001) for example describes the entrepreneurial process as the acquisition of specific, non-institutionalized form of human capital. And Dimov (2010) showed that industrial experience has direct, positive influence on entrepreneurial opportunity development.

Social capital

Social capital includes social connections and access to networks. Mian (1997) found that networking is highly important to start-ups, especially networking with other participants in a business incubator. Kirwan (2009) observed that the use social capital, in the form of network activities, can help in resource acquisition for venture establishment. Davidsson & Honig (2003) found that the amount of social capital is much more correlated to new venture performance than human capital.

Economic capital

Economic capital refers to material assets, such as facilities, physical objects – for example machines-, and financial resources which are property or in possession of the entrepreneur. Debt, equity, turnover, sales and profit are notions that refer to economic capital.

A business incubator cannot normally provide direct financial benefits to entrepreneurs, although it can for example award financial gains in the form of prizes. However, BI programs are usually more focused on providing indirect economic capital, in the sense that entrepreneurs can reduce their expenditures by sharing facilities, networks and education access, thus reducing opportunity costs during the EOD process.

There are a number of ways in which a business incubator can transfer economic capital, and other capitals might play a role in this. For example, Van der Heuven (2006) suggests that economic capital is mediated by an entrepreneur's social capital.

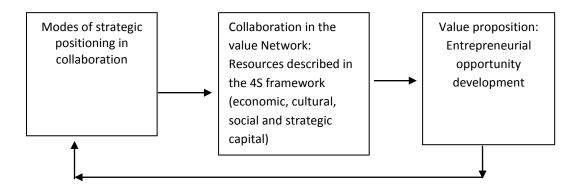
2. 6. Summary of theoretical model

We depart from the assumption that entrepreneurs acquire necessary resources via collaboration with other parties, in the case of this study with the BI staff. The influence of BI support services is seen to depend on co-production (Rice, 2002), because resources such as coaching need to be acquired through collaboration with the BI staff.

The collaboration between an entrepreneur and BI staff is based on a shared goal, namely that of successful EOD. In order to realize this value proposition, the entrepreneur makes use of the value chain which consists of the whole of business support services offered during the BI program.

In this study, we examine the role that different modes of strategic positioning (Zalewska-Kurek, 2010) play in resource acquisition decisions. A strategic positioning (SP) arises from the alignment of two dimensions, namely the necessity for organizational autonomy (OA) and the necessity for strategic interdependence (SI). Entrepreneurs reveal higher or lower degrees of OA and SI, depending on their need for autonomy on the one, and their resource dependence from others on the other hand. Our theoretical model (figure 1) suggests that a strategic positioning will influence the collaboration activities of entrepreneurs through which resources are acquired. This, in turn, influences the degree to which the value proposition – successful EOD – is attained. We conceive of this process in terms of a spiraling function, meaning that the degree of successful EOD could influence the need for OA respectively SI of an entrepreneur. This could lead to the adoption of a different strategic positioning by the entrepreneur, which in turn influences subsequent collaborative resource acquisition processes.

Figure 1. Theoretical framework of this study



The value chain is conceptualized as containing four capitals that can be acquired during the BI program, namely strategic, cultural, economic and social capital. Those are assumed to represent different yet necessary types of resources, more concretely skills, functional for entrepreneurial development (Groen et al, 2008).

In this study, we examine to what extent a mode of SP is related to the acquisition of specific resource offered in the BI program.

We will use this model to test if it can be fruitfully applied to the study of collaborative resource acquisition processes in business incubators. In the next section, we will propose hypotheses for this study.

3. Research design and planning

3.1. Dependent and independent variable

Three notions are central to the study, namely the value proposition of BI collaboration, the strategic positioning of entrepreneurs in that collaboration and the value chain consisting of capitals that can be acquired through collaboration.

The dependent variable is the value proposition in terms of the shared goal of the collaboration between entrepreneur and BI staff, namely successful entrepreneurial opportunity development. EOD is measured in terms of gestation activities undertaken, as well as possible sales activities and employment growth.

Independent variables are the entrepreneur's strategic positioning, measured in terms of degree of necessity for OA respectively SI, and the value network, which is measured by the degree of participation in support services analyzed in terms of 4S framework delivered by the BI staff.

The strategic positioning affects the way in which actors make decisions regarding the value network. The value network consists of resources offered in the BI program which is based on the 4S model described above.

By measuring the correlation between these three variables, we seek to identify to what extent the strategic positioning of an actor can predict the value network of the BI alliance. In other words: we aim to find out whether a certain decision-making strategy in collaboration with the staff in BI programs leads to more successful EOD.

3.2. Research method

The study is process- as well as variance-oriented. On the one hand, we study variance in entrepreneurial resource acquisition by observing strategic decisions about collaboration in resource acquisition. On the other hand, study is also process-oriented because it examines the influence of different types of resources on successful EOD during a longitudinal study of a BI program of one year. Qualitative as well as quantitative data will be collected. Below we will describe for each of the central concepts how they are empirically measured.

3.3. Measuring value proposition

The variable 'value proposition' (VP) is operationalized as the degree of successful entrepreneurial opportunity development. The degree of EOD is measured using indicators used by Davidsson & Honig (2003).

3.4. Measuring strategic positioning

In the first part of the study, we empirically validate the dimensions of necessity for OA respectively SI. In a second part of the empirical study, we will test the strategic positioning model in the process of resource acquisition in a BI program.

The data for the first phase, the qualitative part of this study, is collected in semi-structured interviews. Entrepreneurs are asked about the decisions they make regarding EOD, and the orientation towards external resources during this process, more specifically collaboration with BI staff.

The qualitative data collected in the semi-structured interviews is the basis for a quantitative analysis of entrepreneurs' references to and associations with entrepreneurial self-governance and resource-dependence on the environment – in this case BI staff providing services - in the process of EOD. The references and associations of entrepreneurs are seen as indicators of degrees of necessity for OA respectively SI, yielding an entrepreneur's specific strategic positioning in collaboration with the environment in the process of EOD.

We examine the correlation between modes of strategic positioning and the acquisition of resources in terms of the 4S framework. The way in which the four capitals of the 4S framework are measured is described in section 3.5..

3.5. Measuring the value network

We see the BI program as a collaborative support system for the development of four functions of an EO. Those four functions are assumed to be necessary to be successful and are the following:

- 1) Strategic capital pertains to the strategic choices and strategic alliances. In the incubator, this type of skill is formed by a strategic coach for defining scope and getting from idea to strategy, so this includes feedback moments of panel presentation, intervision group and workshops. All types of interaction directed specifically towards the progress of EOD entrepreneurial opportunities and the idiosyncratic resources needed for this.
- 2) Cultural capital refers to organisational aspects and human capital, such as marketing skills and managerial skills. We will use the participation of entrepreneurs in classes and seminars as a measure of this concept. Additionally, we will draw on Davidsson & Honig's (2003) indicators for their measure of human capital. These pertain to education, entrepreneurial experience and industry experience.
- 3) Social capital will be measured using the indicators and developed and used by Davidsson & Honing (2003).
- 4) Economic capital will be measured in euro's, drawing information from available data on self-reported investments in EOD made by entrepreneurs.

4. Implications for research and practice

In this study, we are interested in how an entrepreneur decides to collaborate with BI staff, and how this collaboration in turn affects the amount and type of resources acquired.

This study aims to test of two models for EOD inn a longitudinal study of the micro-level of entrepreneurship.

With this study, we seek to contribute to further research on entrepreneurship by adding insights about the micro-level strategies of entrepreneurs. We particularly aim to identify patterns in entrepreneurial decision-making strategies. This way, follow-up research could develop a predictive model of entrepreneurial strategies in resource acquisition.

A predictive model could be used in other studies to test and specify conditions for more effective support services, either within or outside the environment of a business incubator.

On a more practical level, an understanding of entrepreneurial strategies in BI collaboration can facilitate the design and content-filling of more effective and efficient EOD support

structures BI managers and civil servants. For example, support services could be more tailor-made to the needs –based on the predictive model – of entrepreneurs. In that respect, such a model can help to identify managerial roles for the optimalization of support structures. This could lead to more effective and efficient BI support programs.

REFERENCES

Aldrich, H.E. & Fiol, C.M. (1994). "Fools rush in? The institutional context of industry creation." *Academy of Management Review* 19 (4): 645 – 670.

Barney, J. (199)1. "Firm Resources and Sustained Competitive Advantage". *Journal of Management*, 17(1): 99.

Baron, R. A. (1998). "Cognitive mechanisms in entrepreneurship: Why and when enterpreneurs think differently than other people." *Journal of Business Venturing* 13(4): 275-294.

Baron, R. A. and G. D. Markman (2000). "Beyond social capital: How social skills can enhance entrepreneurs' success." *Academy of Management Executive* 14(1): 106-116.

Baron & Markman. (2003). "Person-entrepreneurship fit: why some people are more successful as entrepreneurs than others". *Human Resource Management Review*, vol. 13: 281 -301.

Brock, D. 2003. "Autonomy of individuals and organizations: Towards a strategy research agenda." *International Journal of Business and Economics*, 2: 57–73.

Carree, M. A. and A. R. Thurik (2010). "The Impact of Entrepreneurship on Economic Growth." *Handbook of Entrepreneurship Research*. Z. J. Acs and D. B. Audretsch, **5:** 557-594. Springer: New York.

Chesbrough & Rosenbloom. (2002). "The role of the business model in capturing value from innovation: evidence from Xerox Corporation's technology spin-offs companies." *Industrial and Corporate Change*, 11 (3), pp. 529 – 555.

Corbett, A.C. (2005)." Experiential Learning Within the Process of Opportunity Identification and Exploitation. *Entrepreneurship Theory & Practice*, 29(4): 473-491

Corbett, A. C. (2007). "Learning asymmetries and the discovery of entrepreneurial opportunities." Journal of Business Venturing 22(1): 97-118

Davidsson, P. and B. Honig (2003). "The role of social and human capital among nascent entrepreneurs." *Journal of Business Venturing* 18(3): 301-331

Eckhardt, J. T., S. Shane, et al. (2006). "Multistage Selection and the Financing of New Ventures." *Management Science* 52(2): 220-232.

Forbes, D. P. (2005). "The Effects of Strategic Decision Making on Entrepreneurial Self-Efficacy." *Entrepreneurship Theory and Practice* 29(5): 599-626

Gartner, W. B. (1985). "A conceptual framework for the describing the phenomenon of new venture creation." *Academy of Management Review* 10(4): 696-706

Grimaldi & Grandi (2005). "Business incubators and new venture creation: as assessment of incubating models". *Technovation* 25, pp. 111 - 121.

Groen, A. J., P. C. de Weerd–Nederhof, Inge C. Kerssens-van Drongelen, Rob A.J. Badoux and Gerard P.H. Olthuis (2002). "Creating and Justifying Research and Development Value:

Scope, Scale, Skill and Social Networking of R&D." *Creativity and Innovation Management* 11(1): 2-16.

Groen, A. & Ingrid A.M.Wakkee, Petra C. de Weert-Nederhof. 2008. *Managing Tensions in a High-tech Start-up*. *An Innovation Journey in Social System Perspective*. International Small Business Journal, vol 26 no.1, pp. 57 – 81.

Hackett, S. M. and D. M. Dilts (2004a). "A Systematic Review of Business Incubation Research." *The Journal of Technology Transfer* 29(1): 55-82

Hackett, S. M. and D. M. Dilts (2004b). "A Real Options-Driven Theory of Business Incubation." *The Journal of Technology Transfer* 29(1): 41-54.

Haspeslagh P.& Jemison D. (1991). *Managing acquisitions: Creating value through corporate renewal*. New York and Toronto: Free Press

Haynie, J.M. & Dean A. Shepherd and Jeffery S. McMullen. 2009. "An Opportunity for Me? The Role of Resources in Opportunity Evaluation Decisions." Journal of Management Studies, vol. 46 (2009), pp. 337 – 361

<u>Heuven, Joris</u> (2006) *The Role of Social Networks in Financing High Technology New Ventures: An Empirical Exploration.* In: 14th Annual High Technology Small Firms Conference, HTSF. Enschede, The Netherlands, May 11-13, 2006

Johannisson, B. (2011). "Towards a practice theory of entrepreneuring." *Small Business Economics* 36(2): 135-150

Kirwan, P.M. (2009). "It is what you know and who you know: An investigation into the network development of global start-up firms." Ph.D. thesis. Enschede: University of Twente.

Kirzner, I. M. (1997). "Entrepreneurial Discovery and the Competitive Market Process: An Austrian Approach." Journal of Economic Literature 35(1): 60-85

Kraaijenbrink, J. & J.-C. Spender and Aard Groen. 2010. "The Resource-Based View: A Review and Assessment of its Critiques." *Journal of Management*, vol 36: 349 – 372

Lumpkin, G. T. and B. B. Lichtenstein (2005). "The Role of Organizational Learning in the Opportunity-Recognition Process." *Entrepreneurship Theory and Practice* **29**(4): 451-472

Markham, S. K. (2002). "Moving Technologies From Lab to Market." Research-Technology Management 45: 31-42

Mian, S.A. (1996). "Assessing value-added contributions of university technology business incubators to tenant firms." *Research Policy* 25: 325 – 335.

Ratinho, Tiago and Harms, Rainer and Groen, Aard (2009) "Business support within business incubators." Paper presented at the Babson College Research Entrepreneurship Conference, BCERC, Babson Park, MA, USA June 3-6.

Sarasvathy, S. D. (2001). "Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency." *The Academy of Management Review* 26(2): 243-263

Shane, S. & Venkataraman, S. (2000). "The promise of entrepreneurship as a field of research." *Academy of Management Review*, 25(1): 217–226.

Short, J. C., D. J. Ketchen, et al. (2010). "The Concept of "Opportunity" in Entrepreneurship Research: Past Accomplishments and Future Challenges." *Journal of Management* 36(1): 40-65

Smith, W.L. & Ken Schallenkamp, Douglas E. Eichholz. (2007) "Entrepreneurial skills assessment: an exploratory study." *International Journal of Management and Enterprise Development*, vol 4 (2): 179 – 201

Stinchcombe A.L. (1965). Organizations and social structure. In *Handbook of Organizations*. Ed. J.G. March, 153–193. Chicago, IL: Rand-McNally

Van de Ven, A.H. (1992). "Longitudinal methods for studying the process of entrepreneurship." *The State of the Art of Entrepreneurship*. Eds. D.L. Sexton & J.D. Kasarda,., 214 – 242. Boston: PWS-Kent Publishers.

West & Noel (2009). "The impact of knowledge resources on new venture performance." *Journal of Small Business Management*; 47 (1): 1 – 22

Zahra, S. A. (2008). "The virtuous cycle of discovery and creation of entrepreneurial opportunities." *Strategic Entrepreneurship Journal* 2(3): 243-257

Zalewska-Kurek (2008). *Strategies in the production and dissemination of knowledge*. Ph.D. thesis, University of Twente.

Zalewska-Kurek, K.; Geurts, Peter A.T.M.; Roosendaal, Hans E. (2010). "The impact of the autonomy and interdependence of individual researchers on their production of knowledge and its impact: an empirical study of a nanotechnology institute." *Research Evaluation* 19: 217-225