NEW VENTURES’ ENTRY STRATEGIES IN THEIR START-UP PROCESSES

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Abstract

This paper departs from the basic understanding that venture creation processes are not uniformed but dependent on situational and contextual factors. In focus here is the impact of the new ventures’ knowledge level (e.g. technology). Following a case-study based design, two types of new firms are studied; academic spin-offs and generic ventures. Six new venture founders, three academic and three generic ventures, described their start-up process from idea generation to today’s business activity with the purpose of explaining their specific start-up process. The findings show that generic ventures and academic spin-offs have different basis for their venture creation and follow different strategies to enter a market. The academic spin-offs are to a larger extent product oriented and enter a market through a technology push where new products and services require the company to educate their customers in order to enable a proper use of their products/services. The generic ventures, on the contrary, enter a market through market pull where they exploit potential demands or opportunities/imbalances. These differences implicate venture gestation processes that imply differences also referring to the firms’ strategies for market entry and resource requirement and configuration.

Keywords: new venture, academic spin-off, start-up process, entry strategy, resource configuration.
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Introduction

Although previously studied, one of the least understood features of modern societies is still the process of creating a new venture (Reynolds & White, 1997). Even less studied is the phenomenon that this paper high-lights: differences between different categories of start-ups. As Deakins (1999) notes, every new venture is unique and the facilitating factors that might lead to a successful business start-up vary. Basic factors that might imply different start-up processes are; the nature or specific characteristics of the product/service the firm seeks to commercialize, the market that new ventures targets, and the resources and the market entry strategies that are required for commercialization. In focus here is the difference between knowledge-intensive academic spin-offs and “normal” or generic new business start-ups. A main concern in this study is how different product and market characteristics may be understood to relate to different market entry strategies and different modes of acquiring and organizing the firm’s resources during the start-up process as well as to different consequences in terms of firm growth and revenues. We address the theme of this paper by comparing two types of entrepreneurial endeavors: the start-up process of academic spin-offs (requiring specific and high-level knowledge) versus the process of starting a normal, generic new company (requiring a lower level of specialized expertise). Following Shane, Locke & Collin’s (2003) definition, we by entrepreneurial endeavors mean “the processes by which opportunities to create future goods and services are discovered, evaluated, and exploited”. In other words, we focus on the development of a new venture where one or more founders can make use of, commercialize, and further develop their business idea. The following text starts by developing a theoretical frame of reference for the study. In the next section we describe the methodology utilized for collecting the case-study base evidence followed by the case study results. We then conclude by discussing the results and research implications of the study.

A theoretical framework

Start-up process

Bygrave (1989) states that every firm’s start-up process is a disjointed, discontinuous and unique event and can, according to Lindholm Dahlstrand (2004), involve different intangible success factors. Therefore, there is no ready-made solution to the issue “how to successfully start a new company”. However, some stages or phases in a start-up process are common for all new ventures. This has triggered several researchers to try to “map” the start-up process. A typical and well-spread model depicting different phases in the start-up process was in 1999 developed by Deakins (and later utilized and further developed by Lindholm Dahlstrand, 2004). This model, which has been adopted as a theoretical framework for this study, includes different phases of the new venture creation process; i.e. the idea formulation, opportunity recognition, pre-start planning and preparations for the venture start-up, the ventures establishment and launch, and, finally, post-entry development.

Lindholm Dahlstrand (2004), Audretsch, Houweling & Thurik (2004), Shane (2000), Deakins (1999) and Venkataraman (1997) all point out that the idea formulation in a venture’s start-up process is to a high degree dependent on the entrepreneur’s prior knowledge and experience. For example Lindholm Dahlstrand (2004) concludes that many Swedish technology-based
ventures are created on knowledge from the entrepreneur’s earlier company employments or from an employment or studies at a university. In addition, entrepreneurs can make use of their established networks (both social and work-related) and their knowledge about markets in order to acquire competitive advantages, as well as financial support (ibid). The track record of a venture or an entrepreneur is crucial to the credibility among established actors like investors, customers and suppliers (Hitt, Ireland, Camp & Sexton, 2002, and Cooper, 2002). From this perspective, ventures started by younger entrepreneurs may, regardless if they are high- or low-tech, find it harder to create a new venture because of their lack of developed networks and track records.

A key factor in the start-up process is to transform the developed idea into a business opportunity (Lindholm Dahlstrand, 2004, Deakins 1999). An important factor for transforming an idea into a vital venture is the individual’s inner drive. Shane, Locke & Collins, (2003), Klofsten (1998), Crant (1996) and Adizes (1987) state that individual motivation, the inner drive, and the personal engagement in the new venture need to be above the level of a hobby activity in order to succeed. The individual motivation is far more important for a new venture than a flawless business idea.

In a pre-starting phase the entrepreneur needs to investigate the possibilities to business financing, which is especially important for a technology-based venture (Lindholm Dahlstrand, 2004, Deakins, 1999). In addition, in order to succeed it is equally important to do market research that for the entrepreneur and his/her stakeholders demonstrate that there is a profitable market for the new venture (Deakins, 1999). Moreover, the market segment selection is important in order to maintain the core focus of the product/service (Klofsten, 1998), something that is particularly important for high technology ventures. In this stage the entrepreneur has also to prepare for the venture’s organization, which, according to Storey (1994) and Sexton & Kasarda (1992), can benefit from a team of founders instead of a single founder due to the fact that several founders also may facilitate access to a broader range of networks and experiences. However, it is important for the venture’s success that knowledge and experience of the team is complementary, and that its personal characters match each other (Lindholm Dahlstrand, 2004). As an alternative to recruiting staff on their own pay-roll, new ventures should consider building alliances and coalitions with external actors (Klofsten, 1998).

When a venture is about to entry a market, timing is essential to the venture’s success (Lindholm Dahlstrand, 2004, Deakins, 1999). This is particularly significant for a new venture that launches new products because of the first mover advantages, i.e. it is easier for the innovator to get larger market shares than it is for its followers (Lee, Lee & Pennings, 2001, Grimm & Smith, 1997). A presumption is of course that the market is mature and ready, or that the venture with limited efforts can influence it to accept and demand the new product. To launch a new product may also necessitate the venture to educate their customers in how to make full use of their products, which is associated with high expenses for the venture (Lindholm Dahlstrand, 2004). Further, if the new product is introduced to an immature market, the customers’ demand needs to be strong enough for them to be willing to pay for the product (Lazonick, 2005), and there are risks for followers as soon as the market matures (Porter, 1985). During this phase resources such as patent holdings, brand equity, and other potentially valuable resources (Mosakowski, 2002) as well as elaborate market research can be essential and protective for the idea (Lindholm Dahlstrand, 2004).
Finally, as soon as a new venture has been established the venture will develop relations with its stakeholders and other actors. Therefore, the venture’s most important task is to build up their track record and liability in order to obtain the required financing, acquire customers, and to be able to get credit from suppliers (Lindholm Dahlstrand, 2004, Deakins, 1999). To facilitate the start-up processes and the ventures’ liability the firms can build alliances (Lee, Lee & Pennings, 2001) with customers in an early phase, where customers may take part in product development and act as investors. These customers should especially be those who need the product/service the most (Klofsten, 1998). To build awareness among customers, the venture has to distribute information about the product on a long term basis, especially if the product is innovative (Klofsten, 1998; Kotler, Armstrong, Wong & Saunders, 1996). Generally speaking, building different kinds of networks is important during this phase, because ventures who manage to build reliable networks with people at important positions often have a higher likelihood of succeeding (Politis, 2005).

**Antecedents for entrepreneurial endeavors**

Entrepreneurial events and processes may also be studied with a point of departure in the product/service that is offered to a market (supply side) or “the market-opportunity seeking behavior” (Hendry et al, 1995) that opportunity recognition and exploitation involve (demand side). This classic “divide” has paved the way for two research streams in entrepreneurship research: (1) Research that, following Schumpeter (1934), has been interested in how new market offerings (new products, new production methods, new ways of organizing business activities) cause “creative destruction” by facilitating for innovators to gain competitive advantage on the market; (2) Research that, building on Kirzner (1973) and others, has been more interested in how entrepreneurs seize imbalances and opportunities on the market and exploit them to their own benefit. Even if most modern research in the field understands these two streams as “two sides of the same coin”, they involve fundamental differences. “Schumpeterian” entrepreneurship research may hence be understood to highlight the role of “technology push” (e.g. new innovative products based on new knowledge or new combinations of knowledge) and the entrepreneurial role of destroying existing market structures by introducing more favorable solutions to customers’ problems (thereby creating “imbalances” in a previously stable but less dynamic economy). “Kirznerian” entrepreneurship research, on the other hand, underlines the function of the entrepreneur as someone who exploits an unfilled market need (market pull) and thereby creates a “balance” between demand and supply on the market. Although not transparent, the distinction between innovation and opportunity recognition relates to another dichotomized concept: the difference between proactive and reactive entrepreneurs. Crant (1996) suggests that individuals and firms with proactive motives have better qualifications to create new prosperous ventures since they create their own competitive environment, identify new opportunities and act upon them with persistence. With innovative advantages the venture can achieve high returns if they are being fast and first on the market (Lee, Lee & Pennings, 2001). First movers are those who first introduce new products or services, which brings “monopoly profits” until imitators or substitutes come out at the market (Grimm & Smith, 1997). On the other hand, several studies in e.g. product development have identified the risk associated with a “pioneering strategy”, implying that a more reactive “follower strategy” is beneficial for long-term firm growth and revenues (Bodin, 2000; Cooper & Kleinschmidt, 1993; Bain 1956). Recognizing that innovation and opportunity recognition in practice often are interwoven concepts, we still find the distinction between these two basic types of entrepreneurial endeavors (as well as the degree of maturity of the targeted market) as a first interesting theoretical building block for this paper.
Previous research hence state that entrepreneurs discover opportunities related to their prior information and knowledge, such as education, work experience or other means (cf. also Politis, 2005; Audretsch, Houweling & Thurik, 2004; Klofsten, 1998; Venkataraman, 1997; Roberts, 1991). Information and prior experience influence the entrepreneur’s ability to comprehend, interpret and apply new information in ways that those lacking that prior information cannot replicate (Roberts, 1991). Entrepreneurs will therefore normally start new firms in an attempt to exploit different ideas based on their previous knowledge and experience. Shane (2000) and Shane & Venkataraman (2000) state that the source of entrepreneurship lays in the difference in information about opportunities, and that individual differences influence how these individuals discover opportunities. This is in line with the Austrian framework argument that discoveries of entrepreneurial opportunities depends, to a certain extent, on the distribution of information in society where the possession of the distinctive information allows people to see different opportunities (Kirzner, 1973). Moreover, the discovery of entrepreneurial opportunities is an ability to identify commercial opportunities rather than an optimizing process; therefore the entrepreneur needs to see new means-ends relationships in order to combine existing concepts and information into new ideas (Shane & Venkataraman, 2000).

Opportunities are however not always (or even primarily) discovered and exploited by a stand-alone-company. With the intention of competing effectively on markets, firms are increasingly using alliances and networks both to get access to information (e.g. market or technology information; cf. Ylinenpää (1999), and to acquire and build necessary resources and capabilities (Johansson, 2006; Wincent & Westerberg, 2006; Ylinenpää & Westerberg, 2004; Hitt, Ireland, Camp & Sexton, 2002). This allows firms to compete in markets without first possessing all the resources needed (Cooper, 2002), and enhances new ventures’ chance of survival and eventual success (Baum, Calabrese & Silverman, 2000). Moreover, networks can create legitimacy for new firms, especially if they are focused on creating a new market or a niche within an established market, since alliances can lead to exchange relationships with entrepreneurial firms’ customers (Cooper, 2002). In addition, Cooper states that ideas for new ventures often come from social networks, and that the creation of new ventures is based either on network ties of an individual or of entrepreneurial teams. Thus, networks are sources of entrepreneurial opportunities.

Strategic alliances, as well as strategic networks have, according to Hitt, Ireland, Camp & Sexton (2002), become highly popular means of entering international markets, and according to Deakins (1999) new ventures need to establish networks that might help them to break into new markets. International entrepreneurship is an innovative, proactive and risk-seeking behavior that crosses national boarders and intends to create value in organizations (McDougall & Oviatt, 2000). New information technology facilitating international transactions and the opening of new global markets have led to increasing numbers of small ventures entering international markets (Ireland and Hitt, 1999). In this international entering, Lu and Beamish (2001) found that small firms experience greater profits when they engage in alliances with local partners in the new markets.

An emerging theoretical framework

From the literature review above a theoretical framework serving as a guide for empirical analysis may be generated. The context of this framework is a time-based sequential model for “normal” or “ideal” new venture creation processes, developed on the basis of Deakins
(1999) and Lindholm Dahlstrand (2004). The focus in the framework consists of key concepts that we have identified as important for developing a better understanding of our research purpose: to identify how different product and market characteristics may be understood to relate to different market entry strategies and different modes of acquiring and organizing the firm’s resources (resource configuration) during the start-up process as well as to different outcomes in terms of firm growth and profit. The basic idea of the framework is that the mode of resource configuration, entry strategy and the product/market characteristics affect the new venture’s start-up process. At the same time the start-up process per se can affect the entry strategy, the resource configuration and market characteristics as well. This is in Figure 1 illustrated by two-way arrows.

**Figure 1. A theoretical framework of a new venture’s start-up process**

In other words, the nature and level of a firm’s resources (i.e. its tangible as well as its intangible resources) can affect the idea formulation, the way the firm recognizes opportunities, the planning and perpetration of the creation of a new venture, the market approach and how the venture is developed during and after being launched into the market. Likewise, the chosen entry strategy and the characteristics of both the ventures’ products/services and markets impacts on decisions referring to planning and implementation of the new business concept. At the same time, the start-up process with its activities and events (and not least, the learning such experiences often involve) should affect the emergent entry strategy, required resources or the final product development since market research and different preparations may call for modifications and strategic shifts along the way.
Method

In order to arrive at a proper understanding of the new venture creation process, we need a more holistic understanding of the phenomenon that devotes interest in both the process itself as well as in important factors related to the phenomenon under study. Moreover, case studies have a distinctive place in evaluation research (see Patton, 1990, and Guba & Lincoln, 1980). First of all, case studies are important when the investigator tries to explain the presumed casual links in complex real-life interventions. Secondly, case studies are essential when an investigator wants to describe a course of events in a real-life context (cf. Yin, 2003; Miles & Huberman, 1994). Since the intention of this study was to analyze and compare two types of start-up processes, namely the academic spin-off creation and the generic venture creation, and also to explain why the start-up processes appeared to be as they were, a case-study approach was chosen (cf. Yin, 2003).

Criteria used for selecting case-study firms were that they from the start should have operated for at least three years; that the firms were small (SMEs), that the firms were either manufacturing or service companies; that the firms were developed in different milieus (different situational and contextual conditions) and finally, that the growth rate varied. These criteria were chosen in order to get more thorough and varying information about different ventures’ start-up processes as well as different influencing factors with the intention to be able to identify patterns (Miles & Huberman, 1994). Case studies were made in three generic ventures; A-Trade, B-Trade and C-Trade, and in three academic spin-offs; X-Tech, Y-Tech and Z-Tech. Some basic data on the case study firms are depicted in Table 1 below:

Table 1: Basic data on case-study firms at the time of data collection

<table>
<thead>
<tr>
<th>Business concept</th>
<th>No. of employees</th>
<th>Annual turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-Trade</td>
<td>3</td>
<td>1,44 MEUR</td>
</tr>
<tr>
<td>To offer software that increases computer performance, and complete computer sets and appurtenant services, foremost to computer enthusiasts but also to other interested customers, primary in Sweden.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B-Trade</td>
<td>2</td>
<td>0,53 MEUR</td>
</tr>
<tr>
<td>To offer kiosk products of good quality and with a high degree of service to a local market.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C-Trade</td>
<td>0</td>
<td>0,01 MEUR</td>
</tr>
<tr>
<td>To offer designed products with the optimal design and function to private persons, organizations, wholesalers, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-Tech</td>
<td>15</td>
<td>1,06 MEUR</td>
</tr>
<tr>
<td>To offer people the possibility to integrate and work with each other through their computers where people are able to talk and see each other, chat, share documents, use a whiteboard and surf the web together, regardless of their geographical location.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y-Tech</td>
<td>4</td>
<td>0,42 MEUR</td>
</tr>
<tr>
<td>To offer research- and EU-project participants the possibility to work with each other using distance-spanning information technology. The participants are able to work with and share documents, manage, control and plan the project through a custom-made project tool at the Internet.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z-Tech</td>
<td>0</td>
<td>0,21 MEUR</td>
</tr>
<tr>
<td>To offer companies a 3-D motor, which they can integrate into their products (games), and to offer people possibilities to play virtually advanced games at the Internet.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The empirical data were collected through personal and open-ended interviews with founders of the ventures where they described their start-up process and different factors and events that influenced this process. The personal interviews were semi-structured in which the
respondents were told to recall and describe how they have progressed through their professional lives from completion of their education until the time of the study, to explain decisions during their career and how these decisions affected their further carrier. A major reason for using a semi-structured approach was to get more detailed information and to ensure that the discussion was driven by what the respondents felt was important in order to stay as close as possible to their lived experience. However, if the respondents could be assumed to leave out important information referring to, e.g., different phases of their development processes, more specific questions were posed on these matters. In order to validate the information, every interview was concluded by constructing a “rich picture” where a timeline was drawn on a paper and different events and experiences that influenced the respondents’ decisions were noted. Each interview lasted about 2½ to 3½ hours. In addition, information was also assessed from the ventures’ websites, from a business database and by studying other printed materials about the ventures.

Findings

As could be expected, the start-up processes in the two categories of new ventures reveal both similarities and differences. What will be in focus in this paper are differences between academic spin-offs and generic ventures. First, however, we present a summary of the findings related to the two groups of new venture start-ups where characteristics related to key concepts/variables in our theoretical framework are specifically highlighted.

Academic spin-offs

Product characteristics: The original business concept in all spin-off companies originates directly or indirectly from academic research. This means that the products and services offered are knowledge-intensive and preferably high-tech. The founders of the academic spin-offs recognized an opportunity to create a product-based business based on their previous experiences and knowledge, and they developed a product for some years parallel to their previous positions as researchers or students. Due to the significant time required for developing market-ready products, all three academic spin-offs have started their businesses by also offering services or consultant offerings as a complement to their product offer to generate a required cash-flow. These knowledge-based services connected to the product have been essential for the product users and enabled for the companies to develop additional services generating important revenues. The products/services were further developed in cooperation with the university, where the university served both as a pioneer user and customer.

Market characteristics and entry strategies: The aim for all these ventures is to achieve world leadership in their specific niche - and to earn money. Recognizing the limited size of the regional and national market, these new ventures hence already from start chose to market their products on an international market. One of the ventures, Z-Tech, had to restructure their business idea and modify their product twice since they learnt that they did not have the competitive advantage required to successfully compete against existing large companies. The firms’ innovative products were offered to an often immature market and, as a consequence, these ventures normally had to educate their customers in how (and why) to use the product. X-Tech hired two retailers in the US who knew the market five years after their start-up, and one in Europe a year later, in order to reach the customers and to offer them the product and service. Z-Tech had difficulties in reaching their target customers but got into contact with Sun Microsystems early in their start-up process and from them received assistance in their
marketing since Z-Tech had based their product on Sun Microsystems’s technology and refined the use of it which Sun Microsystems not had been able to do themselves. Y-Tech has just recently started to look for a partner to cooperate with in sales in order to increase their market shares.

Resource configuration: Their specialized and high-tech business concepts required significant investments in product development and refinement, normally spanning over several years. This has implicated a considerable need for (external) funding to finance staff/man-hours, product material and production equipment (e.g. computers, servers, software). Due to their limited creditability and track record, all spin-off firms have had to put a lot of effort in finding external funding. This was especially evident in Z-Tech, whose founders were young students, whereas the founders of X-Tech and Y-Tech with their longer experience had a higher creditability. In order to acquire external funding, the academic spin-off companies early on founded a limited company. Moreover, all spin-off ventures were started by two to four founders where different competences could be seen as complementary in the new venture. Functions such as marketing, accounting, administration and responsibility for the firm’s retailers were hence shared between the founders. X-Tech and Y-Tech have both after the venture start-up hired four to six external members of the staff for product development work. When these new ventures after some time hired also a professional board of directors they got access to a valuable function for management support – a mentoring support they would actually have needed already from the beginning but could not afford to pay for. Through their professional board of directors, the founders now got access to strategic guidance and business advice from experienced persons who knew the business and could broaden their networks and personal relations. Z-Tech have not yet been in the position of hiring a professional board of directors, but they meanwhile have got in touch with people who are willing to give some advice.

Growth and profit: Due to their large product development and personnel costs, it took several years before X-Tech and Y-Tech could report any net profits, and Z-Tech has not yet got the funding or reached the market shares and sales needed. During the post-entry development (the three to five years from start-up), X-Tech grew significantly from employing its four founders to 23 employees as a result of increased funding and a new leadership (but after five years they were down to 15 employees). The venture’s annual turnover has during this period of time increased from 530 to 640 thousand EUR, and has increased further to almost 1,1 MEUR in the year of 2005. Y-Tech has also increased their turnover into nearly half a million EUR in the year of 2004 and an employment of four persons, whereas Z-Tech has no employees and has increased its turnover from 159 thousand EUR to 213 thousand EUR. It should be noted, however, that Z-Tech has not been in operation for more than three years while the other firms in this group has run their ventures for seven and six years respectively.

Generic ventures

Product characteristics: The business concept in all companies originates from the founders’ recognition of a market opportunity signaling an unfilled market need. This need was exploited by offering the market already known products and by using the founders’ previous knowledge, experience or interest. Two of the ventures, A-Trade and B-Trade, sold products from suppliers. The third venture, C-Trade, designed own products in order to improve or reform already known products, which then in turn were manufactured and sold by other companies that the founder got into contact with through the founder’s personal network that
she built up over time and through her relations with a community support program for new ventures.

Market characteristics and entry strategies: The ventures’ products were offered to a general and often local or national market providing sufficient revenues in line with the ambition of the founders to make a living. In one of the firms (A-Trade), however, the initial business concept was developed and the ambitions expanded when the company through its customers and via different computer forums at the Internet learned that there was a need for a specific new software product, enabling the firm to sell also outside the national market through a web-based shop. In order to reach a larger market, C-Trade started to cooperate with a retailer in the national capital a couple of years after the start-up.

Resource configuration: Contrary to the academic spin-off companies, the requirements on investments were limited. This enabled the generic firms to start their companies based on their own personal savings and with the support given by government subsidies to people starting a new company of their own. Moreover, all generic companies were started by single founders. The limited need for external funding and the fact that all companies started out as solo-entrepreneurs (Hult & Ramström, 2000) implicated a simple structure where all companies started as (and still are) private firms and not limited companies. This also means that the firms have no management support in terms of a professional board of directors. All founders perceive themselves to be the most important resource for their new venture, but have to various degrees also acquired or accessed external resources and expertise to the firm. Only the founder of B-Trade had a high creditability and track record due to his prior occupation and enterprising within the line of business and did therefore not have any difficulties to get external funding and trust from suppliers and banks. B-Trade’s founder also had an established network that helped him with problem-solving, and C-Trade’s founder established a valuable network during the start-up process. A-Trade and B-Trade hired external members of the staff after their start-up to work with sales and other tasks, whereas C-Trade still operates alone.

Growth and profit: Based on the fact that all generic firms offered products well-known to the market and that only limited initial investments were required, these ventures could attain a net profit from their first year of operation. While B-Trade and C-Trade have consolidated their companies on a level that provides revenues enough for a decent living, A-Trade stands out as an expansive exception: during the post-entry development (the three to five years from start-up) the annual turnover of A-Trade has increased form 0,27 MEUR to 1,4 MEUR as a consequence of the changed and developed business concept. Due to the increased sales, and because of the benefits a limited company may offer, the founder now considers reforming the venture into a joint-stock company. Although both B-Trade and C-Trade also have increased their turnover, B-Trade increased their turnover by 20 % into 0,53 MEUR and C-Trade has doubled their turnover into 10,6 thousand EUR, they are in this specific respect not nearby the level of A-Trade’s development.

Concluding discussion and further research

Table 2 summarizes the study’s findings, depicting that academic spin-offs and generic ventures have different start-up processes, characteristics and outcomes. These findings will below be further discussed.
<table>
<thead>
<tr>
<th>Start-up category</th>
<th>Academic Spin-Offs</th>
<th>Generic Ventures</th>
</tr>
</thead>
</table>
| **Product characteristics** | • High-tech/knowledge-based  
    • New to the market | • Low-tech-based  
    • Known to the market |
| **Market characteristics** | • Technology push  
    • Specific market niche requiring a broad market  
    • International/global market | • Market pull  
    • General market, often addressed with geographic specialization  
    • Local/regional market |
| **Entry strategies** | • Collaboration as means of international market entry  
    • Proactive including education of new customers | • Normally relying on own resources  
    • Reactive; “filling a hole on the market” |
| **Resource configuration** | • Substantial need for external funding  
    More advanced structure:  
    • professional board of directors,  
    • limited company organization,  
    • several founders  
    • a specialized management team and hired experts | • No or limited need for external funding  
    Simple structure:  
    • one owner-manager,  
    • no professional board of directors,  
    • private firm organization |
| **Growth and profit** | • Planned growth and long pay-off period, implicating an increasing demand for financial and other resources  
    • No profit during the first years of operation | • Early growth stabilizing the firm as a “bread-and-butter-company” or emergent growth as a result of opportunity recognition  
    • Net profit from year one |

As already stated, the academic spin-offs’ innovative products origin from university research whereas the generic ventures’ products were known to the market. This difference align with Schumpeter’s (1934) and Kirzner’s (1973) arguments of how entrepreneurs discover and exploit business opportunities, where the academic spin-offs enters a market through innovations that requires change of customer behavior (Walsh, Kirchhoff & Newbert, 2002), while the generic firms enter by satisfying existing market demands with, for example, replacements or substitutes for existing products. While the academic spin-off may be understood to follow a market entry strategy characterized as “technology push” (implying e.g. higher investments, international markets already from the start, a need for education of customers and longer pay-off periods), the generic firm start-ups in this study through “market pull” satisfying an existing market need with more or less well-known products and services. From this perspective the entrepreneurs with their roots in academic research manifest more of a proactive “Schumpeterian entrepreneurship” while the entrepreneurs starting what we in this paper have labeled generic firms reflect more of a reactive and “Kirznerian mode of entrepreneurship”. As the case A-Trade demonstrates, however, the start-up process itself involves learning and opens new windows of opportunities, enabling for firms to redefine their business concept along the way and where mere opportunity exploitation based on offering customers already existing solutions to their needs is combined with at least some degree of innovative product development. However, when A-Trade after the start-up changed its business idea and offered “a new for the market product” to a specific
market niche, this innovative product was initiated by the founding entrepreneur not based on “technology push” but on “market pull” – by recognizing an opportunity on the market that current products did not satisfy.

Whether the new venture has its origin in “technology push” or “market pull” also has implications for how the new venture configures its resources in order to enter its target markets. Knowledge-intensive and often high-tech companies generally require more resources for product development and (international) marketing, implying a need for external funding, long-term investments and a more advanced structure of the firm itself. Generic firms, normally targeting a regional or local “market hole” with products and services already known to the customer, may rely on own resources, a shorter time to market and pay-off, and a more simple structure of the firm. This was in this study manifested by all academic spin-offs choosing to start a limited company with a management team (many founders) and a professional board of directors in order to achieve the funding required and to access important knowledge resources, while the generic firms relied on the owner-manager him/herself and a more simple firm structure. As pointed out by e.g. Sexton & Kasarda (1992) and Storey (1994), access to different types of knowledge and expertise is important during the start-up process. If the new venture develops and exploits new and knowledge-based products/services, the importance of building a management/expert team with complementary knowledge in different functions and roles is even more highlighted (cf. Lindholm Dahlstrand 2004 and Klofsten 1998), since one person alone seldom possesses all the competencies required. Organizing a professional board of directors is from this perspective a gateway to a broader range of expertise a new venture may access; in this study employed only by the more knowledge-based firms represented by academic spin-offs.

To build networks and alliances may hence be regarded as means of extending the boundaries of the firm itself, thereby making external resources accessible to the firm. In this study, alliance building was an essential ingredient in the spin-off firms’ strategy for entering their international target markets (cf. Hitt, Ireland, Camp & Sexton, 2002). X-Tech thus engaged two retailers in the US that knew the specific demands of their target market, while Y-Tech was looking for collaboration with a sales company to help them reach a larger market. Z-Tech early on initiated cooperation with a large corporation (Sun Microsystems) in order to get attention from their desired customer segment and to be able to demonstrate the benefits of their products. Such activities were considerably lower among the generic firms since they targeted a local or regional market and relied more on their own in-house resources.

The growth of a firm may be regarded as both an input and an output of a start-up process: input in terms of what motives and ambitions the founding entrepreneur has for starting the new company, output in terms of the factual growth of the new venture. From the literature in the field (e.g. Westerberg 1998, Davidsson 1989) we know that the entrepreneurs’ own motives and ambitions are crucial as input-factors for whether the new venture will grow or not (output). In this study, all academic spin-offs already from start aimed for world leadership in their specific niche - and to earn money. The generic firms, on the other hand, were started as means of generating an income for the founder him/herself. When studying the firms’ growth processes, it was also obvious that the academic spin-offs followed a more growth-oriented and planned trajectory, whereas the generic ventures seemed to be satisfied with a so called “bread-and-butter-company”. One exception among the generic ventures already noted is A-Trade that has experienced a high growth rate since the venture after the start-up developed its business idea into a more growth-oriented trajectory. Talking to
Mintzberg and Waters (1985), this may be understood as “an emergent strategy” based on the learning the entrepreneur experienced during his start-up.

Despite the fact that the academic spin-offs in this study all clearly expressed their ambitions towards world leadership and earning (a lot of) money, it is only the generic firms that yet can report net profits. The academic spin-offs’ innovative products, which they offer to an international niche and often immature market, require significantly more investments than market offerings from generic firms (cf. Lindholm Dahlstrand, 2004). As a consequence, academic spin-offs’ normally invite external funding into a joint-stock company (which generic firms often avoid), and often reach profitability later than generic firms (which often require net revenues already from the first year). In the search for “first mover advantage” (Lee, Lee & Pennings, 2001; Grimm & Smith, 1997), timing is however essential. For new innovative products to succeed on the market, the market should “be ready” or at least with small efforts (e.g. through education) be possible to influence in order to build a market demand. According to Shane (2001), innovations and a first-mover-strategy can be an advantage for a venture, while others (e.g. Cooper and Kleinschmidt, 1993) have pointed out that inappropriate timing may act as a barrier to the market as well. Whether the investments made in the academic spin-off companies in this study will pay off and be more profitable than in the generic firms is however an issue for further study.

The main ambition of this paper has been to analyze and compare the start-up process of two different categories of firms: academic spin-offs requiring specific and high-level knowledge versus the process of starting a normal, generic new company (requiring a lower level of specialized expertise). A main question we have tried to answer is how different product and market characteristics may be understood to relate to different market entry strategies and different modes of acquiring and organizing the firm’s resources during the start-up process as well as to different consequences in terms of firm growth and revenues. The findings concluded in Figure 3 depict two very different start-up processes, and may serve as a base for drawing interesting implications for practice, policy-makers and academic research. For entrepreneurs interested in starting a new venture, this paper highlights challenges to be solved during the start-up process and how these relate to the nature of the business concept (especially the degree of knowledge inbuilt in the venture’s products and services). For policy-makers and organizations active in supporting new venture creation, this paper has hopefully manifested the dangers of generalizing business start-up as a uniformed process. In fact, entrepreneurs and business concepts are different (Bygrave 1989) and benefits from different kinds and degrees of assistance during their start-up process. For the academic community, this paper should have contributed with more in-depth knowledge on factors and processes involved when comparing knowledge-intensive new ventures with more “normal” business start-ups. A contribution is also the new questions that may be raised on the basis of this study’s findings. Adopting a learning perspective, it would for example be interesting to more thoroughly study the “experiential learning” taking place during the process of discovering, planning and exploiting a business opportunity. Related to this is the function of previous learning and experiences: Do “habitual entrepreneurs” behave differently than “first time entrepreneurs”? Following the holistic approach taken in this paper, it should also be important to try to get a more full understanding of the new venture creation process, involving e.g. entrepreneurial motivation and individual capabilities as factors taken more into consideration. Recognizing the limited number of cases studied here, an obvious route for further research would be to utilize more robust empirical data, facilitating also more of statistical generalization.
References


