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Strategic Entrepreneurship – The Promise for Future Entrepreneurship, Family Business and SME Research?

Rencontres de St-Gall 2010

Verlag KMU HSG

KMU-HSG – Schweizerisches Institut für Klein- und Mittelunternehmen an der Universität St. Gallen / Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen

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Entrepreneurship at the University of St. Gallen (KMU-HSG)

KMU Verlag HSG
Dufourstrasse 40a
CH-9000 St. Gallen
www.kmu.unisg.ch

ISBN-10: 3-906541-27-4
ISBN-13: 978-3-906541-27-3
EAN: 9783906541273

Swiss Research Institute of Small Business
and Entrepreneurship

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Organisational Details

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Rencontres de St-Gall 2010, St. Gallen, Executive Campus

Strategic Entrepreneurship – The Promise for Future Entrepreneurship, Family Business and SME Research?

Conference Schedule

Sunday **Sept. 05, 2010**	18:30 - 20:30	Welcome cocktail and "Apéro Riche" at Hotel Metropol, St. Gallen
Monday **Sept. 06, 2010**	08:30 - 09:00	Arrival of participants (w/ Coffee), Executive Campus
	09:00 - 09:30	Opening of the Conference / New Participants
	09:30 - 10:30	Keynote Speech Michael A. Hitt
	10:30 - 10:50	Coffee Break
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	10:50 - 12:00	Conference Session **TOPIC B (contd.)**
	12:00 - 13:00	Lunch
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	10:30 - 10:50	Coffee Break
	10:50 - 12:00	Conference Session **TOPIC C (contd.)**
	12:00 - 13:20	Lunch
	13:20 - 14:50	Conference Session **TOPIC D "Entrepreneurial Behaviour"**
	14:50 - 15:10	Coffee break
	15:10 - 16:00	Conference Session **TOPIC D (contd.)**
	16:00	End of Conference

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Rencontres de St-Gall 2010

Monday, Sept. 6, 2010

Topic A

Strategic Entrepreneurship

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Exploring Entrepreneurial Orientation and Strategic Awareness among Small Business Owner-Entrepreneurs

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1. Introduction

Small firms usually represent the direct result of a person's proactiveness (the entrepreneur), his/her desire to create something new and his/her ability to manage uncertainty and identify and exploit opportunities of business. Thanks to the central role played by the owner-entrepreneur, small firms are described as entrepreneurial organizations which focus on newness and novelty in the form of new products, new processes, and new markets, whose goal is to pursue growth and profitability.

Emphasis on subjective factors strictly connected to the person of the owner-entrepreneur (e.g. innovativeness, discontinuity, creativity, risk management capacity, aggressiveness, need of achievement, locus of control) and his or her influence on firm creation has led to the idea that entrepreneurship is more diffuse in small firms, while larger organizations (on which strategic management concentrates) are more concerned with the administration of an existing competitive advantage, focusing on managerial practices that assure continuity rather than searching for discontinuity (Stanworth and Curran, 1973; Marchini, 1995; Meyer *et al*., 2002).

It is true, however, that neither a firm focusing merely on searching for new opportunities and innovation but incapable of translating innovativeness into future profits, nor a firm which does not search for new sources of competitive advantage and profits can survive in dynamic and uncertain environments. Research suggests that to make profits and create wealth, firms need to integrate entrepreneurial with strategic actions. This is exactly what the concept of strategic entrepreneurship suggests (Hitt *et al.*, 2001; Ireland and Webb, 2007).

Supporters of strategic entrepreneurship have traditionally analyzed its constitutive elements and potential benefits with reference to large corporations - citing examples like Apple or big tobacco companies - or in relation to new ventures (Hitt *et al*., 2001; Hitt *et al*., 2003; Ireland and Webb, 2007 and 2009). These contexts seem to be the perfect arena in which to practice strategic entrepreneurship. In the first case we have the resources and structures needed to «simultaneously exploit today's competitive advantages while exploring for innovations that will be the foundation for tomorrow's competitive advantages» (Ireland and Webb, 2007, p. 50). Think for example about the dual organizational structure described by Ansoff and McDonnel (1990), where company divisions carry competitive duties and strategic business units have the goal of developing innovation and entrepreneurial strategies. New ventures instead, represent the perfect example of innovative firms that have to evolve from a technology-driven to a market-driven management philosophy in order to survive for more than a few years after their foundation (Berry, 1996 and 1998).

Since not many studies using the strategic entrepreneurship "framework" are concerned with established small firms, we analyse whether or not Italian small sized firms do already converge opportunity-seeking behaviours with strategic perspectives or if the concept of strategic entrepreneurship should be more diffuse to help them develop sustainable competitive advantages and perform better.

Data for our research are collected from a semi-structured questionnaire used to interview small business entrepreneurs. Thus, results will indicate if small business owners are aware that the adoption of a strategic management perspective may provide a more suitable context for entrepreneurial ideas and actions, leading to better economic performances. To this end, after presenting the theoretical bases and the study methodology, we discuss the results of empirical research conducted on a sample of 55 firms and try to draw some conclusions.

2. Literature Review

2.1. Entrepreneurship & Entrepreneurs

Entrepreneurship has been a topic for discussion since the eighteen century and it continues to attract the interest of economists, sociologists, management experts and several other scholars because of its key role in generating growth, jobs, and economic development. Although there is no single definition of entrepreneurship, most authors agree on the fact that the core process of entrepreneurship is the recognition and exploitation of opportunities in the form of new products or services, new processes, new sources of provisioning, new administrative techniques and other manifestation of newness in order to create wealth (Lumpkin and Dess, 1996 and 2001; Shane and Venkataraman, 2000; Hitt *et al*., 2003; Choi and Shepherd, 2004).

Innovation is somehow the primary activity of entrepreneurship (Drucker, 1985). Entrepreneurial behaviour, however, is not only characterized by innovation, but also involves risk-taking and proactivity (Covin and Slevin, 1989; Marchini, 1995; Entrilago *et al.*, 2000). Entrepreneurial firms value qualities as innovativeness, aggressiveness, creativity, proactiveness and autonomy (Lumpkin and Dess, 1996): elements that several psychological studies have identified by analysing the person of entrepreneur (Brockhaus, 1980; Sexton and Smilor, 1986; Chell *et al*., 1991). Actually, the concept of entrepreneurship itself is derived from the figure of the owner-entrepreneur (Marchini, 1995).

With reference to small sized firms, researchers have usually recognized a strong identification between these organizations and their owner-entrepreneurs since the owner (and a few other key subjects who usually belong to the same family) constitutes the principal, if not the only, management team with decision power (Marchini, 1995; Kets de Vries, 1996). An owner-entrepreneur's personal traits strongly influence his/her company orientation as the entrepreneur's vision shapes the organization's objectives, strategies, structures and actions (Stantworth *et al*., 1989). This has led to the idea that entrepreneurial orientation is broadly diffuse in small firms. Here most cognitive resources are aimed at finding new business combinations and only residual attention is devoted to improving existing organizational routines, industrial processes and managerial practices (Stanworth and Curran, 1973; Marchini, 1995).

Small firms' activeness in searching for new opportunities to exploit is attributed also to their residual market position, their chronic lack of resources and the reduced organizational dimension that makes it difficult for them to maintain existing competitive advantages in the long term and impedes

the pursuit of economies of scale. Because of their scarce influence over the external environment, these firms are mainly preoccupied with seeking new market opportunities rather than improving their internal efficiency and effectiveness (Marchini, 1995).

Research on small business owners has shown, however, that not all owner-entrepreneurs have an entrepreneurial attitude (Carland *et al*., 1984; Churchill, 1992; Stewart *at al*., 1998). There are owners whose main concern is securing an income, achieving personal goals such as self esteem and stability of his/her family members, who do not engage in innovative practices and do not search for company's performance maximisation (Brush and Chaganti, 1998). Evidence is given by several studies that adopt a typological approach and provide a list of different types of entrepreneurs and firms (Stanworth and Curran, 1973; Scase and Goffee, 1980; Marchini, 1995)[1].

Such differences in small business owners' search for new opportunities and company's growth are attributed to both personal characteristics (personality traits, social background, and previous experiences) and exogenous factors linked to the industry context such as the presence of mature markets, technological turbulence, and a high competitive environment which set more questions on existing firms' competitive advantages, pushing firms to find new sources of profits (Covin and Slevin, 1989; Marchini, 1995). In other words, when the environment threats existing competitive position and profits, all organizations have to introduce more entrepreneurial practices to survive (Lumpkin and Dess, 1996 and 2001; Wiklund and Sheperd, 2005).

2.2. Strategic management practices in small firms

Strategic management is a discipline originating in the 1950s with the work of Chandler, Selznick, Ansoff and Drucker. As a concept it refers to all decisions, processes, and actions that enable an organization to define and control strategies for achieving long-term objectives. Thus, it involves the specification of a company's vision, mission, and objectives, developing plans and programs, as well as allocating resources to implement them. Its underlying assumption suggests that companies can reach their goals if they are in step with the environment, hence it involves being able to analyse internal and external situations to align a firm's activities with the environmental context (Selznick, 1957; Ansoff, 1965 and 1979).

Like research on entrepreneurship, strategic management research is also focused on how firms adapt to environmental changes and create wealth (Kuratko and Audretsch, 2009). Moreover, they both become more important in times of uncertainty (Gavetti *et al*., 2005). However, strategic management has put more emphasis on how to establish competitive advantages since they are considered key determinants of a company's ability to obtain above-average returns (Hitt *et al*., 2001 describe firm's behaviour as advantage-seeking). Moreover, it stresses the importance of using managerial tools such as strategic planning which is the major component of strategic management and gives rationality to the formulation, implementation and evaluation of strategies (Hax and Majluf, 1991).

In the context of small businesses, strategic management is not largely diffused, especially as devised initially as the sum of two distinct processes: strategy formulation and subsequent strategy implementation (Andrews, 1971). In small firms both strategic and operational responsibilities are cen-

[1] For example, the Stratos Group survey (1980) identifies different types of small business entrepreneurs according to the prevalence of 'administrative' and/or 'innovative' behaviour. In the first case the entrepreneur relies more on rationality, analytical thinking, and organizational competences, while in the second case the entrepreneur is more similar to the Schumpeterian innovator.

tralized in the owner-entrepreneur's hands and decisions do not have to be formalized and communicated to employees because he or she directly executes and controls activities (Marchini, 1995; Raffa and Iandoli, 2005).

Owner-entrepreneurs usually do not feel the need to rationalize company strategies, nor to adopt tools for strategies' implementation. In small organizations, the entrepreneur's vision and company goals are an outcome of an intuitive and unstructured process that depends on the entrepreneur's perception of the external environment – which is typically undisclosed (Marchini, 1995; Raffa and Iandoli, 2005). No systematic screen of environmental trends is carried out, nor instruments for strategy formulation are used. With reference to implementation, managerial tools are considered too bureaucratic to be effective instruments and they contrast with the traditional small firms' business model based on organizational flexibility. Moreover, the introduction and maintenance of such mechanisms (as well as the recruitment of experienced professional managers) are seen as too costly and considered unnecessary because the entrepreneur itself is involved in operational activities.

In the past, several authors have suggested that after the first stage of development, when size and complexity grow, any organization will need to introduce principles and functions of strategic management and related managerial practices (Churchill and Lewis, 1983; Robinson and Pearce, 1984; Scott and Bruce, 1987). In other words, they believed that small firms must adapt philosophically and organizationally as the business grows, core technologies mature, and competition intensifies. Nevertheless empirical data indicate that not all small firms follow this path and they eventually begin to think and act strategically only when a crisis occurs inside the organization (Bracker *et al.*, 1988; Aram and Cowan, 1990; Marchini, 1995).

An essential prerequisite for strategic management in small firms is the owner-entrepreneur's strategic awareness. He or she has to be able to analyse "where the company is" and "where the company might go" (Gibb and Scott, 1985). This means being able to identify the current competitive position, the impact of present and future actions, and possible future strategies based on a precise understanding of relevant environmental trends and company's resources stock. However, not all small business entrepreneurs demonstrate strategic awareness (Pencarelli *et al.*, 2008). This ability mainly depends on subjective factors such as entrepreneur's attitude to learning and his/her past experiences (Gibb and Scott, 1985; Bracker *et al.*, 1988; Berry, 1998; Gielen *et al*., 2003). When absent, the introduction of managerial tools (e.g. benchmarking or SWOT analysis) can help entrepreneurs increase learning as they facilitate assessing environmental trends, visualizing internal resources and understanding relationships among company strategies, organizational resources, competitive advantage, growth, and profitability (Robinson and Pearce, 1984; Covin and Slevin, 1989). Particularly important is the fact that management tools can direct an organization's attention to focus on its internal environment when too much concentrated on expanding and pursuing market opportunities regardless of resources currently controlled - as in the case of high entrepreneurial firms. These firms assume that they can find a way to fill the resource gap in the future (Stevenson and Jarillo, 1990), failing to remember that internal resources and capabilities are the foundation of competitive advantages.

3. Research Focus and Methodology

From this brief literature review, it emerges that small firms where the owner-entrepreneur has a central role, with scare resources and which occupies residual market positions should be fairly active

in searching for new opportunities to exploit, unless the owner-entrepreneur pursues personal goals other than company growth and renewal. At the same time, studies indicate that strategic management is scarcely diffused in small firms and that owner-entrepreneurs can lack in strategic awareness. This presumably translates into poor decision-making processes (formal or informal strategy formulation) and/or inadequate combinations of organizational resources to perform planned strategic actions (strategy implementation).

As a consequence, we hypothesize that, while benefiting from the entrepreneur's ability to recognize new opportunities, small firms tend to underperform because they do not fully translate the opportunities identified into innovations that create new sources of competitive advantage. In other words, innovations in products, processes, technologies, administrative systems, strategies and business models will not lead to company growth and wealth creation because of insufficient use of strategic management concepts in small organizations.

Specifically, we decided to conduct an empirical analysis focused on small firms operating in the shoe-manufacturing industry, which more than other industries in Italy calls for new entrepreneurial responses as well as for attention to strategic issues in view of the structural crisis it is suffering[2]. Moreover, focusing on one single manufacturing sector will reduce firm differences toward entrepreneurship orientation usually attributed to the industry context, so the existence of different business types will depend mainly on the entrepreneurs' personal profiles.

We administered a semi-structured questionnaire to a random sample of 360 companies located in the Fermano-Maceratese shoe-manufacturing district which is one of the most important industrial district in Italy and comprises about 4.000 small and medium sized firms[3]. We obtained a response rate of about 16%. One company, however, had to be eliminated because it was a large organization, while two companies provided incomplete answers. Thus, only 55 questionnaires allowed us to identify company strategies and management practices adopted.

Entrepreneurship and its outcome (innovations) were the first dimension analyzed. Since entrepreneurship means identifying new opportunities for profits and growth that translate into changes (introduction of new products, engagement in new methods, search for new markets and/or new sources of supply, etc.), we asked entrepreneurs to indicate which changes they decided to pursue in the first half of the decade 2000-2010 in order to respond to environmental uncertainty.

The second dimension refers to strategic management. Since we did not want to influence respondents by spelling out the supposed link between entrepreneurship, managerial practices and performance, owner-entrepreneurs were asked to indicate freely which factors have eventually blocked the company in exploiting the opportunities identified. Moreover, we searched for planning and control tools in use (from financial statement analysis to budgets and long-term plans) as they represent formal instruments that usually sustain strategy formulation and implementation.

Then, we looked at company performance. Performance can be defined in many ways and measured in both a quantitative and qualitative manner. In small business studies, however, performance

[2] The crisis dates back to the begin of the century when environmental turbulence caused by globalisation, strong international competition, significant changes in consumer behaviour, and the emergence of new Asiatic players and consumers highlighted a competitive landscape with substantial uncertainty (Gregori, 2005). Since then, companies have began to look for new opportunities for growth and an attentive use of managerial practices has become crucial considering that the industry's traditional competitive advantage based on specialization and cost containment (reached first through forms of local cooperation and then with delocalization to countries with low labour costs) has lost its power.

[3] Data for this research derive from a larger study conducted by Ciambotti, Aureli, Salvatori (2010). In order to analyse businesses of various dimensions and organisational complexities while preserving the representativeness of the total population, the 360 companies have been sorted by legal status.

has been usually evaluated in terms of sales growth, return on sales, net profit, and gross profit (Lumpkin and Dess, 2001). Since in Italy the amount of profits is strongly influenced by the company's polices on financial statements aimed to reduce taxes and considering that most literature agrees on defining growth and wealth creation as entrepreneurial objectives (Carland *et al*., 1984; Stevenson and Jarillo, 1990; Hitt *et al*., 2003), we decided to measure company performance in terms of increase in turnover sales. The period of observation is from 2005 to 2007 as some years are usually necessary to translate ideas and strategies into economic results. Although available, information on increases in employee numbers and company assets where not considered since companies of this shoemaking district outsource extensively (TrendMarche, 2007; Banca d'Italia, 2010).

4. Results

General description of the companies of the sample

The companies in the sample are primarily independent, small joint-stock companies. Employees number ranges from zero to a maximum of 75 units, while the mean is 19 employees. Average revenues equal about 3.8 million euro. Companies interviewed are either subcontractors or retail companies that sell the finished product on the market. They all occupy a residual market position (we did not interview leader companies such as Ema srl of Diego Della Valle which produces worldwide famous brands such as Tod's and Hogan). Foundation ranges from early 1950s to the 1990s. Partners are usually members of the owning family (in 85% of the cases) and the role of CEO is always filled by one of the owners. These companies are strongly tied to the owning partners, who directly supervise many of the operative activities such as production (in 73% of the cases), purchasing (64%) and sales (60%). Delegation is rare and in only a few cases do companies employ external managers. Thus, we encounter all typical characteristics of small sized firms: a residual market position, the central role of the entrepreneur, scarce presence of professional managers and no separation between strategic and operational responsibilities.

The entrepreneurial dimension

Respondents reported the following reactions to uncertainty created by globalization, high international competition and decrease in product demand:

- new product development (e.g. extension of product offering)
- product innovations (mainly related to materials used)
- production process innovations
- entrance into new market segments (usually movement to adjacent arenas)
- internationalization of sales
- delocalisation of production processes to foreign countries
- improvements of some internal processes related to administration, marketing and other organizational functions
- company restructuring/downsizing.
- Trying to measure the companies' entrepreneurial dynamism we identified:
  - 4 static firms who did not plan any kind of change (low entrepreneurial attitude),

- 35 entrepreneurial firms who identified one or two new strategies to develop,
- 16 highly entrepreneurial firms which decided to pursue three or more possibilities at the same time.

Interestingly, not all entrepreneurial and high entrepreneurial firms can be described as growing organizations (Table 1), yet literature on entrepreneurship has usually associated growth with innovative behaviour. Half of these firms records no development or even a decrease in sales in the following three years, while the other half can be labelled as high growth organizations (with a sales increase of more than 50%) or medium growth organizations (sales expansion ranges from 10% to 50%). They probably found some obstacles that have impeded full exploitation of identified opportunities.

Table 1: Entrepreneurial dimension vs. growth

		29	*14*	*12*	*55*
ENTREPRENEURIAL ATTITUDE	High	8	5	3	*16*
	Medium	19	8	8	*35*
	Low	2	1	1	*4*
		No	Medium	High	

GROWTH

Elements of strategic management

From questions about which problems blocked entrepreneurs from pursuing their ideas (for non-growth organizations) or they have successfully overcome (for growing organizations), a large range of aspects emerged. Interestingly, all 51 entrepreneurial firms cited at least one obstacle.

Most recurrent problems are attributed to a lack of resources caused by the small size (75%), insufficient financial resources (43%) and high competitive pressure caused by Asian and new developing countries (33%). Moreover, obstacles derive from inadequate acquisition and management of internal resources (31%), erroneous comprehension of environmental trends (18%) and legislation (16%).

Comparing these answers with those given by static firms that claimed to have competitive problems (obviously in existing markets and with existing products), there are some interesting differences (Table 2). Besides the widespread idea that the small dimension can inhibit companies' actions - both in terms of strategic initiatives (e.g. entrance in new markets) and routinely activities (e.g. limiting access to bank credit) - we observe that obstacles for static firms only consist of external and structural factors that cannot be managed such as their small dimension, an aggressive and hostile international competition from newcomers and bureaucracy and limits set by legislation. Differently, about one third of (high and medium) entrepreneurial firms recognize that they also failed in estimating the financial resources needed to perform new company strategies, did not correctly foresee and managed

the organizational resources required to execute new projects, and did not properly understand environmental trends leading to incorrect forecasts and strategies. Thus, they ascribe failure also to internal problems that accurate processes of strategy formulation and implementation could have avoided.

Table 2: Entrepreneurial attitude and problems hindering performance

OBSTACLES TO IMPLEMENTATION	ENTREPRENEURIAL ATTITUDE		
	high	medium	low
small size	69%	77%	75%
no financial resources	38%	46%	0%
no internal change	38%	29%	0%
no info on external trends	25%	14%	0%
foreign competition	19%	40%	25%
legislation	25%	11%	50%
other	0%	6%	0%

An attentive exam of entrepreneurial firms which give importance to one or more aspects that contribute to strategy formulation and implementation, in opposition to entrepreneurial firms that attribute their problems only to external factors, indicates that actual performance is not significantly affected by owners' consciousness of the role played by a structured evaluation of the internal and external context (Table 3).

Table 3: Entrepreneurship, strategic aspects and growth

		Growth		
	N. firms	**NO**	**Medium**	**High**
high entrepreneurial	***16***	***50%***	***31%***	***19%***
no attention to strategic aspects	6	50%	50%	0%
attention to one or more strategic aspects	10	50%	20%	30%
medium entrepreneurial	***35***	***54%***	***23%***	***23%***
no attention to strategic aspects	12	50%	25%	25%
attention to one or more strategic aspects	23	57%	22%	22%

Attention to strategic aspects contributes only in shifting company's growth from medium to high levels in case of high entrepreneurial dynamism. Moreover, with reference to single obstacles cited, we note that environmental analysis is more important among successful firms, while the same firms devote lesser attention to organizational issues compared to non-growth firms (Table 4).

Table 4: Entrepreneurial attitude, growth and problems hindering performance

OBSTACLES TO IMPLEMENTATION	**HIGH ENTREPRENEURIAL** *(16 firms)*			
	no growth *(8 firms)*	**%**	**yes growth** *(8 firms)*	**%**
small size	5	63%	6	75%
no financial resources	4	**50%**	2	**25%**
no internal change	4	**50%**	2	25%
no info on external trends	1	13%	3	**38%**
foreign competition	2	25%	2	25%
legislation	2	25%	2	25%
other	0	0%	0	0%
OBSTACLES TO IMPLEMENTATION	**MEDIUM ENTREPRENEURIAL** *(35 firms)*			
	no growth *(19 firms)*	**%**	**yes growth** *(16 firms)*	**%**
small size	14	74%	13	81%
no financial resources	8	42%	8	**50%**
no internal change	8	**42%**	2	13%
no info on external trends	2	11%	3	**19%**
foreign competition	10	**53%**	7	44%
legislation	2	11%	2	13%
other	1	5%	1	6%

Trying to understand what characterizes entrepreneurial firms whose owners are aware of the role played by correct environmental analysis and/or internal predisposition of organizational and financial resources we found that size is influential as well as the extension of entrepreneurs' responsibilities and involvement in different functions (Table 5). Mainly, they distinguish themselves for a greater use of managerial tools (compared to the whole sample) devoted to predicting future company objectives (long-term plans) and translating them into operational goals and actions (budgets).

Lastly, it is worthy of note that firms devoting greater attention to management of organizational resources are bigger (both in terms of n. of employees and volume of sales), distinguish themselves by a more intensive use of all managerial tools examined and have a greater entrepreneurial involvement in two key functions strictly correlated to internal adaptation to firm's strategies: personnel and finance.

Table 5: Firms considering strategic aspects

Characteristics	no info on external trends	no internal change	no financial resources	tot. sample (55 firms)
n. firms	9	16	22	55
average turnover (mil €)	3	5,5	4,3	3,8
average n. employees	22	26	16	19
managerial tools				
balance sheet analysis	44%	56%	27%	42%
budget	55%	75%	54%	**51%**
analysis of variances	11%	18%	14%	18%
long-term plans	22%	44%	27%	**20%**
entrepreneur's responsibilities				
production	67%	69%	73%	73%
administration	22%	25%	32%	42%
sales	56%	56%	50%	60%
personnel	0%	50%	36%	47%
supply	56%	69%	59%	64%
finance	33%	69%	36%	44%

5. Findings and Conclusions

First of all, we find that small firms lead by an owner-entrepreneur and operating in uncertain environments and mature markets (as in the shoe manufacturing sector) are relatively active in looking for entrepreneurial opportunities. In this case, opportunities have mainly translated into strategies of (using the words of Covin and Miles, 1999 and Kuratko and Audretsch, 2009):

- *sustained regeneration* (introduction of new products and entrance into new markets),
- *organizational rejuvenation* (alteration of internal processes and structures),
- *strategic renewal* (repositioning efforts that imply concurrent changes in products, technologies and processes of the firm).

No firm has redesigned its core business model, nor created a completely new product-market arena (also called blue oceans) that others have not recognized. Thus, innovations pursued cannot be classified as revolutionary or disruptive.

Of course, there may always be some static firms that do not search for new sources of profits. This entrepreneurial inertia does not always means poor performance as there are also static firms with increasing sales turnover, probably due to current competitive advantages, but these firms are exposed to serious risks: as the market changes they will not have opportunities to pursue and exploit in the future.

Secondly, we found that not all entrepreneurial companies are able to transform these opportunities into growth and wealth creation: 27 out of 51 entrepreneurial firms in our study did not grow or registered a decrease in turnover. In this case, low performance is not significantly related to entrepreneur's unconsciousness of the importance of formulating and analysing strategies in a more structured way. Among successful entrepreneurial firms there are some more sensible to environmental analysis

(which leads to the identification of threats and opportunities and help evaluate alternative strategies), but their limited number is not sufficient to explain better performance. In addition to this, it seems that low attention to the management of organizational resources does not hinder strategy's results. Thus, with reference to our initial hypothesis we can state that realization of potential growth derived from opportunities in entrepreneurial companies is probably more related to other factors different from adoption of a strategic approach.

Anyway we can affirm that the citation of internal obstacles by some business owners (about one third of the sample) indicates that there are some small firms which already try to define company's objectives and subsequent actions in a more strategic way. Interestingly these small firms demonstrating a greater sensitivity to strategic approach are characterized also by a larger use of budgets and long-term plans but we cannot affirm if entrepreneur's strategic mindset has favoured the adoption of such formal instruments or vice versa.

Another main result emerged from this study is that all entrepreneurial firms are more attentive to strategic management aspects compared to companies that focus on routine activities (stable companies). In fact, entrepreneurial firms are more aware that they do not have the cognitive resources necessary to develop a comprehensive strategic and competitive analysis, test assumptions and choose the solution most compatible with existing resources among all alternative strategic options detected. This seems to confirm results of previous research (Shuman *et al.*, 1985; Bracker *et al.*, 1988), that describe entrepreneurial firms as more likely to engage in strategic management practices than conservative firms, although in a limited number of cases.

Insights deriving from this study suggest that most small business owner-entrepreneurs still purse opportunities exploitation in a unstructured and informal way. Thus, strategic management is still a unknown in many small firms. However, considering that strategic awareness and adoption of managerial tools do not necessarily translate into superior results, we should not regard absence of a clear strategic approach like an important weakness.

This leads us to conclude that, probably, Minzberg's concept of strategic thinking is more suitable for small firms rather than the classical strategic management approach and its traditional managerial tools such as strategic planning. Strategic analytic thinking contrasts with owner-entrepreneurs heuristic approach and tools should be further adapted to SMEs' needs of simplification without losing their informative value. In any case, entrepreneurs still represent the key through which introducing strategic thinking in small firms.

Advances could regard a second round of interviews with the same entrepreneurs in order to evaluate if the more recent worldwide financial and economic crisis has gave birth to additional innovation efforts and pushed firms to introduce strategic management practices.

Notwithstanding, several limitations in this study should be considered. Firstly, the sample regards only one industry sector, thus it is auspicial to compare these results with whom of other small firms operating in more or less mature markets. Secondly, we collected data trough a questionnaire while it would be beneficial to use other research methods and methodologies to investigate the presence of informal procedures or other unstructured managerial practices that firms can adopt and to better understand the role of entrepreneur's personal characteristics (e.g. using an ethnographic approach). Lastly, we decided to use turnover sales as indicator of growth while also other quantitative and qualitative parameters could be used.

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Entrepreneurship and Strategic Planning – A Contradiction in Terms?

(English abtract, German original text see below)

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Problem

The management literature considers the use of strategic planning as a crucial success factor that is contingent on corporate size.[1] Accordingly, SME consultancy persists in pointing out the necessity of strategic planning and in offering concepts along these lines.[2] In a majority of cases, these concepts offered to SMEs are virtually identical to those offered to big corporations. They are not, or not adequately, adapted to SMEs' specific requirements. Concepts of this kind can be found both in university education and in practice-related training for entrepreneurs.

In marked contrast to this, empirical analyses of SMEs' planning behaviour hardly ever include pointers to the strategic orientation of corporate planning, especially not in cases where companies are shaped by owner-entrepreneurs who concentrate on creativity and high reaction rates.[3] Enterprises which are characterised by such a type of leadership are regarded as particularly successful. This perception raises several questions for research:

1. Do elements of strategic planning actually exist but are simply not recognised because of differences in terminology?
2. Are such enterprises successful precisely because they largely eschew the use of strategic planning?
3. Could such enterprises be even more successful if they used strategic planning?
4. May there even be a system-related contradiction between a type of corporate management that takes its bearings from creativity and high decision-making speed, and the results of strategic planning?
5. Is the information that is required for the establishment and operation of strategic planning actually available in SMEs?

Consequences for the theory of enterprises of the SME type

Our analysis so far has revealed the following results:

1. The knowledge and skills for strategic planning are missing.

[1] Cf. Mazzarol, T., Reboud, S.: *The Strategy of Small Firms*, 2009
Cf. Welter, F.: *Strategien, KMU und Umfeld*, 2003, 31
[2] Cf. Niedereichholz, Ch. (et al.): „Die strategische Visitenkarte", in: *Handbuch der Unternehmensberatung*, May 2010, 1-17
[3] Cf. Welter, F.: *Strategien, KMU und Umfeld*, 2003, 238f.

2. The current contextual conditions hardly permit strategic planning owing to a lack of constancy with regard to developments.
3. In spite of a lack of statistical evidence, we diagnose a likely contradiction between an entrepreneur's behaviour pattern and strategic planning.

If our analyses are correct, the proposition that strategic planning is a success factor for the development of an SME can no longer be sustained for several reasons:

1. On the strength of the information that is actually available, there is no statistically significant empirical evidence that SMEs use this instrument in the first place.
2. As the use of this instrument is not evidenced, no proof can be adduced that strategic planning makes a positive contribution to corporate development in an SME.
3. If this perceived contradiction between an entrepreneur's behaviour pattern and the principles of strategic planning is the case, then recommendations to use strategic planning in SMEs may even be counterproductive.

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Entrepreneurship und strategische Planung – ein Widerspruch?

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1. Problemstellung

Die betriebswirtschaftliche Literatur sieht als einen wesentlichen größenabhängigen Erfolgsfaktor den Einsatz der strategischen Planung.[4] Dem entsprechend wird in der Beratung von KMU immer wieder auf die Notwendigkeit der strategischen Planung hingewiesen und es werden entsprechende Konzepte angeboten.[5] In der Mehrzahl sind die für KMU angebotene Konzepte mit denen für Großunternehmungen nahezu deckungsgleich. Eine Anpassung an die spezifischen Bedürfnisse der KMU erfolgt nicht oder nicht ausreichend. Diese Angebote finden sich sowohl in der universitären Ausbildung als auch in der praxisbezogenen Aus- und Weiterbildung für UnternehmerInnen.

Ganz im Gegensatz dazu finden sich bei empirischen Analysen hinsichtlich des Planungsverhaltens von KMU kaum Hinweise auf die strategische Ausrichtung der Unternehmensplanung. Insbesondere

[4] vgl.: Mazzarol, T., Reboud, S.: The Strategy of Small Firms, 2009
vgl.: Welter, F.: Strategien, KMU und Umfeld, 2003, 31
[5] vgl.: Niedereichholz, Ch. (u.a.): Die strategische Visitenkarte, in: Handbuch der Unternehmensberatung, Mai 2010, 1-17

dann nicht, wenn diese Unternehmen von Eigentümer-UnternehmerInnen geprägt werden, die sich auf Kreativität und hohe Reaktionsgeschwindigkeit konzentrieren.[6] Unternehmen, die ein derartiges Führungsverhalten aufweisen, gelten als besonders erfolgreich. Diese Erkenntnis löst mehrere Forschungsfragen aus:

1. Sind Elemente der strategischen Planung tatsächlich vorhanden und werden sie nur deswegen nicht erkannt, weil unterschiedliche Begriffswelten bestehen?
2. Sind diese Unternehmen gerade deswegen erfolgreich, weil sie auf den Einsatz der strategischen Planung weitgehend verzichten?
3. Könnten diese Unternehmen noch erfolgreicher sein, wenn sie strategische Planung einsetzten würden?
4. Besteht vielleicht sogar ein systembedingter Widerspruch zwischen einer an Kreativität und hoher Entscheidungsgeschwindigkeit orientierten Unternehmensführung und den Ergebnissen der strategischen Planung?
5. Sind jene Informationen, die für den Aufbau und den Betrieb einer strategischen Planung erforderlich sind im KMU überhaupt verfügbar?

2. Definitionen

Vielfach wird der Begriff strategische Planung mit den Begriffsinhalten „Unternehmensplanung" und „langfristig" charakterisiert. Die strategische Planung ist aber aus unserem Verständnis nicht mit der Langfristplanung gleichzusetzen. Entscheidend für die Zuordnung der Eigenschaft „strategisch" ist vielmehr, die aus der Spieltheorie stammende Fähigkeit, die Planung ex ante auf alternative Umfeldentwicklungen abzustellen. Das Ziel der strategischen Planung besteht darin, alternative Umfeldentwicklungen zu antizipieren und die darauf abgestellten Instrumentenkonzeptionen zu entwickeln. Dadurch soll die Reaktionsgeschwindigkeit auf geänderte Umfeldbedingungen erhöht werden. Nur wenn der Planungsprozess in einem Unternehmen derartige Eigenschaften aufweist, wir er dem Typ „strategische Planung" zugeordnet. Ein eindimensionaler Planungsprozess erfüllt derartige Bedingungen nicht.[7]

Problembehaftet ist jeder Versuch, eine zweckmäßige Definition für die Begriffe „Entrepreneur" und „Eigentümer-UnternehmerIn" zu entwickeln. Dies vor allem, weil die beiden Begriffe aus unterschiedlichen Sprachsphären stammen. Wird im deutschen Sprachraum der Begriff „Entrepreneur" oder „Entrepreneurship" verwendet, so wird damit die spezielle Ausprägung in Richtung eines speziellen Verhaltensmusters der Eigentümer-UnternehmerIn in einem KMU hingewiesen. Angesprochen wird damit ein Verhaltensmuster im Sinne von Schumpeter, mit den Schwergewichten auf Kreativität und hohe Reaktionsgeschwindigkeit. In der englischen Sprachsphäre wird in der überwiegenden Zahl der Fälle der Begriffsinhalt so beschrieben, wie er im Bereich der deutschen Sprache den Begriff „UnternehmerIn" entspricht, somit ohne spezifische Ausprägung eines Verhaltensmusters.[8]

[6] vgl.: Welter, F.: Strategien, KMU und Umfeld, 2003, 238f
[7] vgl.: Welter, F.: Strategien, KMU und Umfeld, 2003, 36
[8] vgl.: Zahra, Sh.: Corporate Entrepreneurship and Growth, 2005

Übersicht 1

Synopse ausgewählter empirischer Studien zur Planung in KMU

Autoren	Methode	Gegenstand
d'Amboise, Bakanibona (1990)	Literaturstudie	Sekundärauswertung von 12 Studien: eher operationelle Planung in KMU vorhanden, aber kaum strategische Planung; positiver Zusammenhang zwischen Art, Umfang der Planung und Erfolg
Bracker, Keats, Pearson (1988)	Befragung, USA, Elektronik, 217 KMU, >5 Jahre, <100 AN	Positiver Zusammenhang zwischen Art der Planung und finanziellem Erfolg in dynamischen Branchen
Carland, Carland, Aby (1989)	Befragung, USA, 368 Unternehmer, <250 AN	Positiver Zusammenhang zwischen Persönlichkeit (Leistungsorientierung, Risikoneigung, Innovation) und Art der Planung (formal, informell, keine), Planungsdisposition
Gibb, Scott (1985)	Längsschnittfallstudien, UK, 16 KMU, <50 AN	Strategische Planung projektgebunden, nicht formalisiert, großer Einfluss strategischen Bewusstseins und persönlichen Engagements
Küpper, Bronner (1995)	Befragung, Bayern/ Hessen, 240 KMU, <500 AN	Kaum langfristige Planungstechniken, qualitative Produktdifferenzierung häufigste Vermarktungsstrategie, Erfolg auch von Personen (Erfahrung des Unternehmers, Mitarbeitermotivation) abhängig
Lyles et al. (1993)	Befragung, USA, 188 KMU, <500 AN	Signifikante Unterschiede formale vs. informelle Planer bezüglich strategischer Entscheidungsfindung und Wahlmöglichkeiten, formale Planer höheres Umsatzwachstum
Matthews, Scott (1995)	Befragung, USA, 130 KMU, <1 Jahr	Umfang und Art der Planung abhängig vom Status des Unternehmens („entrepreneurial" vs. traditionell), weniger Planung, je unsicherer das Umfeld wahrgenommen wird
Olson, Bokor (1995)	Befragung, USA, 500 schnellwachsende KMU	Hälfte ohne formalen Businessplan gestartet
Orpen (1985)	Befragung, 58 KMU	Zeitlicher Aufwand langfristiger Planung ohne Einfluss auf Erfolg, erfolgsbeeinflussend: persönliche Planungseinstellung, Planungsumfang, Implementierung
Piest (1994)	Befragung, Niederlande, Maschinenbau, 154 KMU, <200 AN	Vollständigkeit und Art der Planung nur teilweise abhängig von Strategietypen: positiver Zusammenhang zwischen strategischer Variabilität und vollständigen Prognosen
Pleitner (1986)	STRATOS[1]-Befragung, Schweiz	Kaum schriftliche und längerfristige (= strategische) Planung, Erfolgsfaktoren (Firmeneinschätzung): Produktqualität, Lieferzuverlässigkeit, Flexibilität/Image
Robinson, Pearce (1983)	Befragung, USA, 85 kleine Banken	Kein Zusammenhang zwischen Art der Planung (formal vs. informell) und Gewinn, ROA[2], Wachstum des Kreditportfolios
Robinson, Pearce (1984)	Literaturstudie	Sekundärauswertung von 50 Studien: wenig formale Planung, eher kurzfristig orientierte Planung, positiver Zusammenhang zwischen strategischer Planung und Erfolg, zwischen externer Unterstützung bei Planung und Erfolg
Rue, Ibrahim (1998)	Befragung, USA, 253 KMU, <15 AN	Positiver Zusammenhang zwischen Art der Planung (schriftlich) und Absatzwachstum, kein Zusammenhang zu ROI[3]
Schwenk, Shrader (1993)	Meta-Analyse, 26 Studien	Positiver, signifikanter Zusammenhang zwischen Planung und finanziellem Erfolg
Sexton, Auken (1982)	Befragung, USA, 357 KMU	Weniger als 1/4 mit strategischer Planung, 1/5 völlig ohne strategisches Verhalten
Shuman, Seeger (1986)	Befragung, USA, 220 schnellwachsende KMU	Planungspraxis abhängig vom Erfolg früherer Planungsanstrengungen, aktuellen Erfolg, von der persönlicher Einstellung
Van Gelderen, Frese, Thurik (2000)	Längsschnittbefragung, Niederlande, 80/49 KMU, <50 AN, 1–5 Jahre	Erfolgszyklus: Start = Kritischer Punkt, Erfolg = komplette Planung, Strategieeinsatz abhängig von Umweltkomplexität und -unsicherheit

Eigene Zusammenstellung. – AN: Arbeitnehmer. – [1]STRATOS: STRATegic Orientation of Small and Medium Sized Enterprises. – [2]ROA: return on assets. – [3]ROI: return on investment.

RWI ESSEN

3. Kombination von Entrepreneur und strategische Planung

Folgen wir den beiden Thesen:

1. Jene Unternehmungen, die strategische Planung implementieren und betreiben sind erfolgreicher als jene Unternehmen, die nur eine eindimensionale Unternehmensplanung betreiben. Dies gilt auch für KMU.
2. Jene KMU die von Entrepreneurs geführt werden, sind erfolgreicher als jene Unternehmen, deren Eigentümer-UnternehmerInnen anderen Verhaltensmustern folgen.

So gehen wir folgerichtig davon aus, dass die Erfolgschancen noch steigen würden, wenn Entrepreneurs strategische Planung in ihren Unternehmen implementieren und betreiben würden.

Eine Kombination von mehreren Erfolgsfaktoren führt bei einem richtigen Instrumenteneinsatz zu einer Potenzierung der Erfolgschancen bei der Führung von KMU's.

Während in den USA die Untersuchungen auf das Vorhandensein einer strategischen Planung,[9] unabhängig von der Betriebsgröße, als vorhanden sehen, vertreten europäische empirische Untersuchungen eher die Ansicht, dass Entrepreneurs das Instrument der strategischen Planung nicht oder in einem nur geringen Ausmaß einsetzten.[10] Dies obwohl auch in der europäischen Literatur die strategische Planung als ein Erfolgsfaktor gesehen wird.[11] Als ein für die strategische Planung in KMU besonders bedeutendes Element wird die Nachfolgeplanung gesehen.[12] Die empirische Suche nach derartigen Elementen in der strategischen Planung verlief bisher jedoch eher erfolglos.[13]

4. Wie ist die offensichtlich ablehnende Haltung der Entrepreneurs gegenüber der strategischen Planung zu erklären?

Eine Ursachenanalyse ergibt demonstrativ folgende Ursachen:

1. Die Einsatzbereitschaft ist gegeben. Es fehlt jedoch an dem dafür erforderlichen Wissen und Können.
2. Das Wissen und Können ist vorhanden, die Implementierung scheitert aber am Fehlen der dafür erforderlichen Informationen.
3. Es besteht ein grundsätzlicher Widerspruch zwischen den Verhaltensmuster des Entrepreneurs und den Zielsetzungen der strategischen Planung.
4. Fehlendes Wissen und Können.

Der Einsatz einer strategischen Planung setzt umfangreiches Wissen über komplexe Zusammenhänge voraus. Das erforderliche Wissen umfasst:

a) verfügbare Instrumente und Instrumentenkombinationen zur Unternehmensführung,
b) Wissen um die Antizipation denkbarer Umfeldentwicklungen,
c) denkbare Verhaltensweisen des Wettbewerbs,

[9] vgl.: Fiet, J.: The Systematic Search for Entrepreneurial Discoveries, 2002, 189ff
[10] vgl.: Welter, F.: Strategien, KMU und Umfeld, 2003, 37
[11] vgl.: Fellgartter, M.: Zur Erforschung der Erfolgsfaktoren junger Unternehmen: Determinanten oder Impulse des unternehmerischen Handels, in: Klandt, H., (Hrsg.): Jahrbuch Entrepreneurship 2004/05, 2005, 63ff
[12] vgl.: Wehrli, H.P., Kirenz, J.: Nachfolgeplanung als strategische Herausforderung, in: Der Schweizer Treuhänder, 5/2007, 318-322
[13] vgl.: Welter, F.: Strategien, KMU und Umfeld, 2003, 37

d) denkbare Verhaltensweisen der Konsumenten als Reaktion auf unterschiedliche Umfeldbedingungen,
e) Wirkungszusammenhänge zwischen Umfeldszenarien und Einsatzintensität der Instrumente zur Unternehmensführung.

Durch das Fehlen von Stabstellen in KMU sowie das fehlen kostengünstiger Zugänge zu Informationsquellen führt zu organisatorischen und informationsbezogenen Nachteilen hinsichtlich der Implementierung strategischer Planung in KMU. Durch die geringe Durchlässigkeit des Arbeitsmarktes für Führungskräfte erfolgt kein Wissenstransfer von Großbetrieben, die strategische Planung anwenden zu KMU die keine strategische Planung anwenden. Das Wissen könnte daher nur extern im Rahmen von Weiterbildungsveranstaltungen bezogen werden. Wie bereits ausgeführt, gehen diese jedoch nicht oder nur ungenügend auf die Bedürfnisse der KMU ein.

Das Können resultiert überwiegend aus Lernprozessen. Da diese mangels Implementierung der strategischen Planung nicht stattfinden, werden die Wissensdefizite auch durch Defizite im Bereich des Könnens ergänzt. Die traditionell technikorientierte Karriereentwicklung von Entrepreneurs bietet wenig Möglichkeit, die identifizierten Lücken zu schließen. Die beiden Lücken stellen wesentliche Hindernisse für die Implementierung der strategischen Planung in KMU dar.

5. Fehlende Konstanz der Umfeldbedingungen

Die strategische Planung setzt ein Minimum an Konstanz von Umfeldbedingungen voraus, sowie Kenntnisse denkbarer Reaktionsmuster. Der Wirtschaftsentwicklung der letzten 10 Jahre fehlt die für die strategische Planung erforderliche Konstanz weitgehend. Statt von konjunkturellen Zyklen mit einer gewissen Konstanz sind die Umfeldentwicklungen von unerwarteten Schocks geprägt. Eine Determinante dieser Schocks ist die mangelnde Vorhersehbarkeit, eine zweite Determinante die hohe Intensität der Veränderung. Die Frühindikatoren sind nicht in der Lage, zu erwartende Schocks zu signalisieren. Die gesamtwirtschaftlichen Parameter verändern sich in kurzer Zeit und nehmen dabei Extremwerte an. Nicht nur die hohe Volatilität der Parameter, sondern auch die vielfach überraschende Art und hohe Intensität des Einsatzes von Instrumenten zur Korrektur machen die Einbeziehung in die strategische Planung unmöglich. Dies gilt für alle Betriebsgrößen und daher auch ganz besonders für KMU mit dem erschwerten Zugang zu Informationen. Die KMU können auch nicht darauf vertrauen, dass die supranationale und die nationale Wirtschaftspolitik die erforderlichen Korrekturentscheidungen an den Bedürfnissen der KMU orientiert, ganz im Gegenteil die KMU werden immer öfter ohne Unterstützung dazu gezwungen, negative Effekte auf die Gesamtwirtschaft zu dämpfen. Während andere Wirtschaftssektoren mit umfangreichen Subventionen unterstützt werden, gehen die Belastungen der KMU ausschließlich zu Lasten der Entrepreneurs und deren Familien. Die Voraussetzungen hinsichtlich der Konstanz der Umfeldbedingungen für die strategische Planung waren daher in den letzten 10 Jahren nicht gegeben und sind aller Voraussicht nach auch für die Zukunft nicht zu erwarten. Wie sollte ein Entrepreneur die Auswirkungen der amerikanischen Kreditkrise auf das Kreditvergabeverhalten seines Kreditinstitutes in einem strategischen Konzept antizipieren können?[14] Welche Alternativen Finanzierungsinstrumente stehen einem Entrepreneur tatsächlich zur Verfügung, wenn es schockartig zu Restriktionen hinsichtlich der Kreditvergaben für KMU in der gesamten

[14] vgl.: Levine, R.: An Autopsy of the U.S. Financial System, Brown University an NBER, April 2010

Volkswirtschaft kommt? Es ist wohl nur zu verständlich, dass angesichts derartiger Umfeldbedingungen Entrepreneurs auf jeden Versuch, strategische Planung zu implementieren, von Vornherein verzichten. Welche Erkenntnisse sollte ein Entrepreneur auch aus einer strategischen Planung ziehen können, bei der die Umfeldentwicklungen nicht vorhersehbar sind?

6. Grundsätzlicher Widerspruch?

Der Entrepreneur in seiner von uns postulierten kreativen und dynamischen Ausprägung findet seinen Erfolg in der Veränderung der Märkte durch seine Entschlossenheit und seine rasche Reaktionsfähigkeit. Seine Kreativität entwickelt sich betriebsgrößenbedingt unter beschränkter, unvollständiger und ungenauer Information. Kreativität und hohe Entscheidungsgeschwindigkeit sind mit der strategischen Planung nur bedingt zur Deckung zu bringen. Die kreativen Prozesse können initialisiert werden, die Prozessergebnisse sind jedoch zeitlich und inhaltlich unbestimmt. Gleiches gilt für die Dynamik der Märkte, sie ist erkennbar aber hinsichtlich ihrer Auswirkungen aufgrund der Komplexität der Systeme nicht planbar. Die Chancen und Risiken für ein KMU entwickeln sich sehr oft spontan ohne längere Ankündigung über Frühindikatoren. Die Reaktion von Frühindikatoren ist aber eine wesentliche Voraussetzung für die strategische Planung.

War es wirklich planbar, dass der regionale Wettbewerber durch die Finanzkrise in Liquiditätsschwierigkeiten geriet, weil er von einem Kreditinstitut finanziert wurden, das aufgrund hoher Verluste im Handelsbuch die Eigenmittelerfordernisse nicht erfüllten konnte und daher zu einer restriktiven Kreditvergabe beim Wettbewerber gezwungen war, obwohl sich dessen Rating nicht verschlechtert hat? Wie hätte diese Umfeldbedingung antizipiert werden können? Ebenso wenig wäre es möglich gewesen, den entsprechenden Instrumentenmix als Reaktion bereit zu stellen. Die unerwarteten und daher nicht planbaren Liquiditätsprobleme ermöglichten den Kauf des Wettbewerbers zu extrem günstigen Konditionen. Die Kaufchance wurde dadurch erhöhte, dass das finanzierende Kreditinstitut des Entrepreneurs ein regional orientiertes Geschäftsmodell hatte und daher von der Finanzkrise nur unbedeutend betroffen war und aufgrund der von der EZB initiierten Niedrigzinsphase der Kredit zu vergleichsweise extrem günstigen Konditionen für eine längere Laufzeit zur Verfügung gestellt wurde. Die hohe Reaktionsgeschwindigkeit des Entrepreneurs stellte den Kauf sicher, bevor noch andere Interessenten die Kaufchance überhaupt erkannt hatten. Ein typisch taktisches Verhalten, ohne Ansatz irgendeines Elements der strategischen Planung. Sofern nicht dieses grundsätzliche Verhaltensmuster, kreative Prozesse zu initiieren und hinsichtlich der Ausnützung von Chancen der Begrenzung von Risiken eine hohe Reaktionsgeschwindigkeit zu zeigen, nicht als „strategische Planung“ definiert wird, sind in diesem Verhalten keine Elemente der strategischen Planung sichtbar und vermutlich auch gar nicht erforderlich.

Ob diese Erkenntnisse für die Widerspruchsthese ausreichen, können wir mangels statistisch gesicherter empirischer Daten nicht behaupten. Die punktuelle Erfahrung über einen sehr langen Zeitraum spricht jedenfalls dafür.[15]

[15]vgl.: Welter, F.: Strategien, KMU und Umfeld, 2003, 241ff

7. Konsequenzen für die Theorie der Unternehmung vom Typ KMU

Unsere bisherige Analyse zeigt,

1. dass das Wissen und das Können für die strategische Planung fehlen.
2. dass die aktuellen Umfeldbedingungen wegen der fehlenden Konstanz der Entwicklungen eine strategische Planung kaum zu lassen.
3. Trotz fehlender statistischer Evidenz diagnostizieren wir einen vermutlichen Widerspruch zwischen dem Verhaltensmuster eines Entrepreneurs und der strategischen Planung.

Wenn unsere Analysen zutreffend sind, ist die These, dass die strategische Planung ein Erfolgsfaktor für die Entwicklung eines KMU ist, aus mehreren Gründen nicht mehr aufrecht zu erhalten:

1. Soweit uns Informationen zur Verfügung stehen, besteht kein statistisch gesicherter empirischer Nachweis, dass KMU dieses Instrument überhaupt einsetzen.
2. Durch den fehlenden Einsatz kann auch kein Beweis geführt werden, dass die strategische Planung in einem KMU einen positiven Beitrag zur Unternehmensentwicklung leistet.
3. Wenn der erkannte Widerspruch zwischen Verhaltensmuster und Grundsätzen der strategischen Planung zutrifft, ist auch die Empfehlung zum Einsatz der strategischen Planung in KMU möglicherweise sogar kontraproduktiv.

Die Aufrechterhaltung einer Empfehlung für ein Instrument, das aufgrund fehlenden Wissens, fehlenden Könnens und fehlenden Daten nicht nachgefragt wird, bedeutet eine extreme Verschwendung von Ressourcen sowohl im Unternehmen als auch in der betriebwirtschaftlichen Forschung. Auch wenn wir Fiet[16] zustimmen, dass sich die betriebswirtschaftliche Forschung darauf konzentrieren soll, wie Rentabilitäten gesteigert und Risiko minimiert werden können und nicht darauf, wie sich KMU tatsächlich verhalten, ist es nicht weiter zielführend diese These zu vertreten und als Basis für die Aus- und Weiterbildung, sowohl für Stundenten als auch für Entrepreneurs zu verwenden. Welchen Sinn haben Handlungsempfehlungen, von denen im Vorhinein klar ist dass sie nicht umgesetzt werden, weil sie nicht umgesetzt werden können.

Der Thesenvorrat der Theorie vom Unternehmen vom Typ KMU ist bei weitem nicht so gefüllt, dass wir gezwungen wären an dieser These festzuhalten. Vielmehr sollten wir uns in Forschung und Lehre intensiv mit jenen Thesen beschäftigen, die eine Chance haben einen positiven Beitrag zur Unternehmensentwicklung zu leisten, weil sie auch tatsächlich von den Entrepreneurs eingesetzt werden können, weil sowohl die informationellen als auch die theoretischen Vorbedingungen gegeben sind.

Langfristiges Denken und langfristige Zielsetzungen lassen sich in das Verhaltensmuster der Entrepreneurs über andere Instrumente als über das der strategischen Planung weit erfolgsträchtiger und nachhaltiger integrieren.

[16] vgl.: Fiet, J.: The Systematic Search for Entrepreneurial Discoveries, 2002, 188

Strategic Entrepreneurship in Family Business – Experience from Belgium

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Summary

Strategic management is relevant for every business, including family businesses. Family businesses may have some 'natural strategic advantages' such as the continuity when management is transferred to a new generation, financial autonomy and lower indebtedness, and the possibility to develop a long term vision. However these advantages may become disadvantages as well. Not only the family business but as well the business family need to develop and implement a strategy.

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Introduction

A family business, like any business, must be competitive in the market. A strategy is a necessary instrument for the business to keep and increase its competitiveness. In the first and second paragraph of this paper we discuss briefly what we understand as a 'strategy' and why it is so relevant. Then we have a paragraph on family business and a paragraph on family business in Belgium. Finally we focus on the relevance of strategy for family business management.

1. Definition. What is 'Strategy'?

Multiple definitions of 'strategy' for an entrepreneurial firm have been tried out. Nevertheless most definitions are convergent. Let us start with some textbooks. Zimmerer and Scarborough (2008, p. 107) define strategy as "*a road map of the actions an entrepreneur draws up to achieve a company's mission, goals and objectives*." Wickham (2006, p. 349) define the strategy as "*the actions an organization takes to pursue its business objectives*".

Managing a strategy is not only a matter of designing the strategy but also of planning and implementing it. There is a component of 'thinking' but a component of 'action' as well. It will take several steps to define and implement the strategy. "(…) *the mission, goals, and objectives spell out the ends, and the strategy defines the means for reaching them. A strategy is a master plan that covers all of the major parts of the organization and ties them together into a unified whole. The plan must be action oriented; it should breathe life into the entire planning process. (…)*" (Zimmerer and Scarborough, pag. 107). Wickham (p. 349) makes a basic distinction "*among the content of a business strategy, the strategy process that the business adopts to maintain that strategy, and the environmental context in which the strategy must be made to work*."

The literature on strategy and its typology is very extended. Michael Porter, who inspired a large part of this literature, takes into account the size of the market as well as the internal strength of the market. Following his analysis, as discussed by Zimmerer and Scarborough (2008, p. 107) a firm has three basic strategic options:

- Cost leadership "*a strategy in which a company strives to be the lowest-cost producer relative to its competitors in the industry*".
- Differentiation "*a strategy in which a company seeks to build customer loyalty by positioning its goods or services in a unique or different fashion*".
- Focus "*a strategy in which a company selects one or more market segments, identifies customers' special needs, wants, and interests, and approaches them with a good or service designed to excel in meeting those needs, wants, and interests*".

The literature on strategy has been greatly extended and refined recently. One very important argument is that any individual firm will have to make strategic choices It must avoid such pitfalls as getting 'stuck-in-the-middle', which means it has no more unique position in the market.

We will not go on with a full discussion of the strategy issue but from now on we point our attention at entrepreneurial firms and family businesses.

2. Relevance of Strategy for the Competitiveness and Survival of Business

Wickham (2006) identifies three components in what he calls the strategy content. "*Strategy content relates to three things: the final product range, the customers it serves and the advantage it seeks in the marketplace*" (Wickham (2006) p. 349). This coincides whit what Lambrecht (2008) calls the 'three W's' of a strategy: for who, what, why.

The question 'for who' is about the customers. It is about the market scope and market segment. The 'what' question is about the products and the product range. The two questions are clearly interlinked. *"(...) it may be better for the entrepreneur to regard themselves as facing a single set of decisions about the combined product-market domain of the firm*" (Wickham (2009, p. 350).

The why questions include questions about the ambitions, goals and objectives of the firm but as well a question such as 'why we'. What is our competitive edge? The entrepreneur has to ask: 'Why should customers come to us, not to our competitors?'

Evidently a strategy or strategic content has to be consistent with the vision and mission of the entrepreneur and the business and also with the external market environment.

Lambrecht and Broekaert (2008) emphasizes that a distinction must be made between strategy and operational excellence. Strategy is inspired by the market, operational excellence is inspired by the actions f competitors. A firm has a strategic advantage if it is different from its competitors. A firm has an operational advantage if it is doing the same as its competitors but it is doing it a little better or more efficient. The strategic choices are inspired by what the market wants or by what the market may want if the firm has the ambition to develop new markets. Operational actions are inspired by what the competitors are doing.

Lambrecht and Baetens (2005) quote the example of a family firm in Wallonia. At the entrance hall a large picture shows a field with red flowers and one yellow flower at the middle. The inscription is: "*Pour se faire remarquer, il faut se distinguer*" (If you want to be seen, you need to be different). It is not a matter to be the best, the first or the largest. It is a matter to be different.

The distinction is not always clear and sharp. For example a strategy of cost leadership as defined by Porter implies technical mastery of the production process and operational efficiency to minimize the costs as well. In Belgium a well-known example is the family business Colruyt, which has a chain of supermarkets. Their identity is: '*To shop fast and efficiently at the lowest prices*'. Their explicit strategy is Cost Leadership (in the sense of Porter) but evidently they need the operational competence to implement it.

There is also another distinction. As we stated earlier, strategy is inspired by the market. A business may want to take action on focus, growth and diversification as well. Sometimes these are called strategies (with names like 'focus strategy', 'growth strategy' and 'diversification strategy') but Lambrecht and Broekaert (2008) point out that they are not real strategies because they usually are not driven by the market or the customers but by the internal organization of the firm.

A so-called focus strategy means that the business will concentrate on niche markets: a geographic area or some specific group of customers. In practice this policy must always be combined with a 'real' strategy such as Cost Leadership or Differentiation. Focus in itself does not provide the customer a reason to opt for the business. For this reason it is not a strategy.

Also growth and diversification are not strategies. There is a large literature that shows that size matters. Managing an SME is different from managing a large enterprise. This discussion is very rele-

vant for the business owners and the stakeholders but the business size in itself does not create any added value for the customer. Growth is not always proof that the business conducted a successful strategy in the past. Growth even can be proof that there has been a lack of strategy. When the business almost is a clone of its competitor because there has been not enough differentiation then the only option to limit competition may be to take over the competitor. The same holds for diversification. Diversification can be very useful for the business to spread its risk but this is not relevant for the customer. A customer will never buy the products of a business simply because the business is small or because it is diversified.

There is a clear economic rationality behind the differentiation strategy. This strategy is the most popular because it enables the firm to gain a (degree of) price makership and to increase its profit margin.

In a recent survey of 460 Belgian independent retailers of electronic appliances (Lambrecht and Broekaert (2010)), of which 419 delivered a valid response, the respondents were asked for their three main strategic assets. A large majority of 84 % considered service and after-sale service as one of these three main strategic assets. Cost leadership (to sell at the lowest price) is quoted by only 7 % as the main strategy, while 5 % quote diversification (to offer the widest range of products).

In a recent research project on the failure of small businesses (Lambrecht and Wing Ting To, 2009)) in Belgium, strategic management (or the lack of strategic management or making the wrong strategic choices) is quoted as one of the main causes of failure. Examples of wrong choices were: to delay too long the introduction of new technologies or machines, to cling to products which were successful in the past but have become obsolete, to focus on a limited number of big customers, to accept large long term projects without sufficient liquidity base so the business had to prefinance with borrowed money…

Problems related to the personality or the personal situation of the entrepreneur also can be the cause of failure. Examples were related to stubbornness, lack of leadership, lack of competence. Evidently also the family can be the cause of problems. Examples of family conflicts were related to divorce or inheritance and long legal disputes. This will bring us to the discussion of family businesses.

3. Family Business

There is no unique definition of family business but it is beyond discussion that the family business is a very common type of business. Family businesses have existed in all the periods of economic history. The disappearance of family business has been predicted more than once but they continue to exist today in all sectors and all dimensions in all the market economies.

"*A family-owned business is one that includes two or more members of a family with financial control of the company. Family businesses are an integral part of our economy. Of the 25 million enterprises in the United States, 90 percent are family-owned and managed. These companies account for 60 percent of total U.S. employment and 78 percent of all new jobs, pay 65 percent of all wages, and generate 50 percent of the nation's GDP. Not all of them are small; 37 percent of the Fortune 500 companies are family businesses*." (Zimmerer and Scarborough, page 23)

There is no unique definition of family business. For a European discussion see the European Commission, Mandl (2008), Lambrecht and Naudt (200). The European Commission proposes a definition with several components:

"*A firm, of any size, is a family business, if:*
(1) The majority of decision-making rights is in the possession of the natural person(s) who established the firm, or in the possession of the natural person(s) who has/have acquired the share capital of the firm, or in the possession of their spouses, parents, child or children's direct heirs.
(2) The majority of decision-making rights are indirect or direct.
(3) At least one representative of the family or kin is formally involved in the governance of the firm.
(4) Listed companies meet the definition of family enterprise if the person who established or acquired the firm (share capital) or their families or descendants possess 25 per cent of the decision-making rights mandated by their share capital".

Although recognition of family business as a field of research is relatively recent it can provide valuable insights. Stefan Borheim (2006) used the Interstratos data to develop a theoretical framework for family businesses. He recognizes that the family business is a specific type of business with a long term perspective, which is also very useful for research. "*While the form of family business is distinguishable from other organizational forms, a natural advantage of family businesses is its long-time perspective, allowing researchers to study evolution without much of the 'noise' that accompanies many other organizational forms".*

4. Family Business in Belgium

Lambrecht and Naudts (2008)) discuss several definitions which can be used for Belgium. They refer to the so-called Code Buysse which is often used in discussions about corporate governance. The code is very common in Belgium but it does not provide an operational definition. "*The Belgian corporate governance code for non-listed companies, the so-called Code Buysse, defines family businesses as businesses where, amongst others, the shares are held by several family members or several branches of the family or businesses where, within a single branch, several generations are involved in various roles in the company. The fact that the code explicitly states amongst others indicates that this is a non-exhaustive, open definition of family businesses*."

Other definitions also exist. I is even possible that there is a divergence between the entrepreneurs' own interpretation of the family character of the enterprise and the objective criteria used to qualify an enterprise as a family business. Lambrecht and Naudts conclude that "*Belgian research sometimes considers sole proprietors and one-person enterprises as family businesses. In addition, it is very widely accepted by Belgian scholars that also listed companies and non-SME's can be family businesses."*
It is important to note that family businesses are not necessarily just stable or stationary. Family businesses also are strongly represented among fast-growing businesses. "*Among fast growing companies in Flanders (referred to as gazelles) more than half are pure family businesses. In the Walloon region, family businesses account for about 40% of the gazelles*".

5. Relevance of Strategy for a Family Business

What is the relevance of strategy for a family business? Many family businesses are aloof to map out a strategy and to put it on paper. Lambrecht and Broekaert (2008) quote a survey by the American

Family Business Survey in 2003 where only 37 % of 1100 surveyed U.S. family businesses had a written strategic plan. A similar survey among 154 Belgian family businesses yielded 45 percent positive answers against 67 % for non-family businesses.

The management often is reticent to put a strategic plan on paper because they fear it can be used against them by their employees, customers and suppliers.

Very often, entrepreneurs consider concepts like strategy, mission and measuring as *'blabla and theory' (*just to quote a respondent in a survey). The reasoning behind this attitude is that the competences, the experience and the assets of the business family provide a natural competitive edge to the business. Very often a good reputation of the business and the family will add to this feeling.

Evidently things may be more complicated in real life. In the first place, family businesses are businesses who operate in a market economy. They need to be competitive an so they are subject to the same rules of the game as other businesses.

If it is relevant for any business to make strategic choices, it is relevant for a family business as well. So what is then 'typical' for a family business? We discuss three categories of arguments: the relation between the generations, the want of financial autonomy and the possibility to develop a long term vision. These three categories are not strategies themselves but they can offer great help to the family business to develop and successfully implement a strategy.

5.1. The Relation Between the Generations

When a new generation takes over the management of a family business, they will be motivated not to disappoint the family. As pointed out by Lambrecht and Broekaert (2008) on the basis of case studies the new managers may want to sustain the 'group feeling' in the business family and to continue the existing strategy in the family business. Especially when the family business has built up a good reputation, this strategy will generate continuity and consistency in the long run. However there can be a problem: when there is a change in the economic or market conditions, the new management may lack the flexibility and authority to adapt to these new conditions and to implement the necessary changes.

A new generation will not always try to please the family. Sometimes the young generation may have the ambition to take a high profile. The new manager may want to prove that he/she owes his/her position to competence and not only to his/her family descent. They may want to prove that they are not just an 'appendix' to the former generation. This attitude can be an opportunity for the business and give it a new entrepreneurial impulse. But there is a danger that the 'profiling' of the new generation will take the firm away from its proven strengths and competitive advantages. If several new members of the new generation take over the management simultaneously, there is also a danger that they will neglect to behave as a team and that each family member in a management position will start up his/her own projects, without consistency with the rest of the business.

Changes happen not only in the business environment of the firm but also in the structure of the family. Most business families not only involve first-generation parents and their children or maybe second-generation brothers and sisters who were educated by the same parents in the same household. From the third generation on the business family involves a more 'extended' family with cousins, uncles, aunts and nephews and further on. They may have more different backgrounds than parents and children or brothers and sisters. This type of family structure can be an asset for the family business. If

there is confidence between the members of the family, the speed of the decision making process can be increased, which is an important advantage. But this complicated family structure also can be at the origin of problems. If there are conflicts within the family, these can have repercussions for the business.

5.2. Financial Autonomy

Most business families want to keep the strategic decision-making in their own hands. Autonomy is a key motive. A successful cooperation between a business family and an external capital provider is possible but it is the exception rather than the rule. Most business families dislike this type of cooperation with external capital providers. The desire to keep their independence and to keep the main decision making processes within the family is an important inspiration in defining their strategy.

A growing business needs appropriate financial resources. A business family which does not want to borrow has three options to provide money to the family business: (1) to keep profits in the business and to reinvest them; (2) to bring in additional financial resources from the business family; (3) to call in an external financial partner. Most family businesses want to finance their growth with internal resources of the business or the family and without external financial partner. This can be an advantage for the business and the family if this means that growth will remain organic and under control. An alternative may be to borrow money from a bank but most family businesses also want to keep their indebtedness under control. In most family businesses the financial management will be conservative.

This desire to keep external financial capital out of the family business as much as possible, either as capital providers either as lenders also puts a limit on the financial resources available to the management of the family firm. This reduction also reduces the options available to pursue a strategy. For instance it may induce the business to postpone investments in internationalization or in the expansion of the production capacity. An opportunity to realize external economies of scale may be lost.

Although the family business may lose opportunities to grow due to this ‘conservative’ financial policy, there are positive aspects as well. Especially in periods of economic recession and financial instability, independent firms with a low indebtedness are more stable and less vulnerable. Other companies, especially if they are public, are much more vulnerable to pressure of shareholders who want better results in the short run. Family businesses which had the opportunity to build up financial reserves in good times can use them for acquisitions in times of crisis.

5.3. Long Term Vision

Lambrecht and Broekaert (2008), on the basis of case studies, point out that the average family firm has more opportunities to develop a long term vision. This issue even goes beyond the issue of financial autonomy, which we discussed in the previous point. Family businesses do not need to report on a quarterly basis to their shareholders. They also can afford to start up a big investment project and be involved accept financial commitments even if it will take several years before any financial return will materialize. The time scope of most family entrepreneurs is not the next quarter but the expected transfer to the next generation. They want the business to be healthy and profitable by then.

"*When it works right, nothing succeeds like a family firm. The roots run deep, embedded in family values. The flash of the fast buck is replaced with long-term plans. Tradition counts*" (quotation in Zimmerer and Scarborough (2008), page 23).
On the average family businesses are less capital intensive, so most will devote more energy and attention to their human resources management. The turnover of employees is less than average.

The interaction between the business family and family business can be at the origin of a great strategic advantage but it can lead to disaster as well. Problems within the family may trickle down to the firm. "*Only 30 percent of family businesses survive to the second generation, just 12 percent make it to the third generation, and only 3 percent survive into the fourth generation and beyond. Business periodicals are full of stories describing bitter disputes among family members that have crippled or destroyed once-thriving businesses*" (Zimmerer and Scarborough (2008), page 24).

Lambrecht and Broekaert (2008) recommend that not only the family business develops a strategy but the business family as well. They need to give an answer to such questions as why they want to keep the control of the business in the hands of the family and what will be the involvement of the family in the future.
"*While the offspring of entrepreneurs often show great business acumen and leadership ability, there is no reason why they must do so. Entrepreneurship is learnt, not inherited*" (Wickham (2006), p. 312).

Conclusions

Formulating a strategy for a family business means that three questions must be answered: what, for who and why. What: what is the product? For whom: who are the customers, which market segment. Why: where is the difference between the business and its competitors?

It is important to be aware what a strategy is and what it is not. So-called focus strategy, growth strategy and diversification strategy are not strategies because they do not differentiate the business from its competitors in the eyes of their customers.
A strategy must be formulated such that it is clear for all the 'stakeholders' of the business including the business family, management, staff, customers, suppliers. It must provide an answer to the three questions 'what, for whom and why'. The formulation must be short, without being reduced to a sales slogan.

When a business has formulated its strategy, it must stick to it for a while. If too frequent changes occur, this may be interpreted as proof of insufficient strategic insight. Good strategic management will give the family business an opportunity to build up reserves. Evidently a strategy must not be kept for eternity. A family business has a 'natural' advantage' to behave like this. The business family must keep its checks and balances between opportunism and stubbornness.

When a change of strategy is necessary, it must be implemented gradually. Unless exceptional circumstances occur, evolution is better than revolution. When a change is implemented in an impulsive way, the outside world may have the perception that the business is in problems and that the management lost control.

Not only a strategy but also changes in strategy must take account of the specific situation of the family business.

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Customer-related Opportunity Discovery: An Entrepreneurial Perspective of Early-Stage Innovation Processes

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Abstract

Innovation research claims that relationships with current customers influence early-stage innovation processes, shaping the discovery of opportunities with a potential to be new and disruptive to the market; in the perspective of entrepreneurship research, this focus can be reframed as customer-related opportunity discovery. Thereby, it is discussed controversially whether and how relationships with current customers enable or constrain the discovery of disruptive opportunities in early-stage innovation processes. It is argued that detailed knowledge, close relationships, and intense interactions with current customers lead to disruptive opportunities and successful innovation, due to a better understanding of customer needs or issues with current technologies; at the same time, close customer relationships can lead to a lock-in into a too narrow understanding of relevant needs, issues and opportunities. In this paper, we conceptually explore this important paradox in innovation and entrepreneurship research, by identifying a series of dimensions of customer relationships, their impact on the degree of disruptiveness of discovered opportunities, as well as the moderating effect of technological change and market turbulence on this impact. The exploration of this customer relationship paradox in innovation and entrepreneurship lies at the heart of the new strategic entrepreneurship research program, through the attempt of closely relating innovation processes, opportunity discovery, and strategic partnering between companies and their customers.

Introduction

Relationships with customers are highly relevant for early-stage innovation processes and opportunity discovery. Innovation and entrepreneurship research report, that a company's experience with the usage of its services and products can lead to important insights and new ideas concerning potential future products and services, thus indicating potential customer-related opportunities, relevant for ear-

ly-stage innovation processes. While this basic interdependence between customer relationships and early-stage innovation is thereby undoubted, it is controversial whether, how and in which circumstances a close relationship with current customers is beneficial for the discovery of new opportunities in general and of disruptive opportunities in particular.

A close relationship with current customers, also called tight coupling (Danneels, 2003) is seen as beneficial for opportunity discovery, because it allows firms to gain deeper, more specific and continuously evolving insights into current and potential customer needs. As a consequence, companies establish particularly intense relationships with current customers, which are most promising for identifying future opportunities, because they move "at the edge" of an industry or because they face particularly exemplary challenges (von Hippel, 1986). In the perspective of Orlikowski (1992), it is important not only to understand what customers say about the products and technologies they use, but to observe how they actually use them in their everyday practice.

A close relationship with current customers can however also become problematic: it has been shown that market leaders miss disruptive technologies and markets, because they focus too much on their most important, current customers (Christensen & Bower, 1996), thereby neglecting that new customer needs and related markets might emerge, which are beyond existing customers. Hamel and Prahalad (1994) explore this phenomenon as the tyranny of the served market, constraining the necessary flexibility towards new potential markets (Danneels, 2003). This also explains the more recent interest in user entrepreneurship, which implies that particular users themselves start to initiate new businesses, because they are not served by existing companies in a market (Shah & Tripsas, 2007).

In our conceptual paper, we will further explore this controversial issue concerning *customer relationships and their impact on early-stage innovation processes*. In particular, we are interested in understanding under which conditions and how customer relationships lead to the discovery of disruptive new ideas with the potential to turn into disruptive innovations: in the perspective of entrepreneurship research, we identify them as "*disruptive opportunities*", which are understood as opportunities with the potential to lead to disruptive innovations. Khurana and Rosenthal (1998) call this stage pre-phase zero, indicating that in order to initiate new product development, opportunity discovery and idea generation are required; furthermore, we learn from innovation research, that this initial phase has major implications for the later product development process, as well as for the potentially radical or disruptive quality of the outcome, due to path dependence (Garud & Karnoe, 2001). We thus focus our analysis of the above mentioned paradox on the initial stage of the innovation process, the opportunity discovery process, as an underexplored research area, which however is particularly important for any opportunity realization and innovation process, asking the following research question: *How do relationships with current customers influence the degree of disruptiveness of discovered opportunities?*

In this paper, we first discuss the existing literature on the positive, negative and mixed impact of customer relationships on early-stage innovation and opportunity discovery, exploring the often implicit boundary conditions, which allow to understanding why customer relationships can have such diverse implications on the innovation process. Second, we suggest a formal model, systematically incorporating these different insights into one coherent conceptual framework, differentiating several dimensions and qualities of customer relationships as the independent variables, introducing technological change and market turbulence as two important moderating variables, as well as suggesting the degree of disruptiveness as an interesting new characterization of opportunities, as they are discovered and proposed in entrepreneurial and innovation processes. This model allows us to identify a series of

interesting propositions concerning the impact of customer relationships on opportunity discovery in early-innovation processes.

Customer relationships, early-stage innovation and opportunity discovery

Positive effects of customer relationships on opportunity discovery

Looking at the state of the art in the existing literature, we find several studies identifying customers as an important source for the discovery of new opportunities. Danneels (2003) for example argue that a fine-grained understanding of customer needs helps to customize offers to their current customers in order to serve them well. In a similar vein, Atuahene-Gima, Slater and Olson (2005) highlight that a focus on expressed needs of current customers reduces the likelihood of errors in problem-solving activities and the risk of expanding into the unknown (Atuahene-Gima, et al., 2005).

With respect to the impact of customer relationships on the innovation process, Zander and Zander (2005) find in their case study that a close relationship to current customers leads to in-depth insights into particular needs of their customers through knowledge exchange which is beneficial for problem solving and thus, innovation consequences. Furthermore, Gatignon and Xuereb (1997) find that companies focusing on customers foster product innovation when demand is uncertain. Han, Kim and Srivastava (1998) identify a positive relationship of customer focused companies and technical as well as administrative innovation in US banks. Finally, Gruner and Homburg (2000) show that an intense customer interaction in the early stage of innovation process enhances new product success.

With regard to the degree of innovation, Lukas and Ferrell (2000) point out for their sample of 194 manufacturing companies that customer focused firms increased the introduction of new-to-the-world products and reduced the introduction of mee-too-products. Koen and Kohli (1998) find for 34 new product development projects that the interaction between customers and engineers is the most important source of ideas for radical innovation. In a service setting, Magnusson, Matthing and Kristensson (2003) show that the quality of generated ideas for new service development improved with user involvement as engineers and professionals may misinterpret users' needs. In addition, Lagrosen (2005) finds in his case study that customers are involved especially in the initial stage of innovation processes. Such customer involvement includes among others complaints or suggestions for improvements by customers, visits as well as customer invitations for discussions about potential improvements and innovations.

Finally, we find studies, which specifically emphasize the importance of differentiating between types of interaction with customers in the context of innovation processes (e.g. Alam, 2002). In particular, not only the evaluation of existing and new products or services by customers, but their actual usage is seen as an important source for discovering new opportunities. In a multi-national software firm, Orlikowski (1992) finds that users of technology may not use it as intended by developers. They even transform the originally intended purpose of technology. Out of users' reaction, the technology is modified as desired.

Negative effects of customer relationships on opportunity discovery

These various studies emphasizing the importance and positive impact of customer relationships on opportunity discovery and early-stage innovation, are complemented by a series of studies showing negative effects of a close relationship to current customers for opportunity discovery. By being close to current customers, firms might ignore potential customers and therefore miss possible opportunities (Danneels, 2003). Customers, which base their evaluation on product experiences in the past, are often not capable of imaging something different (Ulwick, 2002). Hence, existing customers often solely emphasize improvements of existing products and services, in particular in the interaction with companies providing those products and services. This threat of incrementalism is also confirmed among others by studies of Tauber (1974) and Bennett and Cooper (1979, 1981), exploring customers' limited ability to express their needs verbally.

With respect to the negative impact of customer relationships on innovation, Danneels (2003) highlights, that close relationships with customers constrain the flexibility of a company in reacting to alternative opportunities, which lie outside the focus of a particular customer relationship. In a context of high technological change, Bower and Christensen (1996) find that incumbent market leaders in the US disk drive industry actually lost their market share, because they listened too carefully to their current customers. As current customers did not want the new, disruptive technologies, with potential implications on the overall business, the market leaders together with their most advanced customers missed the development of these disruptive technologies and thus, the penetration of emerging markets.

This leads to an interesting discussion of the implications of these negative effects for established companies and entrepreneurial ventures in terms of discovering new opportunities, as well as successfully transforming them into new products and services. In a context of disruptive technologies, Christensen and Bower (1996) as well as Danneels (2003) suggest to spin out organizations for the exploration and realization of disruptive opportunities, in order to be independent from the current customer base, as well as the established corporate culture and innovation processes serving these customers. The internal barriers or current customers' resistance to progress might also be mitigated by outsourcing the idea-generation process. Ulwick (2002) argues that opportunity discovery can benefit from asking diverse people which are related to the desired business context, rather than existing customers. There are specialized firms (e.g. IDEO) which undertake opportunity discovery and early-stage innovation for a variety of customers from different industries. Due to their experience out of multiple other industries, they can either transfer technologies (technology brokering) from other industries or approach the idea-generation process in a more open, but at the same time also more disciplined and conscious way (Hargadon & Sutton, 1997). Hence, they introduce established technologies from other industries into this context.

Finally, we find studies arguing that it is important to build weak ties to customers in a dynamic environment (Danneels, 2003) requiring among others scanning activities such as seeking information from non-current customers or data on market trends. This scanning activities can also involve the monitoring of other firms in order to learn from their experience in other markets (Dickson, 1992). In a similar vein, Lilien, Morrison, Searls, Sonnack and von Hippel (2002) point out the role of users outside a firm's established market. These users offer potential for a market as they possibly face needs that are ahead of all members of the established market. Thus while there are negative effects of

customer relations to opportunity discovery, it seems that companies develop a multiplicity of specific practices and interaction patterns with existing and new customers, in their existing and in new markets, as well as specific organizational settings, which allow to separate the exploration and realization of existing and disruptive opportunities, both within a company, through partnerships with external companies, as well as by engaging specialized innovation brokerage companies for discovering and conceptualizing new opportunities.

Mixed effects of customer relationships on opportunity discovery

It is thus not surprising, that we also find a series of studies arguing for mixed effects of customer relationships on the discovery of disruptive opportunities. Kaufmann and Tödtling (Kaufmann & Tödtling, 2001) find in their sample of 517 mostly manufacturers in regions of Wales, Belgium, Germany, Austria, Spain, Portugal and Finland, that customers and suppliers are most relevant for incremental (new-to-the-firm) as well as disruptive (new-to-the-market) innovations. However, the effect of current customers as sources for successful disruptive innovations reduces from 38 to 33 %. As a consequence, but independent from the mentioned study, there are studies which distinguish the characteristics of customers for innovation consequences in general and opportunity discovery in particular. Therefore, they argue that close relationships with customers have to be selectively chosen. Von Hippel (1986) states that it is important for companies to rely on special customers – so called lead users – for identifying emerging trends long before the bulk of the market. At the same time, these lead users have a high incentive to innovate in order to satisfy their own needs through their impact on the innovation process of their suppliers (e.g. Baldwin & von Hippel, 2009). They are found to influence the idea-generation process for innovation in different companies such as 3M, Hilti or Johnson and Johnson (Lilien, et al., 2002; Lüthje & Herstatt, 2004). Given these mixed results, von Hippel (2009) argues that successful firms are undertaking two actions at the same time: first, they seek for opportunities developed by lead users themselves, and thus independent of the interaction with the company; second, they proactively interact with certain lead users in order to jointly discover and develop disruptive opportunities.

More specifically, the role of user innovation and the innovation as well as opportunity discovery activities of customers and users themselves, has been emphasized. Recent research for example shows that specific users are often first in developing new opportunities for industrial and consumer products (von Hippel, 2009). In rodeo kayaking for example, Baldwin et al. (2006) find that 62% of major and 83% of minor equipment innovations were developed by users. Users constantly experience needs, which are not satisfied by existing products and services. As a consequence, they start to build new products for their personal use, and sometimes found their own companies or develop a product for in-house use in case of industrial products (Franke, von Hippel, & Schreier, 2005). This phenomenon is also discussed as user entrepreneurship (Shah & Tripsas, 2007). 84 per cent out of their sample of 263 firms in the juvenile product industry were founded by users who popped upon an unmet need and wished to satisfy it. Shah and Tripsas (2007) state that this phenomenon is more likely to be applicable when the opportunity costs of users are relatively low, when the industry is characterized by small scale, peripheral niche markets with high variety in demand. This is confirmed by the study of Lettl, Hienerth and Gemuenden (2008) showing that although surgeons developed radical innovations in medical equipment industry they did not found companies in order to sell these products because of

high opportunity cost. However, a high level of technological complexity, long time to market as well as high established industry standards are further reasons not to found an own company and approaching existing companies. Thereby, it is interesting to recognize that user innovation is often licensed to established companies for commercialization.

This implies that the mixed effects of customer relationships on opportunity discovery is also a matter of whether we focus on the entire innovation process, or more specifically on opportunity discovery and early-stage innovation. Lettl, Hienerth and Gemuenden (2008) show that established firms do not want to adapt to new and disruptive ideas from lead users at an early stage, for several reasons: first, the opportunities depart from the established strategy and their core competencies; second, there are often high market and technological uncertainties regarding disruptive opportunities; third, the "not invented here" syndrome is often mentioned, as employees do not easily accept new opportunities developed by people external to the firm.

Customer-related opportunity discovery: The Model

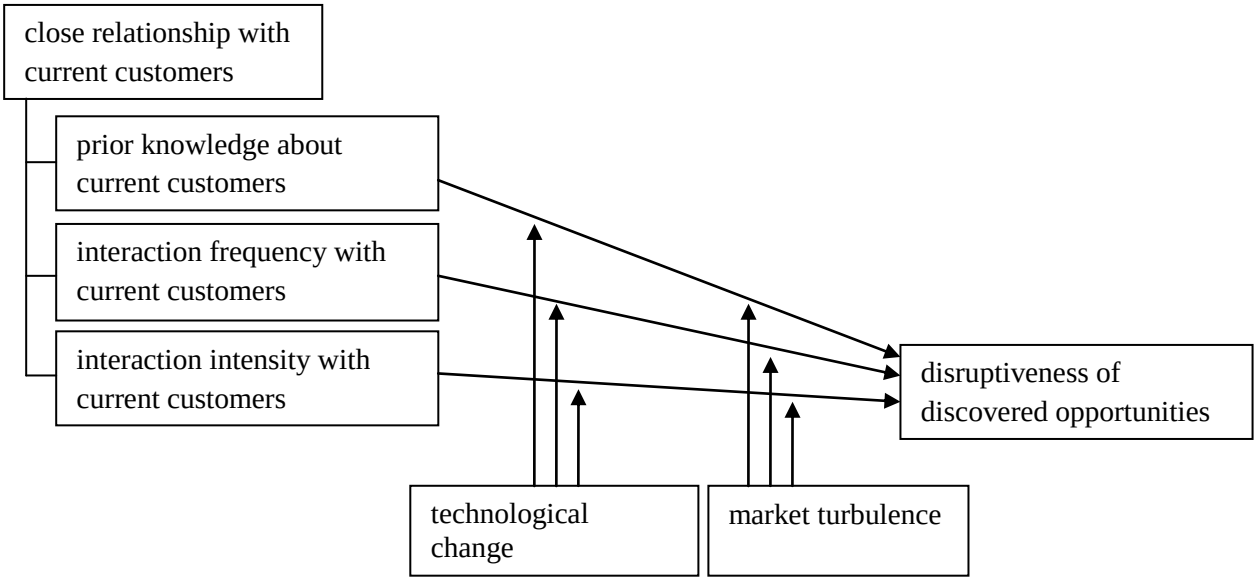
Based on the multiple positive, negative and mixed findings concerning the impact of customer relationships on opportunity discovery and early-stage innovation, we suggest a simple formal model, which allows to systematically integrating those multiple, partially contradicting findings into one framework. Thereby, we suggest "opportunity discovery" as the dependent variable, focusing on the degree of "disruptiveness" as particularly promising scale to differentiate different effects of customer relationships on opportunity discovery. Thereby, we benefit from innovation research, which often analyzes the degree of innovativeness as dependent variable. Incremental, new-to-the-firm, new-to-the-world, imitated, radical, disruptive, modular, architectural, breakthrough or generational are mentioned in the literature as possible qualifications of the degree of "innovativeness" of a new product or service (e.g. Abernathy & Clark, 1985; Bogers, Afuah, & Bastian, 2010; Henderson & Clark, 1990). Thereby, most studies are particularly interested in exploring the degree of innovativeness with respect to its novelty to an existing market.

For our model, we set the degree of disruptiveness of a discovered opportunity as our dependent variable. In the perspective of the recent confluence of innovation research and entrepreneurship research, in particular in the context of the strategic entrepreneurship research program (Schendel & Hitt, 2007), as well as in the discussion of technology entrepreneurship, which is inherently related to issues of technological innovation (Garud & Karnoe, 2003), we see the concept of "disruptive opportunity" as a particularly promising new concept. On the one hand, it allows to specifically focusing on early-stage innovation. As we know from innovation research, the early innovation phase is particularly influential to the later innovation process, due to the importance of "initial conditions" (Helfat, 2000) and the impact of path dependence on innovation (Garud & Karnoe, 2001).

As we are interested in the effect of relationships with current customers on the degree of disruptiveness of a discovered opportunity, we further specify and conceptualize "customer relationship" with respect to a series of dimensions and qualities, based on the literature review discussed above. We suggest three dimensions of customer relationships as particularly promising independent variables, in order to further specify different ways for companies to relate to their customers: first, prior knowledge about current customers; second, interaction frequency with current customers; third, interaction intensity with current customers.

Finally, based on our literature review, we identify technological change (e.g. Christensen and Bower, 1996) and market turbulence (e.g. Baldwin et al. 2006) as two important moderating variables, which we also incorporate into our model: In sum, we suggest the following basic model for the impact of customer relationships on opportunity discovery (Figure 1):

Figure 1: Customer-related opportunity discovery



In a next section, we further explore the different resulting relations between the three dimensions of customer relationships, the degree of disruptiveness of new opportunities, and the impact of the two moderating variables.

Customer relations and opportunity discovery: Propositions

Prior knowledge about current customers

Prior knowledge is assumed to influence opportunity discovery: Opportunities are described as arising out of technological changes, altered consumer preferences, regulatory and social changes (Alvarez & Barney, 2007; Kirzner, 1973: 10; Shane, 2003: 23) which are discovered by individuals because of their prior knowledge. Particular entrepreneurial individuals, teams, and organizations tend to consider new information, because it is familiar to existing information they already possess (Von Hippel, 1994). It is their idiosyncratic prior knowledge which creates a "knowledge corridor" (Ronstadt, 1988; Venkataraman, 1997).

There are different forms of prior knowledge. Shane (2000) lists among others prior knowledge about customer problems as one important source for discovering new opportunities. This knowledge originates mostly from experience with customer problems and from past customer interaction. A high degree of prior knowledge means that a firm has a lot of knowledge about current customers and their past problems.

More recent research also identifies a limiting effect of prior knowledge about customer problems for opportunity discovery. Haynie and McKelvie (2010) state that individuals having a deficit in prior

knowledge may be motivated to "see beyond" their current perspectives, detecting particularly promising new opportunities. In a similar vein, it is argued that being oriented to the past and especially to current customers can restrict the novelty of opportunities, leading to incremental rather than disruptive opportunities (e.g. Christensen & Bower, 1996; Hamel & Prahalad, 1994; Tauber, 1974). Hence, we propose that prior knowledge about current customers constrains the degree of disruptiveness of discovered opportunities.

Proposition 1: Prior knowledge about current customers has a negative impact on the degree of disruptiveness of discovered opportunities.

Interaction frequency with current customers

Interaction frequency with customers is well documented in buyer-seller interactions for product development projects (e.g. Hoegl & Wagner, 2005). It is viewed as the quantitative aspect of communication between a firm and its customers. It is widely acknowledged that frequent social interactions provide opportunities to learn. Zander and Zander (2005) for example show that a frequent and intense contact with its current customers leads to attaining more knowledge about their needs, and as a consequence discovering opportunities for new products and services.

However, such frequent contact can constrain the disruptiveness of discovered opportunities (e.g. Christensen and Bower, 1996). Current customers might only give ideas according to experienced shortcomings and problems in the past leading to the discovery of incremental opportunities (e.g. Ulwick, 2002). Therefore, frequent interactions with current customers leads to a lower degree of disruptiveness of opportunities.

Proposition 2: Interaction frequency with current customers has a negative impact on the degree of disruptiveness of discovered opportunities.

Interaction intensity with current customers

Beside the quantitative aspect of interaction, there is a wide recognition of qualitative aspects in the literature (e.g. Gruner & Homburg, 2000; Zander & Zander, 2005). These qualitative aspects are also called interaction intensity. Alam (2002) for example builds a continuum of interaction intensity. It reaches from passive acquisition of input, to customer feedback on specific issues and finally, to extensive consultation with users.

We suggest that the disruptiveness of discovered opportunities depends on the degree of interaction intensity. Ulwick (2002) argues that current customers cannot discover technological opportunities due to their lack of technical knowledge and expertise. Furthermore, customers' thoughts mostly depend on past experiences lowering the heterogeneity of opportunities. Therefore, feedback on specific issues gained from formal market research rather constrain the degree of disruptiveness of opportunities because of this orientation on past experience. However, on a low degree of interaction intensity, opportunities are more heterogeneous and basing on more diverse sources such as observing customers, environment scanning or technology brokering (Hargadon & Sutton, 1997; Leonard & Rayport, 1997). On a high level of interaction intensity, such as in-depth interviews or workshops, customer inputs can be beneficial for the disruptiveness of discovered opportunities. Studies about lead users show that they are characterized by two characteristics: First, they see future trends long before others do.

Second, they have a strong incentive to satisfy their emerging needs (e.g. von Hippel, 1986). As in-depth interviews and workshops are time consuming, we suggest that only current customers with a strong incentive and motivation to innovate participate. It is likely that lead user participate more often than other customers because of their strong incentive. As diverse studies have shown that lead user discover radical and disruptive opportunities (e.g. Lettl et al. 2008), high interaction intensity leads to a higher degree of disruptiveness of discovered opportunities.

Hence, we propose that the relation between an intense interaction with current customers and the degree of disruptiveness of discovered opportunities is U-shaped.

Proposition 3: The relation between interaction intensity with current customers and the degree of disruptiveness of discovered opportunities is U-shaped.

The moderating effect of technological change

Christensen and Bower (1996) find that in a context of high technological change listening too carefully to their current customers is unfavourable. Therefore, we argue that the degree of technological change moderates the link between the three factors of close relationships with current customers and the degree of disruptiveness of discovered opportunities.

Prior knowledge about current customers: Opportunities arise out of technological change (Kirzner, 1973: 10; Shane, 2003: 23). When the degree of technological change is higher, more opportunities emerge waiting to be discovered. As prior knowledge focuses on past experiences and (old) technologies rather than on experiences with emerging technologies, the use and benefits of these new technologies cannot be assessed easily through prior knowledge. Opportunities arising through these newly developed technologies are not interpreted as such because the use of them is unimaginable due to this past oriented thinking. Hence, we propose that the degree of technological change intensifies the link between prior knowledge about current customers and the degree of disruptiveness of an opportunity.

Proposition 1b: Technological change enhances the negative impact of prior knowledge about current customers and the degree of disruptiveness of discovered opportunities.

Interaction frequency with current customers: As we have already shown that current customers mostly rely on past experience about the use of existing products and services, the discovery of disruptive opportunities out of new technologies is rather constrained. In a context of high technological change, we suggest that this effect is even intensified. In such a context, there are a higher amount of disruptive opportunities out of technological change. However, as current customers are mostly oriented on past experiences, these opportunities are not discovered, tendentially leading to the discovery of incremental opportunities: Existing products and services are improved, and thus the status quo is maintained.

Proposition 2b: Technological change enhances the negative impact of interaction frequency with current customers and the degree of disruptiveness of discovered opportunities.

Interaction intensity with current customers: Orlikowski (1992) states that opportunities from new technologies mostly arise out of the users' use of it. The user's purpose can differ strongly from the originally developed purpose of engineers. By offering the possibility to use this new technology intensively, the probability of discovering a disruptive opportunity rises. Hence, we suggest that the effect on the degree of disruptiveness of discovered opportunities depends on the degree of interaction

intensity with current customers. A high interaction intensity leads to the discovery of disruptive opportunities due to the observation of the use of new technologies. However, when customers are not able to try new technologies – as in the case of low and medium interaction intensity – these disruptive opportunities are not discovered. Market research for example asking if a new technology serves customers' needs, would not lead to the discovery of disruptive opportunities due to an orientation of past experiences and a lack of foresight of most current customers.

Proposition 3b1: Technological change lowers the effect of a low interaction intensity with current customers and the degree of disruptiveness of discovered opportunities.

Proposition 3b2: Technological change lowers the effect of a medium interaction intensity with current customers and the degree of disruptiveness of discovered opportunities.

Proposition 3b3: Technological change enhances the effect of a high interaction intensity with current customers and the degree of disruptiveness of discovered opportunities.

The moderating effect of market turbulence

User innovation often occurs in industries characterized by high market dynamics such as high tech or extreme sports (e.g. Lettl, et al., 2008; Lilien, et al., 2002). Customer needs are heterogeneous and change frequently. Therefore, we propose market turbulence to be a moderator for the link between the three factors explaining the link between a close relationship closeness to current customers and the degree of disruptiveness of discovered opportunities.

Prior knowledge about current customers: In industries with heterogeneous and rapidly changing customer needs it is shown that users popped upon opportunities more than established companies did (e.g. Shah & Tripsas, 2007). It can be argued that established companies have not discovered these opportunities because of their reliance on prior knowledge. Due to firms' orientation on past experiences they miss future trends and changing customer needs. Such opportunities arising out of changing customer needs are not discovered because of a knowledge corridor referring to past experiences.

Hence, we propose that market turbulence further strengthens the link between a high degree of prior knowledge about current customers and a low degree of disruptiveness of discovered opportunities.

Proposition 1c: Market turbulence enhances the negative impact of prior knowledge about current customers and the degree of disruptiveness of an opportunity.

Interaction frequency with current customers: In contexts of high variety in demand and small scale where users have low opportunity cost and a strong need to innovate, users are probably the first to pop upon an opportunity (e.g. Lettl, et al., 2008; Shah & Tripsas, 2007). In a market characterized as being turbulent and described by rapidly changing customer needs, we suggest that a frequent interaction with customers leads to a higher probability that customers share their knowledge about changing needs. A firm's awareness about changing customer needs leads to the discovery of more opportunities than without this knowledge. Furthermore, lead user might communicate these changing needs more than others due to their strong incentive to satisfy these needs and the emerging of these needs long before others do. When they interact frequently with an established firm, we suggest that in a context of high market turbulence the probability that disruptive opportunities emerge out of the communication of changing customer needs is higher.

Hence, we propose that market turbulence moderates the link between a high frequency of interaction with current customers and a low degree of disruptiveness of discovered opportunities.

Proposition 2c: Market turbulence weakens the negative impact of interaction frequency with current customers and the degree of disruptiveness of discovered opportunities.

Interaction intensity with current customers: In a market which is characterized by rapidly changing customer needs, intense interactions with current customers can be a useful mode to discover such changing needs and arising opportunities to satisfy them before other companies do. Different studies have shown that lead users are a source for such opportunities (e.g. von Hippel, 1986). We argue that by interacting intensively with current customers in general and lead users in particular, the probability to discover disruptive opportunities increases in a context of market turbulence. Therefore, in a context of high market turbulence the effect of intense interaction with current customers to the disruptiveness of discovered opportunities is increased.

Proposition 3c: Market turbulence enhances the U-shaped impact of intense interaction with current customers and the degree of disruptiveness of discovered opportunities.

Conclusions and implications

The outlined model of customer-related innovation intended to fulfill four different purposes. First, the identified paradox of closeness to current customers and its innovation consequences is outlined and further deepened. It is based on a large body of research in this domain (e.g. Christensen & Bower, 1996; Shah & Tripsas, 2007; Urban & Von Hippel, 1988). Second, the paradox is analyzed in early stages of the innovation process in order to gain insights from innovation and entrepreneurship research. Third, a close relationship with current customers is conceptualized by three dimensions and integrated in a model to explain the degree of disruptiveness of discovered opportunities. Furthermore, technological change and market turbulence are identified moderator variables. Fourth, it refers to current debate about the intersection of innovation and entrepreneurship. User innovation and user entrepreneurship recently gained more attention in scholarly work (e.g. Lettl, et al., 2008; Shah & Tripsas, 2007).

In sum, we analyzed how customer relationships influence the degree of disruptiveness of discovered opportunities. We proposed that a close relationship with current customers can be conceptualized by three factors: prior knowledge about current customers, interaction frequency and interaction intensity. Furthermore we have proposed technological change and market turbulence to be moderators for the impact of the three different factors of a close relationship with current customers on the disruptiveness of discovered opportunities.

We suggest to further shed light into the complexity of opportunity discovery and the mentioned paradox by empirically analyzing our proposed model. In addition, as we focused on the relationship with current customers we have not analyzed different characteristics of customers and their impact on opportunity discovery. Therefore, we recommend to further contribute to user innovation and lead user research by integrating the characteristics of customers.

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Enhancing Small Firms' Business Strategy through Improved Forecast Accuracy

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Abstract

This paper presents a proposal, rather than a completed study report, in an attempt to attract interest in potential international partnerships to expand the reach of the project. It outlines the conceptual foundation and research method for a study that will use regular sales forecasts and comparable actual measures to investigate the association between forecast accuracy, selected management activities, and performance within small firms. Understanding the relationship between forecast accuracy, performance and management activities is important because forecasts and expectations have a vital influence upon many strategic decisions. Management activities such as the regular preparation of financial reports, the preparation of formal business plans, and engagement in formal networking with other firms are argued to provide strategic benefits to firms by helping to align goals and assisting managers to cope with uncertainty, and thereby improving the firms' performance. This paper outlines a research project designed to expand our understanding of these issues.

Introduction

This paper outlines the conceptual foundation and research method for a study that will use monthly sales forecasts and comparable actual measures to investigate the association between forecast accuracy, selected management activities, and performance within small firms. Management activities such as the preparation of regular financial reports, the preparation of formal business plans, and engagement in formal networking with other firms are argued to provide strategic benefits to firms by helping to align goals and assisting managers to cope with uncertainty, and thereby improving the firms' performance. As argued by Gibson and Cassar (2004), understanding the relationship between forecast accuracy, performance and management activities is important because forecasts and expectations have a vital influence upon many strategic decisions. It is important, therefore, to understand the

accuracy with which forecasting occurs, the influence of forecast accuracy on a firm's performance, and possible influences (in terms of business management practices) on forecast accuracy.

This paper seeks to expand our understanding of these issues. The paper starts with a discussion of the importance of forecast accuracy. The next section identifies selected management activities and develops potential explanations of why each of these is likely to be associated with forecast accuracy. A section reviewing similar issues with respect to performance follows. After a section in which the anticipated relationships are modelled, the next section explains the planned research design and discusses variable definitions and measures. This is followed by some concluding comments.

The Importance of Forecast Accuracy

As identified by Gibson and Cassar (2004) the potential importance of forecasting within firms can be illustrated in a number of areas. Lawrence et al. (2000), for example, suggest that sales forecasts are pivotal in relation to manufacturing, scheduling, and inventory replenishment decisions. Diamantopoulos and Winklhofer (1999) make similar suggestions when they identify higher inventory costs, poor customer services, and inefficient utilization of production resources as potential consequences of inaccurate forecasts. Also Winklhofer et al. (1996) emphasize the importance of forecast usage in the critical decision areas of planning and budgeting. Despite acknowledgement of this importance there is not a significant volume of research in forecasting that has been done to aid in understanding the strategic benefits to management (Wacker and Lummus 2002).

The general approach to testing forecast accuracy (normally in larger firms) uses either indirect approaches (such as laboratory tests of constructed expectations) or direct approaches (usually survey based). A disadvantage of these approaches is a likely lack of: (a) domain [or contextual] knowledge (Edmundson et al. 1988); and, (b) the presence of goal-setting pressures (to achieve forecasts) (Winklhofer et al. 1996). Unfortunately most, if not all (Diamantopoulos and Winklhofer 1999), data used in prior studies has relied on ex post self-reported measures of forecasting accuracy. The ideal, according to Diamantopoulus and Winklhofer (1999) would be to obtain estimates and then compare such estimates with actual figures at a later date. The data collection process and analysis proposed in the research outlined in this paper relies on such an ideal data collection approach.

Gibson and Cassar (2004) indicate that results from studies of intra-organisational forecast accuracy (mainly conducted in large firm settings) appear to be mixed. However there seems to be evidence that contextual information appears to be a prime determinant (although not always supported). Research process factors that may contribute to observed errors are classified as being due to inefficiency or bias (Lawrence et al. 2000) including interview bias, over-optimism bias, an incomplete or inaccurate information set, and poor interpretation of information. Other factors include task-related factors such as trend, seasonality, noise, instability, historical data, forecast horizon, feedback and presentation as well as subject and environment factors such as experience, contextual information and motivation.

When it comes to small firms, there are few studies that concentrate on small firm forecasting accuracy. This is despite the fact that, given the unstable environment in which they operate, small firms may be more dependent on sales forecasts than their larger counterparts (Peterson 1996: 10). Smith et al. (1996) is one study that examines differences in forecasting between large and small firms. They

suggest that for small firms (firms with less than $US50million turnover) the following significant differences exist:

- The smaller the company, the more executives involved in the forecasting process;
- The smaller the firm, the higher the degree of subjectivity used in the forecasting process; and,
- Smaller firms tend to use less complex, less quantitative and more qualitative forecasting techniques than do larger firms. (Smith et al. 1996: 46-47).

Also Winklhofer et al. (1996) identify a number of other size related differences from prior studies:

- Smaller firms use sales forecasts less frequently for planning (Peterson 1993);
- Smaller firms are less likely to develop specific industry and customer forecasts (Peterson 1993); and,
- Small firms tend to make greater use of sales forecast for personnel planning (White 1986).

More recently, Flores et al. (2007) indicate that differences exist between large and small firms in respect of techniques used and conclude there is support for a managerial strategy encouraging managers to consider applying additional resources to forecasting efforts. Also, Cassar and Gibson (2007) report that contrary to conventional expectations, forecasts made by the managers of small firms are not overly optimistic. While systematic over-estimation was not found, managers of small firms did tend to make forecasts that were generally too extreme, and tended to over-extrapolate previous growth. These results are consistent with propositions that overconfidence biases and representative heuristics influence the revenue forecasts made in small firms.

Cassar and Gibson (2008) report a mean absolute forecast error of around fifteen percent (median ten percent) of forecasted revenue and suggest this level of the error is greater than that observed from forecasts by inside management and financial analysts of large firms. This supports the belief that smaller firms are less accurate in their forecasts than larger firms. In support of their earlier analysis (Cassar and Gibson 2007), they also suggest that the forecasting errors of the sample firms are symmetrically distributed, and on average, neither pessimistically nor optimistically biased.

The preceding discussion indicates that forecasting is an important function and its accuracy is critical but that the measurement of accuracy has had some difficulties both in practical and theoretical terms. The same issues exist for small firms as exist for large firms although small firms appear to have lower levels of accuracy. Also, research in the small firm domain is less common.

Management Activity Influences

An essential premise of the research reported in this paper is that engagement in certain management activities should enhance the capacity for a firm's managers to update their environmental knowledge and expectations and hence facilitate more accurate forecasts. The mechanism by which these key processes integrate is captured in the following description of the three key activities explored in this research. While the range of management activities is broad, we are constrained by data availability and temporal considerations to a focus on three major practices, namely financial reporting, business planning and networking.

Financial reporting

The preparation and use of interim (more often than annually) financial reports should improve forecast accuracy as it allows managers to access summarized financial information of their firm's recent activities (Cassar and Gibson 2008). In other words, interim financial reporting allows managers to update their prior beliefs about firm performance and to provide feedback with greater confidence. Such notions of interim reporting improving forecast accuracy among users of financial statements is common in the literature that examines publicly traded firms (Leftwich et al. 1981, Bradbury 1992). As well as using the reports themselves, managers also have a larger set of contextual information to assist in their forecasting. For example, managers benefit from information about invoicing and accounts receivable relationships with major customers, from participating in meetings with providers of production and marketing functions, and even from informal discussions with sales staff that enable them to update their prior expectations. While this contextual information may represent a lesser reliance on interim financial reports, on the premise that this information is used in the report preparation, the existence of such reports is expected to improve forecast accuracy. Cassar and Gibson (2008) report such an association between internal accounting report preparation and forecast accuracy.

Business planning

As pointed out by Gibson and Cassar (2004), while there is a desire to examine strategic planning in small firms "the empirical evidence on the impact of formal strategic planning is thin on the ground and largely inconclusive" (O'Regan and Ghobadian 2002: 665). Part of the reason for this lack of evidence is that "the tools and techniques most commonly cited are invariably associated with business rather than strategic planning" (Stonehouse and Pemberton 2002: 859).

Regardless of these difficulties, there is important evidence that supports the assertion that businesses practicing formal business planning techniques are more successful than those not using them (Gibson and Cassar 2002, Stewart 2002, Woods and Joyce 2003). Whether it is genuine strategic planning or just a formal approach to business planning, engagement in business planning should ensure the manager of a small firm has more information about the critical relationships within their business. This information, and the planning process itself, should contribute to better forecasting.

Networking

Networks are "the media through which [economic] actors gain access to a variety of resources held by other actors." (Hoang and Antoncic 2003: 166). One of the major resources provided through such networks is information (Gibson and Cassar 2004). Network constructs generally follow a dual categorization "that seeks to understand (1) how networks affect the entrepreneurial process and how they lead to positive outcomes for the entrepreneur or their firms (networks as independent variables) and (2) how entrepreneurial processes and outcomes in turn influence network development over time (networks as dependent variables)" (Hoang and Antoncic 2003: 172). The literature on networks has identified a number of potential differences that influence the nature of our understanding. These include the relative influences of personal versus business focused networks, the potential significance of the depth of ties, and the signalling potential of networks.

Regardless of how we treat these different approaches, the end result is an expectation that small firm performance will be enhanced by network activities. This should occur because business focused networks should provide useful business information, advice and access to informal alliances (Butler et al. 2003, Brown and Butler 1995, Butler and Hansen 1991). Butler et al. (2003) also identify similar results from other research that is more focused on entrepreneurs (Cooper et al. 1995, Deeds and Hill 1999). Finally, there are other suggestions "that networking practices do have a significantly positive effect on business excellence. This supports the general hypothesis that the strength of the relationship between networking practices and business excellence is significant and positive" (Terziovski 2003: 91).

A significant influence in all of these network understandings is that associated with improved information. One way in which the positive outcomes from networking are likely to emerge is through the impact of improved information generated through the network on the forecasting ability of the firm manager.

Determining Performance

As suggested by Gibson and Cassar (2005) the diverse nature of the performance construct in small firms is reflected in the variety of operational definitions used in empirical studies. Many of these definitions and the measures that derive from them are what Reid and Smith (2000) identify as relativist performance evaluation measures that ask "what goals a firm has set, and then enquires into the extent to which these goals have been achieved" (168). While such approaches neglect the fundamental requirement that performance evaluation cannot be divorced from the market nexus and that even "life-style" targets must ultimately enable the firm to pass the long-run test of economic survival (Reid and Smith 2000: 168), they do represent a viable alternative in the face of the difficulties experienced in gaining more representative measures.

For example, a difficulty with the use of financial or economic measures in small firms is that, unless a case study approach involving investigation of detailed firm data is used, they usually have to be ascertained from survey responses of the firms' owners who often may not appreciate the fine distinction necessary in financial definitions. Reported profit, for example, may be before or after the owner's own remuneration. The owner's remuneration may be reflective of a market rate for similar employment, but is just as likely to be adjusted to reflect life-style wishes or personal taxation circumstances. Liabilities may include debt that is arguably equity (debt secured by personal assets) and many personal assets used in the business may not be reflected on balance sheets. Measures involving profit and returns on assets or investment may not, therefore, produce comparable outcomes. While sales growth is likely to suffer least from these potential data problems and hence provide the most consistent and comparable indicator of economic performance from a financial perspective (Gibson and Cassar 2005), it requires long run reliable sales measures which are rarely available without significant effort on the part of business owners.

Given such difficulties in gaining data to measure performance, we propose for this study a relative measure of performance. While performance may need to be measured using a very "blunt" instrument, the underlying expectation in this project is that performance, however measured, should be responsive to the managerial practices used in a firm which are in turn moderated by improved forecast accuracy.

The Relationship between Forecast Accuracy, Management Activities, and Performance

Central to the research outlined in this paper is the model reflected in figure 1. This model indicates that the selected management practices of financial reporting, strategic planning, and networking, independently and collectively are associated with improved forecast accuracy by managers of the firm and that collectively these are associated with improved performance.

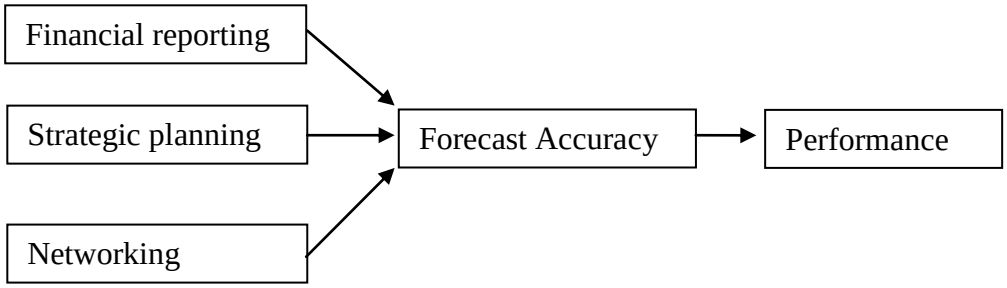


Figure 1. The associations between management practices, forecast accuracy and performance

Proposed Research Design

Sample

The data to be utilized for the analysis in this project will be obtained, initially, from a longitudinal survey of small firms in the New England region of NSW Australia. The authors are exploring an extension to southern and western USA and possibly other regional centres around the world. Participants in the Australian pilot will be part of a primary data collection process to identify changes in business sales activity on a monthly basis with the view to developing an activity index for the region. Participants in this index project will provide their actual sales on a monthly basis. The index project is not the focus of this paper, but it is involvement in this project with a community output focus that we believe will ensure a continuity of participants. For this project, participants in the index project will also be asked to provide their forecast of sales for the current month and for the ensuing month thereby (with the actual data subsequently provided as part of the index project) providing data enabling the determination of forecast accuracy. To ensure the data reporting burden does not become too cumbersome, the participants will also be asked to provide other information about their business performance and selected management activities by way of short add-ons to the basic sales data request each month. For example three or four questions may be included in month one to determine some basic demographic characteristics. The following month there may be several questions about the relative performance of the firms. Then in the next month the focus may be on several questions about the use of internally generated financial reports etc. Data collection for this project is planned to occur over a four month period, although the activity index data collection is planned to be ongoing so further data can possibly be gathered at later stages.

Variable Measures

Forecast Accuracy Measure

To measure the accuracy of forecasts by firms we will use absolute forecast error (AFE), calculated as:

$AFE = | A – F | / | F |$

where F is the income forecast and A is actual income.

To determine differing aspects of the forecasting process we will use different time measures of A and F. For example there will be data to compare forecasts made at the commencement of a month with actual results for that period, or forecasts made for the subsequent month can be compared with actual results for that month. It will also be possible to aggregate periods (for example, sum forecast for three consecutive months and compare to actual for the same three months) to determine an accuracy measure over a longer time frame (subject, of course to careful interpretation given possible domain knowledge influences).

The predictions of sales, consistent with all responses in the survey, will be confidential. Therefore, respondents will be able to report their best prediction of sales knowing that such forecasts will not be disclosed to any other parties either inside or outside the organisation. This reduces the potential impact of goal setting pressures often associated with forecasting in (especially large) firms. Actual sales will be self-reported in subsequent responses. Following firms longitudinally over several months and obtaining directly comparable forecast and actual measures overcomes reliance upon post event self-assessed measures of forecast accuracy that is present in most of the extant research.

Management Activities and Performance Measures

Each of the management activities will be reported as a dichotomous measure based upon responses to the following questions:

Financial reporting – "In the last financial year, did your business prepare financial reports (consisting of at least a profit or income statement) more often than annually?"

Business planning – "Do you prepare and use in your business either a documented formal strategic plan or a formal business plan?"

Networking – "Does your business engage in formal or informal information exchanges with other businesses?"

Performance will be reported using a series of measures based on responses to the following questions (using a 5 point likert scale):

> "How would you describe the overall performance of your business last year?"
>
> "How would you describe the overall performance of your business relative to your major competitors?"
>
> "How would you describe the overall performance of your business relative to other businesses like yours in the industry?" (Runyan et al. 2008)

A significant criticism of all three management activity variables and the performance variable used in this study is the reliance on dichotomous or restrictive measures that fail to capture the richness of the management activities or performance. For example, if financial reports are prepared monthly or quar-

terly they might be expected to have greater influence on forecast accuracy and performance. Also the degree of planning which has gone into a formal plan may differ significantly. However, we are wary of, at least initially, the potential detrimental impact on response rates if we seek too much detailed information too soon. It is anticipated as time and trust develop, finer measures may be able to be collected. In the meantime, the measures proposed are easily collected and are likely to be consistent across firms.

Control Variables

There are several characteristics of the firm that might have an influence upon the preceding variables. Both firm size and age may be associated with management activities, forecast accuracy and performance because they act as a proxy for variability in income streams. Firm size has been shown to influence the presence of certain management activities and firm forecast accuracy, with larger firms being more frequent users and being more accurate than smaller firms. This relationship is probably a consequence of larger firms abilities to commit more resources to forecasting (Winklhofer et al. 1996, Jelic et al. 1998, Diamantopoulos and Winklhofer 1999, Cheng and Firth 2000). We represent size initially by the number of employees (including working owners) in the firm.

Firm age has also been shown to influence these variables, with older firms having, for example, greater forecast accuracy. This relationship is most likely due to older firms having a greater history of trends and time series behavior, and greater knowledge of the business environment (Winklhofer et al. 1996, Jelic et al. 1998, Diamantopoulos and Winklhofer 1999, Cheng and Firth 2000). We represent age as the number of years the firm has been in operation under the control of the current owners.

Industry membership may also have an influence as different industries experience differing levels of variability in revenue and earnings streams, and also have varying control over such streams (Winklhofer et al. 1996, Jelic et al. 1998). We control for industry effects through a series of indicator variables for each major Australia and New Zealand Standard Industry Classification (ANZSIC) code.

Conclusions

This paper has focused on a conceptual framework to represent the anticipated relationship between: (i) managerial activities that generate information for decision making (using as examples: financial reporting; business planning; and, networking); forecast accuracy (as one of the most important elements of effective decision making); and, (iii) performance (using a self assessment metric). Understanding the relationship between forecast accuracy, performance and management activities is important because forecasts and expectations have a vital influence upon many strategic decisions. Management activities such as the regular preparation of financial reports, the preparation of formal business plans, and engagement in formal networking with other firms are argued to provide strategic benefits to firms by helping to align goals and assisting managers to cope with uncertainty, and thereby improving the firms' performance. The paper has also provided an outline of a research method using regular sales forecasts and comparable actual measures to investigate these associations. Data collection in the New England region of Australia will have hopefully commenced and data collection plans will be well advanced in several regions of the USA by the time this paper is being considered. We believe the fundamental question is important and have prepared this paper outlining our

proposed research in an attempt to attract interest in potential international partnerships to expand the reach of the project.

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Influences of Market Orientation and Perceived Trust on Innovativeness and Performance in Tourism Networks

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Abstract

In this study the focus is on tourism network cooperation. Specifically, focus is on the influences of trust and market orientation on innovativeness and performance of network cooperation. The view of performance in tourism networks reflects sales, employee and profit growth and factors that motivate future sales growth such as reputation, product development and commercialization success of network cooperation.

A broader perspective on performance is important in tourism, since many of the Scandinavian countries and former eastern countries are rather newly established in the tourism industries. Performance also depends upon innovativeness of the enterprises cooperating and innovativeness to hinge on market orientation and trust in networks which may capture the nuances in providing tourism services.

The model is theoretically driven and was tested with CFA. A convenience sampling was used to generate responses from Lithuania, Finland and Sweden (n=138). The proposed model received acceptable reliabilities, and dependences variables explain between 12 and 53 % of the variance. This model has implications for theory and practice. It is demonstrated that trust and market orientation complement each other as relatively nascent tourism businesses develop their services and performance. This is part of Experience Stratos 2007-2017 research programme studies.[1]

Keywords: market orientation, trust, innovativeness, performance, experience stratus.

[1] Experience Stratos 2007-2017 research programme focuses on tourism management problems related to three perspectives: Customer, content of strategy and context perspectives. The programme involves several sub-projects for longitudinal enquiry to be replicated for comparative purposes in partner countries. These we study through multidisciplinary approaches and mixed sequential methods in several case locations in Europe, Africa, Asia and the Americas. The group is chaired by Prof.Dr Antti Haahti, University of Lapland, Finland and co-chaired by Dr. Ossi Pesämaa, JIBS, Sweden.

Introduction

Linkages and connections between companies and their managers in the current world are set in networks of social, professional and exchange relationships. Ability to collaborate with other actors in the business field is a core competence of organization or region in order to create value (Ewen, 2007). Very often tourism business networks focus on cooperative marketing initiatives in order to increase competitive advantage in the market, get access to new technologies, increase ability to provide wider range and better services, etc. (Mohr & Spekman, 1994).

The implementation of marketing concept is traditionally viewed as developing and preserving market orientation as well as guiding principle for the firm's activities within the marketplace. Pursuing a competitive advantage through market orientation focuses the organization on continued development and delivery of superior customer value (Slater and Narver 1995; Day and Wensley 1988) and leads to superior firm performance (e.g., Deshpande, Farley, and Webster 1993; Jaworski and Kohli 1993; Narver and Slater 1990; Ruekert 1992; Slater and Narver 1994). Building on two closely related frameworks that have been the foundation of market orientation research (Narver and Slater 1990; Kohli and Jaworski 1990), scholars have often emphasized the importance of coordinating all aspects of the company's market orientation for generating effective responses to market opportunities and networking opportunities. These opportunities contribute and may become a major source for empowering destinations' competitive advantage and development.

In this study the focus is on tourism network cooperation, and especially on owner-manager perceptions about their experiences with cooperation in the destination networks. Furthermore, it focuses on the possible influences of market orientation and trust on other aspects in inter-organizational destination networks, such as innovativeness and performance.

Theoretical framework and hypotheses

The concept of market orientation (MO) adopted by practitioners over 40 years has become an important element of research. The term has been interpreted in various ways. Some authors use it as synonym for "customer orientation" (Shapiro, 1988) or "marketing orientation" (Trustrum, 1989) and others use it as business philosophy that encourage inter-functional management in order to improve organizational performance (Grönross, 1989). MO in literature represents superior skills in understanding and satisfying customers (Day 1990), a set of beliefs that put the customer's interest first (Deshpande, Farley and Webster 1993), the ability of the organization to generate information as well as spread information, and respond to customers and competitors needs (Kohli and Jaworski 1990). According to Narver and Slater (1990) MO is being composed of three behavioural components: customer orientation, competitor orientation and inter-functional coordination. Customer orientation is company's understanding of target buyer and using it to create superior value for customers continuously, i.e. know and understand buyer's value chain. Competitor orientation component provides company with understanding of short term strengths and weaknesses of current and potential competitors, as well as their long term capabilities and strategies. The third MO component of inter-functional coordination gives the understanding if company's resources utilization creates superior value for target customers at any point in value chain. These three components as well as personnel and resources

can create value for customers. This concept provides the framework to determine MO influence to tourism businesses performance.

Therefore, since the late 1950s, MO has been linked to performance such as competitive advantage (Narver & Slater, 1990; Pelham & Wilson, 1996), profitability (Narver & Slater, 1990), new product innovation (Lukas & Ferrell, 2000), and overall performance (Jaworski & Kohli, 1993; Slater & Narver, 1994). Some studies have found a strong positive relationship between MO and performance (Pelham, 2000) whiles others eg. Greenly (1995) found no direct influence of MO on performance. As a result MO - performance relationship is mixed and depends on different factors. According to Slater and Narver (1995) market orientation improve performance only when it is combined with innovativeness. Innovativeness is the concept of openness to new ideas as an aspect of a company's culture. It is a measure of the organization's orientation toward innovation. Hurley & Hult (1998) argue that various characteristics of a company's culture are the background to innovativeness. These characteristics emphasize on learning, participative decision making, support, collaboration, and power sharing. All this affect whether the firm has an innovation orientation. Market oriented companies are well positioned to foreseen the developing needs of customers and to respond to them through the additional innovative products and services. Jaworski and Kohli (1993) suggest that market orientation in response to market conditions involves doing something new or different and it may be viewed as a form of innovative behaviour. Consequently, innovation is an outcome of market orientation. Companies with better competence to innovate are more successful in responding to their environments and developing new means that lead to competitive advantage and improved performance. According to Empirical study of Chinese firms (Ge & Ding, 2005) innovation has positive impact on market performance.

Apart from MO, another aspect influencing innovativeness and performance of network cooperation is trust. Trust as well as MO, is a complex element with many different dimensions. Trust has a central role in promoting cooperation in business relationships, which further leads to better company's performance. Many authors such as Anderson & Weitz (1984), Sako (1992), Ring & Van de Van (1992), Mayer et. al. (1995), Kautonen & Welter (2003) have proposed different definitions of trust. According to Kautonen & Welter (2003), trust is described as a mean to reduce uncertainty through information provision. However, very often trust is identified as important intangible or relational asset, which highly associated with economic success especially of that companies working within local economies. However, some authors claims that trust has no role to play in case of organizations' performance (Williamson, 1993). On the other hand, majority of scholars (Gambetta, 1988; Sako, 1992; Misztal, 1996; Smith & Lohrke, 2008) connect trust with positive companies' performance and claims that trust is very necessary and desirable property of organizational interaction. When actors trust each other they are more willing to engage in cooperative activities through which trust is developed more. According to Parkhe (1993) while networking companies involve trust which is linked to stability of performance and networking joining process. In short, trust reduces transaction costs, improves information availability, reduces risk and uncertainty in business activities and contributes to positive association.

Moreover, trust affects level and type of innovation. According to (Fecikova & Kekäle, 2003) when businesses trust their competence and are driven by vision, innovation is oriented towards new solutions. Innovative activities are vital to the growth of companies, especially to SMEs' (Brunetto & Farr-Wharton, 2007).

The insight generated from the above discussion shows that MO and trust play a role in success of the company. The combined influences of MO and trust are inversely related to innovativeness and objective performance.

Therefore, in this study it is proposed and tested a model on how market orientation and trust influence innovativeness, which has an impact on performance. It is believed trust to be of particular importance in former eastern countries and Scandinavia, as both regions are quite newly established in tourism industry. This study is conducted in Lithuanian, Finnish and Swedish destinations, which are in different tourism development cycles, but have equal opportunities for progress. In this paper we aim to elaborate the model and test the hypothesised relationships (Figure 1):

H1: MO affects Innovativeness;
H2: Trust affects Innovativeness;
H3: Innovativeness affects Performance.

There are no previous studies that focus on the links between influences of MO and trust on attributes of network cohesion. It is an important aspect of cooperation research, and longitudinal contributions are expected in future.

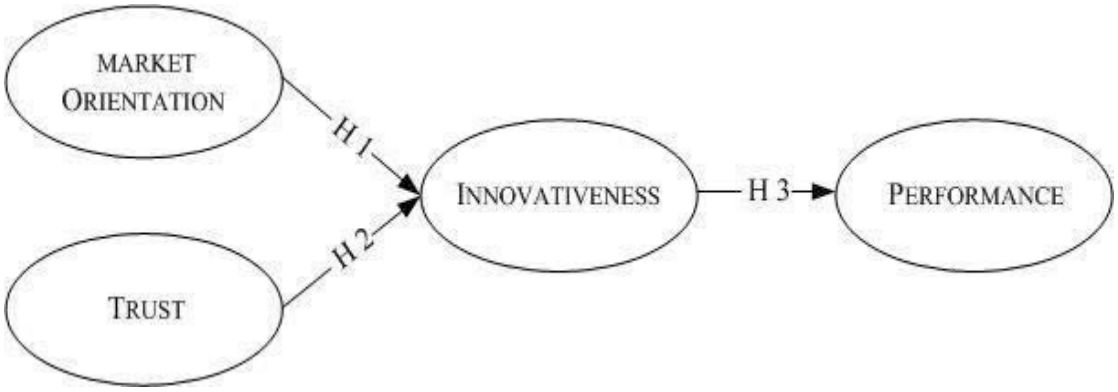


Figure 1 Model and Hypotheses

Methodology

Sample

The data for this study was collected using self-completion questionnaire trying to reveal different factors influencing performance of inter-organizational destination networks and approve brought hypotheses. Since this paper is a part of Experience Stratos Research Program the questionnaire is operating in member countries. Therefore the sample was collected in Lithuania, Finland and Sweden. The sample of research was described by using convenience sampling. Universe of this study involve companies registered in Lithuanian, Finnish and Swedish states register. A total of 138 were received. The businesses were chosen to research in remote areas, which are seeking to develop tourism industry. These companies provide tourism-related services, such as accommodation, dinning, leisure ac-

tivities, camping, travel agencies, travel organizers, museums, rural tourism entrepreneurs, tourism information, tourism planning, etc.

The questionnaire was delivered to recipients personally, by mail or using email. Personal delivery ensured that questionnaire was answered by particular people that were involved in companies' decision making and had strong knowledge of relationships with other actors in destination. Furthermore, due to lack of resources to deliver the questionnaire personally it was chosen mail and e-mail survey to collect additional data. Questionnaires sent by mail were presented by an introduction letter with introduction of the research and researches and a pre-paid envelop in order to guarantee the reply. Moreover, questionnaire overall contained 91 variables. The questionnaire was formed according to four different subparts that might influence each other and were related.

However, regarding hypotheses some items, which did not meet specified criteria for correlations were eliminated and 19 variables have been chosen to analyse (see Appendix 1). Elaborated model was theoretically driven and was tested with confirmatory factor analysis (CFA) in structural equation modelling (SEM) (see Appendix 2). Analyses were carried out in order to find out relations between different groups of variables and identify the influences of market orientation and trust on innovativeness and performance.

Validity and reliability

Concepts of validity and reliability are important to discuss because of importance to demonstrate and express the quality of overall study and reliability of methods that were used in the study and validity of analysis and conclusions (Silverman, 2005).

In order to ensure internal validity it is important to make sure the sufficiency between study objectives and the tools for data collection. The self-completion questionnaire of this study expresses ability to collect the data necessary to answer research question which ensure the internal validity. However, original questionnaire focus on much more variables than those who were chosen for this study. Therefore, internal validity might me threatened by the choice of certain variables and absence of certain variables that might influence the results of the study. Regarding reliability of the questionnaire itself and model for analysis, it is ensured by use of it in few other studies and the competence of author of it (Pesäma & Hair, 2008).

The results are not highly influenced by time since the study focuses on specific cultural aspects. However, the results of the study might be used only in Scandinavian and post-communist countries. The results can be applied to any local network, since the study focuses on local networking.

The selection of the research object might influence reliability of the study. The selection of companies was done according to the activities of the companies including companies such as accommodation, dinning, leisure activities, governmental organisations, etc. However, it might emerge some companies that are also tourism-oriented but was not selected to the research due to researchers drew frame of tourism-related businesses. Future researchers can consider this issue more detailed in order to include all possible companies.

Analysis and results

The assessment of the study results collected in Lithuania, Finland and Sweden was developed by calculating the reliability of four sample representatives' constructs: Market Orientation (MO), Trust, Innovativeness and Performance. The reliability of every construct was calculated separately (see Appendix 2). The established guideline recommends reliability scores p<0.7 (Fornell & Larcker, 1981). This guideline was met and each subpart presents high reliability: MO reliability (α) is 0.93, Trust α=0.97, Innovativeness α= 0.92 and Performance α=0.80. Overall, all four constructs met established guidelines and confirmed their reliability. This demonstrates that all sample representatives in the every construct are reliable, relevant for its group and manage to reflect the real motives of the respondents.

The fact that reliability is higher than 0.7 gives the opportunity to consider correlation factors of the four constructs. The higher the correlation, the more it measures the same underlying constructs. The established guideline recommends that correlation is significant at the 0.01 level (Fornell & Larcker, 1981). In this study, the correlation is focused on the significance levels of the four constructs. Results indicate that Market orientation is positively and significantly related to Innovativeness (r=0.67***; p<0.01) and Trust (r=0.40***; p<0.01). Moreover Trust and Innovativeness (r=0.17**; p<0.05) correlation is also strong, as well as Innovativeness and Performance correlation is positively related (r=0.47***; p<0.01).

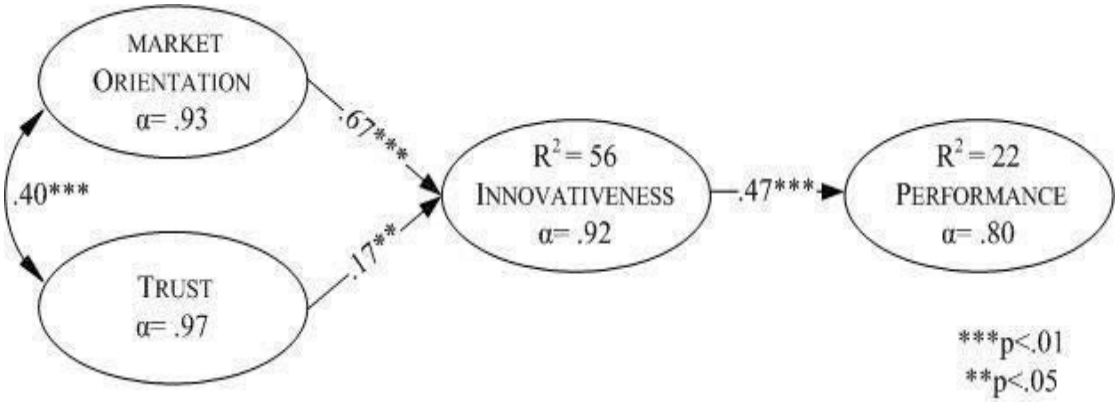


Figure 2 Results of elaborated Model and Hypotheses

The results indicate that there are strong relationship between Market Orientation, Trust, Innovativeness and Performance. This suggests that within network entrepreneurs should focus on all four constructs, which could be one of the reasons for network development.

In order to find out how influential innovativeness and performance are, forthcoming are presented the regression of these factors.

As it was mentioned in previously, in this study there are statistically significant relationships between MO, Trust, Innovativeness and Performance. In order to find out, how influential Innovativeness and Performance are to each other, it was found standardized regression weight between them (see Appendix 2). R^2 of Innovativeness is 0.56 and $R^2$of Performance is 0.22. It shows, that Innova-

tiveness and Performance has significant effect on each other, however influence from Innovativeness is more supportive to Performance than visa versa ($p<0.05$).
Findings give the understanding which relationships' characteristics should be developed and perception what role market orientation and trust plays in destinations' network.

Findings demonstrate that businesses' behaviour in the networks is related to market orientation and trust.

Conclusions

This study confirms results of Pelham (2000) that market orientation strongly related with performance. Business performance in the network is related not even with market orientation, but also with trust and innovativeness. These factors complement each other as relatively nascent tourism businesses develop their services and performance. This is part of Experience Stratos 2007-2017 research programme studies.

Limitation of the study

As with any study, the findings must be viewed through perception of limitations. The sample size of 138 is small. Moreover, study's results do not represent overall Scandinavian and post-communist countries situation and cannot be interpreted as an understanding of whole culture of these regions. Moreover, larger sample would allow drawing broader conclusions.

The study analysis does not include discussion and analysis of companies' size and its influence to market orientation and trust. As for instance, many tourism entrepreneurs are small family businesses and most of advice they get from their family members. Therefore detailed analysis regarding company size, might have deeper understanding of market orientation and trust and their influence to companies' innovativeness and performance.

Moreover, original questionnaire and other studies of Experience Stratos 2007-2017 research programme as well analyses the concept of trust, loyal and commitment, while this study analyses concepts of market orientation and trust. Despite the limitations, this research contributes to growing set of studies that have influence to further program's development.

Appendix 1

Performance – three items (Disagree to Completely Agree 7-point scale)
In considering performance of your firm, what would you say about following:
1. your sales have increased very much in the last three years.
2. your reputation has improved very much.
3. your profits are increasing fast.

Innovativeness – five items (Disagree to Completely Agree 7-point scale)
In considering the innovativeness of your network would you say that within the destination network the partners:
1. develop new products quickly
2. improve existing products quickly
3. have adopted new administrative systems to control the network's operations
4. are good at identifying tourists' needs
5. are good in managing financing of your network

Market Orientation – eight items (Disagree to Completely Agree 7-point scale)
In considering market orientation would you say that within the destination network your partners generally:
1. meet with guests visiting your destination to identify what services are needed in the future
2. interact directly with guests to learn how to serve customers better
3. quickly identify guests' preferences
4. survey guests at least once a year to assess quality
5. share survey results with those who can respond favourably to guests
6. are quick to identify fundamental changes in guests leisure preferences
7. are independently involved in developing intelligence about guests
8.periodically review changes in guests preferences

Trust – three items (Not important at all to Very important 7-point scale)
In considering trust, what would you say about the following:
1. How important is it that your network partner(s) is honest and truthful with you?
2. How important is it that you have confidence in your network partner(s)?
3. How important is mutual trust in developing a relationship with your network partner(s)?

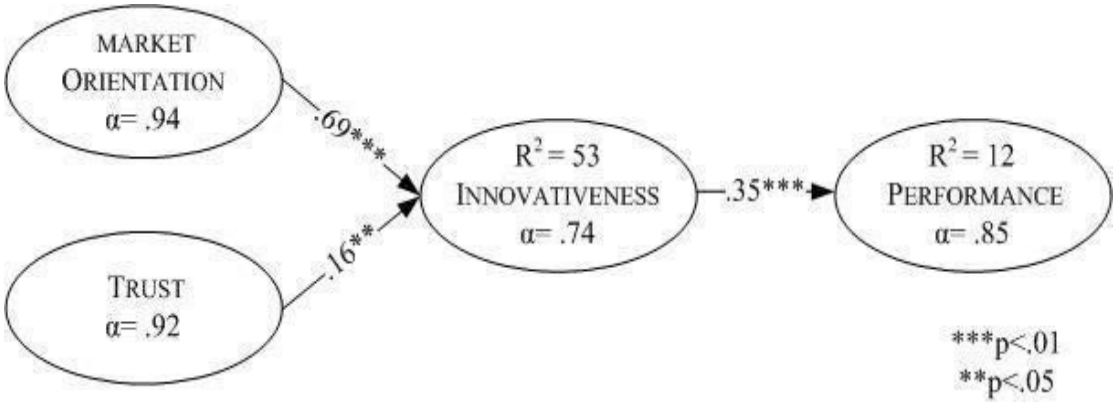


Figure 3 Results from the first analysis of Model and Hypotheses

Appendix 2

Performance – six items (Disagree to Completely Agree 7-point scale)
In considering performance of your firm, what would you say about following:
1. Your sales have increased very much in the last three years.
2. Your reputation has improved very much.
3. You have many new products.
4. You have become very efficient in commercializing new products.
5. Your profits are increasing fast.
6. Your number of employees is increasing quickly.

Innovativeness – nine items (Disagree to Completely Agree 7-point scale)
In considering the innovativeness of your network would you say that within the destination network the partners:
1. develop new products quickly
2. improve existing products quickly
3. have adopted new administrative systems to control the network's operations
4. are good at identifying tourists' needs
5. are good in managing financing of your network
6. are good in dealing with governmental and other external agencies
7. quickly identifying new sources of supply
8. respond quickly to complaints by tourists
9. take good care of their employees

Market Orientation – ten items (Disagree to Completely Agree 7-point scale)
In considering market orientation would you say that within the destination network your partners generally:
1. meet with guests visiting your destination to identify what services are needed in the future
2. interact directly with guests to learn how to serve customers better
3. often conduct market research

4. quickly identify guests preferences
5. survey guests at least once a year to assess quality
6. share survey results with those who can respond favourably to guests
7. collect information about the tourism industry by many informal lunch meetings with e.g other destination network partners, travel agencies and trade partners
8. are quick to identify fundamental changes in guests' leisure preferences
9. are independently involved in developing intelligence about guests
10. periodically review changes in guests preferences

Trust – seven items (Not important at all to Very important 7-point scale)
In considering trust, what would you say about the following:
1. How important is it that your network partner(s) is honest and truthful with you?
2. How important is it that you have confidence in your network partner(s)?
3. How important is mutual trust in developing a relationship with your network partner(s)?
4. How important is it that network partner(s) not try to take advantage of your relationship to benefit their company?
5. How important is it that you are not negatively surprised by your network partners' actions?
6. How important is it that you can rely on your network partner(s), because you know he/she shares your values?
7. How important is it that network partners share your values?

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Entrepreneurial Strategy in Start-up and Continuous Operation

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Introduction

Entrepreneurship and strategic planning may be conceived as two different approaches to conducting business. Entrepreneurship generates competitive advantage through the ability to discover new opportunities and to recombine resources and thereby provide new products or services – that is new economic activity (Davidsson et al, 2006). Strategy generates competitive advantage through the ability to predict gaps between future demand and the firm's capability to meet them, to plan the steps required to fill the gaps and finally, implement these steps (Mintzberg et al, 2003).

One common feature of the two concepts *strategic* and *entrepreneurial* is that there is a lack of consensus among the users of the concepts as to their definitions. Such differences in academic and empirical emphasises often lead to different observations and interpretations of the phenomena. As a consequence one finds interpretations of the two concepts that on the one hand are clearly contradicting. An example is that strategic planning is perceived to reduce risk while the typical entrepreneur often is perceived as a risk taker. On the other hand, we find clearly converging interpretations. Emergent strategy (Mintzberg and Waters, 1985) is in essence quite similar to the entrepreneurial process of discovering and exploiting opportunities. With increasing volatility in business environments entrepreneurial orientation has become essential also to strategic planning (Mintzberg et al, 2003, Meyer et al. 2002).

The term *entrepreneurial* is commonly associated with two apparently different business processes: starting up a new firm and introducing completely new ventures in an existing firm (Davidsson et al, 2006). In this paper we will reflect on strategic and entrepreneurial challenges based on one case depicting a firm in the start-up phase and one case from a firm in the development phase.

The ambition is to contribute to understanding how enterprises develop and grow through creative processes. Understanding the mechanisms is the first step in endeavours to find methods to stimulate or to control any process. The ultimate objective is to enhance control of creative processes. Since they produce novel results their outcomes are hard to predict and even harder to plan.

Concepts

Strategy and Strategic Planning

Like many of the planning and control tools of the business world, strategy derives from the military. It applies to planning and implementation of the plans in order to achieve long-term objectives through coordinated development of resources and capabilities and then to coordinate their deployment. Strategy ensures dynamics by setting goals, analysing internal and external factors that are det-

rimental to achieving the goals and identifying required improvements of resources and capabilities. Importantly, strategies are implemented through plans and activities at tactical and operational levels.

The main concepts can be applied equally well for all endeavours that benefit from setting goals and preplanning. In business the purpose of strategy is to ensure the long-term survival and growth of a firm. A strategy may be a formally approved document, but quite often small and medium-sized firms (SMEs) will not be aware that they operate according to a strategy. The strategy will be manifest by decisions and activities that ensures continuity over time and are consistent over resources and areas of responsibility at each point in time.

There will usually be many optional paths from the current position and status of the firm to the future position and status that are set out in the goals. Planning is required to identify and select the steps with good prospect for success and to identify the required capabilities for the transition process. This is the contents of strategic planning.

Entrepreneurship and Entrepreneurial

The concept entrepreneur first appears in the business sector. It originally depicted a person that took on a task for economic compensation[1], but over time the meaning has shifted to a person that promotes novel ventures, activities or products. Gradually entrepreneurial has come to denote the ability to be creative and to initiate new activities in any sector of the society. With the proliferation of areas of use we see a parallel proliferation in interpretations of the word and the concept.

Many reserve the term entrepreneur for the person who starts up a business for the first time. Others will also include the habitual entrepreneur (Rosa 1998, Iacobucci and Rosa 2005) who repeatedly starts up new ventures outside or within the first business.

For the purpose of this presentation we will understand entrepreneurship as the process of starting up new business ventures (cf. Davidsson et al, 2006). The entrepreneur may choose a new legal entity, a new firm, as the venue for the start-up. This is probably the most frequent use of the concept. However, there are few differences in the generic entrepreneurial process when the new venture is launched within an existing firm. This is illustrated by the fact that in many cases, entrepreneurs have a free choice whether a new venture becomes a new business or is incorporated in an existing. As will be illustrated by one of the cases below, a new venture may start as a new business entity and be incorporated in an existing business later in the development process.

Analytic Framework

The objective of any business value creation process is to satisfy a *market demand*. The success of the firm depends on the ability to correctly identify this market demand and corresponding product or service that can satisfy the demand. The next logical step is to set up the *capability* that is required to meet this demand. This capability includes all resources and competence required for all steps from developing the product or service, to produce it and deliver it to its user. The costs of developing, setting up the value creation system as well as the actual production occurs long before payments can be received. Access to sufficient *capital* is therefore an essential part of any business venture.

[1] In Norwegian the word *entreprenør* still means a *building contractor*.

The *strategic goals* of an enterprise set out the, perceived best, interaction between market demand, capabilities and available capital, see figure 1. For most SMEs the strategic triangle defines the essential elements for systematic development of a business venture (Havnes, 2009).



Figure 1 The strategy triangle

Entrepreneurial processes generate new combinations of the elements in the strategic triangle. In some firms the entrepreneurial process takes place during their inception and start-up but never later. Other firms seem to base their competitive advantage on the ability to continuous entrepreneurial processes.

The Cases

In order to give substance to the discussion of entrepreneurial strategy, we will present two entrepreneurial processes. The first case describes the start-up phase of a new firm. The second case describes the development process of an existing firm (Havnes, 2009).

MCP

At the time of the study MCP was newly started and about to complete its first deliveries. The founders were still active in the enterprise, but no longer alone as they were at first.

The business idea of MCP was to provide cellular telephone service to ship passengers on the open sea. The service and prices for the use of a private telephone on board were comparable to using the same telephone abroad. The firm was primarily a telecom operator that provided proprietary equipment and technology. Three and a half year after the start the firm had 40 employees and a budgeted turnover in excess of 7 million euro. It had won a national innovation award and its products had gained international recognition. In a short time the company had become one of four major operators worldwide in this new sector.

MCP derived their main income from the use of cellular telephones in the operational domains constituted by the individual ships. Local calls are made within the domain, and a communication unit on the ship transmits all communication via satellite to the MPC traffic control station on land and onwards to the regular land-based telecom operators. The principle is simple, but required that a number of technical and contractual problems were solved first. The company has two technical patents for vital functions in their system. The first allows the passengers on the ship to have undisturbed com-

munication as the ship moves between the radio protocols of the different countries. The second patent allows all users on one ship to communicate locally without using the land based switching facilities.

Most of the hardware is standard components. The technical contribution of MCP was programming and system design. In parallel the proprietary systems of MCP had to be integrated with the technical, operational, legal and commercial systems necessary for land-based operators of cellular telephony networks, enabling continuous services while the vessels travel worldwide. This was a very large task that required additional competence to the technical knowledge of the entrepreneurs. Advanced negotiation skills were required when approaching the large telecom operators as a small firm, asking to be allowed to make the contractual agreements needed to regulate the service. The agreements ranged from pricing procedures to additions to the technical protocols for stationary systems.

The spark that started the firm was that the development centre of a large cellular telephone manufacturer was restructured and relocated. Four colleagues had pondered over this business idea for some time and decided to start up their venture. One left the research centre and started to work full time on their project while the remaining three worked on the venture in their free time. The imminent closure of the firm was important for the timing. Many of their colleagues would lose their jobs and become available for the new firm.

MCP was set up in a local ICT incubator. The initial financing came from personal savings and small public contributions. After one year this was supplemented by a combination of private and public seed capital funding. One year later the capital basis of the firm was once again increased to a total of about 5 million euro. The new owners were a telecommunication corporation, an investor with a background from shipping and a financial investor. Later in the same year pilot tests were successfully concluded and the first commercial sale was made to a shipping company that had participated in the pilot studies. One year later the capital basis was once more increased to about 9 million euro, and the system was operational on 25 ships and commissioned for another 3 ships. Additionally the company was in negotiations for deploying on another 90 vessels.

The basis for the new business venture was the engineers' observation of a new business opportunity and their ability to come up with technical solutions. But the development process also included financial and commercial elements. The CEO describes the technical part of the development process as laborious but straightforward. The major problems of the development process were to negotiate financing and commercial agreements.

The entrepreneurs' enthusiasm and conviction that the system would perform were not sufficient to convince potential investors in the early stages. They had to prove success at several steps to attract investors. Successful pilot tests marked one critical achievement. Another was to make contractual agreements with telecommunication operators worldwide. Cellular telephone service on ships is a niche product with small contributions to the turnover of the large companies. They were therefore initially reluctant to sit down and discuss the technical and commercial details that needed to be in place before MCP could launch the commercial version of their product.

A telecommunications company finally took over MCP. There was mutual consent among the owners that the product had reached a phase where market development was the essential task. This required specific marketing competence and financial resources that could only be provided by a large corporation in the communication sector. The enthusiasm, ingenuity and technological competence of the founders would not be sufficient for this phase.

The rewards for the founders were a good profit and the satisfaction of seeing their idea develop into an international success. When the first CEO was challenged to look back, the problems did not catch his attention. He summed the experience up with the words: "This has been fun!"

This project could not have proceeded beyond the idea if the project "owners" had not seen the interaction between available capital and strategic plans, which is indicated in figure 2. The project was divided into strategic phases that could be financed individually. Each face provided input to decisions on continuing and further financing. The project owners were willing to reduce their part in the ownership and profits, and take in owners with sufficient financial muscle – and finally to let other owners take over completely.

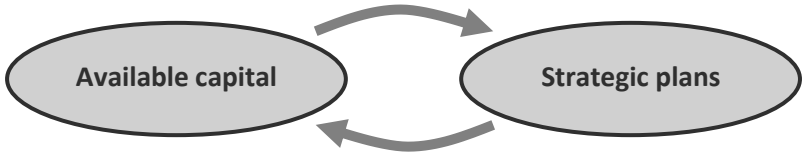


Figure 2 Interaction between available capital and strategic plans

The alternative for the founders could have been that they had continued as sole owners of a project which was technically sublime on paper, but never reached the market and therefore would have no commercial value.

Cabin

Cabin was a family firm with 19 employees at the first observation that designed and fabricated prefabricated living quarters for ships and offshore petroleum platforms. It also produced retrofit solutions based on standard-sized containers for the same markets. These containers could be used for machinery, offices, health stations, exercise rooms, etc. Their success stemmed from unique designs which combined functional qualities with cost efficiency for living quarters as well as service facilities.

Cabin had been founded about 15 years earlier by father and son. When the son graduated from his naval architect studies, the father had left his job and gone into partnership with his son. They were still in control of the firm, dividing the shares equally. The father had recently retired and was still part owner, the mother was running the administration and the son was technical manager responsible for product development, production and sales, as and when required. The management was kept small in order to minimize overhead costs.

Norwegian ship owners had been their first customers when the firm started, but soon the petroleum industry in the North Sea became their most important market niche. The size of each order in this market was typically so large that it required more than 50% of the capacity of the firm over 6 to 12 months. The income in Cabin had varied from year to year. For a long time yearly sales had been fluctuating around 1,25 million euro.

Following a fall in the oil prices the domestic markets dwindled. The choice was apparently to close down the firm or to seek new markets internationally. Shortly before this, Cabin had completed a large delivery to a new production platform that was built at an Asian yard for a domestic customer.

The experience from the delivery to Asia in combination with positive references from their renowned domestic customer helped the firm to obtain a contract for a large Asian oil company. The job meant close cooperation with project partners from several countries, and their exports rose from zero to nearly 50 % of total sales from one year to the next.

The Asian contract was successfully completed with good profit. The contract had also given valuable experience in international cooperation beyond the western European cultural sphere. By that time the domestic markets had once again improved. At this new decision point the firm chose to return to domestic markets instead of capitalizing on their experiences from export markets. Their exports once again dropped to almost 0% over the next year. The reason given for not capitalizing on their international competence was that they put higher value on low marketing costs domestically than on the potential access to larger markets by continuing exporting.

Another decade later, Cabin appears with a completely new structure. The turnover had fluctuated, but with a strong underlying growth reached around 8 million euro pro year and given Cabin a solid capital base. The former junior owner is now sole owner. Cabin is now the mother company with partly owned subsidiaries in Norway, the UK and in Singapore. The mother company is about the same size as a decade earlier, 20 persons mostly engineers, designers and architects. With affiliated companies the group has around 40 employees, but the staff will increase significantly by means of short-term engagements during projects. International sales constitute 50 % of the total turn-over. Cabin has significantly strengthened its design capabilities presenting itself as an engineering company while manufacturing is carried out in the subsidiaries. At the completion of this presentation Cabin announced that they have been awarded a large contract for a domestic client. The new contract will keep 40 persons occupied over three years with a total value of around 17 million euro.

At the first observation point Cabin did not wish to capitalize on their newly gained international experience. The strategic choice was to return to the well known and less risky markets when it became possible. Later development indicates that the international experience combined with market opportunities, did set off a new direction of development and the dominating orientation towards domestic markets weakened. It should be noted, however, that some of their international contracts are with international suppliers to Norwegian companies. Cabin therefore also takes advantage of its intimate knowledge of the domestic end-users' preferences, specifications and requirements.

Like most small firms Cabin has no written strategy plan. However, the aggregated effect of decisions in daily operations has produced long-term development consistent with strategic planning. This is a strong indicator that a mutually accepted "understanding" has been guiding daily decisions with the same effect as a formal strategy document. A few main elements can be identified which have directed the strategic development of Cabin:

- Work is carried out in project organisation. Each project is large compared to the total capacity of Cabin and will typically last for several months up to more than one year.
- Cabin is the main contractor for its deliveries.
- Sufficient capacity for projects has been secured through resources provided by external partners and project engagement of personnel. Attempts were early made to formalize partnerships, but with no great success until the last decade.
- Due to the large size of individual projects, the dominating operational mode of Cabin has alternated between manufacturing and marketing.

- The business network of Cabin including former clients and partners, has extended marketing channels and provided reference for tenders.
- Small staff reduces vulnerability to drop in sales, but necessitates that personnel periodically switch tasks. This strengthened flexibility as a special capability, and subdues professional specialisation.
- Looking back on a quarter century development, Cabin has displayed organizational stability while at the same time continuously responding to market development and adapting its strategy accordingly.

Differences in Entrepreneurial Strategies

The two cases illustrate two different patterns of entrepreneurial business development and associated entrepreneurial strategy. The first case, MCP, illustrates the classical start-up of a new business venture by first-time entrepreneurs. The case encompasses three development processes that all were novel to the entrepreneurs:

1 Developing a new product including market introduction and securing required legal and commercial framework.
2 Developing the business venture while simultaneously learning how to run a business.
3 Extending the business from a size adapted to prototype development to the efficient size for and international supplier of communication services.

The second case, Cabin, describes a firm that has successful completed its start-up process. This case illustrates entrepreneurial development of a mature venture. The developing processes are founded on current activities, products and resources, from which the firm develops new business concepts and ventures into new markets. The case describes entrepreneurial processes with different characteristics than observed in the first case:

1 Applying existing technology and manufacturing processes to new products for the existing markets.
2 Moving from existing (domestic) markets to new (global) markets with the existing products.
3 Soliciting additional resources as and when required for project development. Current resources and capabilities are not regarded as barriers for new ventures.

The two firms engaged in the entrepreneurial processes with different capabilities. Cabin had aggregated experience and resources. They had also established procedures and channels to access further resources when required. The size of the original company has been maintained over the years with adaptation to volume requirements in each project. MCP had no previous record and experience. They therefore had to build experience, to prove their capability stepwise to attract partners and resources. Finally, commercial success required a scale that it was far beyond the capacity of the initial entrepreneurs. They therefore sold out to capitalize on the full potential of their accomplishment.

The main strategy of MCP has been guided by the intent to develop and commercialize a novel product. Their limited resources and previous experience have necessitated a strategic approach with many milestones. By reaching milestone objectives MCP have documented their ability to deliver according to plans and thereby solicit further support. As the development proceeded, the competence base, complexity and number of tasks necessitated that the firm grew. Finally, MCP outgrew the capacity of its founders who capitalized by selling out.

Through its strategic approach Cabin has ensured its flexibility, which has allowed the firm to exploit new opportunities in response to changing market conditions. Their market approach has been entrepreneurial while maintaining a stable structure and size of the firm. The ability to reorganize, recombine resources and compete in new markets has close resemblance to destructive creation described by Shumpeter (1961). Its growth in sales and economic results clearly indicate that this has been a winning strategy for Cabin.

The main elements of the entrepreneurial strategies of the two case firms are summed up in Table 1.

Two cases are not sufficient to draw a conclusion as to the general nature of the strategic approach to entrepreneurial processes during start-up and continuing development of enterprises. However, these cases illustrate that the strategic approach to these two entrepreneurial processes are different. We may distinguish them by the terms *start-up strategy* and *continuing development strategy*.

Start-up Strategy deals with the person or persons that start their business base their start-up on a novel business concept. Very often the first-time entrepreneur has little or no business experience. Since the business concept is new, there is usually little opportunity to draw upon previous experience or mimic role models. Their entrepreneurial process entails: Developing the product or service, setting up the value creation process, secure sufficient support and extend markets.

Continuing Development Strategy deals with the situation where a person or persons – the entrepreneur(s) – within an existing firm observes new opportunities and rearrange the resources and competencies of the firm to supply the services or products that are required to exploit the opportunity. In this case the entrepreneur commands certain capabilities and also extensive business experience. Development processes focus on finding new markets within the same sector and adapting capacity to project requirements.

Entrepreneurial strategy	Case 1 – MCP	Case 2 – Cabin
Market	Prototype development in cooperation with potential customer. First market introduction with internal resources. New industrial owner provided market capability and muscle. Original entrepreneurs sold out prior to final commercialization.	Initial preference to domestic and well known market. Driven to global markets by failing domestic markets. Subsequent return to domestic markets at first opportunity. Later capitalizing on international experience and returning to global markets. Range of products and services based on same concepts.
Capability	Original entrepreneurs held product and technology competence. Limited requirements to facilities in early stages. Gradual build-up of capacity and staff in step with increasing complexity and volume of the development project. New partners included to comply with stepwise increased with capability requirements.	Stable base staff over long period. Capacity and competence supplemented on project basis when required. Stable core competence over long periods. Internationalisation facilitated by setting up subsidiaries in cooperation with partners.

Capital	Start capital was own funding and public support. Investors invited on successful completions of stages. Industrial partners provided additional capital along with competence and market access.	Mainly own funding through aggregated profits.
Strategic goals	Adapting to changing intermediate goals during the start-up process. Initial focus on securing technology competence, partners and financing prototype stage. Later focus on securing the commercial and legal framework for the communication platform. Gradual growth in line with increased demand on completion of end products. Entrepreneurs sold out to industrial buyer with sufficient capacity for commercial operation.	Niche oriented specialised products to national professional customers. Slim base organisation in mother company over a quarter century. Capacity extended when required by subcontracting, project employment and partnerships. National focus replaced by internationalization following haphazard international experience.

Table 1 Summary of entrepreneurial strategy

Concluding Remarks

The notion of business strategy usually captures systematic plans for attaining future goals and the subsequent steps taken to implement the plans. Entrepreneurial processes are often less systematic since new opportunities trigger activities that cannot be consistent with preconceived goals.

The two cases discussed here indicate that entrepreneurial strategies are focused on accessing and organizing resources that give the firms the flexibility required to adapt to changing and unforeseen circumstances. This may be achieved by setting goals for the interaction between markets, capabilities and capital that ensures the flexibility.

The two cases, furthermore, illustrate that the approach to entrepreneurial strategy appears to be different for business start-up and development of existing firms. The focal elements of the entrepreneurial process change rapidly of a firm in the start-up process while they may be quite stable when the firm has matured and found an efficient structure. As other authors also have pointed out, entrepreneurial processes cannot be interpreted correctly without taking the context into account (discussed i.a. by Wiklund, 2006). The MCP case illustrates a situation where the entrepreneurial oriented organization had completed its function once the venture had reached the stage that required commercialization within a scope of closely related services. The Cabin case illustrates the situation of a firm that continuously adapts to a very dynamic market. Flexibility is ensured by maintaining entrepreneurial orientation over longer period than the total life expectancy of most newly started firms.

This brief discussion of the two cases have disclosed similarities as well as differences in start-up and continuing development strategies. Research should be encouraged to investigate the phenomena that have been briefly explored here.

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Entrepreneurial Strategizing: Risk vs. Uncertainty Dialectics Bridging the Entrepreneurship / Strategy Divide – The Case of Private Equity

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Synopsis

The academic dialogue between the fields of strategic management and entrepreneurship has been stalled due to the intense discussion on how the two might relate to each other. Whereas such *debates* are fruitful and typical for dynamic research fields in transformation, *practice informing* approaches to theoretical model construction may advance theory even more.

A setting where strategic and entrepreneurial forces meet by definition is chosen as the starting point; the management of private equity funded firms. The core of this contribution consists of the development of a new theoretical construct, *entrepreneurial strategizing*, which is embedded in the relevant streams of both strategy and entrepreneurship literature, and to a lesser extent, behaviorist economics and the statistical notion of uncertainty.

The construct presented, does first question the widely held belief of the dichotomous nature of entrepreneurial versus managerial/administrative organizations. Second, it sets the basis for exploring a management mode that may offer relevant normative insights and opportunities for further research for both the strategic management as well as entrepreneurship fields.

1 The Quest for Solving the Entrepreneurship/Strategy Divide

Strategy research has undergone a paradigmatic shift (Kuhn 1962) in the last decade. The predominant competitive rationale derived from the macro-economic perspective (e.g. Porter 1980) has been complemented and partly replaced by a more innovation oriented view on strategy, such as the resource-based view of the firm (e.g. Penrose 1959), or popular concepts, such as Kim and Mauborgne's (2005) Blue Ocean Strategy. Schumpeter ([1934] 1983, 66) had already emphasized the role of entrepreneurship in the (re)organization of an industry. Common to all these approaches has been a focus on the new, the uncontested as a source for comparative advantage rather than on improving performance within existing frameworks. This shift of focus has not only been driven by the inherent nature of any academic debate to question common assumptions but rather by a fundamental shift in the nature of the economy towards higher degrees of competitiveness and knowledge oriented approaches fuelled by globalization and the information and communications technology revolution. The fringe

[1] We appreciate Thierry Volery's valuable comments on earlier versions of the paper

anti-globalization movement, the emerge of Asian economies fuelled by complex and peculiar institutional dynamics and the fallout of the financial crises of 2008 have led to further questioning the mainstream economic models of the pre-dominantly rational-choice, utility maximization view on strategy (Fox 2009).

Against this background and the struggle of strategy to reinvent itself, a field of research has emerged strengthened: Entrepreneurship. For decades there has been a sense that entrepreneurship was a key to understand 'the really big dissimilarities in economic life' (Haavelmo cited in (Baumol 1968, 66). Yet the vagueness and incoherence of the discipline, and the fact that there does not exist widely accepted theory of entrepreneurship, typical for any emerging field (Alavarez and Barney 1998), has often made it dubiously attractive as everybody could just see in it what he or she wanted. Unsurprisingly at the beginning of this decade researches were still in a state of theoretical disarray: 'The conundrum, as I see it, is that the totality of current academic entrepreneurship research does not espouse (nor can it espouse) an entrepreneurship theory, *per se*; rather, entrepreneurship research espouses a diverse range of theories applied to various kinds of phenomena' (Gartner 2001, 34). It did not last long until representatives from the adjacent field of strategy took notice of the adolescent discipline struggling to transition from being descriptive to explanatory by borrowing from other disciplines (Alavarez and Barney 1998). This tension points to the pivotal questions that must be addressed: What are the boundaries between strategy and entrepreneurship? Is entrepreneurship not just a specific dimension of strategy? Or does entrepreneurship, with its emerging and future theories and constructs, possess the potential to eventually condition or even overshadow strategy?

The answer to these questions hinges on how strategic management and entrepreneurship are defined (Sandberg 1992). We summarize the debate so far into four positions: the elitists, the separatists, the alliance seekers and the unionists.

The **elitist** position suggests that entrepreneurship is just a fad that will eventually disappear as a vigorous independent academic research domain. Sorenson and Stuart (2008), for instance, see the current state of entrepreneurship literature as a critical roadblock for a full emergence as an academic field.

The **separatist** see two distinct areas with clearly defined domains which both having clear separate and independent missions to fulfill. Meyer, Neck et al. (2002), for instance, propose as a distinguishing factor that strategic management deals with business performance while entrepreneurship deals mainly with business creation.

The **alliance seekers** see legitimacy for both fields to co-exist and see their development process as co-evolutionary. Already Schumpeter considered strategy a critical skill for entrepreneurs ((Schumpeter 1992) cited in (Cheah 1990, 341). The modern representatives of this camp argue that the two fields share common grounds but have different emphases (e.g. Alvarez and Barney 2004). Alvarez and Barney (2007), for instance, define the common ground based on the shared activities.

Finally, the **unionists** go a step beyond the alliance seekers and suggest that the two fields will eventually converge. In contrast to the separatists, they not see the take-over of one field but rather the emergence of a new discipline fuelled by inputs from both. It has often been acclaimed that an entrepreneurial mindset is central to any business organization (Barringer and Bluedorn 1999) and that '(e)ntrepreneurial and strategic actions are at the core of wealth creation' (Ireland, Hitt et al. 2001, 49). They acknowledge that '(i)ndependently, the actions involved with entrepreneurship and strategic

management processes contribute to firm growth and success. When integrated, however, these actions create synergy that enhances the value of their outcomes' (Ireland, Hitt et al. 2001, 49).

Although, indecisive in its outcome, the debate has provoked a clarification of the nature of the two fields and produced a useful set of definitions that will also guide our discussion. In the context of this paper, we follow (Ireland, Hitt et al. 2001, 49) unionists' view. They see both 'concerned with decisions made by general managers who have responsibility for a total business.' Whereas strategic management has dealt mainly with 'examining influences on firm performance', entrepreneurship, on the other hand, 'has emphasized processes which lead to venture creation.' This is in line with the dichotomous relationship of manager/administrator versus entrepreneur often proclaimed (e.g. Stevenson 1983).

We suggest that that these discrete mindsets are underpinned by two fundamental business paradigms characterized by risk and uncertainty respectively. On the basis of the unionist assumption, decision-makers exploit opportunities along a continuum whose payoffs are associated with a known degree of risk or an unknown degree of uncertainty. That is, with Type II or Type III probabilities respectively (Knight 2002). This includes both exogenously formed opportunities (discovery theory: Shane 2003) as well as endogenously created opportunities (creation theory: Alvarez and Barney 2007).

Probability theory is the mathematical kernel of the risk construct. A given or measurable level of risk (variance) yields a given level of return and managers optimize along the risk-return frontier (Markowitz 1952). It is of critical importance that risk management applies to non-unique events, projects that allow them to be categorized because they have relevant precedents within the firm. Strategy essentially concerns itself with risk-return decision-making.

On the other hand, organizations can undertake unique projects where the probabilities of future outcomes cannot be precisely known to the firm. Uncertainty is the paradigm faced by a business opportunity whose outcome probability distribution is unknowable. Unsurprisingly uncertainty is implicit in entrepreneurship where undertakings revolve around ‘new combinations’ that are usually innovation-driven (Schumpeter 1992, 66) and hence unprecedented. Risk and uncertainty are distinguished by the fact that for risk there is a statistical knowledge of the outcome probabilities. Knight’s *Risk, Uncertainty and Profit* ([1921] 2002) was the first work dealing explicitly with decision-making under uncertainty, providing a clear theoretical distinction between uncertainty and risk. ‘Statistical’ probability or ‘Type II’ chances can be determined empirically and measured on the basis of the empirical classification of instances. Third type or ‘Type III’ events see chances determined on the basis of subjective estimates. True uncertainty is immeasurable. There is no valid basis for classifying instances, and yet a judgment of probability needs to be made in most cases ([1921] Knight 2002).

Risk and uncertainty do not present themselves to the decision-maker in pure states. The manager, even the administrator, is often exposed to uncertainty as the entrepreneur is to risk and routine. Persons change roles as business problems require since decision-making is dynamic. We focus on the business decisions presenting themselves along a risk-uncertainty continuum, specifically in the overlap area of the continuum, such as those exemplified by private equity and intrapreneurship. The continuum is the theoretical basis for our unionist approach. Nevertheless, a basic differentiation of action and decision modes, which we define as ‘mindset' can be established (see Exhibit 1). We define mindset mental model that 'refers to the knowledge structures that top managers use to make strategic decisions.' (e.g. Huff 1982). A mindset provides the management with a perspective on how to interpret

information and translate it into action (Prahalad and Bettis 1986). Furthermore, '(m)indsets enable people to impart meaning to otherwise ambiguous information because they determine what such people can see, predict, and understand' (Wright, Hoskisson et al. 2001, 113).
Applying the risk and uncertainty logic, we need to add a third action and decision mode where neither of the two constructs apply: the administrative mode. The administrative mode is introduced for completeness but since it is neither strategic nor entrepreneurial it is not central to this article.

Exhibit 1: Action and Decision Modes in Comparison

	MINDSET MODES		
CHARACTERISTICS	**Administrative**	**Strategic**	**Entrepreneurial**
Opportunity approach	Ignore opportunities	Manage opportunities	Create opportunities
Economic objective	Nominal value protection	Relative value protection (value creation within industrial boundaries)	Value creation (beyond industrial boundaries)
Decision-making mode (informed by probability paradigm)	No risk (*A priori* Type I probability)	Risk (Statistical Type II probability)	Uncertainty (Type III probability)
Action mode	Routinizing	Strategizing	Entreprizing

One could argue that the general debate along the existing lines of inquiry prolongs productive parallel research yet aggravates fundamental advancement in better understanding how the two fundamental mindsets and business/research paradigms, entrepreneurial and strategic, interrelate and how they are combined in practice. One reason for the indecisiveness of the debate up to date can be found in the way it has been conducted. Mostly led by academics with strong convictions of their respective perspective, the debate can be described as defensive in nature. Despite initial attempts to combine the two perspectives, e.g. Foss, Klein et al. (2008) who propose to reconcile strategy and entrepreneurship by referring to subjectivism, most of the debate has been limited to the theoretical space anchored in existing perspectives. Beyond such conservative, un-entrepreneurial logic it may be worth to take a fresh look and examine the area of the uncontested.

2 Practice Informing Theory Making

The article proposes a theoretical and phenomenological way to address the strategy/entrepreneurship divide. Further to conducting the discussion at the theoretical abstract level, we follow up with a look at a specific phenomenon where strategy meets entrepreneurship head on. As a result of the inductive analysis of the phenomenon this article proposes falsifiable conjectures (Popper, [1963] 2002) and thus continues the theoretical dialogue.

There are a number of institutionalized settings where these two mindsets meet, some of them have been well researched, others have received less attention. Three approaches to research of phenomena

where both mindsets intersect can be distinguished based on how strategy and entrepreneurship relate to each other: the strategy infusion, the entrepreneurship infusion and the strategy/entrepreneurship fusion contexts. In terms of the academic approaches to the strategy/entrepreneurship divide introduced earlier, context 1 and 2 may give empirical support to either the separatist or alliance seeker argument, whereas context 3 may lend weight to the unionist approach. It may pose a challenge to explain all three contexts assuming an elitist perspective. The **strategy infusion context** describes settings where strategic capabilities are added to entrepreneurially oriented environments. One such case is venture capital in which value creation is based on strategy minded investors providing capital as well as advice to start-up firms, entrepreneurial by definition, on their way to grow and mature.
The **entrepreneurship infusion context** is well known and researched. In this case, entrepreneurial spirit is added to strategy oriented businesses. These settings have found different labels, be it intrapreneurship or corporate entrepreneurship (Burgelman 1983).

Finally, there are settings in business practice where a **combined entrepreneurial and strategic mindset** is the default modus operandi of the organization. An interesting case for the strategy/entrepreneurship fusion context is private equity, a setting where a class of investors fund established firms and then effect change to achieve rates of return higher than the rates generated by the investee's peers. (see Exhibit 2).

Exhibit 2: Company Types by Ownership Structure and Maturity

	FIRM FUNDING STRUCTURE	
FIRM EVOLUTION STAGE	**Private capital funding**	**Public market funding**
Start-up firm	- Privately financed firm (family and friends) - Business angels - Venture capital portfolio firm	Seldom (usually it is after the start-up phase that firms are able to list.)
Established firm	- **Private equity portfolio firm** - Family business	Public stock firm

The relationship between entrepreneurship and private equity has already been noted in literature (e.g. Wright, Hoskisson et al. 2001; Bruining and Wright 2002). Private equity in our context defines companies whose 'capital involved has been raised privately and will not be deployed by investing in publicly traded securities' (Cheffins and Armour 2007, 5).' Yet the investees are not entrepreneurial firms at the start-up stage either. Their primary owners are not households but large institutions and high net-worth individuals that designate agents to manage and monitor on their behalf and bind those agents with large equity interests and contracts governing the use and distribution of cash' (Jensen 1989, 117). Furthermore, private equity funds often invest in established firms lacking entrepreneurial spirit or the proclivity to innovate. It is their specific ownership structure that defines the context condition for private equity portfolio firms: A strategy minded investor attempts to emulate a firm context of a start-up to overcome the inertia of mature companies to 'exploit opportunities others have not identified or exploited' (Ireland, Hitt et al. 2001, 50) and rejuvenate the value creation engine. Wealth creation is the primary objective of firms at the start-up phase as well as those in declining growth,

maturity stages who decide to 're-invent' themselves to either prosper or, oftentimes, just survive (Filatochev 2007). The idea behind private equity is to provide a context for successful innovation at established firms (Ireland, Hitt et al. 2001, 50).[2] In other words, non-start up firms are being asked by to undertake uncertainty or Type III probability projects while their functioning mindset is of ordinary strategic risk-taking dealing with statistical Type II probabilities.

This paper takes a strategy/entrepreneurship fusion position and postulates that referencing business phenomena where the two forces interact will help advance the general debate. To that end we now consider practice informing insights.

3 Entrepreneurial Strategizing as A Mindset in Private Equity

Our attempt to look into phenomena to inform theory cannot be limited to an analysis of secondary sources and so includes primary sources as a structuring element (Hilb 2008). Although sparse, there have been some attempts to decipher the value creation mechanisms of private equity.
As the modern type of private equity constitutes a recent, cyclical and peculiar business model, i.e. gains and looses occur in relatively short intervals, it has benefited from only limited research efforts. Revealingly, a first set of studies followed the first wave in the 1980s, whereas a second wave emerged during the second surge in private equity investments that reached its pinnacle in 2007.

Given the financial nature of private equity, the main focus of research has been the investment rather than the management perspective. Most studies tried to assess whether **private equity as an asset class performed** better than other forms of investments asserting that performance of private equity as an asset class is highly cyclical (Gottschalg 2007; Kaplan 2007) with different types of investors achieving different returns (Lerner, Schoar et al. 2007). Unsurprisingly no definite answer has emerged regarding overall performance given different risk profiles in investment categories (Moskowitz and Vissing-Jorgensen 2002; Phalippou and Gottschalg 2007).

A second category of studies has tried to analyze how the **performances of different private equity funds** compared with each other. They discovered significant variation between funds that perform well and those that perform badly (Kaplan and Schoar 2005) and in some case even a high consistency in performance of fund managers (Kaplan and Schoar 2005; Kaplan 2007).

A final group of these performance oriented studies analyzed how **private equity portfolio firms perform**. Whereas some researchers indicated that firms owned by private equity funds perform better than publicly traded firms, even when assuming that public firms too are leveraged (Gottschalg 2007), others found out that firms formerly owned by private equity firms perform better in IPOs than others, but returns worsen over time (Cao and Lerner 2006). For all these performance studies, the limitations are obvious; they all depend on the selection of time and performance metrics.

Although performance research is non-conclusive, a more relevant class of findings for our purposes would be research related to modeling the drivers of performance or non-performance. Articles with

[2] A look into private equity practice reveals that there is great variance in how well these conditions are established as private equity mangers lack critical capabilities or are motivated by other incentives. Private Equity has become epitome of an era of business that has been described by greed and the failure of financial capitalism and the uncertain future of what was dubbed 'financialization' (Cappelli 2009) and criticized for the over-reliance on the financial markets (Davis 2008). Although some practices of PE firms contributed with their extensive leveraging behavior to the recent financial crisis, the substance of the approach is not just a fad but rather a distinct governance approach that could be traced back to the 15th century.

a stronger practice orientation have approached the topic purporting to have identified drivers behind value creation in private equity (e.g. Rogers, Holland et al. 2002; Barber and Goold 2007; Pozen 2007; Shivdasani and Zak 2007; Acharya, Kehoe et al. 2009). These articles, however, are often meet with skepticism too as their empirical base is limited and some may suffer from common methodological weaknesses such as success bias or oversimplification (Kieser 2008). Nonetheless these findings, if translated into a more theoretical language, can be classified into four key arguments: (1) cash flows, (2) autonomy, (3) cognition and (4) capabilities (Hilb 2008).

As defined earlier, we see private equity as a particular context where dealing with uncertainty (Type III) and risk (Type II) is both necessary and simultaneous to dealing with risk. Hence, the four performance categories need to be seen in that context and ought to be assessed on how well they help explain dealing with both uncertainty and risk.

One core argument is built around the **cash flow theory** proposed by Jensen (1989). It suggests that if managers have too much cash flow available, they invest wrongly. Hence, limiting cash flow available to managers has a positive impact on value creation, which is a common occurrence in leveraged buyouts which consume a large part of cash flows to serve debt holders (Jensen 1898). This argument assumes the efficient market hypotheses, and has been challenged by behavioral theory which notes the positive effects of slack (Cyert and March 1963; Bourgeois 1981). In private equity, first and foremost we find an accentuated operationalized cash focus as part of the value protection and recovery efforts based on standard management techniques. Thus there is a shared and undisputed belief in the metric of performance: cash flow. This is reflected in the clear incentive targets set for managers and owners and is explained by the relatively high debt leverage implicit in PE deals making generation of cash flow pivotal for survival. Yet at the same time PE firms work on complementary and yet opposite assumptions where the cash flow target is an insufficient performance metric. Rather, various other objectives are translated into operational key performance indicators that can be easily understood by operations and middle management, and even more importantly, clearly measured. In that sense, we see a combination of what Simons (1994) calls a diagnostic control system helping monitor and motivate achievements along a boundary system which sets limits on opportunity seeking. In other words, a balance between risk (cash flows) and uncertainty (diagnostic systems) is sought for the opportunities and projects undertaken by the mangers of firms invested by private equity aiming at rejuvenation and new wealth creation. A strong cash focus can be seen as an important approach of management to create transparency on risk and mitigation measurements. Every decision to spend or not to spend cash comes with an inherent risk assessment. At the same time, this assessment process enables management to assemble the resources and information necessary to recognize uncertainty and react effectively to changes in the environment while accepting that not all outcomes are predictable. Slack is inherently tolerated by focus on non-cash performance metrics

A second reasoning commonly referred to is the **autonomy argument** (e.g. Wruck 2007). It attributes the special value creation potential – if existing at all – of private equity deals to the special autonomy given to managers in such companies. This reasoning is in line with the control school of thought. Bruining, Bonnet et al. (2004), for instance, suggest that successful buyout managers put a special emphasis on complementing the traditional controlling instruments with alternatives to stipulate opportunity-seeking and learning. The phenomenon can be best described by meritocracy-based structural empowerment. Under this condition managers are expected to perform regardless of their status or heritage. Meritocracy is a major motivator giving people opportunity to perform regardless of

politics or other influencing factors. This condition is coupled with a strong sense of empowerment, a cognitive state that is influenced by perceived control, perceived competence and goal internalization (Spreitzer 1995). The operations managers are given a lot of freedom to execute coupled with strong expectations to deliver. This can mainly be explained by investors who are not versed in the operations or the industry and are not keen on becoming involved in the operational area. The positive impact of employee empowerment on organizational effectiveness has been noted in the literature (Conger and Kanungo 1988). In the context of private equity a combination of all three types of empowerment as described by Allen and Mayer (1990) can be observed: Affective (emotional), continuance (financial) and normative (guilt) commitment.

The meritocracy-based structural empowerment provides, on the one hand, structures necessary to manage risks. On the other hand, it promotes the emergence of entrepreneurial minded who are able to deal with uncertainties. By providing a structured approach to autonomy, i.e. setting clear targets, managers are set clear boundaries necessary to limit the exposure to risks. At the same time, meritocracy and performance related incentive system means that managers have the autonomy and incentives to undertake uncertainty (new projects, new R&D, new markets) because as long as they manage known risks they will be rewarded for the undertaking of unknown risks they are encouraged to undertake. Uncertainty is an accepted context condition where not all outcomes can be foreseen and, hence, fast and autonomous reaction is necessary.

A third argument stream sees **cognition** at the center (e.g. Fox and Marcus 1992; Wright, Hoskisson et al. 2000). These scholars believe that successful managers in a private equity context have a special set of heuristics in common which has a positive impact on performance. In particular, the managers share a common aligned option thinking. The initial premise is that the thinking of all decision makers involved, be it the director or chief executive officer, is very much in alignment. The strong organizational alignment (Floyd and Lane 2000) observed has been posited to have a positive impact on performance (Powell 1992). The clear ownership structure is likely a condition supporting this behavior. Moreover, strategy is primarily seen as a set of options as addressed in the literature (e.g. Kogut and Kulatilaka 2001; Grundy 2004). Hereby, the economic actors apply what Kogut and Kulatilaka (2001) call the real option theory rationale. It is in particular the rationalization of different options, i.e. risks and uncertainties, that ask for certain heuristics to be applied.

Aligned option thinking is central to dealing effectively and simultaneously with risk and uncertainty. The formal separation of roles and responsibilities between the board, management and the teams promotes the establishment of a culture of structured risk management. The governance bodies are forced to think systematically on risks involved in any business decision they take. At the same time, the concept of uncertainty is deeply ingrained in the management and owner's view on the future as an value creation expectation. As a result, option thinking is a *de facto* mindset create the mental flexibility and shared understanding (alignment) to deal with uncertainty Hence, with the engagement of uncertainty is mentally institutionalized.

Linked to this stream is the **capability school** of thought which argues that it is the quality of people, i.e. mangers, that plays a key role in value creation in a private equity context (Wruck 2007). In the particular case of private equity, managers are sought to show a strong sense for core competence complementation. They put a lot of emphasis on identifying missing capabilities in their organizations and filling the gaps by, for example, bringing in talents. In that sense, they value the

importance of competences to business success and hence see the value of core competencies, a capability that is central to a firm's value-generating activities (Andrews 1971; Prahalad and Hamel 1990).

Simultaneous risk and uncertainty management requires a specific skill set and, hence, a specific composition of experience and capabilities. It is the complementation of ordinary risk and ‘unknown complexity’ management skills that are needed. Or to put it differently, the managerial competence of risk management is combined with the entrepreneurial competence of dealing with uncertainty.

In combination, these four elements form are the initial building blocks of a construct described here as entrepreneurial strategizing, a mindset that drives value creation in the private equity context. The common mindset expresses itself here in four dimensions that describe the management behavior in value creation private equity portfolio companies: aligned option thinking, operationalized cash focus, meritocracy-based structural empowerment and core competence complementation. Common to all the elements in the construct is the underlying role of risk and uncertainty as summarized in Exhibit 3 below. Hereby, the shared mindset is shaped by a dual structure and a strong sense to bridge and at the same time this duality.

In summary, entrepreneurial strategizing is described as follows: Decision and action modes characterized by synonymously managing risks and uncertainty. This decision and action mode which engages both risk and uncertainty is pursued by economic actors to create economic value while principles and techniques of both strategy and entrepreneurship are applied side by side.

There are two streams of literature in which the construct of entrepreneurial strategizing can be embedded: Strategizing and entrepreneurial orientation. The research into strategizing (e.g. Balogun, Huff et al. 2003; Rivkin and Siggelkow 2006) offers a relevant basis on which the research into entrepreneurial orientation (e.g. Miller 1983; Lumpkin and Dess 1996; Krueger 2000) can build on. In particular, the link of these two streams with the risk and uncertainty perspective is of great relevance in this context. In its essence 'strategizing is the application of heuristic frames to analyze the world and to generate normative evaluations of potential avenues of implementation' (Kogut and Kulatilaka 2001, 744). In that senses, strategizing is related to our understanding of mindset as described above. This definition indicates that the outcome very much depends on the quality of the heuristic. Heuristics can be useful but also come at a cost. 'Strategizing is, then, the application of imperfect heuristics to problem solving and implementation' (Kogut and Kulatilaka 2001, 746).

4 Conclusions

The construct entrepreneurial strategizing, derived from observation and practice informing insights and substantiated by two theoretical concepts, describes a specific management decision making and action modus operandi that is prepared to deal with risk and uncertainty. A great deal of analysis has been spent on differentiating entrepreneurial and managerial/administrative mindsets e.g. (e.g. Drucker 1974; Stevenson 1983; Busenitz and Barney 1997). Our analysis of a specific phenomenon gives support for the proposal of a third mindset that combines elements of both worlds, the entrepreneurial and strategic, but is in its particular characteristic distinct.

The analysis and discussion allow for conclusions on two levels, the content and theory level.

Exhibit 3: Deconstructing Entrepreneurial Strategizing in Private Equity

	Theoretical Arguments in Private Equity			
	Cash flows	**Autonomy**	**Cognition**	**Capabilities**
Performance Construct	Operationalized cash focus	Meritocracy-based structural empowerment	Aligned option thinking	Core competence complementation
Main Argument	Cash flow focus encourages actors to plan carefully and behave economically with scarce resources	Managers are provided with autonomy to take action swiftly and bear responsibility	As owner and manager are cognitively aligned on option thinking, they can take decisions very swiftly and decisively	Combination of complementary managerial and entrepreneurial competencies is pivotal to performance
Risk Perspective	Cash flows are well planed and monitored to incorporate risk considerations	Autonomy granted is within clearly defined boundaries set to minimize risks	Discourse between owners and mangers, necessary for alignment, leads to systematic view on risks	Infusion of managerial competence as important means to manage risks
Uncertainty Perspective	Stringent cash management sets aside reserves for dealing with uncertainty	Autonomy and performance targets encourage managers to cross the risk boundaries to engage in activities with uncertain outcomes	Option thinking as a thought framework assumes uncertainty as a valuable option available to manager	Infusion of entrepreneurial competence as enabler to engage in action with uncertain out come
Entrepreneurial Strategizing	A decision and action mode that assumes a simultaneous pursuit of risk and uncertainty by economic actors to create economic value by applying simultaneously entrepreneurial and strategic mindsets			

On the **content level**, the findings of this analysis show first that a operating mindset may come into play if people act in certain condition that emulate a combination of entrepreneurial and strategic settings. This is a mindset that has been mostly been overlooked in research as the focus was on neither the administrative (no risk), the managerial (risk) nor the entrepreneurial (uncertainty) modes. The entrepreneurial strategizing mode may merit further exploration, refinement and finally empirical testing. Further research may also help overcome the limitations of the type of study just presented: An unconventional way of combining insights from the literature with the results of an exploratory study introducing novel ideas, hypothesis embedded in a theoretical framework. It will also ascertain these hypotheseisin for its 'falsifiability, or refutability, or testability' (Popper 2002, 48) and the robustness of our framework. A first specific follow-up question is whether this entrepreneurial strategizing relevance is limited to the world of private equity or whether it can be seen as a broader phenomena

relevant to other business activity types in the economy. On the one hand, it could be argued that other types of economic organizing resembling the private equity context to a degree sufficient to produce a similar operating mode that is not represented adequately enough in the currently dominant research streams. One such candidate may be what commonly is called the family-owned business as well as small and medium sized enterprise (SME).

On the **theoretical level** and as to the initial challenge, to bridge the strategy/entrepreneurship divide, the findings seem to offer indications for further inquiry. First of all, the findings show clearly that the desire to bridge strategy and entrepreneurship is not just a theoretical matter but ought to be grounded in phenomena identified in practice. Going back to the introduction, the question should not be whether one field should be subordinated to another one but rather what theoretical contributions can provide insights to build novel theoretical frameworks which explain relevant business phenomena. Ideally new theory would be unionist, capable of explaining both management and entrepreneurial processes from a single unified perspective. Our discussion suggests that both fields, the mid-aged field of strategy in the midst of a mid-life crisis, as well as the adolescent field of entrepreneurship, dealing with the confusion of puberty, may offer relevant insights to describe the wide arch of business practice, from value protection to value generation. Hence, the emphasis of further research should be on better understanding comprehensive business practice as we witness it in action and transition, rather than on an over-emphasis in theoretical discourses.

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Small Business and Entrepreneurship (SBE): An Analysis of Publications and Implications for the Development of the Field

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Introduction and Context: A Young But Maturing Field

As the area of 'business and management' develops, it brings with it new fields of investigation. The field of small business and entrepreneurship (SBE) is an example of a relatively new domain within business and management studies (Cornelius et al., 2008; Kuratko, 2006). However, there is widespread evidence that the field has expanded rapidly in the past four decades and has achieved some maturity (eg. Blackburn and Brush, 2008; Katz, 2003; Short et al. 2010; Welter and Lasch, 2008). 'Entrepreneurship' and/or 'small business' studies, are now found in most business and management schools' curricula across the globe. For example, in 2010 the Universities and Colleges Application Service (UCAS) website had 285 courses in UK institutions of higher education, with 'entrepreneurship' in the title. Most of these were joint with other courses, such as 'entrepreneurship and geography' suggesting that some form of the concept was achieving recognition across the social sciences. The field is sufficiently developed to have six ISI ranked journals with good impact factors, special interest groups in both the American Academy of Management (Meyer, 2009) and the British Academy of Management and attractive enough to carry numerous well attended, large-scale conferences that have now been running for decades. For example, the Institute for Small Business and Entrepreneurship (ISBE) has been running a conference since the late 1970s with attendance at over 500 delegates; and the European influenced Research in Entrepreneurship (RENT) conference for over 20 years. Globally (though originally US in origin) the International Council for Small Business (ICSB) has been running an annual conference for over 50 years.

In short, enough time has elapsed for researchers to reflect upon the purpose of SBE research, its main ontological and theoretical underpinnings, focus of investigation, levels of analysis, and methodologies employed. Such key issues have exercised the minds of academics trying to take stock of 'where the field is' and 'where it is going' (eg. Davidsson et al., 2001; Landström, 2005). These reflective analyses and debates have revealed a variety of origins, agendas and methods from a range of disciplines, such as economics, psychology, and sociology as well as intersections with other applied fields (eg. HRM, Storey et al., forthcoming). Such has been the diversity of SBE that this has been as depicted as fragmented, lacking focus and struggling to develop what they term 'a distinct domain' – an intellectual *potpourri* (Low, 2001). This has led to arguments for a narrow definition of entrepreneurship and a focus on what is distinctive about it (Gartner, 2001; Shane and Venkataraman, 2000). This is summarised by Bruyat and Julien (2000) who argue that:

> *A research field can only be built and win legitimacy if it is differentiated from neighbouring fields. It can only impose its presence in the long term if it is able to establish its boundaries with other fields, even if those boundaries are, to some extent, fuzzy (p. 166).*

Whether or not this is considered a suitable path for the development of an academic field is open to debate and such a position is by no means universally accepted. As Brush et al., (2008) argue, whilst a narrow focus permits scholars the opportunity to compare and contrast studies; this limits the breadth of topics studied. Others have argued that the field should be regarded as a 'border zone' and avail itself to the variety of contributions and richness of different disciplinary approaches (Steyaert, 2004; 2005). Immigrants to the field bring with them their own intellectual foci, adding to the richness and diversity of debates and development of SBE as a domain. Zahra and Newey (2009) examine the case of the intersection between fields and theories. They caution against merely borrowing and extending core theories to new phenomena. Instead, researchers should make sure that they understand the fundamentals of the original theories to avoid misunderstandings and also facilitate an effective contribution back into core theories thus adding development. Whether or not SBE is at this stage is also open to debate.

The methodologies used in SBE, in particular, have been subject to scrutiny. We regard this as significant in that it is the ontological assumptions and methodologies which make a field what it is: an area of academic study rather than an applied trade (Kuratko, 2006). It appears that SBE has achieved status as an academic field of investigation, but it is the level of development that is now an issue. Whilst most researchers would agree with the call for more rigour in approaches (Cooper, 2003; Blackburn and Kovalainen, 2009), others demonstrate that the field has been dominated by a functionalist paradigm and argue for methodological pluralism (eg. Grant and Perren, 2002). This is regarded as a 'paradigmatic cage' (p 202) from which researchers should seek to break out. Methodological pluralism, it has been argued, is axiomatic for the enhancement of knowledge and understanding of entrepreneurship (Jennings et al., 2005).

As with most academic fields, several assessments of the progress have been undertaken. Evaluations from HEFCE's Research Assessment Exercise indicate that the field has developed significantly between 2001 and 2008, from one that was assessed as having a low proportion of output of international standard, to one that had a significant proportion classified as world leading. Academic assessments have included reference to ontological issues, levels of theorising, research design and alternative, critical perspectives (Low, 2001; Gartner, 2001; Aldrich & Martinez, 2001; Chandler & Lyon, 2001; Bruyat and Julien, 2000). The journal Entrepreneurship, Theory and Practice has published two special issues in 2005 and 2008 whose aim was to discuss the state of the SBE field by respectively: (a) trying to encourage methodological openness in papers by Nicholson and Anderson, Perren and Jennings, Downing and Goss and (b) by understanding national differences in SBE research in papers by Lasch and Yami (France), Schmude, Welter and Heumann (Germany), Blackburn and Smallbone (UK), Hjorth (Scandinavia), Brush, Manolova and Edelman (America), and Gartner. In addition, as Brush at al. (2008) argue recurrent special issues about certain topics are evidence of a dialogue on similar research interests and an evolution of the field of SBE into what Gartner (2001) has called 'informal homogenous communities'.

Other analyses suggest that the field has moved from one which experienced rampant empiricism to one that is much more reflective and theoretical, although researchers need to be much more critical

of the agendas and methods employed (Blackburn and Kovalainen, 2009). Linked to this is the ability of researchers to question 'taken for granted' assumptions in the field, including for example, being prepared to criticise the often held assumption that entrepreneurship and small business promotion is desirable in contemporary economies and societies (Blackburn and Ram, 2006), or indeed question the fundamental underpinnings of the notion of entrepreneurship (Jones and Spicer, 2009).

The above issues are most probably challenges linked to the growth pains of a relatively new domain. For example, similar debates regarding scope and methodological issues have been addressed in the field of HRM (Martin-Alcazar et al., 2008; Keegan and Boselie, 2006) and strategic management (Fuerrer et al., 2008). Nor do such debates and challenges diminish with the maturation of a field (eg Kaufman, 2008).

The main aim of this Chapter is to review and analyse the development of the field of small business and entrepreneurship (SBE). It will seek to take stock of where it is with respect to the main topics and methods employed. Specifically, we seek to examine the extent of variety of interests, plurality, diversity of research and internationalization by exploring:

(i) Focus of the topics in the field of SBE.
(ii) Types of research design used in the field.
(iii) Geographic focus of research.
(iv) Origins of the lead authors in the field.

In a sense, an analysis of articles from leading journals in the field, as undertaken in this Chapter, provides readers with a critical perspective of how SBE has developed in terms of agendas and methodological approaches. Given their relatively high status, it is these articles which demonstrate the condition of the field. It is these articles, their agendas and methodologies which will, in turn, influence subsequent academic agendas, teaching content and public policy debates. The analysis of these articles also provides a case example of the way in which an academic field of enquiry develops, as well as the challenges and controversies in that development.

We begin by explaining the methodology undertaken in the Chapter and the underlying rationale for our approach.

Method of Analysis and Classification

This review is focused on 696 papers about entrepreneurship and small businesses published in six main ISI ranking journals in the past six years (Table 1). We concentrated on these journals not only because of their high profile in the field but also because of their wide international appeal. This would allow us to discuss the internationalisation of entrepreneurship and small business studies. We estimate that there are over 50 journals in the field of small business and entrepreneurship.[1] Admittedly, a focus on six journals is only a partial basis for an assessment of the development of the field, since it does not cover all journals and nor does it include key texts and edited collections which have also mushroomed in the past 40 years. However, a focus on the leading six journals in some ways is

[1] The ABS Journal Guide ranks 26 journals within SBE (http://www.the-abs.org.uk/files//abs_web_subject.pdf). We estimate that there are over 50 journals of which 6 have an ISI impact factor. An interesting feature of the field is the rise in the number of journals – many of which do not survive beyond their first years.

representative of the best work in the field. It also helped us to keep the process manageable and allowed some depth of analysis.

Our initial process of sifting through the papers involved developing a suitably robust classification of topic areas. Specifically, 29 topics were developed both, deductively and inductively, which provide a clear demonstration of the diversity of issues discussed within the field. Initially, the number of topic areas was larger but these were rationalised on the grounds of keeping the system manageable and there being too few papers in some topic areas. The papers were also classified by the main type of methodology employed. This allows us to test the assumptions of an overemphasis on positivistic ideological stances in the field. We are also able to see how this varies across the journals that have been analysed for this review as well as trends over time.

Table 1: Number of papers reviewed

Journal	**Year**						
	2003	2004	2005	2006	2007	2008	Total
Entrepreneurship Theory and Practice	11	14	19	21	36	35	136
Entrepreneurship and Regional Development	18	15	9	11	14	10	77
International Small Business Journal	14	20	24	25	25	24	132
Journal of Business Venturing	19	22	17	18	24	16	116
Journal of Small Business Management	16	12	11	23	22	23	107
Small Business Economics	17	12	28	21	22	28	128
Total	**96**	**95**	**108**	**119**	**143**	**136**	**696**

To identify relevant articles, we conducted a keyword search in ISI Web of Knowledge, within these journals, encompassing the period 2003-2008. Keywords included *'entrepreneurship'*, *'entrepreneurial'*, *'small* businesses', *'small firm'* and '*SME"*. This search was complemented by a manual review of all the six journals to ensure thorough coverage. Afterwards, each article was classified on the basis of:

- Main topic
- Geographical context of the study for the empirical papers
- Country affiliation of the main (lead) author
- Research design, its methods and the techniques used for the analysis of the data.

This process involved a combination of initial classification and then cross-checking between authors' judgements. We discuss this process in more detail together with the presentation of the findings.

Main findings

Topics of research in entrepreneurship and small business studies

Developing the topic classification initially involved referring to previous efforts by colleagues in the field (eg Coviello and Jones, 2004; Brush et al., 2008) as well as creating topic headings which appeared logical having read the abstracts and papers. All of the abstracts and selected parts of the articles were read to allow classification and where clarification was needed, full papers were read in

detail by the authors and then classified according to a main topic heading. This process required a number of iterations before all papers were classified satisfactorily. In this process, both authors sought to independently classify papers according to the main subject matter. This was straightforward but in some cases, this was more problematic and a judgement call on classification was made following more detailed examination. For example, where papers overtly spanned the boundaries of topics, their final classification was a result of discussion. A good example here would be a paper by Anderson et al. (2003) in the Journal of Small Business Management entitled *'The Increasing Role of Small Business in the Chinese Economy*'. After discussion, we decided to classify it as a paper that looks at the 'contributions of small businesses in the economy'. An alternative, but plausible, classification would have been 'entrepreneurship and small business in developing and transition economies'. Our final decision was taken on the grounds of the contents of a paper's substantive contribution to the field.

This process led to all papers being placed within a classification system of 29 topics. The initial rationalisation of our classification system meant that some papers in niche topics, such as research methods and discussing the conceptual development of the field were combined. For example, Cope's paper on *'Researching entrepreneurship through phenomenological inquiry- philosophical and methodological issues'* published in the International Small Business Journal in 2005, was initially classified as a paper on 'discourses and critiques of the field'. This classification was later merged with 'methodological issues and debates' principally on the grounds of an insufficient number of papers in that group. We accept that the method of classifying the papers by the main topic is not perfect in that the level of aggregation may mask the diversity of some papers and the field more broadly. However, the approach taken does allow for diversity through 29 topics, as well as allow analysis by methodology, country of study and main author.

A first look at the data (Table 2) suggests that some recurring topics have dominated the field of entrepreneurship and small business research. In this respect, it is interesting to notice that over 50 papers in the past six years have discussed issues related to the development and performance of the business (57), networking and external relations (57) and public policy and state intervention (55). The number of papers on business development and performance excludes those papers that are purely focused on business growth issues (24). We judged as more appropriate to have 'growth' as a separate classification considering the attention that has been given to it in the small business and entrepreneurship literature although it could be argued that it is a variant of development and performance.

The predominance of business development and performance (57 papers) together with public policy and state intervention (55 papers), is an indication that the field is still in search of answers about the problems of development faced by small businesses and the role that governments can play in facilitating their activities. Moreover, this finding gives support to the argument that researchers in the field continue to be policy orientated. As Blackburn and Kovalainen (2009) argue for the case of the UK, much research has been embedded in policy rather than theory which in turn, have influenced the research skills base since many government departments operate from a quantitative research paradigm.

The high number of papers on networking and external relations (57 papers) demonstrate the broadness of the topic area and include contributions for example, from those studying owner-manager external relations, geographical clusters through to inter-firm connections.

Table 2: Classification by topic

Main topic of research	Year						
	2003	2004	2005	2006	2007	2008	**Total**
challenges of development and performance	9	9	9	12	9	9	**57**
networking and external relations	16	3	6	11	11	10	**57**
public policy and state intervention	14	8	9	4	9	11	**55**
new venture creation	7	6	7	9	10	7	**46**
contributions to the economy	3	6	7	1	9	14	**40**
finance and financial management	6	4	4	10	11	4	**39**
the developing domain of entrepreneurship and small business	1	6	4	8	7	8	**34**
family business	3	7	2	7	3	11	**33**
international business	8	8	4	2	5	5	**32**
human resource management and employment relations	2	3	8	3	10	4	**30**
Strategy	4	6	6	4	3	5	**28**
methodological issues and debates	2	6	10	0	8	0	**26**
Growth	4	2	4	7	3	4	**24**
gendered entrepreneurship	2	0	1	9	9	1	**22**
owner-managers and entrepreneurs	3	1	3	6	5	3	**21**
entrepreneurial behaviour	1	2	2	6	2	4	**17**
Innovation	1	2	2	4	2	6	**17**
immigrant and ethnic minority businesses	2	2	3	2	5	2	**16**
entrepreneurship and small firms in transition and developing economies	1	2	0	1	3	8	**15**
Learning	1	0	6	3	1	1	**12**
Franchise	1	0	2	0	4	4	**11**
self employment	2	3	2	1	1	2	**11**
Cognition	0	6	1	0	3	0	**10**
entrepreneurship education	2	0	1	1	3	2	**9**
business exit and transfer	0	1	2	2	1	2	**8**
corporate entrepreneurship	0	0	2	0	3	3	**8**
marketing and marketing strategies	0	1	1	0	2	3	**7**
trust and ethics	0	0	0	5	1	0	**6**
social enterprise	0	1	0	1	1	2	**5**
Total	**95**	**95**	**108**	**119**	**143**	**136**	**696**

Other analyses of the literature on entrepreneurship and small businesses have emphasised that the agendas have been subject to a long standing influence of functionalist arguments on the economic and societal roles that small businesses and entrepreneurship play (Perren and Jennings, 2005). Accordingly, the field has been strongly linked to economic development, represented by an unquestioning need to increase employment levels, innovation, competitiveness and by a reduction of regional disparities (Audretsch and Keilbach, 2004, Fritsch and Mueller, 2004). Our data suggest that these arguments are still strong, as evidenced by the large number of papers that look at the topics of 'contribution to the economy' (40) and 'new venture creation' (48).

The principal research design of and small business and entrepreneurship studies

The methods employed and the underlying methodological assumptions underlying these have been subject to criticism by numerous commentators (Blackburn and Kovalainen, 2009; Grant and Perren, 2004). Others have pointed out the idiosyncrasies of undertaking research on small firms, particularly in data collection (Curran and Blackburn, 2001) and specific challenges regarding sampling (Short et al., 2010). In discussing the research design of papers in the entrepreneurship and small business, we divided papers into:

(i) conceptual papers, as papers that independently from the research paradigm they ascribe to, offer insights into important theoretical aspects of entrepreneurship and small business research;

(ii) empirical papers, as those that use a quantitative, qualitative or mixed method design to discuss their issue(s) of interest in (a) particular context (s). We excluded from the analysis, editorials, introduction to special issues and book reviews. Moreover, journal reviews have been classified under the respective categories described above.

In addition, we distinguished between the large number of techniques for analysis of quantitative and qualitative data available to researchers. For the purpose of this paper we differentiated between:

i. case study, thematic analysis and discourse and narrative analysis for qualitative empirical papers
ii. descriptive (i.e. frequencies, cross tabs, t-tests, Anova) and multivariate techniques (Manova, different regression types, SEM, time series) for quantitative empirical papers, and
iii. the combination of the above for mixed method design papers.

A dominant approach to undertaking research on entrepreneurship and small businesses is what Blackburn and Kovalainen (2009) call 'scientism', underpinned with the search for objective truths. More than half of the papers (59%) that were reviewed for this chapter have a quantitative design. These papers seek to measure changes and identify associations between variables. In all, the majority of research published is quantitative. As Table 3 shows, Small Business Economics and Journal of Small Business Management have a clear bias towards quantitative research.

Table 3 Principal Research Design of Papers by Journal 2003-2008

	conceptual paper	mixed method	qualitative	quantitative	Total
Entrepreneurship Theory and Practice	46	0	14	76	136
Entrepreneurship and regional development	5	7	36	29	77
International Small Business Journal	12	12	45	63	132
Journal of Business Venturing	30	3	18	65	116
Journal of Small Business Management	1	2	12	92	107
Small Business Economics	17	1	8	102	128
Total	**111**	**25**	**133**	**427**	**696**

However, the evidence summarised in Table 3 masks the specific type of data analysis. Historically, the field has tended to rely on the analysis of cross-sectional data from surveys and one-off interviews. More recently, there is a growing trend in the use of longitudinal secondary datasets, such as the Global Entrepreneurship Monitor (GEM) datasets, or national datasets in the quantitative research published. This may indicate that the volume and quality of secondary datasets is improving but also that certain variables for study are commonly used, thus, easily available for quantitative research designs. Our analysis also shows that GEM data has been used in papers whose main focus is the contribution of entrepreneurship in the economy, or the role of public policies and public intervention. Similar findings on the increased use of secondary longitudinal datasets in the SBE field were also presented by Brush et al. (2008) and Coviello and Jones (2004). Nevertheless, the majority of papers still rely on cross sectional surveys, primary and secondary, in researching small business issues.

Table 4: Data analysis in published papers

	case study	descriptive	descriptive/ thematic	discourse & narrative analysis	multivariate	multivariate/ thematic	thematic analysis	Total
mixed method	0	0	19	0	0	6	0	25
Qualitative	31	4	3	26	0	1	67	132
Quantitative	0	92	0	0	336	0	0	428
Total	31	96	22	26	336	7	67	585

Table 5: Techniques of analysis of data by Journal

	case study	**descriptive**	**descriptive/ thematic**	**discourse & narrative analysis**	**multivariate**	**multivariate/ thematic**	**thematic analysis**	**Total**
Entrepreneurship Theory and Practice	4	20	0	4	56	0	6	90
Entrepreneurship and regional development	9	5	7	6	27	0	18	72
International Small Business Journal	8	25	12	5	39	2	29	120
Journal of Business Venturing	2	7	3	9	59	2	4	86
Journal of Small Business Management	4	27	0	2	65	2	6	106
Small Business Economics	4	12	0	0	90	1	4	111
Total	**31**	**96**	**22**	**26**	**336**	**7**	**67**	**585**

Table 6: Techniques of analysis by year

	Year						
	2003	2004	2005	2006	2007	2008	Total
case study	6	9	0	4	7	6	32
Descriptive	25	10	12	21	17	13	98
descriptive/thematic	2	4	6	3	2	3	20
discourse & narrative analysis	0	2	6	5	9	4	26
Multivariate	35	37	52	64	71	76	335
multivariate/thematic	1	1	1	1	2	0	6
thematic analysis	14	8	8	8	12	14	64
Total	83	71	85	106	120	116	581

Table 6 presents evidence on the type of techniques that are used for data analysis in the sample of papers under study. Quantitative designed papers rely heavily on multivariate techniques (78% of papers) whilst qualitative papers are more inclined towards the use of a thematic analysis (51%). Multivariate techniques outweigh the use of more descriptive approaches across all the journals we have studied, although there are some variations between journals. In the Journal of Business Venturing and Small Business Economics, 91% and 88% of quantitative papers use multivariate techniques compared to 73% and 71% in Entrepreneurship Theory and Practice and Journal of Small Business Management, respectively. The use of sophisticated statistical techniques may be an indication of requirements for scientific rigour in the field. The statistical analysis of survey material show a high level of rigour, including structural equation modelling (SEM), which include both national and inter-

national analyses. Examples are to be found in all the six ISI rated journals but particularly in Small Business Economics, reflecting the tradition in economics-based studies (see Table 5). However, we would suggest that there is a need for further development across all study types. Breakthroughs need to be made, especially in terms of the use of longitudinal studies which as mentioned earlier, are still limited in numbers although increasing and plenty of opportunities are available.

Our detailed investigation found that the qualitative research published in the journals is mainly reported as in the form of case studies. However, the case study method is frequently used to describe an interviewdesign, and too often based on single interview approaches. Longitudinal studies in the case of qualitative research are very limited, though there have been calls for such designs by many scholars (RAE 2008 feedback). Within the qualitative research category, a detailed examination shows a limited use of alternative methods of research, such as discourse analysis, narrative analysis and so on. For example, only 12 papers in our dataset use narrative in their research. Seven of these papers were published in 2007 in a special issue of Journal of Business Venturing, on "Old questions, new research-Narrative". The other five are published in the International Small Business Journal and Entrepreneurship and Regional Development by European researchers. The analysis also suggests an Atlantic divide: only four of all the narrative papers are published by North American based authors. Similarly, across the sample as a whole, European researchers have published 2.5 times more qualitative papers than their North American colleagues. This finding gives some support to earlier studies that consider European researchers to be more open towards alternative methodological approaches compared with their American counterparts (Davidsson, 2008; Welter and Lasch, 2008). It also suggests that the picture presented by Aldrich (2000) almost a decade ago, that European researchers are more likely to use fieldwork and qualitative methods has continued.

The large number of conceptual papers published in the study period suggests a maturation of the field, with researchers now focusing on conceptual rather than empirical issues. In Table 7, there is a very strong (though not surprising) overlap with the papers on 'methodological issues and debates', 'the developing domain of entrepreneurship and small business' and 'conceptual papers'. Examples of such papers include Gartner on *Variations of Entrepreneurship*, which employs narrative and is published in Small Business Economics in 2005; and the one by Levesque on *Mathematics, Theory and Entrepreneurship* which looks at the use of mathematical models to develop theories on entrepreneurship, published in Journal of Business Venturing in 2003. These two examples illustrate the recent openness of the field towards different ideological assumptions and also its links with mainstream disciplines. There is a noticeable reliance on economics and management disciplines although some papers also rely on psychology, sociology and anthropology. Most of the papers are positivist in nature, as noticed for the sample as a whole. However, there are papers with a clear social constructivism inclination (10 papers), phenomenology (9 papers) and few papers that call for multi paradigmatic use in entrepreneurship research. Interestingly, when it comes to conceptual papers, North American researchers are more dominant. This finding is consistent with Brush et al., (2008), who found that American research shows a higher incidence of grounded theory development and theory testing rather than original fieldwork.

Table 7: Research design by topic

Main topic of research	Research design				
	conceptual paper	mixed method	qualitative	quantitative	Total
challenges of development and performance	0	1	6	50	57
networking and external relations	11	6	20	20	57
public policy and state intervention	3	5	19	28	55
new venture creation/opportunity recognition	9	0	6	31	46
contributions to the economy	3	0	6	30	39
finance and financial management	1	0	2	36	39
the developing domain of entrepreneurship and small business	17	0	8	9	34
family business	9	0	4	20	33
international business	3	2	4	23	32
human resource management and employment relations	2	2	10	16	30
strategy	2	0	4	22	28
methodological issues and debates	14	0	8	4	26
growth	0	0	2	22	24
gendered entrepreneurship	1	0	3	18	22
owner-managers and entrepreneurs	4	1	1	16	22
entrepreneurial behaviour	5	0	2	10	17
innovation	4	0	3	10	17
immigrant and ethnic minority businesses	1	2	4	9	16
entrepreneurship and small firms in transition and developing economies	1	1	3	10	15
learning	4	1	2	5	12
franchise	0	1	4	6	11
self employment	1	1	0	9	11
cognition	8	0	0	2	10
entrepreneurship education	1	0	3	5	9
business exit and transfer	0	0	1	7	8
corporate entrepreneurship	2	0	1	5	8
marketing and marketing strategies	1	1	2	3	7
trust and ethics	1	1	3	1	6
social enterprise	3	0	2	0	5
Total	**111**	**25**	**133**	**427**	**696**

Our data provides us with some clear, though not surprising, links between the topic of the research and the research design used (Table 7). As shown earlier there is an inclination towards quantitative papers across the whole sample. However, for some topics the ratio of quantitative papers to the total of papers under that classification is much higher than the 61% for the sample as a whole. For example, for papers covering the topics ‘finance and financial management’ and ‘growth’ a large

percentage of all papers are quantitative in design at 92% each. Topics on 'gendered entrepreneurship', 'challenges of development and performance' and 'self employment' are also predominantly quantitative.

More specifically, under the classification 'finance and financial management', only two out of 39 papers have used a qualitative research design. Further investigation shows that even these tend to utilise a positivist methodology. One of the papers published in Journal of Business Venturing in 2004 by Gorman, Rosa and Fasurek entitled *'Institutional lending to knowledge-based businesses'* uses quantitative multivariate techniques to analyse the large volume of data that was generated for their study. The same applies to papers under the growth classification. Out of the only two papers that employ qualitative methodologies, one uses a case study and the other one published in the Journal of Business Venturing in 2004 by Barringer, Jones and Neubaum and entitled *A quantitative content analysis of the characteristics of rapid-growth firms and their founders*' uses their qualitative data in a positivist approach.

Not surprisingly, the two paper examples are also published in the Journal of Business Venturing that, as mentioned earlier, tends to favour positivist, quantitative approaches (Perren, 2004). These two examples further illustrate the dominance of quantitative research designs in entrepreneurship and small business studies and the difficulty of researchers to pull themselves out of a mind frame that seeks generalisation, causality and replication rather than engage in what Cassell and Symon (2005) term 'pure' qualitative research.

On the other hand, for some topics such as 'networking and external relations', 'entrepreneurship education', 'human resource management' and 'marketing' it is difficult to define what methods they mostly relied on, since the number of qualitative and quantitative papers is either equal or similar as shown in Table 7. This is probably a reflection of the breadth of the area and the interest from a variety of researchers.

Geographical focus of small business and entrepreneurship studies

In our review we looked at both: (a) the geographical context of the study for empirical papers; and (b) the country affiliation of the main authors. An analysis of the context of study shows that most research is focused on single countries: predominantly the UK (94 papers) and the USA (147 papers). Other single country contexts worth mentioning are Australia (18 papers), Belgium (10 papers), Canada (20 papers) Germany (27 papers), Spain (19 papers) and Sweden (21 papers). 88 papers study multi country contexts. Clearly, the field is international, and there has been a rise in the amount of international based topics.

At the researcher level, the data suggest a dominance of USA and UK authors, a finding which may be also affected by the fact that the journals selected are either American or British. Out of 130 papers that are authored only by British based researchers, 57 have been published in the International Small Business Journal. 239 papers are authored by USA based researchers and these have been mainly published in US journals: Entrepreneurship, Theory and Practice, Journal of Business Venturing and the Journal of Small Business Management. These figures, for UK and USA researchers, exclude studies where they are lead researchers in collaborations with researchers in other countries, 12 and 25 studies respectively (Table 8). It is notable that there are a low number of lead authors from

France and Italy in these journals. This may be a reflection of the existence of prominent entrepreneurship and small business journals located in these countries and using their own language: *PME* in France and *Picola Impressa* in Italy. However, this 'partial isolation' as Aldrich (2000) would call it whilst helping in the creation of national research identities (Welter and Lasch, 2008), may inhibit the international exchange of ideas from these countries.

On the other hand, there has been a rise in the amount of international collaboration between researchers (Table 9). German researchers are authors in 23 collaboration studies followed by Dutch researchers whose names appear in 20 collaborations. The finding for German researchers is quite interesting considering that earlier studies (Schmude et al., 2008) characterised the German entrepreneurship research community as inward looking and not very active in building and gaining legitimacy internationally.

Whilst only 15% of all papers in our sample are a result of international collaboration between authors, it is interesting to discuss the research topic differences in this trend. In this respect, 40% of the papers under topics such as 'contribution to the economy', 'entrepreneurship in transition economies' are international collaborations. This is related to the comparative nature of most of these studies. Above average figures also apply to topics such as international business, networking and external relations and entrepreneurial behaviour which are research topics in need of a diversity of perspectives and further theoretical advancement.

This section on the geographical focus of research on entrepreneurship and small businesses showed that US researchers dominate the field. This brings with it a focus on quantitative research designs that, more often than not, appear to be the method of choice for American researchers. It is also evident that four of the journals under study are American journals and this may have biased our findings. An important finding is that certain topics really require a diversity of perspectives and methodological stands which is best achieved in comparative studies or research collaborations that tend to benefit from these differences.

Limitations of the Review

The aim of this Chapter is to assess the condition and developments of SBE research by looking at papers that have been published in six ISI ranked journals in the past six years. 696 papers were analysed across a range of aspects including topic of discussion, methodology employed and level of internationalisation. As with all research, this Chapter has limitations. A key limitation of the review is the classification of topics discussed. We accept that the classification is subjective and as such may not be replicable, thus leading to questions regarding the validity of the exercise. However, we counter this accusation by reference to other similar exercises in other fields which are no more objective than ours. However, whilst this diversity of topics in SBE research reflects the complexity and heterogeneity of entrepreneurship itself, space and time limitations meant that we were not able to reflect the full diversity of topics. Examples of more detailed topic-specific studies are, for example reviews by Coviello and Jones (2004) for international business studies; and Cassell and Symon (2005) on industrial organisation psychology studies. The review is also limited to six journals that are published in English language and have an ISI ranking. We defend this on the grounds of focusing on the leading journals in the field. Despite the pressure and appeal for researchers to publish in

these top journals, we recognise that there are other country-based publications and non-ISI rated journals. If we are concerned about the status and rigour of the field, then work also needs to be pursued in relation to the diffusion of entrepreneurship and small business studies into mainstream journals.

Our analysis does not consider the publication of small business and entrepreneurship outputs in mainstream management journals or the social sciences more broadly. These would provide the field with much higher esteem, demonstrate that scholars are engaged in mainstream debates and show legitimacy and maturity amongst the academic community (Short et al., 2010). Engagement with core social science disciplines would also allow the field to develop a more critical edge, for example, in terms of questioning the norms or homogeneity of agendas pursued by researchers. There is evidence that this is now happening as shown by a number of papers, for example, in the mainstream business and management journals such as British Journal of Management and the Academy of Management Journal. However, the ability and extent of research from the field of SBE to impact upon what Zahra and Newey (2010) term 'core theory' remains unexplored.

Conclusions and Implications

In this Chapter, we have sought to review and analyse the development of the field of small business and entrepreneurship (SBE) by taking stock of where it is with respect to the main topics and methods employed in journal articles. The analysis in this Chapter has emphasised a number of issues related to research in the field of SBE. We conclude with a number of key findings from our review and their implications and some implications for other developing fields in the business and management area.

It is fair to argue that SBE displays the characteristics of a field that has achieved a certain level of maturity in terms of scale, quality and pedagogic embeddedness in academic curricula. The debates and reflections by academics on SBE, illustrate that there is a body of knowledge which demonstrates that the field has now come of age. However, the evidence also show that the field is permeable from other mainstream and applied fields and that this adds to its methodological preferences and intellectual dynamism.

The focus of the topics in the SBE field continues to be broad. This is reflected in the large number of classifications that emerged from this research and has been emphasised in previous analyses (eg. Kuratko, 2006; Brush et al., 2008; Welter and Lasch, 2008). Nevertheless, despite this engagement with numerous research topics, the data in this Chapter suggest that not much has changed in terms of theorising. Much research is still employing an ideological position that links entrepreneurship, and especially venture creation, to economic development. This position continues also to 'fuel' policy related work sometimes to the detriment of establishing a link between theory and policy. This outcome, we would argue, is a weakness and requires addressing if the field is to raise its significance as a field of academic study.

On the other hand, the number of conceptual papers and their emphasis are a good omen for the maturation of the field towards developing a theoretical framework or a range of frameworks. We are aware that a unified theoretical framework will most probably be impossible to achieve since, as Davidsson (2008) argues:

"...when there is a large number of factors involved, which have variable measurability and effects, our analysis techniques and cognitive capacities may not suffice to disentangle the true nature of the relationships. Hence the many confusing, apparently conflicting results and lack of cumulative growth of knowledge in many areas of entrepreneurship research" (p. 17).

An analysis of the type of research designs used in the field continues to emphasise the paradigmatic dominance of functionalism. This observation is especially for those SBE topics that are of policy interest, such as business growth, public intervention, contribution to the economy or new venture creation. As a whole the SBE field is dominated by quantitative research designs and by a need to prove that research can be generalised. As we showed in some cases even those researchers that collect qualitative data rely on quantitative analysis of them. There have been frequent calls by researchers for multi paradigmatic approaches sin entrepreneurship research which have been accompanied by the use of alternative methodologies in SBE research. However, this needs to be developed further.

One aspect of research on SBE studies that is worth mentioning relates to the need to embrace longitudinal designs that would study a phenomenon over time. Whilst in some of the quantitative designs this has been possible due to the improvement of national datasets, or GEM datasets, in qualitative research this design is almost absent. Most of the SBE topics that we discussed in this review have a 'time' specificity dimension. Thus, they should be conceptualised as a process and studied accordingly, with the use of longitudinal designs.

There has often been a debate in the literature on the methodological focus of the journals and how it affects the type of research that is being produced. The bulk of research in journals tends to be quantitative and this is especially so in some journals. In their efforts to have their work published in top journals, researchers have tended to conform to these methodological straightjackets. According to Schmude et al. (2008), the focus on what is publishable and what is not, is going to diminish national differences in entrepreneurship research, as younger entrepreneurship researchers are most likely to focus on quantitative studies. Our review showed that American based journals, including Small Business Economics, Journal of Business Venturing and Journal of Small Business Management, have a clear inclination towards quantitative research. We could argue that this positioning of journals or, perhaps, the perception of researchers about the methodological position of journals, has hampered the efforts of many researchers to experiment with methods and contribute to the methodological development of the field.

The geographic focus of the research showed that despite an American and British domination of the field, not only in terms of the context studied but also the affiliation of researchers, SBE research has been also enriched by the perspectives of researchers in European countries. We refer not only to native English speakers such as Canadian or Australasian researchers but also researchers in other countries. This is very important finding considering the view that small firms are omnipresent and entrepreneurship is embedded in society and the knowledge of contextual differences is helpful in engaging in the construction of a comprehensive theoretical framework. However, it is important that the internationalisation of entrepreneurship research does not lead to the disappearance of country specific research traditions that have enriched the field to date.

Overall, we can conclude that the SBE literature has developed significantly as a major field for study in business and management more broadly. This concurs with analyses elsewhere (eg Kurakto, 2006; Short et al., 2010; Welter and Lasch, 2008). A number of research communities have been developed with each of them pursuing the agenda of strengthening their sub-field of interest. The nature of this study did not permit the study of the progress of such communities but we believe a main challenge stands in establishing convergence of these studies and the possible conceptual links or constructs they use. There is reason to believe that, in many research communities, the journey towards convergence has already started (Gregoire et al., 2008; Brush et al., 2008). However, research should develop further in assessing the status of research in each of them and their links with wider research agendas.

In addition the field is slowly progressing towards becoming more paradigmatically diverse and international in nature. These two characteristics are also crucial in gaining diverse perspectives and understanding contextual differences. Journals have also a role to play in this respect since calls for special issues have generated paradigmatically diverse publications. Future studies should focus on establishing bridges amongst these various sub-fields within entrepreneurship and small business research, in order to move towards a more comprehensive field and well as engage more directly with mainstream disciplines such as psychology, economics and sociology.

For the main stakeholders of SBE, the analysis has a number of implications. For those involved in enterprise education, the review demonstrates that there has been a rise in the volume and quality of the research base, providing them with an increasingly rigorous base for teaching materials. For those involved in public policy critiques and development, the research base also demonstrates a growing significance. However, care should be taken to assume that SBE is necessarily a desirable route for economy and society. For those undertaking research in the field, the Chapter shows that although SBE has come of age, a much more critical perspective is required for the field to achieve greater originality, significance and rigour as an academic area. This, we would argue, not only requires theorising and conceptual development within itself, but also requires engagement with a wider, rather than narrower, range of disciplinary fields. This will facilitate the drawing upon state of the art concepts and approaches in the social sciences more broadly.

The field has come a long way in the past 40 years and arguably has been one of the most dynamic in business and management more broadly. However, as the field has developed and continues to do so, care should be taken to avoid a slippage towards a homogenised community, pursuing narrow 'pro-entrepreneurship' agendas. It is the outputs of this community which ultimately provide the 'bedrock' of the SBE knowledge base. With this comes a responsibility to be critically reflective, question taken for granted assumptions and pursue agendas using appropriate methodologies. It is this critical awareness and understanding of alternative approaches which will allow researchers to be able to make their strongest contributions to theory and practice in the field of SBE.

The development of the SBE, as a legitimate field of study, raises a series of issues for researchers in both nascent and already established areas of investigation within business and management more broadly. First, the rise of SBE demonstrates the dynamism of business and management as an area of study more broadly: researchers are engaged in relevant research, reflecting the changes in economy, work and society more broadly. However, although the field of study is now well-developed with its own coterie of world-class scholars, whether there is sufficient recognition or engagement by the

mainstream 40 years or so after the field took-off, remains open to question. In other words, the case of SBE shows that it takes time to infiltrate and then influence the direction of the mainstream. Second, there appears to be a continued debate regarding the scope of the field. Other new areas of study may go through a similar questioning of the focus of their subject. Our analysis suggests that progress is not contingent on tightly limiting the focus of the field of study. Indeed, legitimacy seems to have been achieved by the acceptance, rather than rejection, of different agendas, methodological approaches and audiences. This helps in connecting with mainstream agendas and ensuring research that is relevant and rigorous. Whether or not, or the extent to which the field is now transforming the core of business and management research, however, remains open to debate. Third, although ostensibly scholars in the field use a range of methodological approaches, detailed analysis shows a tendency for the field to be dominated by a positivist research paradigm. Whilst the reasons for this are not immediately apparent, it may be speculated that this may be a result of the broader criteria used for publication in 'leading' journals. We would encourage key researchers to embrace experimentation rather than merely going with convention and tried and tested approaches. This includes those pursuing research in business and management, editors and referees of field and mainstream journals, conference organisers and those designing research programmes. Fourth, the field of SBE is international. It appears that the internationalisation of the field has helped in the maturation process. Although this has led to a domination of some areas by US journals and their methodological preferences on balance, this internationalisation is regarded as critical to achieving legitimacy. Indeed, it could be argued that this process is axiomatic to the recognition process of the field. In discussing these broader implications it must be pointed out that the development of this field does not provide a blueprint for others. Instead, it shows a pattern of development leading to a range of landmarks that are important for the legitimacy of a field. We would also argue that the future of SBE, to continue as an exciting and vibrant field of study, depends on the ability of researchers within the field. It is important that they utilise a variety of methods available in the broader social sciences if they are to exert influence on the debates and direction of the area of business and management.

Table 8: Publications by Journal and Researcher's Country

Researcher's Country Affiliation	Entre-preneurship Theory and Practice	Entre-preneurship and regional develop-ment	International Small Busi-ness Journal	Journal of Business Venturing	Journal of Small Busi-ness Man-agement	Small Busi-ness Eco-nomics	Total
USA	75	7	9	61	55	32	239
UK	19	24	57	7	4	19	130
Canada	6	0	4	8	6	4	28
Germany	3	2	3	2	1	10	21
Sweden	4	5	4	3	2	3	21
Spain	2	5	4	0	5	4	20
Australia	3	1	6	1	6	0	17
Netherlands	1	4	3	0	3	4	15
Belgium	0	2	0	1	2	6	11
Italy	1	2	2	0	0	3	8
Norway	2	4	2	0	0	0	8
France	1	1	3	0	1	1	7
USA/Canada	3	0	0	3	1	0	7
New Zealand	0	1	2	0	2	1	6
Singapore	0	1	0	3	1	1	6
Denmark	2	0	1	2	0	0	5
Ireland	0	0	2	0	2	1	5
Japan	0	0	1	0	1	3	5
Switzerland	0	2	1	2	0	0	5
Total	**122**	**61**	**104**	**93**	**92**	**92**	**564**

Note: This table excludes different country collaborations and countries that have published less than 5 papers

Table 9: Research collaborations across countries

Country of lead author	Countries of collaboration	Total of papers in collaborations
USA	Belgium/USA (1); Bulgaria (2); Canada (7); Chile (1); France (1); Germany (2); Germany/Chile/Spain (1); Germany/Ireland/Hungary/Australia (1); Italy (2); Israel (1); Spain (1); Turkey (2); UK (1); Singapore (1); UK/Switzerland (1);	25
Canada	Belgium (1); India (1); Israel (1); Netherlands (2); Switzerland (1); Taiwan (1); UK (2); USA (4)	13
UK	Finland (1); France (1); Germany (2); Greece (1); Ireland (1); Malaysia (1); Netherlands (4); Sweden (1)	12
Netherland	Sweden (1); Germany (4); Germany/USA (1); Italy (1); New Zealand (1); UK (1); UK/Germany (2)	11
Germany	Canada (1); Denmark (1); Netherlands (1); Netherlands/UK (1); UK (1); USA (1); USA/Hungary (1)	7
France	Canada (1); Germany (2); Peru (1); Slovenia (1); Sweden (1)	6
Sweden	Finland (1); Germany/USA (1); Israel (1); USA (3)	6
Switzerland	Belgium (2); Finland (1); Germany (1); USA (2)	6
Finland	South Africa (1); Sweden (1); Switzerland (1); USA (1)	4
Australia	Sri Lanka (1); Sweden (1); USA (1)	3
China	Canada (1); USA (1); USA/Canada (1)	3
Norway	Australia (1); UK (1); USA (1)	3
Singapore	Canada (1); Finland (1)	2
Spain	Netherlands (1); UK (1)	2
Denmark	Sweden (1)	1
Hungary	Australia/Germany/USA (1)	1
Italy	UK	1
Mexico	Canada	1
New Zealand	UK	1
Turkey	UK	1
Vietnam	USA	1
Total		**110**

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Rencontres de St-Gall 2010

Tuesday Morning, Sept. 7, 2010

Topic B

Incubation and Startups

Papers:

- Dana
- Mugler, Fink, Roessl
- Kamei
- Kazumi
- Matthews, Khayat
- Niiya, Taji
- Virtanen
- Welter
- Zanger

The Social Role of Entrepreneurship Strategies among Sámi Family SMEs[1]

Leo Paul Dana
GSCM Montpellier, France[2]

Abstract

The Sámi are the indigenous people of northern Norway, Sweden, Finland and Russia's Kola Peninsula. Here, reindeer herding, conducted by families and referred to as reindeer husbandry entrepreneurship by the Reindeer Herders' Association, has long been a livelihood with a very high social value. What is required to simultaneously produce economic and social value? Content analysis of interviews conducted with Sámi reindeer herders reveals that participants in this study claimed that the causal variable behind their herding was maintenance of tradition and not necessarily limited to the maximisation of financial profits. Since reindeer herding is of limited economic value, a successful strategy has been to seek complementary activities to supplement income from reindeer husbandry and create additional wealth, while preserving the social value of a culturally-desirable form of entrepreneurship. Lower meat prices have prompted greater involvement in economic activities outside the reindeer sector, allowing herders to remain in a low-profit sector of social value.

Introduction

Reynolds noted, "Entrepreneurship scholars have generally focused on either individual entrepreneurial behavior or the activity of entrepreneurial (new) firms (1991, p. 48)." A problem identified by Davidson and Delmar (1992) is that most studies concentrated on entrepreneurs and ignored the general population from which these entrepreneurs emerged. While the economic environment may explain some factors, it is also important to take account of the social and cultural aspects of entrepreneurial activity (Dana, 1995; Drakopoulou Dodd and Anderson, 2007). This paper will consider entrepreneurship, in the context of Sámi culture that assigns social value to participation in the reindeer sector. As explained by Paine, "capable herding bestows general esteem on a person (1964, p. 85)."

Reindeer herding continues to have social value among Sámi circles. An old Sámi legend recounts the story of Háhcešeatni and Njávešeatni, two sisters, each of whom were said to have had reindeer that came freely to be milked. Háhcešeatni was unkind to her reindeer, and these left her and gave rise to the wild herds. In contrast, Njávešeatni's reindeer remarked, "I will never leave here. My mistress is

[1] This paper presents partial findings of a larger study, complementing an article co-authored with Ivan H. Light and forthcoming in *ERD*.

[2] The author expresses thanks to the following for their kind assistance in the research phase of this paper: Veli Pekka Olavi AIKIO, Past President, Sámi Parliament, Finland; Liisa REMES, University of Jyväskylä, Finland; Janne SEURUJÄRVI, Managing Director, Inari Municipal Business Company, Ivalo, Finland; and Trond THUEN, Department of Social Anthropology, University of Tromsø, Tromsø, Norway. Thanks are also due to the following for comments on earlier drafts of this paper: Hannu I. HEIKKINEN, Thule Institute, University of Oulu & Arctic Center, the University of Lapland, Rovaniemi, Finland; Teemu KAUTONEN, Academy of Finland Research Fellow, Turku School of Economics, Finland; Lars KOLVEREID, Bodø Graduate School of Business, Norway; Ludger MÜLLER-WILLE, Department of Geography, McGill University, Montreal, Canada; Seija A. NIEMI, University of Turku, Finland; Lars RØNNING, Nordland Research Institute, Norway; Terhi VUOJALA-MAGGA, Arctic Centre, Ivalo; and Birger WINSA, Department of Finnish, Stockholm University, Sweden.

much too good to me. She strokes me gently when she milks me. I do not have the heart to leave her to starve alone (Bergsmo, 2001, p. 11)."

For Sámi herders, the profession is of cultural significance. Anderson suggested that "the reindeer still functions as a cultural focus with which all Saami identify (1983, p. 180)." As noted by Turi, "The position of reindeer breeding in the northern areas is unique. No other land-based agricultural branch in northern areas has such long traditions in the Arctic as this economic activity…Domestic reindeer breeding represents not only sustainable exploitation of the marginal nature resources in the North, but is also the cultural basis of the many small tribal societies of the North (2000, p. 131)."

A greater number of animals signifies more wealth and power. Lee, Press, Lee, Ingold and Kurttila elaborated on the subject of status, "The greater the number of reindeer owned the higher the status of the owner within Saami society (2000, p. 103)." Jernsletten and Klokov indicated, "that the self-esteem and self-respect of the people involved in reindeer husbandry is strong, even increasing (2002, p. 21)." More recently, Laakso confirmed that a larger herd still "gives a higher social status inside the local community (2009, p. 63)."

What is required to simultaneously produce economic and social value? This article shall report findings obtained from interviews conducted with Sámi reindeer herders.

Context

It is important to understand the context of entrepreneurship, and the epistemology that surrounds it. Likewise, sense of identity and of land ownership reveals much about internal logic. An American says, "I am American," and Norwegians say that they "are" Norwegian; a Sámi person often says, "I belong to the Sámi people." While a Scandinavian may say, "I own this land," a Sámi is likely to say, "My people belong in Lapland."

When Descartes (1637) introduced the concept of, "I think, therefore I am," he articulated a premise central to European and Euro-American epistemology, *i.e.*, that the individual mind is the source of existence and knowledge. Nevertheless, Norwegian anthropologist Fredrik Barth wrote, "the entrepreneur must initiate and coordinate a number of inter-personal relationships in a supervisory capacity to effectuate his enterprise (1963, p. 5)." In the case of Sámi reindeer herding, the individual's existence is contingent upon relationships with others. Each reindeer has one owner, but herding must be done in co-operation with others. Unlike Schumpeterian entrepreneurs, who compete against one another in search of individual success, the success of each Sámi reindeer herder depends on the mutual cooperation of reindeer herders. The traditional unit of co-operation is the siida, a co-operative by nature. Despite co-operation among members, there is competition between co-operatives, for resources and for markets.

The siida – the plural of which is siidât – does not claim to be democratic; rather, solutions are reached by consensus and for this reason cooperation is essential. Manker explained "Siida is a normalized form of the Lappish term for 'the group', a group of families who migrate together, have their reindeer in a common herd and their dwellings in the same place (1953, p. 13)."

Whitaker confirmed, "The natural basic unit of Lappish society is the elementary family (1955, p. 37)." Haetta wrote, "The Sámi people have always had common ownership, land belonging to the group…This is advantageous and necessary because stocks of fish, game, valuable fur animals and other resources are unevenly distributed within a district. Dividing the land into private sectors would

be difficult and pointless. If land were individually owned and could be passed on to children, the size of each piece would soon become smaller and smaller from one generation to the next. Finally, individual families would not have enough land to maintain their semi-nomadic way of life (1996, p. 21)."

Helander (1999) described the siida as a kinship group. Jääskö elaborated on the importance of kin, "it should be noted that the most effective and most durable economic unit in reindeer herding is not the reindeer woman or reindeer man, but the family (1999, p. 36)." Tuisku wrote, "The most important characteristic of pastoralism is that it is a predominant economic activity in which the whole family participates (2002, p. 101)." Turi (2002) confirmed that a crucial element in the organisation of reindeer herding is the siida, which he defined as a working community consisting of one or more families. Nyyssönen clarified, "*Siida* is Northern Sámi, and means a Lapp or reindeer village. It refers both to the area and the people living in the autonomous area of *siida* (2003, p. 252)."

Riseth (2003) listed the regulatory principles of Sámi herding society: (i) the autonomy of the husbander, in "that all husbanders are their own masters (p. 232)"; (ii) the social bonds of the extensive kinship system, resulting in "a network of mutual obligations through genetic and social kinship (p. 232)"; (iii) partnership and siida solidarity; (iv) dialogue and consensus; and (v) responsibility toward the land and the spirits. Man, society and nature are viewed as interconnected; for a discussion of the land and the spirits of the Lule Sámi, see Rydving (1993).

Bjørklund explained siida as referring "to a group of reindeer owners who live and migrate together, and to the herd of reindeer owned and herded by them (2004, p. 125)." He added, "the *siida* represents a flexible cooperative unit between people and animals (Bjørklund, 2004, p. 126)." Flexibility is crucial; in the winter, when a pasture might not sustain a specific herd, a Sámi strategy is frequently to divide the herd into smaller ones and to move each to a different area. "The strategy of the pastoralists is never to be in a position where the size and composition of the herd is not in proportion to the available labour and pasture (Bjørklund, 2004, p. 126)."

Related Literature

There has long been interest in the Sámi people (Clarke, 1824a; 1824b; Brooke, 1827) and their reindeer herding (Collinder, 1949; Elbo, 1952; Itkonen, 1951; Manker, 1953; Shor and Shor, 1954; Weber, 1939; Whitaker, 1955). Clarke wrote, "The *Lapps* are said to be more cunning than the *Swedes*, who consider them as a crafty set of knaves; just as the *Gipsies* are regarded everywhere. Perhaps their cunning may be principally due to the necessity they are under constantly upon their guard, lest they be maltreated; the people considering them as an inferior order of beings in the creation, and thinking it lawful to make them the objects of contempt and ridicule, using their very name, *Lapp*, as a term of degradation (1824b, p. 169)." Nowadays, the term "Sámi" has replaced the formerly used word "Lapp." Their traditional land is referred to as Lapland or Sápmi.

Fisher suggested, "Here we find the usual order of things reversed, man's life being ruled by an animal's needs (1939, p. 641)." Collinder confirmed, "The life of the reindeer nomads is regulated by the migrations of their reindeer (1949, p. 105)."

According to Vorren (1960; 1973) domestic reindeer herding replaced Sámi reindeer hunting during 16th century. The Sámi thus evolved from being a food-extracting society to a food-producing society.

As explained by Lähteenmäki, "Finnish Lapland emerged in 1809 when Sweden lost its eastern part of Lapland to Russia after the Finnish War. The area ceded was integrated into the Grand Duchy of Finland, an autonomous area in the Russian Empire (2006, p. 696)." During the 19th century, Clarke wrote, "The *Laplanders,* or *Laps*… constitute the only remaining branch of the ancient inhabitants of *Finland* … (1824a, p. 328-329)." Yet, they were quite misunderstood. Clarke wrote, "they pretend that of the Ten Tribes of *Israel* led captive into *Assyria,* a portion migrated to the *North,* and bestowed their own appellations upon the mountains, lakes, and rivers; adding that the *Lapland* language approaches near enough to the *Hebrew* for the two people to understand each other's speech (1824a, p. 329)."

Traditional principles of Sámi entrepreneurship included the absence of land ownership and the absence of labour markets. The right of ownership was substituted by traditional usage rights to certain areas, often sequential. Land was neither bought nor sold. Likewise, manpower was not a good that could be bought and sold. The economic system was based on mutual exchange of services within the clan. Clarke wrote of the Sámi, "in their dealings demand specie, refusing the paper-currency of the country whenever it is offered Clarke (1824b, p. 169)."

In parallel, during the 19th century, Youatt wrote about the sheep business: "The milk and the wool were the only products for which this animal was domesticated, and for which, in some parts of the world, he is even at the present day bred. In proportion, however, as agriculture has improved, the milk of the sheep has ceased to be an article of human sustenance, and has been appropriated to its natural purpose, the food of the lamb (Youatt, 1866, p. 43)." In contrast, the Sámi made use of the entire reindeer, including its milk. Clarke (1824b) described the milking of "hundreds (1824b, p. 171)" of reindeer nightly. Ruong confirmed that reindeer milk used to be "an important item of food (1967, p. 31)" for the Sámi people.

Fisher observed, "When a reindeer is killed, every part of the carcass is utilized (1939, p. 648)." Reindeer hides were used for clothing and for shelter. The skin from a reindeer's legs, referred to as *bellingar,* was used to make winter boots, sewn with thread of sinew. Antlers and bones that could not be eaten were turned into utensils. As Beach explained, "Reindeer antler, when mature and hardened, affords a strong material for innumerable uses (1990, p. 255)."

With regards to the size of a flock of sheep, Wrightson noted, "A flock of a thousand ewes is unquestionably a valuable property. Such a large flock…is maintained upon about 1,000 acres of land…Where 1,000 stock ewes are kept 1,100 lambs may be reasonably looked for (1905, p. 195)." In contrast, Whitaker wrote, "a family of 3 would require 20 reindeer for their own personal needs (*i.e.*, food), apart from those sold to bring in income (1955, p. 35)." Usually, between 10 percent and 20 percent of the herd consisted of draught reindeer. Olson described reindeer transport during the 1930s, "In descending a very steep grade, the reindeer is hitched behind the sleigh. The animal resents being pulled by the head and digs his forefeet into the snow, thus providing effective breaks (1938, p. 512)."

During WWII, the Sámi lost land to Russia as the boundary between Finland and the Soviet Union was redrawn; Skolt Sámi were resettled accordingly. For studies of the Skolt Sámi see Ingold (1976) and Pelto (1962).

Post-war accounts include Bradley (1947), Collinder (1949), and Itkonen (1951). According to Itkonen (1951), an average-sized Sámi family required 300 reindeer to support its members. Shor and Shor stated, "Twenty females are the minimum for a practical herd (1954, p. 269)."

Shor and Shor noted the speed of reindeer, "In winter the splay-footed beasts pull Lapp *polkas* 10 miles an hour on long trips, easily reach twice that speed on shorter stretches (1954, p. 280)." Until the 1960s, draught reindeer were given names; when too old to travel, they were slaughtered and eaten. During the 1960s, snowmobiles gradually replaced draught reindeer; as noted by Pelto and Müller-Wille, "The use of reindeer sleds for any sort of transportation was almost completely obsolete by 1967, and even economically marginal households throughout northern Lapland found means to purchase machines during the late 60s (1972/3, p. 119)." Although one still sees draught reindeer in Russia, draught reindeer in Scandinavia were completely replaced by snowmobiles (Hukkinen, Heikkinen, Raitio, and Müller-Wille, 2006; Müller-Wille, 1978; Müller-Wille and Pelto, 1971; Pelto, 1973).

Siuruainen and Aikio (1977) discussed the livelihood of Sámi people in Finland at the time. Lenstra observed, "reindeer herding has undergone over the past 10-15 years a change from a subsistence economy to an increasingly pronounced financial economy (1978, p. 43)." Pelto (1978) described such change as the de-localisation of resources. Herding activities became increasingly mechanical as the reindeer economy became a meat production business. Direct dependence on nature and on the traditional family business was reduced. Thus, traditional subsistence self-employment discussed by Barth (1952) yielded to a cash sector. Beach wrote, "Money economy is no longer simply an attractive alternative affording luxuries and new comforts, it is a vital need (1993, p. 25)." Haetta explained, "Mechanization and the market economy have replaced self-sufficiency (1996, p. 3)," and elaborated, "Self-sufficiency has been replaced by occupational specialization and dependence on consumer goods (Haetta, 1996, p. 48)."

Burgess (1999) found that although nobody lives exclusively from fishing, this provides a supplementary source of income and food. A problem, however, is that substantial commercial fishing has overfished some waters. Some Sámi people must now buy fish and meat.

Lee, Press, Lee, Ingold and Kurttila (2000) reported on reindeer herding in Finland at the turn of the millennium, noting that of about 7,000 reindeer owners in Finland, two-thirds owned fewer than 25, and 7 percent owned 100 or more, and that "Although many Saami herders have additional employment, reindeer herding is still regarded as being of high cultural importance (Lee, Press, Lee, Ingold and Kurttila, 2000, p. 103)."

Heikkinen (2006) observed cultural adaptation models among reindeer herders of the 21st century. As European Union regulations impacted reindeer herding in Finland, participants in a study of Sámi reindeer herders in Finland (Dana and Dana, 2007) expressed concern about the impact of external pressures on reindeer herding.

Heikkinen, Lakomäki, and Baldridge (2007) interviewed Sámi and non-Sámi reindeer herders, with a focus on sustainability and neo-entrepreneurial development. Dana (2008), focused on cooperation within the Sámi siida in Norway. Among the most recent studies of reindeer herding is Heikkinen, Sarkki, Jokinen, and Fornander (2010); they identified problems created when applying international standards in a reindeer herding region.

Methodology

Entrepreneurship research was traditionally been quantitative in nature, and dominated by the logical empiricist paradigm, assuming absolute knowledge, independent of cultural, social and political factors; findings which were not directly linked to the predetermined hypotheses were often ignored. How-

ever, hypotheses may have a cultural bias, and cultural variables are open to interpretation (Geertz, 1973; 1983). Crozier and Friedberg (1977) suggested that to understand the role of culture and the general population from which entrepreneurs emerge, a more effective research strategy should involve an inductive approach with qualitative interpretation. This paper is based on interviews, with no predetermined hypotheses. Participants in this study were reindeer herders who qualified as entrepreneurs, according to the definition provided by Ely and Hess who defined them as "the ultimate owners of business enterprises, those who make the final decision and assume risks in such decisions (1893, p. 95)."

Whitaker wrote, "there are several cases of daughters being given a handsome number of reindeer as a sort of dowry by wealthy parents; the actual amounts involved are however seldom divulged (1955, p. 40)." A big herd provided people with security, but actual numbers were not discussed with strangers. In fact, asking a Sámi person how many reindeer he has may be perceived as culturally insensitive. To avoid uncomfortable situations, potential participants were consulted during the creation of the survey instrument used in this study. The specialised questionnaire, as recommended by Bherer, Gagnon, and Roberge (1989) was then sent for approval by local leaders with expertise on cultural sensitivity.

With the objective to learn about entrepreneurship conducted by individuals for mutual gain (Bull and Winter, 1991; Johannisson and Nilsson, 1989; Light and Karageorgis, 1994; Lyons, 2002; Selsky and Smith, 1994; Spear, 2006), reindeer owners were asked questions related to their activities. Viewing entrepreneurship as a societal phenomenon rather than as a purely economic activity (Steyaert, 2007), questions inquired about non-economic causal variables as well as economic goals. Actual participants were selected by means of snowball sampling (Goodman, 1961; Müller-Wille and Hukkinen, 1999). For the purposes of this study, Sámi identity was based on self-identification.

Heikkinen, Lakomäki, and Baldridge (2007) conducted semi-structured interviews in 17 enterprises run by reindeer herders. Accepting that entrepreneurship is embedded in a social context (Aldrich and Zimmer, 1986), the present paper is likewise based on 13 semi-structured interviews with Sámi entrepreneurs in the same sector. All participants were reindeer herders, but some were also involved in other professional activities or occupations.

Participants in this study signed a release form and were assured anonymity in this paper. For this reason, no names are provided below. The oldest participant was born in 1939. The youngest was 12 years old. All interviewees were self-employed reindeer herders, but some also had some unrelated expertise; formal education levels ranged from "almost nothing because I learn from parents" to "I am a qualified engineer." Some had experience as employees, *e.g.*, "I worked two months when I was 16." One respondent claimed he had always been a subsistence hunter and fisherman, with minimal activity in the formal economy.

Findings

Participants were asked was what/who motivated them to become self-employed herders. Most spoke of Sámi ethnicity and/or cultural traditions. Answers provided by interviewees included: "I come from a prominent tradition of reindeer herders," and "It makes me proud to be like my ancestors, especially if I have a large herd." Respondents often referred to social capital, *e.g.*, "The family is set up for this." Reference was also made to human capital, *e.g.*, "This is what I learned when I was infant

doing this." Cultural capital was also evident, *e.g.*, "This is my interest since ever." All of the Sámi interviewees declared that they had relatives who owned reindeer.

When asked about employees, most respondents said that other than family members they had "only occasional" or "seasonal" employees if any, and intended to have the same after five years. When asked about technology, elder participants expressed concern about "a double-edged sword" that "creates needs and expenses."

All participants expressed that they enjoyed reindeer herding. Several said they would have liked for their herds to be bigger, *regardless of whether this would enhance their material well-being*. With regards to their views on government, views were mixed. These ranged from "The government does not do enough to help us," to "There are too many regulations."

When asked about propensity for risk, one Sámi respondent explained, "Being an employee has more risk because you can get fired." Another stated, "Risk is not desirable but it is inevitable, so we do another business too and that reduces risk."

Respondents explained that supplementary income was required, "especially when the price of meat is low." This was obtained from diversification into other activities, in addition to reindeer herding. These included: carving, exporting reindeer hides, felt-making, fishing to supplement the sale of reindeer meat, handicrafts, jewellery, real estate investment, retailing, teaching, and tourism-related activities. In some cases, the secondary enterprise involved a high degree of internationalisation. One Sámi had a strategy of vertical integration, selling reindeer-related handicrafts and exporting reindeer antlers to Asian markets.

Participants were asked where they saw themselves five years into the future. One Sámi herder stated, "I will herd even if reindeer bring no money." Another replied, "Not all the eggs in same basket. I will follow opportunities, in addition to reindeer."

One Sámi participant who was a part-time reindeer herder stated that he relied on his hotel to provide him most of his income. Although he had been "pushed" into the hotel business because traditional reindeer herding did not provide the cash necessary to maintain the standard of living that he chose for himself, his goal for the future was to become a full-time reindeer herder.

Sámi participants in this study commented how recruitment and training for reindeer herding in their communities was unlike meat production among non-Sámi who might employ non-family members. "Our children learn on the job since they are tiny small," explained one respondent. This supports Helander (1999) who discussed how Sámi reindeer herders were trained on the job; and also Ruotsala who explained, "Often an important factor is that this is a profession passed down from generation to the next, primarily from father to son, which is carried on in the same place as the previous generation (1999, p. 43)." This also supports Bjørklund who wrote, "Traditionally, Saami cultural arrangements had taken care of recruitment into pastoral society. Animals were allocated to children during certain ritual occasions… Along with the gift also came the responsibility of being a reindeer owner. Children learned how to take care of their animals and were thus socialised into the world of reindeer pastoralism. When the time came to marry, both spouses were in possession of knowledge and enough animals – together with the animals given to them as wedding gifts – to make it possible to establish themselves as their own husbandry and perhaps herding unit (2004, p. 133)." Indeed, reindeer herding is associated with social capital (Bourdieu, 1980; 1986; Coleman, 1988; Putnam, 1993; Rønning, 2009; Winsa, 2007); human capital (Becker, 1964); and cultural capital (Weber, 1904-5; Light, 2004) specific to the social role of reindeer herding.

In Closing

Penrose wrote, "The fact that businessmen, though interested in profits, have a variety of other ambitions as well, some of which seem to influence (or distort) their judgment about the 'best' way of making money, has often been discussed primarily in connection with the controversial subject of 'profit maximization' (1959, p. 39)." Along similar lines, some participants in the present study are reindeer husbandry entrepreneurs more for the reindeer aspect than for economic profit maximisation. This is consistent with the findings of Jernsletten and Klokov who stated that for some people, "reindeer husbandry forms a 'way-of-life' more than a 'way of production'…(2002, p. 21)."

Sámi reindeer herding is unlike the cattle or sheep sectors (Barth, 1973). As explained by Ingold (1978), entrepreneurship strategy in the stock-rearing sector requires the farmer to leave alive only the minimum needed to maintain his herd; in contrast, pastoral strategy recommends a man to slaughter only the minimum of deer needed to maintain his family. Paine (1988) noted that reindeer have their own social organisation, and Beach added that "Herders sensitive to … aspects of reindeer social life are able to use them to control the deer…Traditional herders do not force the reindeer if need be, but they often know how to achieve the desired result by utilizing the herd's own propensities and instilling in it the desired behaviour pattern… (1990, p. 258)."

How do Sámi reindeer herders cope with low profitability of their primary activity? *Recognising the social role of their entrepreneurship, they remain in the sector, but in view of its limited income, many seek secondary opportunities in other sectors, in order to supplement profits from reindeer herding.* This simultaneously results in economic and social value. Findings thus support Lee, Press, Lee, Ingold and Kurttila who observed, "Reindeer herding is an important source of income for the Sámi, bringing in between half and three-quarters of their gross earnings. However, this income has to be supplemented by agricultural and forestry work, as well as cash-earning jobs (2000, p. 101)." Findings are also in line with Labba and Jernsletten, who wrote, "When the price of reindeer meat decreases, this does not automatically mean that the reindeer owner will sell a larger amount to compensate for the economic losses caused by the price decrease. Rather the opposite: the reindeer owner sells a smaller amount and compensates with money earned from other income sources (2004, p. 136)."

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An Empirical Self-Evaluation of Entrepreneurship Researchers in the German Speaking World

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Abstract

In this paper the critical theses as well as our propositions from our 2008 paper (Mugler and Fink 2008) are evaluated in a survey among researchers in the field of entrepreneurship in the German speaking world (return rate 32,5%, n=103). Thus, we present a self-picture of the entrepreneurship researchers. The results highlight the importance of the deficiencies of today's entrepreneurship research addressed in the theses and shows a surprisingly strong consent among researchers in feeling the need for change in common practice. On the basis of these results the discomfort felt in the area of entrepreneurship research and the need for action arising thereof can be made visible for discussion.

1. Introduction

Entrepreneurship research seems to have entered a period which asks for a critical reflection of the adopted approaches, which goes beyond the usual critical discussion of published individual findings (Sarasvathy 2004, Steyaert 2005). Hence, a short recapitulation of our paper (Mugler and Fink 2008) presented at the Rencontres de St-Gall 2008 provides the bareback version of our theses on the deficits of the current research practice in entrepreneurship research and the possible paths for future research (see Table 1). The focus of this paper is on providing a self-picture of the entrepreneurship researchers in the German speaking world. For that we conducted a survey asking the researchers who are active in the field of entrepreneurship research to evaluate the theses and propositions developed in our 2008 paper with regard to their relevance and accuracy. The resulting picture highlights the importance of the deficiencies of today's entrepreneurship research addressed in the theses and shows a surprisingly strong consent among researchers in feeling the need for change in common practice. On the basis of these results the discomfort felt in the area of entrepreneurship research and the need for action arising thereof can be made visible for discussion.

Table 1: List of critical theses and propositions for future research from the 2008 paper

Thesis 1:	Entrepreneurship research produces for itself: the aim of the majority of researchers is the composition of a career-optimal list of presentations at conferences and publications in journals which enjoy the highest possible standing within the relevant scientific community.
Thesis 2:	The scientific community is highly fragmented in the field of entrepreneurship research. Integration occurs at best in the context of small international virtual research groups, which establish around single dominant researchers.

Thesis 3:	Entrepreneurship researchers work on highly specialised questions on the basis of small, distorted samples which are only relevant for very specific contexts.
Thesis 4:	Methodical requirements are the far more important quality criteria for research papers than content and practical relevance.
Thesis 5:	Research results are hardly noticed or applicable respectively outside the relevant scientific community.
Thesis 6:	Within the framework of the *Gestalt* approach assertions can be made on a much lower level of abstraction. The lower level of abstraction leads, however, to a higher level of complexity, which makes the condensation and communication of research results more difficult.
Thesis 7:	Entrepreneurship research is focused on mono-causally linking input and output factors.
Proposition 1:	Researchers do not agree with the critical theses and suggest going on in entrepreneurship research in the current mode.
Proposition 2:	Researchers realize that they cannot develop theories in entrepreneurship research and therefore agree with the suggestion to focus on the formulation of theories of medium range.
Proposition 3:	Researchers realize that they cannot be the better entrepreneurs and that the entrepreneurs are not the better researchers and therefore agree with the suggestion of division of labour between researchers and entrepreneurs. Accordingly, researchers try to identify determinants and processes of typical events and developments and entrepreneurs handle the specific case.
Proposition 4:	Researchers realize that their isolated research programs lead to incommensurable results and therefore agree with the suggestion that it needs a coordination of the single research activities in entrepreneurship research.
Proposition 5:	Researchers realize that in social science general statements are only possible at high levels of abstraction and with a big time-lag which make them of little use for entrepreneurs. Researchers therefore agree with the suggestion of a radical reorientation of entrepreneurship research giving up the aim to provide entrepreneurs with rules for action but to enhance their abilities to formulate subjective theories themselves instead.

2. Empirical validation of the critical theses and the propositions for future research

In order to validate the results of the literature research and the conceptual approaches presented in our 2008 paper (Mugler and Fink 2008) the mood among German-speaking researchers was surveyed. Both their position on the criticism of entrepreneurship research that was formulated in the seven theses and the five possible methods of resolution were collected in an expansive online-survey. The sample of this *expert survey* (see for instance Bogner et al. 2002) comprises both members of the Förderkreis Gründungsforschung e.V. (FGF) and members of the Section for Management of Technology and Innovation (TIM) of the German Academic Association for Business Research (VHB). Since these are the by far biggest organisations, where entrepreneurship researchers of German speaking countries are members, it can be assumed that the coverage with regards to research topic and region is very high. The FGF consists of 182 members, the Section for Management of Technology and Innovation (TIM) consists of 176 researchers (status 2008). After eliminating double memberships the sample adds up to 323. 105 out of these 323 persons could be questioned successfully in an anonymous and personalised (in order to prevent persons from completing the questionnaire several times) online-survey. This gives a return rate of 32.5 %.

The survey could be completed for one week. Out of the 105 persons, who completed the questionnaire, two were no scientists but consultants or entrepreneurs and were therefore excluded from the

evaluation. This leaves 103 persons who were included in the analysis. 35% thereof were pre-docs (wissenschaftliche Mitarbeiter) or postgraduates, 31.1% university professors (thereof 1 junior professor), 21.4% post-docs or assistant professor and 12.6% professors at universities of applied science (FH-Prof). Their place of research was situated in Germany (74.8%), Austria (10.7%), Switzerland or Liechtenstein (7.8%) and other countries (6.8%). 69% of the respondents have their scientific roots in the field of business administration, 9% in economics and sociology, 3% in psychology and 2% in computer sciences and engineering and business and business and human resource education respectively.

2.1. What is the entrepreneurship researchers' opinion on the critical theses?

The ranking of the critical theses on the status quo of entrepreneurship research may be taken as a first picture of the results of the survey: almost three-quarter of the respondents (74.6%) agree with the thesis that the results of entrepreneurship research are hardly noticed and hardly applicable outside the relevant scientific community. Even if it is acknowledged that entrepreneurship research is partly designed as fundamental research, the result provokes the question of social legitimation and hence the provision of public resources for entrepreneurship research. Why should a research discipline be supported by society, if the results of this research discipline currently do not substantially benefit society and if more dramatic economic problems are to be solved at present? A breakdown of the results according to the positions of the respondent in the academic hierarchy may illustrate this. Almost 93% of the responding post-doc researchers and assistant professors and almost two third of the postgraduate researchers and university professors share this pessimistic view. In contrast to that the corresponding share of professors at universities of applied science amounts to approximately 9%. The response behaviour differs significantly between the respondents' position. The one-way ANOVA shows a medium difference of -0.276 with a significance level amounting to $p=0.033$. It can be shown that the practical research of universities of applied science, which is oriented towards the solution of concrete problems in individual cases, unfolds a higher level of directly experienced benefit than the fundamental research at universities.

This allocation of tasks between universities and universities of applied science is also reflected in the results to thesis 1 with the second highest support within the relevant scientific community: 70.8% of entrepreneurship researchers share the opinion that the researchers working in this field produce for themselves. This egocentric work ethos expresses in the fact that the majority of researchers aims at composing a career-optimum list of presentations at conferences and publications in journals which enjoy high reputation among the respective scientific community. This behaviour is the logic conclusion of the target system demanded by the competitive scientific environment, which reduces career planning to the collection of points for publication achievements based on rankings without taking the published contents and their significance into consideration. The frustration seems to be especially high among post-doc researchers or assistant professors and university professors. Approximately 78% of the respective group agree with the corresponding thesis. However, only half of the professors at universities of applied science share this opinion. Even if the difference is not significant, the trend suggests a more activity-oriented approach at universities of applied science.

Table 2: Empirical results on the critical theses and the propositions for future research

		academic position					
		PreDoc	**PostDoc**	**Univ.Prof.**	**FH-Prof**	*average*	*rank*
total sample (share %)	*n=103*	*36 (34,0)*	*21 (21,4)*	*31 (30,1)*	*15 (14,5)*		
Critical theses							
ER produces for itself.	pro	68,0	78,6	78,3	50,0	70,8	2
	contra	32,0	21,4	21,7	50,0	29,2	
The scientific community in ER is highly fragmented.	pro	55,6	87,5	56,5	40,0	63,2	3
	contra	44,4	12,5	43,5	60,0	36,8	
Methodical requirements are the far more important quality criteria for research papers than content and practical relevance.	pro	41,4	72,2	57,7	66,7	55,6	7
	contra	48,6	27,8	42,3	33,3	44,4	
Entrepreneurship researchers work on highly specialised questions on the basis of small, distorted samples which are only relevant for very specific contexts.	pro	56,5	57,1	50,0	66,7	56,5	6
	contra	45,5	42,9	50,0	33,3	43,5	
Research results are hardly noticed or applicable respectively outside the relevant scientific community.	pro	65,2	92,9	65,2	9,1	74,6	1
	contra	34,8	7,1	34,8	90,9	25,4	
The Gestalt approach generates results on lower levels of abstraction that are more complex and harder to communicate.	pro	59,1	69,2	45,5	66,7	60,6	4
	contra	40,9	30,8	54,5	33,3	39,4	
Entrepreneurship research is focused on linking input and output factors.	pro	66,7	61,1	42,3	87,5	59,5	5
	contra	33,3	38,9	57,7	12,5	40,5	

The fragmentation of the scientific community ranks third in the perception of entrepreneurship researchers with a consent of 63.2%. This issue is experienced predominantly by pos-doc researchers and assistant professors (87.5%) and less by postgraduate researchers (55.6%), university professors (56.5%) and professors at universities of applied science (40%). The differences in the response behaviour of these groups are statistically significant. The one-way ANOVA shows a medium difference -0.319 with a significance level amounting to p=0.018. The post-hoc-test shows a significantly different distribution of answers between postgraduate researchers and post-doc researchers or assistant professors: the medium difference amounts to -0.319 with a significance level of p=0.038. A possible explanation for that may be found in the limited professional and personal area, where postgraduate entrepreneurship researchers usually operate. This surrounding is characterised by the colleagues at the home scientific community and the supervisor of the doctoral dissertation and hence clearly structured. Post-doc researcher and assistant professors have to develop a new field of research in order to work their academic way up. Hence, neither the professional nor the personal area is clearly delineated or structured. International networks of individual colleagues who work on comparable problems arise. These groups of researchers mostly act in an isolated way. Neither other comparable groups of researchers nor the colleagues at the respective home scientific institution are included in the research

activities, since the delineation presents the key to the development of the own field of research. Once a chair has been obtained, the development of a network in the relevant scientific community seems to have been successful and the fragmentation is experienced less drastically. The pos-hoc-test supports this argument. With an average difference of the mean value of 0.156 and a significance level of p=0.049 a significantly lower agreement can be observed among university professors than among post-doc researchers or assistant professors.

Anyhow, almost 60% of the respondents share the opinion that a Gestalt approach of entrepreneurship research leads to more complex results which are thus more difficult to communicate. The response behaviour does not differ significantly between groups at different points of the academic career ladder.

The criticism whereby entrepreneurship research focuses on the connection of input and output data, is supported by 60% of the respondents (rank 5). A significant difference in the response behaviour cannot be found either.

The result of these two theses reveals that entrepreneurship research is generally regarded reductionist not only by persons outside the field but interestingly also by representatives of the field.

The last two critical theses take the same line, whereby first entrepreneurship research examines highly specialised questions on the basis of small, distorted samples which are only relevant within a special context (average agreement 56.5%, rank 6) and second methodical demands are far more important than relevance with regard to contents (average agreement 55.6%, rank 7). While the criticism on the treatment of tiny and unrelated pieces of reality is supported equally on all academic hierarchical levels, statistically significant differences arise with respect to the preference of the application of more demanding methods to the treatment of demanding questions. The one-way ANOVA shows a medium difference of -0.308 and a significance level of p=0.040. Post-doc researcher or assistant professors are more frustrated that the focus is set on methods than postgraduate researchers and university professors. This seems to result from the higher publication pressure on the verge of the *Habilitation*. At this stage post-doc researcher thrust themselves into high-ranking journals, which are recently paying more and more attention to the applied methods in the selection of the manuscripts that shall be published.

The comparison of averages shows that neither the location of the home scientific institution nor the original discipline of the questioned entrepreneurship researcher has significant influence on their position to the objections.

2.2. What is the entrepreneurship researchers' opinion on the methods of resolution

Within the framework of the survey the approaches for overcoming the critical situation of entrepreneurship research presented in the paper at hand was tested for its support within the relevant scientific community. It could be shown that the renunciation from the attempt to formulate far-reaching generally accepted theories towards medium range theories receives the highest support. An average 79.2% regard this approach as suitable future prospects for their field of research. With regard to this approach there are no significant differences between respondents on different steps of their academic career.

The approach directed towards a stronger coordination of individual efforts has a similar number of supporters (78.3%). The assessment of this approach differs significantly between post-doc research-

ers or assistant professors and university professors. While all responding entrepreneurship researchers in positions leading them to a *Habilitation* call for a better internal coordination of research efforts within the field, one third of the university professors does not see the potential of this measure. This result shall be interpreted against the background of the fragmentation of the environment which is experienced more strongly by post-doc researchers or assistant professors. The psychological strain arising due to the missing coordination in the field and the isolation in the own, often tightly defined, field of research seems to be highest at that point of the career. Hence, the demand for an integration of the activities in this field is articulated loudest within this group.

Table 3: Empirical results on the propositions for future research

		academic position					
		Pre-Doc	**Post-Doc**	**Univ.Prof.**	**FH-Prof**	*average*	*rank*
total sample (share %)	*n=103*	*36 (34,0)*	*21 (21,4)*	*31 (30,1)*	*15 (14,5)*		
Propositions for future research							
Go on in entrepreneurship research in the current mode	pro	15,0	20,0	27,8	25,0	21,3	5
	contra	85,0	80,0	72,2	75,0	78,7	
Focus on the formulation of theories of medium range	pro	69,0	85,7	86,4	83,3	79,2	1
	contra	31,0	14,3	13,6	16,7	20,8	
Divide labour between researchers and entrepreneurs	pro	37,0	47,4	44,8	50,0	43,4	3
	contra	63,0	52,6	55,2	50,0	56,6	
Coordinate the single research activities	pro	81,5	100	66,7	71,4	78,3	2
	contra	18,5	0	33,3	28,6	21,7	
Radical reorientation on enhance the entrepreneurs' abilities to formulate subjective theories	pro	43,3	25,0	21,4	53,8	34,5	4
	contra	56,7	75,0	78,6	46,2	65,5	

Considerably less entrepreneurship researcher (43.4%) regard a division of labour between scientists and entrepreneurs as the right way to success. There are no significant differences between the groups worth mentioning.

Only approximately one third (34.5%) of the respondents argue for a radical reorientation of entrepreneurship research. Or should one say: after all one third? The reluctance seems to be understandable as such a radical change would imply an abrupt devaluation of drudgingly gained knowledge not only at a personal, but also social level. Researchers need to pay attention that they do not get into conflicts with the positions of potential jurors (in academic boards and editorial boards of journals). Innovations are always risky – not only for "real world entrepreneurs", but also "young scientist entrepreneurs", as they attack established market positions of powerful competitors.

Compared to that, the benefit of such a revolution is regarded as relatively low. This result could easily be interpreted as evidence for a low degree of suffering and a weak problem perception. This interpretation is, however, contradicted by the fact that only 21.3% of the respondents would like to follow the existing path. Hence, almost four out of five entrepreneurship researchers support the main thesis of this paper: a reorientation of entrepreneurship research is needed!

3. So what?

After one decade of dramatic expansion of entrepreneurship research in the academic structures in the German-speaking world and the uncritical reception of the research results generated at these institutions, on the one side within the scientific community and on the other side by the media, a new generation of researchers which has thoroughly dealt with the foundation and the development of entrepreneurship research has grown up (Davidsson and Wiklund 2001). The scepticism that has always been shown by the older generation of researchers to the highly dynamic entrepreneurship movement which was carried by a positivistic belief in progress now forms the basis for a critical discussion with practical research on the subject of entrepreneurship and for the evaluation of the generated research results. The deficits, which are displayed by our situation analysis, may be summarised as follows:
We find a strongly fragmented field of research, where small isolated groups of highly specialised career-oriented researchers work on smallest pieces of reality on the basis of samples which are too small, too distorted and too context sensitive on a methodologically high level. The results of these efforts are detailed conclusions of causal relations between single variables which have been detached from further context. These conclusions often cannot be related to earlier results and are hardly practice-oriented due to the lack of content and coverage. Entrepreneurs hardly perceive entrepreneurship research. This is probably also true, at best in a weaker form, for knowledge intermediaries such as consultants and experts on education.

The question is, whether the high costs, which are caused to society by research, may be justified by the research results and their practical impact. One may answer: Probably not in the current situation of entrepreneurship research. Entrepreneurship research needs a way out of the intensifying focus on itself with concepts that benefit society today and not only in remote future. Repeated announcements that the large number of single results will at some point lead to a satisfying theory which is able to explain "everything" (and hence possesses a large coverage) will be implausible by and by. Entrepreneurs demand useful (viable) research results, which are able to help with the solution of their problems efficiently. Less far reaching explanation attempts, a clear division of labour with entrepreneurs and a better coordination among researchers may lead to incremental improvements.

Entrepreneurship research cannot and shall not release entrepreneurs and their reference groups within and outside of the enterprise from their very own task and the burden of their decision processes – from the search of possible fields of activity and their evaluation to their implementation and control. The recognition of chances and the use of these chances for adequate decisions is the very own challenge of the entrepreneurial function. This function is not generated in order to be followed but as antipole to the rational planning and creation of the future (which is based on research). Society needs entrepreneurs most notably for its future when forecast and planning experts fail, that is especially during times of change. The radical way out of this maze of current entrepreneurship research hence leads to qualifying entrepreneurs for the acknowledgement of their functions in the economy and society instead of supplying them with advice for their decisions.

Just as the Delphic oracle cannot be blamed for the decline of the Lydian Empire (due to the advice for King Croesus "If you cross River Halys, a great empire will be destroyed"), entrepreneurship research would not be in responsible for ambiguous advice for specific situations any longer. The alternative thereto could be found by the antique Delphic pilgrims above the entry of the holy temple and should also be offered to today's entrepreneurs more often: "Know thyselves!"

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Pursuit of Opportunity and Business Incubation – A Case Study on Entrepreneurs at Kyoto Research Park

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Summary

How can an accompanying structure support the pursuit of opportunity by entrepreneurs? Based on the research by Messeghem and Sammut (2007), we try to clarify the relationship between the entrepreneurial process and the role of the accompanying structure. To do so, we conducted an empirical study at the Kyoto Research Park (KRP), founded in 1989 as the first private incubation facility in Japan. The propositions formulated by Messeghem and Sammut are tested. The results show that KRP plays an important role in the creation of a network for entrepreneurs. At KRP, it is possible to observe a particular 'Kyoto way' of entrepreneurship.

Keywords: Entrepreneurial process, Opportunity, Legitimacy, Network, Accompanying structure, Incubation, Kyoto way, Kyoto Research Park (KRP)

Introduction

Entrepreneurs are affected by the nation in which they operate and also by the region in which they are situated. How do originators mobilize a structure such as an incubation centre within their entrepreneurial project? How effective is this?

The objective of this research is to understand the relationship between the entrepreneurial process and its accompanying structure. Based on the research by Messeghem and Sammut (2007), we focus on the following points: (1) the relationship between entrepreneurial opportunity-seeking and the role of the accompanying structure; and (2) the relationship between entrepreneurial legitimacy-seeking and the role of the structure.

In 1989, Kyoto Research Park (KRP) was established within the Kyoto High Tech Valley as the first private incubation facility in Japan. Since then, KRP has played an important role in providing start-up entrepreneurs with opportunity and basis in areas such as IT, e-commerce, consulting, university-related R&D and other high technology. The present empirical study is supported by an historical survey of entrepreneurs in Japan (Dana, 2007).

Our empirical study investigates entrepreneurship at KRP in Japan. The city of Kyoto is internationally known for its history and culture. This ancient capital is also a centre of entrepreneurial and

technological prowess. ‘Kyoto way’ entrepreneurship has given birth to world-class ventures such as Horiba, Omron, Kyocera and Nintendo.

1. Pursuit of Opportunity at the Accompanying Structure: Legitimacy and Isolation

The entrepreneurial process can be defined as the discovery, evaluation and exploitation of opportunity. How then can the accompanying structure support the pursuit of opportunity by entrepreneurs? On this point, the study by Messeghem and Sammut (2007) describes the role played by the accompanying structure on behalf of the entrepreneurs. In particular, their study clarifies many dysfunctions observed through the interviews. Their critical study has a particularity, which is difficult to find among previous studies.

Here, we summarise the study by Messeghem and Sammut (2007). First, they reviewed the literature and considered opportunity-seeking to be a matter of networking. Thus, they formulated the following propositions:

Proposition 1: The accompanying structure influences the research and development of opportunity by the originator.

Proposition 2: Project bearers who enter the accompanying structure have already been integrated within reticular logic; the accompanying processes reinforce this network approach.

Next, they reviewed the concept of legitimacy and its typology to formulate another proposition.

Proposition 3: Originators (by developing their activities within the accompanying structures) seek to improve the credibility of their project.

Third, they tested their propositions by interviewing six entrepreneurs within an accompanying structure located in the south of France. They formulated a typology for the entrepreneurs they interviewed using the concepts of ‘competitive legitimacy’ and ‘professional legitimacy’.

As a result of this study, they concluded by mentioning the risk of isolation: an incubator does not influence the research and development of opportunity by the originator. Project bearers who enter the accompanying structure have already been integrated within reticular logic but they are particularly alone when constructing and reinforcing this network. An incubator does not reinforce this already-woven network.

Finally, they modified their initial propositions to accommodate the reality of the accompanying structure that did not fulfil the expected role.

Proposition 1’: The accompanying structure does not influence the R&D of opportunity by the originator if it develops a weak relationship with the originator.

Proposition 2’: Project bearers who enter the accompanying structure have already been integrated within reticular logic; accompanying processes do not reinforce this network approach if the structure develops a weak relationship with the originator.

Proposition 3’: Originators (by developing their activities within the accompanying structures) do not succeed in promoting the credibility of their project when the structure develops a weak relationship with the originator.

2. The 'Kyoto Way' of Entrepreneurship and KRP

2.1. Entrepreneurs in Japan

Japan is reported to have an entrepreneurship 'problem'. It is near the bottom of Global Entrepreneurship Monitor surveys. A White Paper on SMEs in 2005 pointed out, *"the decline in risk-takers not only creates the risk that risks may not be taken at the enterprise level, but also creates the risk for society as a whole that the maintenance of growth potential and improvement of the industrial structure may be imperiled by the decline in self-employment and decrease in the entry rate."* In order to resolve this entrepreneurship problem, Japanese policy-makers have introduced a series of reforms. One example is the drastic change in commercial law with the creation of the new Corporation Law in 2006 aimed at facilitating the founding of an enterprise.

Based on Dana (2007), Japanese entrepreneurs can be described as follows

Japan is a country in which a big size is desirable. An old proverb teaches, "When seeking a shelter, look for a big tree"(Yoraba Taizyu no Kage). Rather than compete with large firms, entrepreneurs in Japan co-operate with them, serving as suppliers and assemblers, in an intricate relationship revolving around cultural beliefs. Japan has an ancient and intricate cultural tradition, founded on legends, myths and rituals. Central to the Japanese belief system are the concepts of mutual obligation, indebtedness, hard work, self-sacrifice and loyalty, all of which reinforce the very important notion of harmony for the common good. Additionally, in Japan, the individual is always conscious of belonging to a group. Therefore, enterprises also tend to form associations. The concepts of obligation, indebtedness and loyalty contribute to the unity and success within each partnership, and to the harmony among groups.

Although entrepreneurship in Japan may have acquired Western knowledge, it has retained Japanese spirit, including cultural and traditional values such as the sense of obligation, indebtedness and loyalty within *business alliances. Public policies help perpetuate this pattern, and across industries, small businesses in Japan are usually linked to a network of one kind or another.*

Since World War II, a few small-scale engineering firms in Japan grew into multinationals. These include Honda and Sony. However, these very large firms were exceptions The majority of Japanese enterprises specialised in niche activities. For many, the niche was to serve as subcontractor for major enterprises. *This complementarity between small and large firms, coupled with a cultural system of harmony, enhanced the efficiency of the Japanese economy. Small-scale entrepreneurs helped large corporations to prosper, while the latter gave entrepreneurs a raison-d'être as well as a livelihood. Cultural values helped propagate the inter-firm linkages. These include: the keiretsu (a diversified enterprise group) and the shita-uke gyosha (subcontractors)*. (Dana, 2007)

2.2. The Kyoto Way

Kyoto, which was the capital about 1,200 years ago, is the cultural heart of Japan. The beautiful surroundings and the cultural heritage attract people from all over the world. Kyoto is also a centre of

entrepreneurial and technological prowess. 'Kyoto method' entrepreneurship has given birth to world-class ventures such as Horiba, Omron and Kyocera.

The first generation of Kyoto enterprises is Shimazu(founded in 1875) or Omron(1933). The second generation is Murata(1944), Horiba(1945), Wacool(1946), Rohm(1954), or Kyocera(1959). The third generation is Nidec(1973) or Samco(1979). The enterprises at KRP(Kyoto Research Park) on which we will explain at the next part are expected to be the fourth generation. According to the *Kyoto Shimbun* (local newspaper in Kyoto), high world share of the parts utilized in a cellular phone is occupied by enterprises of Kyoto. (Table1)

Table 1: World Market Share of Cellular Phone Components occupied by Enterprises in Kyoto

Component in Cellular Phone	Enterprise in Kyoto	World Share	World Ranking
Crystal liquid back light	Omron	20%	1
Small gauge coaxial connector	Daiichi Seiko	60%	1
Heat transfer foil	Nissha	85%	1
Multilayer ceramic capacitor	Murata	35%	1
	Kyocera	10%	2

Source : Kyoto Shimbun, December 3, 2009

Numerous Japanese books have been written on the 'Kyoto model' of entrepreneurship or management. It is true that researchers have discussed whether such a particular Kyoto model exists. From previous studies, we can summarise the following characteristics of Kyoto as an entrepreneurial background as well as those of entrepreneurs. (Ohnishi, 2005)

1. The Coexistence of Tradition and High-Tech: In addition to most traditional Japanese industries, Kyoto has a higher share of manufacturers than the national average. Within manufacturing, high-tech and electronics-related industries have become prominent. This coexistence of tradition and high-tech is a rare particularity of this city.

2. Traditional Industries as a Source of High-Tech: The existence of traditional industries in this ancient capital of Japan has given birth to several technological revolutions. The Kimono industry has been the source of numerous evolutions in technology. The traditional pottery and porcelain industry, *Kyo yaki* or *Kiyomizu yaki*, has been the root of ceramic businesses such as Kyocera or Murata. Technology in the production of *sake* has led to innovation in biotechnology.

3. Respect for *Honmamon* (something with real value): Manufacturers at Kyoto are said to be *honmamon*-oriented. They esteem the quality of their products. They scorn imitating others in preferring differentiation to low pricing.

4. The Spirit of *Shinise* (traditional families of merchants and craftsmen): Within traditional families of merchants and craftsmen – or *Shinise*, which literally means 'old shop' – we can note the following tendencies: survival rather than profit, quality rather than quantity, respect for relationships with customers, sound business practices, anti-conservatism, a spirit of entrepreneurship, management without debt, cash flow-based management and horizontal networks with other firms. Kyoto does not have any big capitalists. Thus, enterprises in Kyoto are independent of large-scale capitalists (*zaibatsu*), and therefore, are unlikely to become subcontractors (*shita-uke*).

5. Small Market: Kyoto itself is a small market compared with Tokyo. New enterprises with little legitimacy have difficulty in cultivating the domestic market outside Kyoto. They often look to overseas markets. Thus, Kyoto ventures such as Horiba, Kyocera and Murata went to the US market first and then returned to exploit the domestic market.

6. An Academic Town much like a *Juku* embracing the whole city: The city of Kyoto has the highest percentage of academics per capita in Japan, with more than 40 universities and 50 research organizations. Seven out of 12 Japanese Nobel Prizes have been awarded to researchers from Kyoto University. The cooperative atmosphere between industry and academia in this city can be considered as a big *Juku* (private school) embracing the entire city. Many student entrepreneurs started their enterprises from this academic centre. The first student venture was by Masao Horiba, who founded the enterprise named after him in 1945.

2.3. KRP, Kyoto Research Park

KRP was established by Osaka Gas Corporation in 1989 as the first private incubation facility in Japan. KRP is located in the middle of Kyoto's High Tech Valley, not far from the Kyoto station, international technology firms and major universities. This close proximity gives tenant companies quick access to markets, next-generation research and people in various fields. With the motto, *Shyu Kou Sou* (Gather Network Create), KRP plays a role in promoting exchange among academia, industry and government agencies. Besides a convenient office location, KRP offers state-of-the-art facilities such as communication infrastructure, an Internet data centre, a conference room and hall, wet labs, dry labs, rental offices and booths. The number of tenants at KRP was about 240, with around 100 tenants (45% of the total) being start-ups in 2007. In February 2010, the number of resident companies and organizations is 250 (35% of them are in ITC sector) and the population working at KRP is 2,600. The occupation rate for rented offices and booths is greater than 90%. As a corporation employing 93 persons (fulltime 66 and part time 27), KRP's line of business is venture incubation, rental of office and laboratory space, business matching (technology transfer and joint ventures), data center management and management of conference facilities.

In Japan, in the mid-1980s, the word and the concept 'incubator' were imported from Western countries. The Technopolis Act of 1983 and the Private Participation Promotion Law of 1986 urged the establishment of incubation facilities throughout Japan. The first of these were the System House Centre Kobe (1982) and My Com Techno House Kyoto (1983). In 1986, Kanagawa Science Park (KSP) was inaugurated as the first large-scale incubation facility under the Private Participation Promotion Law. Usually, incubation facilities are constructed in the local area with the aim of territorial development. The inauguration of KRP in 1989 at the centre of such a big city as Kyoto was exceptional.

Then, following the Law for Facilitating the Creation of New Business in 1999, Japan saw the establishment of incubators increase apace. A survey by the Japan Association of New Business-incubation Organizations (JANBO) in 2004 counted 177 incubators in Japan. Among these, KSP and

KRP are the leading examples in Japan and are rare incubation facilities that saw the expected development.

Onishi (2005) points out the unique business model of KRP as being one of the few private incubators in Japan. Most of the incubation facilities are operated by the public sector based on the national and local government policy. In contrast, at KRP, it is the private sector that directs, academia that instructs and finally the public sector that supports. This cycle is specific to KRP with the key factors of its success shown in Table 2:

Table 2: Key Factors of Success at KRP

Facilities open 24h (1989): Unlike other public incubators, privately owned KRP offers facilities that are available and open 24h.
UCSC model (1989): At its inception in 1989, KRP used the research park at the University of California Santa Cruz as a model.
Internet infrastructure (1995): High-level Internet infrastructure was provided at the dawn of IT technology in 1995.
Industry-academia liaison through the establishment of Kansai TLO (1998): Kansai Technology Licensing Organization Co., Ltd. (Kansai TLO), originally established in 1998 as a joint venture between KRP and the universities in Kyoto, promotes industry-academia liaison and supports university-related ventures.
Recognition as a supporting institute by the public sector (1999): Kyoto Prefecture and Kyoto City assembled, at KRP, a foundation for industrial promotion and supporting organizations for the benefit of tenants in KRP and Kyoto-area businesses. Examples are the Kyoto Prefectural Comprehensive Centre for Small and Medium-sized Enterprises, Kyoto Industrial Support Organization 21, the Kyoto Municipal Institute for Industrial Research, the Advanced Software Technology and Mechatronics Research Institute (ASTEM), Kyoto Software Application (KYSA), the Japan Institute for Invention and Innovation, and the Kyoto Comparative Law Centre.
Collaboration Desk (2002): The collaboration desk was created to promote interaction among KRP tenants, and to act as a bridge for them to work with universities and the established business community.

3. Entrepreneurs and Accompanying Structure

In Section 1, we overviewed the theoretical framework of the entrepreneurial process as a pursuit of opportunity and legitimacy within the accompanying structure. To do this, we referred to the study by Messeghem and Sammut (2007) and adopted their propositions. In Section 2, we described the field of our empirical study; that is, the Kyoto method of entrepreneurship and KRP in the city of Kyoto in Japan. In this section, we present our empirical study. We effectuated an empirical study of entrepreneurs at KRP in order to test the following propositions advanced by Messeghem and Sammut (2007) using the methodology described below.

Proposition 1: Accompanying structure influence on the research and development of opportunity of the creator.

Proposition 2: Project bearers who enter the accompanying structure have already been integrated in the reticular logic; accompanying processes enforce this network approach.

Proposition 3: Creators (by developing their activities within the accompanying structures) seek to improve the credibility of their project.

Methodology: We adopted a case-study methodology (Yin, 1994) that can assure the comprehension of entrepreneurship as a social phenomenon. Thus, we adopted the case study realized by Ohnishi(2005), who interviewed three directors of KRP and 10 entrepreneurs who launched an enterprise within KRP. The interviews in Ohnishi(2005) covered the following themes: the reasons for creation, the corporate philosophy, the role of the structure and the nature of the network and legitimacy. In 2007, we carried out additional interviews.(Kamei et al., 2007) And also, we interviewed two directors of KRP in 2010. As a guide to the interviews, we used the questionnaire developed by Messeghem and Sammut (2007) (see Annex) by adopting some of the questions. During the interviews, we discussed personal background, recognition of the business opportunity, the entrepreneurial process, personal and business objectives, the network, personnel philosophy and the significance of the Kyoto context. Finally we selected five entrepreneurs to be examined in this study.

3.1. A case study on entrepreneurs at Kyoto Research Park

3.1.1. Hatena

J.K. was born in Mie Prefecture in 1975. He graduated from the Faculty of Physics at Kyoto University in 1998. He was a member of the cycling club at Kyoto University (in Japan, sports are practised within schools and universities). He travelled a lot by bicycle. When he was in the third year at university, he travelled across the United States of America by bicycle in 45 days. During this tour, he met many people from various walks of life. This experience influenced him greatly and evoked his sense of entrepreneurship.

He attended Graduate School at Kyoto University in 1999. He worked as a part-time photographer at a publishing company (in Japan, most students have a part-time job, even during the semester). At the same time, he was looking for a chance to start a company.

He saw his parents struggle to find anything on the Internet using either a robot engine such as Google or a directory-type engine such as Yahoo. One day, he hit upon an idea to offer a service for information search on the Internet using manpower. He discussed this with a consultant from KRP at the Kyoto University Incubation Centre. He explained his plan enthusiastically. Finally, KRP encouraged him to set up a company.

In July 2001, the ‘Hatena manpowered search engine’ was established as a limited liability company. Hatena is one of the IT start-ups within KRP. J.K. made full use of the Internet infrastructure offered by KRP. He met and engaged with K.W., founder of Mag Mag, one of the biggest mail magazine providers in Japan. They both are IT start-ups created within KRP.

The manpower search engine works as follows. When a person wants to know something, he or she asks a question by writing ‘I would like to know about A’, and then, the others gather the information and answer the question online. This is available for members of the service. This service is called ‘Hatena’, which means ‘question mark’ in Japanese. In place of money, Hatena members use Hatena points, a kind of virtual means of exchange.

In 2003, Hatena started a blog service called the ‘Hatena diary’, which was very successful. This has grown to be one of the five biggest blog services in Japan. In 2004, Hatena became a joint-stock corporation and moved to Shibuya district in Tokyo. The number of Hatena members has risen to 180,000 and the users of the Hatena diary number 100,000. The philosophy of J.K. is ‘never do as others do (do what others do not do)’. (Ohnishi, 2005)

3.1.2. Kocha Senmonten ‘Select Shop’

M.N. was born in Shimonoseki City in Yamaguchi Prefecture in 1976. When he was an undergraduate at Ritsumeikan University in Kyoto, he made a one-month trip to Nepal and India. He very much liked these countries. He wanted to come again. During this trip, he hit upon an idea: ‘if I buy something cheap and sell it in Japan, it will make enough money for the next trip’.

So he bought hand-crafted pen cases. He decided to sell these together with a pack of tea. He came back to Japan and launched a website to sell these via the Internet. It took him one month to create this website, but there were few orders. One day, he received an e-mail asking him to sell only the tea. He found that the tea he had bought was of a good quality. At that time, he had no knowledge of tea. He sold all the tea he had bought in just one and a half months. He made 50,000 yen, which was enough for another trip to Nepal.

During this second trip, he decided to be much more serious about buying tea. He asked the tea merchant about the know-how required for recognizing good tea. After that began the following cycle: a trip, sales via the Internet, another trip, more sales via the Internet, etc.

When he began selling tea via the Internet, he had a model to emulate. At that time, Eiji Kishimoto operated one of the two websites selling goods via the Internet. His shop, Easy, sold t-shirts via the Internet. M.N. studied the know-how by observing the website. Easy had been a start-up at KRP. Finally, M.N. planned to launch a company at KRP.

In March 1998, during his study at Ritsumeikan University, he created Kocha Senmonten (which means a special shop for English tea in Japanese) ‘Select Shop’. One year later, it became the largest sales site for English tea in Japan. The secret of the service lies in customer satisfaction via a diary page of his trip and a mail magazine service. Now, his office is located next to that of his mentor, E.K. M.N. still learns much from him, a master of selling via the Internet. M.N. loves to travel. He sells tea to finance another trip. This is his philosophy. (Ohnishi, 2005)

3.1.3. System Wave

K.A. was born in Kyoto in 1962. After graduating from Heian Senior High School in Kyoto, he joined Osaka Gas Corporation. In 1985, he joined Omron, where he worked in production management and system design. At the same time, he often participated in meetings or parties with people from other companies or of other professions. He was much influenced by this kind of association.

After having worked as an employee for 14 years, in 1998, he became independent, although he did not have a precise business plan. He worked on this together with about 10 people.

In 1999, he launched a portal site for women in order to conduct market research via the Internet. KRP introduced him to a partner who could provide Internet content design. In December 2001, he created System Wave as a joint-stock corporation. This company provides a virtual department store-type mall and various kinds of services for those who want to do everything via the Internet.

'I started a virtual mall in order to offer the possibility of creating one's own brand. When one creates one's own brand, it is important to meet with others. Networking is precious. We are influenced by others and we try to be better'. This is his philosophy. (Ohnishi, 2005)

3.1.4. Multimedia Research Centre.

S.S. was born in Kyoto in 1954 in a family in photography and printing business. His father worked for a large local journal, *Kyoto Shinbun*, and later became independent in order to set up Kinki Photography. After having worked as the director of his father's corporation, S.S. created the Multimedia Research Centre together with his elder brother. This was one of the first enterprises set up in KRP.

Being in the field of photography, he understood the limitations of this business and foresaw the future digital era. In 1994, he participated in a large-scale broadband experiment within the region, which helped him and his elder brother to set up an enterprise. The atmosphere at KRP helped them greatly in developing their business plan.

Now, S.S. is the president of this company, and in addition to this business, he makes an effort to assist younger graphic designers through cooperation with universities of art in and around Kyoto.

3.1.5. Secretariat

Y.H. was born in Kyoto in 1971. In 1994, she graduated from the Faculty of Literature at Doshisha University in Kyoto. After graduation, she became the secretary to Professor Tamura of Kyoto Institute of Technology. Professor Tamura was a founder of the Human Interface Society, which is an academic association in this field. At his laboratory, she worked as the secretariat for this association. When Professor Tamura retired, the association decided to set up a secretariat office for itself. In the summer of 2000, a convention of the Human Interface Society was held at KRP. The staff, including Y.H., were impressed with the facilities at KRP. They each said, 'I wish I could work in an atmosphere like this'.

The directors of the Human Interface Society proposed that Y.H. should become independent in order to start and manage a secretariat office. She had to choose either to quit the Society or to create a secretariat as an independent organization. Finally, she accepted the offer to establish a limited liability company called Secretariat.

Now, Secretariat works as a secretariat for five academic associations as well as a number of private companies. KRP's support for business and academia networks, its conference facilities service, and the atmosphere of Kyoto City as a centre for academia with many universities have helped greatly in the development of Secretariat. (Ohnishi, 2005)

3.2. Construction of a Typology for Entrepreneurs Based on Legitimacy

In order to further study the entrepreneurs at KRP, we adopted a typology based on legitimacy, as in Messeghem and Sammut (2007). This typology is delineated as a function of 'competitive legitimacy' and 'professional legitimacy'. 'Competitive legitimacy' reflects the capacity of an organization to adapt to its competitive environment and to create value to ensure its survival. This corresponds to the socio-political normative legitimacy described by Zimmerman and Zeitz (2002), who defined this as being derived from the norms and values of society or from the level of societal environment relevant to a new venture. 'Professional legitimacy' corresponds to the capacity to be recognized by one's profession. This conformity to the norms and values of professional society depends on the level of professional integration. In the terminology of Zimmerman and Zeitz (2002), this is placed between cognitive legitimacy and socio-political normative legitimacy. They explain the latter using a definition from Scott (1994) as being derived from addressing 'widely held beliefs and taken-for-granted assumptions that provide a framework for everyday routines, as well as the more specialized, explicit and codified knowledge and belief systems promulgated by various professional and scientific bodies'.

The cross-tabulation of these two dimensions of legitimacy makes it possible to identify four types of entrepreneurs, as shown in Table 3.

Table 3: Typology of Entrepreneurs Based on Competitive and Professional Legitimacy

		Competitive Legitimacy	
		Weak	**Strong**
Professional Legitimacy	**Strong**	*Artists* System Wave Multimedia Research Centre Secretariat	*Receptives* Hatena Select Shop
	Weak	*Marginals*	*Surfers*

Marginals are those originators who pursue an opportunity in a new domain. They must build competitive and professional legitimacy at the same time. This study does not examine entrepreneurs within this category. Artists are those originators who develop the knowledge that they want to exploit in pursuing an entrepreneurial opportunity. They share a form of shutting-in with marginals. They have a tendency to withdraw to a restricted society and depend essentially on the tied linkages of their network. This shutting-in can be a constraint on the pursuit of new opportunity. Receptives are those originators who succeed in benefiting from strong legitimacy, both competitive and professional. Surfers are those originators who benefit from a strong competitive legitimacy that can be linked to sound managerial and/or entrepreneurial experience. In contrast, their professional legitimacy is relatively

weak, for they just start out within the sector. Their principal challenge is to succeed in developing relationships with their professional society.

Next, we applied another typology to the interviewed entrepreneurs at KRP. This typology was developed by Marchesnay (2003) and is a function of competitive legitimacy and territorial legitimacy. Marchesnay (2003) explains territorial legitimacy as two methods of integrating entrepreneurs' sense of belonging within their territory. One method is the extent to which entrepreneurs are attached to the territory, namely the degree of their affection for the land to which they belong. This includes the length of existence of their enterprise within this territory. The other method is the degree of intensity they feel towards other actors within the territory. Marchesnay (2003) called the resulting four categories as isolated, notable, nomad and enterprising. Whatever their degree of competitive legitimacy, all the entrepreneurs studied here show a strong territorial legitimacy at Kyoto.

Table 4: Typology of Entrepreneurs Based on Competitive and Territorial Legitimacy

		Competitive Legitimacy	
		Weak	**Strong**
Territorial Legitimacy	**Strong**	*Notable* System Wave Multimedia Research Centre Secretariat	*Enterprising* Select Shop Hatena
	Weak	*Isolated*	*Nomad*

3.3. Opportunity, Network and Legitimacy at KRP

How do entrepreneurs at KRP pursue their opportunities, construct their networks and gain their legitimacy? To explore this, we used the English translation of the interview guidelines (see Annex) provided by Messeghem and Sammut (2007) for entrepreneurs at an accompanying structure. The following are the results for some of the important items.

**Numbers and items are from the English translation of the interview guidelines by Messeghem and Sammut (2007)*

1. Accompanying Structure and Opportunity

1.1. The project

1-1-2 : *Did you have your precise idea on the nature of the activity that you wanted to develop before entering KRP ?* All of the five entrepreneurs responded "Yes".

1-1-4 : *Did KRP participate in the elaboration of your project ?* All of the five entrepreneurs responded "No".

1-3-4 : *Did the accompanying structure KRP enable you to discover the new opportunity since the launch of the activity ?* All of the five entrepreneurs responded "Yes".

1.2. Resources

1.2.2: *What are the means developed and made available by KRP?*

Hatena (technology and credibility), Select Shop (recruitment by the fact of being a tenant at KRP made it easy to find employees), System Wave (Clientele and partner), M.R.C.(Clientele and partner), Secretariat(clientele and credibility)

1.3. Opportunity

1.3.1: *Did the accompanying structure at KRP bring you one or more business opportunities? If so, what kind?*

Hatena (publicity via PR, KRP magazine), Select Shop (publicity via PR, KRP magazine), System Wave (introduction to new clientele), M.R.C.(Introduction to new clientele, Mediation of joint order), Secretariat(introduction to new clientele and to university professors)

2. Network

2.1: *Outside KRP, when and with whom did you have an occasion to discuss the idea of the accompanying structure?*

All of five entrepreneurs responded "with supporting institutes or other enterprises" and "at public administrative sponsoring seminars or private seminars".

2.3: *Did the accompanying structure at KRP allow you to enter into relationships with other partners? If so, what kind, and at which period of the project?*

Hatena(at the beginning), the others (all the time).

3. Legitimacy

3-1 : *Do you think that the fact to be incubated helped you in your access to the resources?*

All of the five entrepreneurs responded "Yes".

3-4 : *If you hadn't been integrated in the accompanying structure KRP, would you have had the same legitimacy in front of your competitors and/or commercial and financial partners ?*

All of the five entrepreneurs responded "No".

3-6 : *Are your customers or suppliers sensitive to your existence in the minds of KRP?*

All of the five entrepreneurs responded "Yes".

Entrepreneurs interviewed at KRP were asked what they considered to be the greatest advantage of being a tenant at KRP; the results are shown in Table 5. Common advantages are listed in Table 6.

Table 5: Greatest Advantage of being at KRP

Hatena...Communications and Internet infrastructure such as server room. Select Shop...Neighbourhood of a model venture for sales via the internet and KRP. System Wave...Development of new business by meeting partners. M.R.C....Creative atmosphere t stimulate new ideas. Secretariat...Development of clientele at KRP as a base for industry-academia liaison and convention facilities.

Table 6: Common Advantages of being at KRP

1. Information through collaboration and networking among tenants at KRP.
2. Value of KRP in facilitating recruitment and affording credibility
3. IT infrastructure (server room, security system)
4. Existence of public supporting institutions within the territory of KRP
5. Seminars held at the facilities of KRP (easy to participate in)
6. Information through seminars or conventions, networking via seminars
7. Introduction to related business at KRP
8. Mediation of joint order for IT start-up by KRP
9. Facilities and offices available 24h

The interviewed entrepreneurs were positive about KRP's role in introducing partners and related businesses. According to them, constructing networks within or through KRP helped them pursue their opportunities. Thus, within the examples of the entrepreneurs at KRP, our interviews did not find any risk of isolation at the accompanying structure, which is an argument put forward by Messeghem and Sammut (2007). It must be noted that the five entrepreneurs interviewed developed strong relationships with KRP so that they could be introduced to partners and clientele. Furthermore, we have to recognize that KRP is one of the rare cases of success as an incubation facility in Japan, next to KSP. This might be an exceptional case if we consider the reality of local public incubation facilities.

In any case, it is possible to observe the following three aspects from among the entrepreneurs at KRP:

(1) Brand and credibility: KRP as a source of cognitive legitimacy;
(2) Network: KRP as a source of networking;
(3) Lifestyle-oriented: creation of enterprise as an opportunity for the realization of an expected lifestyle (need for achievement).

Conclusion

Our study confirms that certain propositions formulated by Messeghem and Sammut (2007) are applicable in a completely different region, namely Kyoto, Japan:

(1) Opportunity-seeking is a matter of networks;
(2) Opportunity-seeking is a matter of 'legitimacy';
(3) Risk of entrepreneurs' isolation.

As a theoretical advance to contributions, this study tested propositions advanced by Messeghem and Sammut (2007) using an empirical study of entrepreneurs at KRP. Three initial propositions formulated by Messeghem and Sammut (2007) were considered.

Using their empirical study of six entrepreneurs at an incubation facility in the south of France, Messeghem and Sammut (2007) rejected all three propositions. Moreover, they referred to the risk of isolation of originators within the accompanying structure as a reality.

In contrast, our study showed that, at least in the accompanying environment realized at KRP, Propositions 2 and 3 can be confirmed. That is, the entrepreneurs whom we interviewed appreciate KRP's role in introducing partners, thereby supporting network creation, which is effective in the im-

provement of the credibility of their project. No entrepreneur we interviewed mentioned any risk of isolation.

KRP might be an exceptional case in Japan, for it is a rare example of a privately managed incubator. Therefore, the future direction of our research will be to conduct an empirical study of the majority of public incubation facilities in Japan such as Kazumi(2008) in order to test the propositions formulated concerning the relationship between the entrepreneurial process and the accompanying structure as seen in the study by Messeghem and Sammut (2007).

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Acknowledgement

The author thanks the executives of KRP for the field work opportunity at KRP in February 2007 and in June 2010 and also Professor Tatsuhiko Ohnishi for his precious book published in 2005 on entrepreneurs at KRP.

Annex : English translation of Interview Guideline by Messeghem and Sammut (2007) on entrepreneurs at an accompanying structure

(Original version is in French. Name of accompanying structure enters at the place of ***.)

1. Accompanying structure and Opportunity

1.1. The project

1-1-1: *Could you tell us what brought you to create your enterprise ?*

1-1-2 : *Did you have your precise idea on the nature of the activity that you wanted to develop before entering the accompanying structure *** ?*

1-1-3 *Were you in relation with the accompanying structure *** before the montage of the project or only since the creation of the business?*

1-1-4 : *Did the accompanying structure *** participate in the elaboration of your project ?*

1-1-5 : *If so, in what manner? In what period of the maturation of your project? Did the advice of the accompanying structure *** transform your project?*

1.2. The resources

1-2-1 : *What kind of resources or ability did you have to in order to realize your project ?*

1-2-2 : *What is the means developed and made available by *** ?*

1-2-3 : *Did they become available before or after your request?*

1.3. Opportunity

1-3-1 : *Did the accompanying structure at *** bring you one or more business opportunities? If so, what kind?*

1-3-2 : *How do you proceed to discover new business opportunities ? Does the accompanying structure *** help you in this process of detection ?*

1-3-3 : *In what way, do you proceed to know whether an opportunity is worth developping or not ? Are there tools ? Are they yours or are you helped on this point by the accompanying structure *** ?*

1-3-4 : *Did the accompanying structure *** enable you to discover the new opportunity since the launch of the activity ? Did you follow all these ?*

1-3-5 : *Did the accompanying structure *** sometimes dissuade you in your hope to develop new opportunities? If so, what arguments were advanced ? Would you have prefered that *** play this role ?*

2. Network

2-1 : *Outside the ***,when and with whom, did you have an occasion to discuss?*

2-2 : *Did the structures help you to refine your project ?*

2-3 : *Did the accompanying structure at *** allow you to enter into relationship with the other partners? If so, what kind, and at which period of the project? Did the members of the accompanying structure *** attend the interviews?*

2-4 : *In the midst of ***, did you develop relations with the other enterprises ?*

2-5 :*Do you take business opportunities by yourself or together with several persons?*

2-6. *How many people did you meet during the launch of your project (in *** and outsied ***) ?*

3. Legitimacy

3-1 : *Do you think that the fact to be incubated helped you in your access to the resources?*

3-2 : *Could you obtain new resources, thanks to the accompanying structre to work your project ?*

3-3 : *Did the accompanying structure *** allow you to gather the resources that you couldn't gather without its aide ? If so, what and in which proportions ?*

3-4 : *If you hadn't been integrated in the accompanying structure ***, would you have had the same legitimacy in front of your competitors and/or commercial and financial partners ?*

3-5 : *What made your enterprise look credible for your customers ?*

3-6 : *Are your customers or suppliers sensitive to your in the minds of?*

4. Performance

4-1 : *Today, do you consider that your enterprise is viable ? What made an enterprise like yours viable ?*

4-2 : *What are the perspectives of the development of your enterprise ?*

5. Evolution of ***

5-1 : *What kind of service do you want to see develop ?*

5-2 : *Do you think that it is important for *** to be certified ?*

5-3 : *Would you like an option to stay at the site of *** after 23 months ?*

5-4 : *How do you like to see *** develop ?*

Women Entrepreneurs' External Financial Access and Social Networks in Business Start-ups

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Summary

Social network is important for entrepreneurship especially by the business start-ups. I focused on the relationship between external financial access and social networks. The results of my original investigation by questionnaire revel seven types of social networks exert an influence on the amount of external fund procurement. Women entrepreneurs can get less amount of fund than men. The result also revel the influence type of social network which are "network of family members, relatives," "network outside former workplace," and "network of political party or religion" for women entrepreneurs, while for men the amount was higher than the overall average for "network of family members, relatives," "network through children," "network of hobby, etc.," "network of school alumni," "network of acquaintances, friends," "network inside former workplace," and "network with other entrepreneurs."

Introduction

According to previous research, there is a tendency for businesses started by women to be concentrated in the consumer-directed service, retail, and eating and drinking establishment industries (National Life Finance Corporation Research Institute, 2003, p. 12) and to be smaller in scale than businesses operated by men (Tamura, 1995, p. 107).

These tendencies suggest the possibility that the human capital and tastes of women entrepreneurs themselves are exerting an influence. For example, it has been pointed out that women have not accumulated the work experience and knowledge necessary for starting and managing a business (Kazumi, 2006) and that the objective and interest of women in setting up a business is not business expansion but self-realization (Tamura, 1995, p. 114).

On the other hand, though, women who have started businesses themselves also say that they chose a business they could launch with little start-up money because of the difficulty of receiving loans from financial institutions and other sources. Generally speaking, in order to receive loans from private-sector financial institutions, assets are necessary as collateral, and a guarantor is required, too. However, many women do not possess real estate or other assets that might be used as collateral. In addition, spouses or other family members usually become guarantors, so single women in particular

have a hard time finding a guarantor. For this reason, in the case of women, whether or not they can procure funds other than their own can be a direct motivation determining whether or not they embark on setting up a business.[1]

It has also been pointed out that the reason why women face difficulty in fund procurement is that their contacts for finding people who will lend them money---in other words, their social networks---are weak. Because they were not appointed to upper positions in their previous work, they were unable to get to know people with financial clout (Carter and Marlow, 2003). Of course, the possibility of procuring funds does not rest only in the extent of a person's social networks. There are various other factors involved as well, such as the feasibility of the business, its profitability and growth potential, the ability to compile a business plan that can indicate these features in a persuasive manner, and the skills of the entrepreneur. In the end, it is as a result of all of these factors that a woman is unable to gather the necessary amount of funds.

Although it is difficult to specify the factors that determine the success or failure of entrepreneurial activities, in recent years there has been research from various angles on the utilization of social networks in entrepreneurial activities and results of the social capital gained from it (Burt, 1992; Aldrich and Zimmer, 1986; Aldrich, 1995, 1997, 1999; Kanai, 1994; et al). Among these research results, some of them refer to the influence of social networks in external fund procurement.

In this paper I will focus on the relationship between external fund procurement and social networks and verify whether or not the utilization of social networks is effective in facilitating the procurement of external funds for business start-ups by women.

1. Actual State of Fund Raising by Business Start-ups

Surveys relating to the owners of business start-ups are implemented by various entities, including the central government, local governments, and chambers of commerce and industry. However, the only example I can find of a survey conducted with an adequate number of samples and continuously over a long period of time is that implemented annually since 1991 by the Research Institute of the National Life Finance Corporation (now the Japan Finance Corporation).

Of companies receiving loans from the nationwide branches of the former National Life Finance Corporation, the Fact-Finding Survey of New Businesses, a postal questionnaire, targets those companies that had been operating for less than a year at the time of the loan (including companies that have not yet been established). There are around 1,000 effective replies to this questionnaire every year.[2]

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[1] According to the 2007 Fact-Finding Survey of New Businesses of the National Life Finance Corporation Research Institute, the ratio of respondents replying "became possible to procure funds (apart from personal funds)" as their "direct motivation for launching the business" was 8.0% for men and more than double that figure, 17.2%, for women (National Life Finance Corporation Research Institute, 2008, p. 242).

[2] The National Life Finance Corporation (now the Japan Finance Corporation) Research Institute compiles and issues the *White Paper on New Businesses* tallying and analyzing the results of the Fact-Finding Survey of New Businesses every year.

The merit of this survey is that it can be used to analyze in a detailed way the amount of funds that are generally necessary for starting a business and how those funds are procured by such factors as the attributes of the entrepreneur starting the business and the type of business. Therefore, using data from the FY 2007 Fact-Finding Survey of New Businesses, which is the latest available, and from the surveys from fiscal 1991 through fiscal 2005, I will give an overview of the actual state and trends of fund procurement by business start-ups.[3] Incidentally, the former National Life Finance Corporation was a governmental financial institution that supplied loans for the plant and equipment expenses and working expenses necessary for operation mainly to individual entrepreneurs and small-scale business owners. Generally speaking, therefore, the targeted businesses are small enterprises. Also, the targets of the survey are businesses that received loans from the National Life Finance Corporation, so their use of loans as a method of fund procurement is a premise. It is necessary to take this sample bias into consideration.

1-1 Amount of funds for business start-ups

Bearing this sample bias in mind, let us now take a look at the amount of funds necessary for starting a business. In starting an enterprise, depending on the type of business, a shop or office might or might not be established. Also, the amount of funds necessary will differ greatly depending on whether the land and building of the shop or office is purchased or rented. The Fact-Finding Survey of New Businesses divides responses into two categories: the overall average cost of starting a business and the cost if real estate is purchased.

In the fiscal 2007 survey, the average cost of starting a business in the case of the purchase of real estate was ¥35.89 million (median ¥18 million), the average cost in the case of not purchasing real estate was ¥11.18 million (median ¥6.20 million), and the overall average cost was ¥14.92 million (median ¥7.24 million). By amount, 31.7% of the respondents answered "under ¥5 million" and 28.6% answered "over ¥5 million and under ¥10 million," which means that 60% of the business start-ups involved relatively small amounts. Looking at the survey results chronologically, we see that the ratio of respondents replying "under ¥5 million" is on an upward trend and, in the Fact-Finding Survey of New Businesses, the cost of setting up a new business is getting smaller.

By type of business, as shown in Figure 1, the cost of starting an enterprise is by far the highest in "medicine and welfare," where the average is ¥41.04 million, followed by "manufacturing" (average ¥14.04 million), "eating and drinking establishments and lodging" (average ¥13.70 million), and "services for individuals" (average ¥11.10 million).

Figure 2 shows a breakdown of start-up expenses. Although there are differences by type of busi-

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This survey outline is taken from the 2008 edition.

[3] From fiscal 1991 to fiscal 2005 the data of the Fact-Finding Survey of New Businesses was borrowed from the Social Science Japan Data Archive (SSJDA) of the Center for Social Research and Data Archives of the Institute of Social Science of the University of Tokyo for computing and analysis. I would like to express my appreciation to them.

ness, in general funds are used for machinery and equipment; internal and external construction work on shops, offices, etc.; and the purchase of a building (including newly constructed buildings and extensions). Businesses in which start-up expenses are high require expenditures on these items, and there is a strong possibility that these items will be expensive, so there is a consistency here.

Figure 1: Distribution, Median, and Average of Start-up Expenses by Industry (Overall), Unit: %

	Under ¥5 million	¥5 million – under ¥10 million	¥10 million – under ¥15 million	¥15 million – under ¥20 million	¥20 million and over	Median (¥10,000)	Average (¥10,000)	No. of effective replies
Overall	31.7	28.6	15.7	5.7	18.3	724	1,492	840
Construction	62.7	20.9	11.9	1.5	3.0	400	544	67
Manufacturing	26.7	26.7	24.4	2.2	20.0	900	1,404	45
IT	55.2	17.2	17.2	3.4	6.9	400	799	29
Transportation	57.9	21.1	15.8	0.0	5.3	400	887	19
Wholesale	48.1	21.2	11.5	9.6	9.6	500	936	52
Retail	38.6	31.6	13.2	3.5	13.2	600	930	114
Eating and drinking establishments, lodging	15.6	37.6	17.7	10.6	18.4	900	1,370	141
Medicine, welfare	12.5	18.8	10.2	5.5	53.1	2,365	4,104	128
Education, study support	35.7	21.4	35.7	0.0	7.1	710	893	14
Services for individuals	27.3	34.3	18.9	7.0	12.6	750	1,110	143
Services for businesses	37.7	33.3	18.8	2.9	7.2	600	740	69
Real estate	38.5	38.5	0.0	7.7	15.4	500	1,094	13
Other	50.0	16.7	16.7	16.7	0.0	425	608	6

Source: *2008 White Paper on New Businesses*, National Life Finance Corporation Research Institute (2008), published by the Small and Medium Enterprise Research Center.

Note: The data is from the FY 2007 Fact-Finding Survey of New Businesses (survey period: August 2007, number of effective replies: 918 companies).

Figure 2: Breakdown of Start-up Expenses (Average) Unit: ¥10,000

Purchase of land	81.4
Purchase of building (including new construction and extension)	275.8
Renting of land and building (including deposit, occupancy guarantee, etc.)	95.2
Internal and external construction work on plant, shop, office, etc.	256.2
Purchase of machinery, vehicle, furniture, equipment, etc.	355.4
Fee for joining franchise chain, guarantee	26.8
Working funds (stock purchase, personnel expenses, etc.)	401.0
Total	1,491.8

Note: Source and data are the same as for Figure 1.

1-2 Fund procurement activities

So how do entrepreneurs procure funds amounting to more than ¥10 million? Figure 3 shows the average amounts for each procurement source. Since the survey targeted businesses that had received loans from the National Life Finance Corporation, naturally loans from this corporation are the biggest source of procurement. This is followed by personal funds (¥4.224 million). Adding loans or investment from family members and relatives (¥1.375 million), this figure amounts to about ¥5.60 million. Loans from private financial institutions amount to ¥2.567 million.

Thus, it can be seen that with the exception of loans from the National Life Finance Corporation, personal funds are the largest source of fund procurement for starting a business. Although the figures are averages and therefore do not indicate the actual amounts of loans, it appears that because the average size of loans from the lending schemes of local governments, public organizations, and governmental financial institutions other than the National Life Finance Corporation is extremely small, the number of users is low. In addition, investment by venture capital and fund procurement from so-called business angels (loans or investment from individuals or corporations that agree with the business) are almost nonexistent or extremely small amounts. So it can be understood that these also are not functioning as suppliers of funds for the establishment of small-scale enterprises.

In fact, in the fiscal 2007 survey, looking at the distribution of replies to the question on "direct motivation for launching the business," we see that 9.3% of the respondents answered "became possible to procure funds (apart from personal funds)" and 4.2% answered "able to accumulate personal funds." When these two replies are combined, they followed "able to acquire the technology, knowledge, etc. necessary for independence" (31.3%) and "uncertain about future of previous workplace" (16.6%) in frequency. In other words, the possibility of fund procurement is a direct motivation for starting a business.

Furthermore, concerning "difficulties in starting the business," the ratios of respondents saying that they had "considerable difficulty" in "preparing personal funds" and "fund procurement" were 28.2% and 28.6%, respectively, taking the first and second places ahead of "securing sales outlets" and so on. This shows that fund procurement is an extremely important issue in starting a business.

1-3 Differences between men and women in fund procurement

Generally speaking, it is said that businesses started by women are small in scale. Are there any special features concerning the state of fund procurement at the time of starting a business?

Although there are few research results analyzing business start-ups by women based on an adequate number of samples, replies from women entrepreneurs account for around 15% of the responses to the Fact-Finding Survey of New Businesses every year. This is the equivalent of about 150 responses. Thus, it is possible to make a substantial comparison of start-up expenses, expense items, fund procurement sources, and so on by gender.

First of all, in the FY 2007 Fact-Finding Survey of New Businesses, the average of total start-up expenses is ¥14.99 million for men and ¥15.16 million for women, which means that start-up expenses are a little higher for women. In terms of the median value, however, the situation is reversed at ¥7.45 million for men and ¥6.60 million for women. The reason for this is that in the distribution of responses women are concentrated in two categories, under ¥10 million and over ¥20 million. In addition, the average of start-up expenses for a company purchasing real estate is ¥37.64 million for men and ¥32.06 million for women. In the case of companies not purchasing real estate, it is ¥11.56 million for men and ¥9.23 million for women. In the case of companies purchasing real estate, as with the overall distribution, women tend to be concentrated in the two categories of under ¥5 million and over ¥20 million. But in the case of companies not purchasing real estate, women account for 74.2% of the total in the "under ¥10 million" category, so we can see that the emphasis is on small start-up expenses (Figure 3).

It can be supposed that this tendency is related to the special characteristics of the businesses in which women often start enterprises. Looking at the distribution of start-up enterprises by gender, we see that the top five businesses with a high ratio of women are services for individuals (27.0%), eating and drinking establishments and lodging (22.2%), medicine and welfare (21.5%), education and study support (21.4%), and retail (14.8%). Among these, average start-up expenses are highest for medicine and welfare and also high for eating and drinking establishments and lodging and services for individuals. However, services for individuals are diverse, ranging from hairdresser's and beauty salons, which require a lot of equipment and fittings, to wedding planners and interior coordinators, which do not have so much need for shop space and equipment. In the retail industry as well, recently there has been an increase in nonstore sales using the Internet, for example, so there are business patterns that do not require much start-up expense. These conditions appear to be causing the polarization of women's start-up expenses.

Figure 3: Distribution of Start-up Expenses (by Gender), Unit: %

	Under ¥5 million	¥5 million – under ¥10 million	¥10 million – under ¥15 million	¥15 million – under ¥20 million	¥20 million and over	Median (¥10,000)	Average (¥10,000)	No. of effective replies
(Overall)								
Men	31.3	28.0	16.7	6.0	18.0	745	1,499	700
Women	32.8	30.5	10.7	4.6	21.4	660	1,516	131
(Purchase of real estate)								
Men	8.7	21.7	12.0	10.9	46.7	1,750	3,764	92
Women	17.6	14.7	8.8	2.9	55.9	2,410	3,206	34
(No purchase of real estate)								
Men	34.7	28.9	17.4	5.3	13.7	665	1,156	608
Women	38.1	36.1	11.3	5.2	9.3	580	923	97

Note: Source and data are the same as for Figure 1.

Regarding the uses of start-up expenses and fund procurement sources, unfortunately the differences between men and women are not given in the *2008 White Paper on New Businesses*, which presents the results of the FY 2007 Fact-Finding Survey of New Businesses. Therefore, I have tallied and analyzed the individual data in the FY 2005 Fact-Finding Survey of New Businesses, which I have at hand. Instead of a simple comparison of averages, I examined the difference of the averages of two populations using the t score. The results are shown in Figure 4.

From this figure, we can see that in terms of the uses of start-up expenses, there are more women in the average amount for "internal and external construction work on plant, shop, office, etc." and fewer for "working expenses." Also, in terms of the amount procured by fund procurement source, there are fewer women in the average amount for "loans and investments from spouse, parents, siblings, relatives" and more for "other." These are the four categories for which the estimated results of the differences in average scores by gender have a statistically significant probability of more than 95%.

Figure 4: Differences in Uses of Start-up Expenses and Procurement Source Amounts by Gender

		Average (¥10,000)	Standard deviation	t score	Significant probability
(Uses of start-up expenses)					
Purchase of land	Men	103.78	647.916	1.597	.110
	Women	48.46	376.520		
Purchase of building	Men	287.47	1336.686	-.869	.385
	Women	359.45	1996.520		
Renting of land, building	Men	99.94	239.360	-.930	.353
	Women	115.55	496.486		
Internal and external construction work on plant, shop, office, etc.	Men	236.99	530.092	-3.530	.000***
	Women	349.06	700.042		
Purchase of machinery, equipment, vehicle, furniture, supplies, etc.	Men	348.60	712.606	1.112	.266
	Women	304.54	632.834		
Fee to join franchise chain, guarantee	Men	32.46	183.781	1.431	.153
	Women	18.59	80.437		
Working funds	Men	417.3	760.312	2.659	.008**
	Women	308.77	471.637		
Total start-up expenses	Men	1526.53	2561.435	.150	.881
	Women	1504.42	2826.853		
(Fund procurement sources)					
Personal funds	Men	447.39	638.631	.243	.808
	Women	438.45	750.972		
Loans, investment from company executives, employees	Men	166.01	537.724	.257	.797
	Women	158.41	470.080		
Loans and investments from spouse, parents, siblings, relatives	Men	31.61	169.538	2.026	.043*
	Women	13.53	87.328		
Loans, investment from friends, acquaintances	Men	22.18	353.284	.828	.408
	Women	7.17	51.056		
Loans, etc. from corporations, individuals agreeing with the business	Men	42.93	506.109	1.110	.267
	Women	14.02	108.132		
Loans from the National Life Finance Corporation	Men	632.30	963.639	.317	.751
	Women	615.64	794.548		

Loans from local governments	Men	33.26	312.599	1.124	.261
	Women	14.91	141.957		
Loans from public institutions, governmental financial institutions	Men	34.04	340.527	1.644	.100
	Women	5.25	64.267		
Loans from private financial institutions	Men	237.36	1250.141	.314	.754
	Women	213.62	1771.362		
Investment from venture foundations, venture capital	Men	4.30	185.925	.386	.700
	Women	.63	12.296		
Lease, equipment bills, or loans from equipment suppliers	Men	74.24	705.374	-.567	.565
	Women	96.11	514.071		
Loans from franchise chain headquarters	Men	2.05	37.525	1.064	.288
	Women	.00	.000		
Other	Men	7.74	86.818	-2.142	.032*
	Women	38.14	595.074		
Total fund procurement	Men	1735.40	2681.901	.788	.431
	Women	1615.86	2827.962		

Source: Compiled from the FY 2005 Fact-Finding Survey of New Businesses, National Life Finance Corporation Research Institute.

Notes:

1. The degree of freedom for uses of start-up expenses is 2293; the degree of freedom for fund procurement sources is 2325.

2. Employs null hypothesis of $\alpha = .05$. The standard for statistical significance is p<.001***, p<.01**, p<.05*.

Furthermore, let us look at the extent to which fund procurement is emphasized in starting an enterprise and the extent to which difficulties are experienced in fund procurement. Unfortunately, except for the basic items, the survey items in the Fact-Finding Survey of New Businesses are changed a little every year. In the fiscal 2007 survey the question about the "direct motivation for launching the business" included "able to accumulate personal funds" and "became possible to procure funds (apart from personal funds" as possible choices, but these options were not available in the fiscal 2005 survey. Also, in the question on "difficulties in starting the business," the fiscal 2007 survey asked about the degree of difficulty for each item, but the fiscal 2005 survey did not.

Looking at the trend of replies relating to fund procurement in the question about "direct motivation for launching the business" in the fiscal 2007 survey, we can see that although there was not much difference in the ratios of men and women replying "able to accumulate personal funds" (4.1% and 4.7%, respectively), there was a large difference in the ratios replying "became possible to procure funds (apart from personal funds," with the ratio of women (17.2%) being more than double that of men (8.0%). It can be said, therefore, that for women the possibility of fund procurement other than personal funds, including funds from family members and relatives, is an important factor in determining whether or not to start a business.

2. Entrepreneur Activities and Social Networks

We can see that fund procurement is an important issue in starting a business. In particular, the procurement of funds other than personal funds is difficult when starting a business and is a factor in deciding whether or not to launch the business. While it is clear that the main fund procurement sources are governmental and private financial institutions, fund procurement from social networks, such as family members, relatives, and acquaintances, cannot be overlooked, either. So, what roles do social networks play in entrepreneur activities, including fund procurement?[4] And are there any differences between men and women in the social networks that are utilized?

2-1 The role of social networks in entrepreneur activities

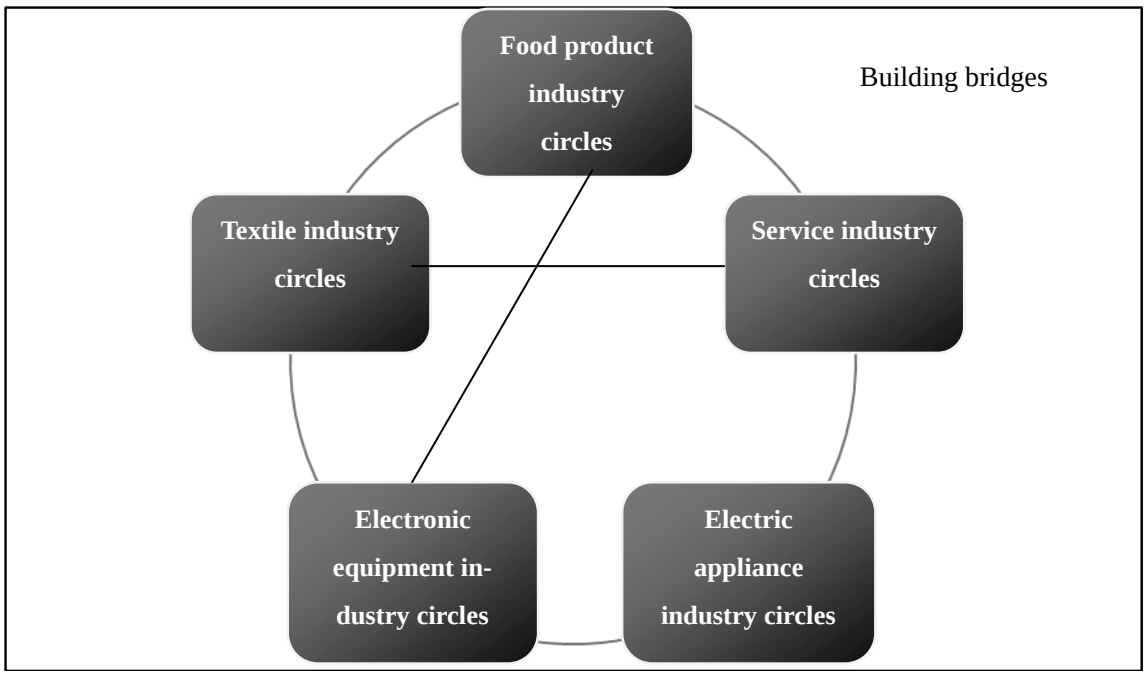
Entrepreneurs either create new businesses and build new markets through innovation or newly enter existing markets. Also, when launching the business, since a company that has just been established has a shortage of internal management resources, it is necessary to procure personnel, equipment, funds, and so on from outside. Procuring all management resources from the market is difficult, however, because it is highly unpredictable how a company that has just been founded is going to behave and that company is not going to be trusted. There are not many companies that will suddenly engage in spot transactions with strangers, or workers who will join unknown firms on their conditions. It is necessary to build trust.

As Yamagishi (1998) has pointed out, if uncertainty is high and opportunity costs (procuring management resources from a largely unknown partner) are high, the building of trustworthy relations is important. Social networks are essential as ties that increase the possibility of connectivity with external management resources in business establishment (Aldrich and Zimmer, 1986).

It was Burt who was relatively early in discussing the link between social networks and entrepreneurial activities. Analyzing the social structure that was advantageous in competition strategy, Burt said, *"I call the structural space between unrelated multiple network clusters a 'structural hole.' The less redundancy there is in the information that flows across the bridge linking them, the more varied is the information gained. Since profits can be monopolized by using the information that flows from multiple clusters that are joined together, it is a competitive advantage"* (Burt, 1992). Although this structural hole is similar to Granovetter's weak ties (1973), rather than the weakness of the links, Burt emphasized the fact that there is no redundancy in the information. Burt argues that entrepreneurs are people who discover structural holes, engage in bridging, and find opportunities to start new businesses in an advantageous manner.

[4] "Entrepreneurial activities" mean activities that create new values in the market and society through innovation. In this research, I focus especially on activities in the business field.

Figure 5: Conceptual Diagram of Structural Hole and Bridging



Note: Compiled by the author.

The diversity of the information that flows in social networks is important in entrepreneurial activities. Toshihiro Nishiguchi says that, even if efforts toward networking are made, there will be no development in close networks with a high contact frequency (in other words, neighborhood ties) and that it is important to obtain nonredundant information and opportunities by building bridges to distant worlds with weak links (long-distance exchange) (Nishiguchi, 2007).

This theory empirically applied Watts' theory of small-world networks. Watts defined small-world networks as *"network areas in local clusters not connected with others that can be connected with any other point in just a few steps on average"* (Watts, 2004, p. 93). In local clusters connections among members themselves are strong, but there are almost no opportunities to connect with others far away. However, if random networks between clusters are connected, the world becomes smaller in an instant, and it becomes possible to reach anybody. In other words, he suggests that the existence of weak ties promotes a connection of information and combination of management resources like never before and is advantageous in the creation of innovations and business opportunities.

2-2 Usefulness of social networks in fund procurement

Weak ties, structural holes, long-distance exchange, and small-world networks not only bring about business chances for entrepreneurs but also are useful in fund procurement. Baker cites the survey results of one organization suggesting that venture businesses can search for investors and secure funds through social networks comprising people who desire fund procurement and investors (namely, "business angel" networks) (Baker, 2000, p. 12). Aldrich also points out that fund procurement is obtained from networks with weak links (Aldrich, 1999, p. 70).

In addition, Aldrich has clarified the importance and state of social networks in entrepreneurial activities in numerous research results (Aldrich, 1999; Aldrich, Brickman Elam and Reese, 1997; Aldrich and Zimmer, 1986; Reese and Aldrich, 1995; et al). According to Aldrich, *"At the time of establishing a business, the personal networks of entrepreneurs---assemblies of people with direct links---exert an influence when they access social, emotional, and material support. All entrepreneurs use their existing social networks at the time of business establishment and build new networks in the process of acquiring knowledge and resources for the organization"* (Aldrich, 1999, p. 68). Furthermore, regarding the structure of social networks that are important especially in the business establishment phase, Aldrich writes, *"For the entrepreneur in the business establishment phase, strong ties and weak ties are maybe more necessary than contacts with strangers in order to mobilize resources in the initial stage of business establishment. Later, when the organization has achieved a certain degree of stability, spot transaction relations and contacts with strangers over a distance become more important"* (Aldrich, 1999, p. 69).

2-3 Social networks of entrepreneurs and gender differences

Aldrich has published numerous papers relating to gender differences in entrepreneurial activities. Several of them place the focus on themes relating to the social networks and gender of entrepreneurs. For example, in Aldrich, Brickman Elam and Reese (1997), he analyzes the kinds of networks from which male entrepreneurs and female entrepreneurs obtain advisors, mentors, and professional experts for legal matters, accounting, and finance. The ratio of female entrepreneurs utilizing advisors and mentors for legal matters is lower than that for men, but they receive advice and guidance in the other areas on a par with men. Also, relations with advisors and mentors concerning legal matters, accounting, and finance tend to be the same for both men and women. But with regard to professional experts, while the ratios for men are 25% strangers, 29% friends, and 42% work colleagues, the ratios for women are 29% strangers, 39% friends, and 32% family members.

Because of their lack of work experience, women are poor at finding professional experts among work colleagues and tend to frequently use social networks that are unrelated to business, such as friends and family members (Aldrich, Brickman Elam and Reese, 1997). Greve and Salaff (2003) reach the same conclusion, namely, women entrepreneurs use family networks more often than men. As the reason for this tendency, Greve and Salaff (2003) state that *"amid male-oriented business circles, it is difficult for women to expand their networks."*

The differences in the networks of men entrepreneurs and women entrepreneurs are also evident in the gender distribution of the actors. While women account for about 10% of the actors in networks built by men, men account for 66% of the actors in networks built by women (Aldrich, Reese, and Dubini, 1989). Nearly 20 years have passed since this survey was conducted, but even though the ratio of women among all entrepreneurs has increased during this period, clearly it is still difficult for women entrepreneurs to enter networks of men entrepreneurs.

From these previous studies, it can be said that the networks built and utilized by women entrepreneurs tend to be somewhat different from those built by men. In particular, women typically utilize family networks more than men.

2-4 Business start-ups by women and problems in fund procurement

We have seen that in entrepreneurial activities social networks not only create business opportunities but also enable access to various management resources and the acquisition of expert support for the business. In particular, several previous studies show that women entrepreneurs utilize networks of family members and friends more than men.

However, an analysis of the Fact-Finding Survey of New Businesses shows that the amount of funds procured from family members and friends is smaller for women than for men. Does this suggest that social networks of family members and friends are not very useful for women in fund procurement at the time of business establishment? In the next section I would like to clarify what social networks are useful in the procurement of external funds for business establishment from data that I collected myself.

3. Survey Results and Analysis

This survey was carried out to clarify the actual condition and effects of social networks utilized by Japanese company owners. The survey targeted Japanese company owners (the company founder, successor, business successor). Essentially an entrepreneur is someone who starts a new enterprise through an innovation, but in the selection of survey targets, it was virtually impossible to confirm whether or not an innovation had been made, so I targeted company founders instead. In launching a new business, these days it is necessary to establish at least a little discrimination from other companies and to have access to business opportunities that others have not discovered, so the founding of the company itself can be seen as having included an aspect of innovation. Because of the sample limitation, it was impossible to completely exclude successors and business successors from the respondents, so these were included.

Using part of the results of the survey, I will attempt to analyze the relationship between external fund procurement and social networking in business start-ups by women entrepreneurs in Japan.

3-1 Outline of survey

The survey outline was as follows:[5]

Survey target: Of the companies in the COSMOS II corporate information database of Teikoku Databank whose representative directors are the company founders, I selected 1,500 companies operated by men and 1,500 companies operated by women in descending order in terms of the number of

[5] In the implementation of this survey, I received a research grant from the Zengin Foundation for Studies on Economics and Finance to cover part of the expenses. I would like to take this opportunity to express my gratitude.

years since their founding. In consideration of differences in management patterns, I targeted companies excluding medical corporations, social welfare corporations, and educational corporations and unincorporated enterprises.

- Survey period: March – April 2008
- Survey method: Written questionnaire sent by post (anonymous)
- No. of effective replies: 325 (effective response rate: 10.8%)
- Main survey items: Type of business, amount of capital, number of employees, business performance, background to founding, issues at time of founding, amount of external funds procured, types of networks utilized at time of founding, types of networks built after founding, useful networks, merits gained from networks, attributes of the respondent

3-2 Outline of results

By gender, 56.8% of the respondents were men and 42.9% were women. Figure 6 shows the distribution of respondents by business. Most of the respondents belong to the category of "services (for businesses)," followed by wholesale, IT, and manufacturing. Compared with the Fact-Finding Survey of New Businesses, there were more businesses directed toward corporations. The average number of years since founding was 14.2 years, during which time the responding companies had generally expanded in scale. The average amount of capital at the time of founding was ¥10.731 million; the average amount of capital at present is ¥16.740 million. The average number of employees at the time of founding was 3.42 people; the average number of employees at present is 8.41 people. Furthermore, the amount of external fund procurement at the time of founding was ¥14.094 million on average.

Figure 6: Distribution of Business Types of Responding Companies, Unit: %

Manufacturing	Wholesale	Retail	Eating and drinking establishments, lodging	Services (for individuals)	Services (for businesses)	IT	Construction	Transportation, haulage	Real estate	Medicine, welfare	Other	Unknown
11.7	14.8	10.8	1.8	7.1	18.5	14.2	7.4	2.8	5.2	1.5	1.5	2.8

Source: Survey of the Social Networks and Business Activities of Entrepreneurs, 2008.

3-3 Fund procurement by gender and differences in social networks

The simple average amount of funds procured was ¥16.216 million for men and ¥11.345 million for women, meaning that the sum for women was about ¥5 million less than that for men. However, when I examined the population average scores, while estimating that there would be no difference in

the two population averages, I found that the statistically significant probability was not very high at 73.4%

Figure 7 shows the types of social networks utilized at the time of founding by gender. The types that women utilized more than men were “network of family members, relatives,” “network through children,” “community network,” and “network of hobby, etc.” Women do not utilize networks that they built in their former workplace before founding a company as much as men. The conceivable reasons for this are that women had fewer years of work experience before founding a company and women are often employed in clerical and other in-house positions, so they had few opportunities to build networks outside the company.

Regarding new social networks built after founding the company, although higher ratios of women cited “network of family members, relatives” and “network through children” than men, slightly higher ratios of men than women cited “network of hobby, etc.” and “community network.” Also, the ratio of men citing “network with other company owners in the same business” exceeded that of women by 12 percentage points, but there was almost no difference in the ratios selecting “network with company owners in other businesses.” The specific reasons for these trends are unclear. Maybe women find it difficult to build contacts in the same industry, or maybe women can acquire the necessary information and management resources in networks with company owners in other businesses.

Figure 7: Social Networks Utilized at Time of Founding and Social Networks Built After Founding , in %

Type of social network	At time of founding		After founding	
	Men	Women	Men	Women
Network of family members, relatives	35.2	40.5	11.7	15.6
Network through children, mothers	4.8	13.2	1.9	5.5
Community network other than the above	12.1	15.7	9.3	8.3
Network of hobby, etc.	15.2	19.8	11.7	8.3
Network of school alumni	27.3	24.0	14.2	15.6
Network of acquaintances, friends	53.3	47.9	30.9	31.2
Network inside former workplace	61.8	40.5		
Network outside former workplace	80.0	66.9		
Network of political party or religion	6.1	4.1		
Network with other entrepreneurs	38.2	36.4		
Network with other company owners in the same business			73.5	61.5
Network with company owners in other businesses			59.9	58.7
Network with professionals, such as accountants, lawyers			47.5	52.3
Network with public organizations and groups			29.6	33.9

Note: The percentages show the ratios of respondents who selected each network. Source: Same as for Figure 6.

Furthermore, many women build networks with professionals and networks with public organizations and groups. In the case of women, there are more owners who lack business knowledge than men, so after founding their companies they seem to feel the need to look for professionals, such as tax accountants and licensed social insurance consultants, and request management support. Public organizations also provide various management support schemes, and women apparently utilize these administrative services in order to make up for their lack of management ability.

3-4 Gender differences in utilization of social networks and external fund procurement

Next, I attempted to analyze what social networks are effective in external fund procurement. An overall analysis, including both men and women, showed that the average amount of fund procurement when the network was utilized exceeded the average amount when the network was not utilized for "network of family members, relatives," "network of hobby, etc.," "network of school alumni," "network of acquaintances, friends," "network inside former workplace," "network outside former workplace," and "network of political party or religion." In particular, while the average amount in the case of utilizing a "network outside former workplace" was ¥15.144 million, the average amount when not utilizing this network was less than half of that figure at ¥7.743 million.

In the responses to my survey, differences could be seen in the average scores depending on whether or not the respondents utilized the network. Regarding differences in population averages, however, when I conducted measurement using the t score, although I obtained t scores adopting a null hypothesis, in all cases the statistically significant probability was less than 95%, so I cannot deny the possibility that the tallied results from the sample that I obtained this time are within the scope of error.

Comparing the amount of fund procurement at the time of founding with the overall average for each social network utilized at the time of founding, while for men the amount was higher than the overall average for "network of family members, relatives," "network through children," "network of hobby, etc.," "network of school alumni," "network of acquaintances, friends," "network inside former workplace," and "network with other entrepreneurs," for women the amount was higher for only "network of family members, relatives," "network outside former workplace," and "network of political party or religion."

I discovered that for both men and women the amount of external fund procurement is higher when they utilize a "network of family members, relatives" and "network outside former workplace." Also, for men the amount of external fund procurement is higher when they utilize personal networks outside work, but for women, other than the above three types of networks, the amount is lower than the average. In particular, if the average procurement amount is 100, the figures for women are lower at 69.8% for "network through children," "49.6% for "network of hobby, etc.," 27.2% for "community network," and 22.9% for "network with other entrepreneurs."

These results show that while the utilization of social networks at the time of business start-up leads to the acquisition of more external funds for men entrepreneurs, in the case of women entrepre-

neurs, apart from a “network of family members, relatives,” “network outside former workplace,” and “network of political party or religion,” it cannot be said that the utilization of social networks plays a role in the procurement of external funds.

Figure 8: Utilization of Social Networks and External Fund Procurement (by Gender)

	Gender	Average (¥10,000)	Frequency distribution	Standard deviation
Network of family members, relatives	Men	1,850.7	57	3,711.48
	Women	1,187.1	48	4,934.10
Network through children, mothers	Men	2,471.4	7	3,849.98
	Women	342.9	14	481.53
Community network other than the above	Men	1,307.9	19	1,746.13
	Women	820.0	19	1,369.06
Network of hobby, etc.	Men	2,350.0	25	6,129.25
	Women	571.7	23	1,209.32
Network of school alumni	Men	2,045.3	43	5,179.12
	Women	979.6	27	1,576.16
Network of acquaintances, friends	Men	1,793.4	86	4,529.68
	Women	917.5	56	1,535.92
Network inside former workplace	Men	1,933.9	99	4,860.31
	Women	630.2	49	1,001.23
Network outside former workplace	Men	1,718.9	126	4,373.31
	Women	1,279.8	80	3,953.93
Network of political party or religion	Men	1,470.0	10	2,721.95
	Women	1,540.0	5	2,368.12
Network with other entrepreneurs	Men	1,658.4	58	3,400.88
	Women	874.5	44	1,322.53
Total average	Men	1,621.6	172	3,937.27
	Women	1,134.5	128	3,457.02

Source: Same as for Figure 6.

4.

Observations and Conclusions

I analyzed whether or not social networks utilized at the time of business establishment have an effect in the procurement of external funds. As a result, I understood that in the sample obtained in my survey the utilization or not of seven types of social networks do exert an influence on the amount of external fund procurement. It is unclear, however, whether the same differences can be seen in the population. In addition, although this is only an analysis of simple averages, I found out that while women only gain benefits from limited social networks in the procurement of external funds, men gain benefits in fund procurement from various social networks.

An analysis of the Fact-Finding Survey of New Businesses shows that women company owners decide whether or not to launch the business depending particularly on whether or not they can procure external funds, and women cite the procurement of external funds as the biggest hardship they felt at the time of business establishment. The Fact-Finding Survey of New Businesses targets those who have received loans from the National Life Finance Corporation, so respondents are people who have been successful in procuring external funds. It can be assumed that women company owners actually have an even harder time procuring external funds. And maybe those who have been unable to procure external funds in the end have given up on establishing a business.

The survey that I conducted myself showed that, on a simple average, at the time of business establishment women procure less external funds than men, but no statistical significance can be seen. The usefulness of social networks in fund procurement is limited, too. Since these results do not include replies from people who did not get as far as business establishment, the possibility cannot be denied that people who were unable to utilize social networks eventually found external fund procurement difficult and gave up on starting a business.

Conversely, men who start businesses procure a larger amount of external funds when they utilize various social networks. In particular, work-related social networks, hobby-related networks, and networks of school alumni exert a major influence on fund procurement.

From these results, it can be speculated that for women, as well as networks of family members and relatives, the utilization of business-related social networks, such as networks outside the former workplace, work effectively in the procurement of external funds at the time of business start-up. Therefore, it can be said to be important for women, who often lack business-related networks because of their work experience and job content, to build business-related networks when starting an enterprise.

Men can procure funds widely by utilizing various personal networks, such as networks of friends and acquaintances, in addition to business-related networks, and as a result they are able to procure more external funds.

Conclusion

The procurement of external funds is an important issue in the establishment of new businesses. Enterprises managed by women are often described in terms of "small birth, steady growth," but in fact many owners are forced to limit the scale of their businesses to within the scope that can be covered by their own personal funds because they are unable to procure adequate funds.

The differences between men and women in entrepreneurial activities have not been studied very much in Japan. This time I put the focus on external fund procurement in my analysis, but a more diversified comparative analysis is necessary. This will be my research topic from now on.

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Examining Nascent Entrepreneurs International Orientation as an Extension of their Innovation Activities

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Abstract

This study examines the effect of innovation on international orientation of nascent entrepreneurs. Four dimensions of innovation (patent, R&D spending, technology and expertise and new products or services) are explored. Personality variables of the nascent entrepreneurs are used to emphasize the role of the nascent entrepreneur (NE) as the unique player enabling these motivating variables. Preliminary results suggest that the combination of product innovation, process innovation and scientific expertise appear to predict the international orientation from an early stage of the business formation.

Method

Data are obtained from the National Panel Study of Entrepreneurial Dynamics (PSED I) database. The PSED provides an extensive database on nascent entrepreneurs. Focusing on global nascent entrepreneurs, we aim to offer some insights on the early process of internationalization decision-making.

Introduction

For decades, new-ventures started in the U.S. have not had a very strong reason to pursue internationalization because of the large size of the U.S. and North American markets and the absence of strong government support (Manolova. Brush, and Edelman. 2002; Bloodgood, Sapienza, and Almeida, 1996). Changes in the global political and economic conditions, however, as well as the recent evolution and affordability of international communications and transportation have encouraged U.S. based new-ventures to play more active role in the global market. Moreover, this interest may form at an early stage of their existence. Extant research suggests that new-ventures' pursuit of internationalization from or near inception of the business creation is becoming more and more common (Knight and Cavusgil, 2004, 1996; Oviatt and McDougall, 1994; Rennie, 1993). Indeed, this may challenge the conventional wisdom where firms are believed to internationalize gradually, first by gaining substantial experience in the domestic market, and then by exploring the physically closest foreign market (Isenberg, 2008; Johanson and Vahlne, 1977, 1990; Johanson and Wiedersheim-Paul, 1975).

The emergence in the last decade of international entrepreneurship (IE) as a distinctive field with a focus on studying entrepreneurship behavior cross national borders, offers some insight into a new conception of internationalization. To describe this phenomenon of early internationalization, IE literature uses different labels somewhat interchangeably: born globals (Madsen and Servais, 1997); international new ventures (Oviatt and McDougall, 1994), and knowledge-intensive firms (Jones, 1999; Bell, 1995).

Most research in the IE field has focused on established new-ventures to study the characteristics of early and accelerated internationalization (Knight and Cavusgil, 2004; McDougall, Shane, and Oviatt, 1994; Jolly et al., 1992). Innovation has been emphasized as a decisive factor in early internationalization (Knight and Cavusgil, 2004) and international new-ventures in particular have been identified in dynamic and technology-intensive sectors (Oviatt and McDougall, 1994; Zahra, Ireland, and Hitt, 2000). Although, Oviatt and McDougall (1997) argue that when internationalization occurs within the first six years, it happens during the creation phase, very little is known about the decision of internationalization during the gestation process and what ingredients of innovation drives this early internationalization.

In this paper, a particular attention is given to international nascent entrepreneurs (NE) and how their innovative capacity including their innovative decision style impacts the early internationalization decision. Examination of the process of internationalization has been more focused on small firm's demographic and managerial characteristics. Although, a number of research studies examining early or accelerated internationalization have been conducted in the context of high-technology firms, the impact of innovation on this process is still unclear.

This paper seeks to extend and inform the IE literature by exploring the phenomenon of early internationalization at the creation phase of the business. In particular, using data from the Panel Study of Entrepreneurial Dynamics (PSED), we examine how nascent entrepreneurs leverage different dimensions of innovation to drive early internationalization. We argue that international orientation of nascent entrepreneurs is stimulated by a set of four dimensions of innovation: patent registration, R&D spending, technology and expertise, and new products or services. Our primary research question focuses on whether or not these dimensions when combined with the overall innovative decision styles of nascent entrepreneurs enhance the international orientation.

After reviewing literature on internationalization entrepreneurship, hypotheses are presented and tested on a sample (N=141) of nascent entrepreneurs with international orientation. Method and results are discussed, and finally, suggestions for future research are provided.

Theoretical Background and Hypotheses Development

Early Internationalization

Jones and Coviello (2005) describe the early internationalization as "rapid process of international expansion from inception, using a range of market entry modes in multiple markets." Earlier studies suggest that internationalization can only be achieved through a gradual process based on market knowledge acquisition (Johanson and Vahlne, 1977). This learning process reduces the ambiguity associated with foreign involvement and allows firms to commit more resources to foreign markets.

As firms gain knowledge, they incrementally develop their internationalization, first, by serving psychologically closer countries, then, by targeting more distant markets.

Recently, however, the IE literature has challenged traditional theories to explain the early internationalization phenomenon observed among new-ventures (Rennie, 1993; Oviatt and McDougall, 1994; Moen and Servais, 2002). Isenberg (2008) suggests that companies are being born global as political and economic barriers fall and the ease of access to knowledge in the information age becomes more prevalent. Increasing attention has been dedicated to understanding what drives this early internationalization (e.g., Zucchella and Denicolai, 2007) and how new-ventures succeed in doing so (e.g., Bloodgood, et al., 1996; Knight and Cavusgil, 2004). Rialp-Criado, Galvan-Sanchez and. Suarez-Ortega. (2010) present a comprehensive literature review of early internationalization and circumstances of the rapid development of international new-ventures. The global vision of the entrepreneur, innovative product or service and a strong network are important resources enabling the early and rapid internationalization process (McDougall, Shane and Oviatt 1994). Other studies suggest that international and non-international new-ventures are different in terms of the entrepreneur's perception, demographic characteristics and international business skills (Manolova, et al., 2002). Overall, the literature on international entrepreneurship suggests that international new-ventures are formed by innovative, proactive and risk seeker entrepreneurs (Oviatt and McDougall, 2000). Yet, empirical research studying antecedents of the early internationalization is still limited and largely based on case studies. Little is known about the role of these factors in the critical early stage of business formation, especially with regard to how innovative entrepreneurs adopt an international orientation.

Innovation and International Orientation

Luecke and Katz (2003) define innovation as "the embodiment, combination, or synthesis of knowledge in original, relevant, valued new products, processes, or services," and insist on the value created by the new idea. Innovation is not always technological, it can also be non-technological. However, in both cases, it should create an economic value. Slappendel (1996) argues that the concept of newness is fundamental in the definition of innovation. This newness concept is especially important to understanding the link between innovation and entrepreneurship. (Johannessen, Olaisen, and Olsen, 2001)

In fact, innovation is frequently associated with entrepreneurship. Schumpeter (1942) described the entrepreneur as a radical innovator who transform his environment and drive sustainable economic growth. More recent research considers innovation as a fundamental component of entrepreneurship (Lumpkin and Dess, 1996; Covin and Miles, 1999). Shane and Venkataraman (2000) describe the field of entrepreneurship as a way to understand, "how opportunities to bring into existence future goods and services are discovered, evaluated and exploited, by whom and with what consequences." In this definition, entrepreneurship cannot subsist without innovation. However, evidence from other research indicates that nascent entrepreneurs or people who are most likely to establish a new business are not necessarily highly innovative (Diochon, Menzies and Gasse, 2005). These conflicting results about the role of innovation in stimulating business creation suggest the need for additional research to rethink the validity of the conventional wisdom in the context of nascent entrepreneurs. Further-

more, when combined with the fact that little is known about the impact of innovation in the international orientation of nascent entrepreneurs, we suggest that further exploration is needed.

A fundamental premise of our study is that the innovative decision style of the entrepreneurs combined with his or her capability to produce innovative outputs is an important determinant of early international orientation. While some studies report an insignificant impact of innovation on export success (Lefebvre et al., 1998), most research finds a positive relationship between innovation and export decision. De Toni and Nassimbeni (2001), for example, show that the export propensity is strictly linked to the ability to innovate products and not necessary to innovate processes. Studies in the field of international entrepreneurship seem to confirm a positive relationship between knowledge-intensity and international growth orientation (Yli-Renko, Autio, and Tontti, 2002; Nummela, Puumalainen, and Saarenketo, 2005). In the particular case of international nascent entrepreneurs, Rialp-Criado et al. (2010) argue that in this pre-start-up phase, the entrepreneur intuition, innovation capabilities and past experience are important to shape his international strategy.

Innovation Dimensions

O'Cass and Weerawardena (2009) examine the impact of technological and non-technological innovation on the achievement of higher market performance. They conclude that small ventures that enter international market undertake both technological and non technological innovation, which in turn enables them to gain positional advantages. Having superior innovative capacities allow firms to create value in the products or services (Kim and Mauborgne, 1997) they offer to different markets. In this study we focus specifically on the role of technological innovation and non-technological innovation determined by the innovative style of the entrepreneur.

Radical Innovation

Though international entrepreneurship literature affirms the undeniable role of innovation, very few empirical studies specify the impact of the degree of radicalness on the early internationalization or international orientation. The literature distinguishes between radical innovation, which is considered as new products or processes to those available in the market-place, and incremental innovation, which is an improvement of technology already existing in products or processes (Jones-Evans and Steward, 1991). Chandy and Tellis (1998) argue that firms that introduce radical innovations are small new entrants into the market. Nassimbeni, (2001) notes that within small businesses, product innovation most frequently takes the form of incremental adaptation or modification of product material, design, and functionality rather than a radical change. Chandy and Tellis (2000) report that, after the 1950s, U.S. innovations tend to come from large firms and incumbents and less from small firms. Generally, entrepreneurs do not have the commercial and financial resources needed to introduce a radical innovation into foreign market soon after the business foundation. Thus, we propose that radical innovation will not be a predicator of the international orientation.

H1: Nascent entrepreneurs who have major innovative product or service are less likely to have an international orientation.

Types of Innovation

While the body of research studying the role of innovation on the international orientation of nascent entrepreneurs is relatively small, recent results on the relationship between innovation and the export propensity of firms are inconsistent. For example Caldera (2009) concludes that product and process innovation both enhance the export propensity, even thought product innovation has a higher impact. In contrast, other researchers find that only product innovation drives the firms' internationalization (Cassiman and Martinez-Ros, 2007; Becker and Egger, 2007). Using the introduction of new products as a measure of innovation, Wakelin (1998) finds a positive impact of innovation on exports. Van-Beveren and Vandenbussche (2010) suggest that the decision to export is stimulated by a combination of product and process innovation. In this study, we believe that the international orientation of nascent entrepreneurs is affected by the combination of product and process innovation as well as the possession of technical or scientific expertise.

H2: Nascent entrepreneurs who rely on a combination of product innovation, process innovation and scientific expertise to face competition are more likely to have greater international orientation.

R&D and Patent

R&D expenditure and patents have been used somewhat interchangeably to measure innovative activity within firms. Examining the relation between the R&D expenditure and propensity to export, Hirsch and Bijaoui (1985) conclude that firms' investment in R&D is positively linked to their likelihood to export. Innovation activity and R&D intensity have been found to impact to a great extent the international competitiveness (Ozcelik and Taymaz, 2001) and to help overcoming barriers to internationalization (Harris and Li, 2006). Even though evidence for smaller firms is much more limited, some studies have shown that there are substantial numbers of micro-firms using patents (Helmers and Rogers, 2009) and that small firms produce more innovations per employee than large firms (Tether, 1998). According to Bloodgood, et al. (1996), new-ventures exploit new product or technology to build market share across the world that they attempt to safeguard by establishing patent rights across geographical markets. Entrepreneurs who effectively protect their technologies from competition are more likely to succeed in launching their new firms (Shane, 2001). Patents are an effective legal protection to prevent imitation allowing the new firm to compete on the basis of differentiation rather than on the basis of costs. Consequently, nascent entrepreneurs who are in the process of patenting and who expect to invest in R&D are more prepared to face the global competition. These arguments lead to the following hypotheses:

H3: Nascent entrepreneurs who apply for a patent, copyright or trademark are more likely to have greater international orientation.

H4: Nascent entrepreneurs who expect a major investment in R&D are more likely to have greater international orientation.

Entrepreneurs' Characteristics

Oviatt and McDougall, (2000) emphasized the entrepreneurs' characteristics as key factors in the early internationalization. In a review of 46 conceptual and empirical studies, Leonidou, Katsikeas, and Piercy (1998) conclude that entrepreneur or manager characteristics play a stronger role in initiating export sales where there is a need for risk-taking, and innovative and flexible management. While some research has taken into account the entrepreneur's knowledge and experience (Madsen and Servais, 1997; Bloodgood et al., 1996) as antecedents of early internationalization, other has considered a combination of background and personality characteristics (Khayat and Matthews, 2010). This study focuses on the innovative decision style of the nascent entrepreneur, as well as age and risk attitude.

Decision Making Style

Kirton (1976) suggests that there are two different styles of decision making, innovators versus adaptors. Adaptors tend to rely on exciting solution or technologies in their decision-making. They are characterized by their precision, reliability, prudence and by conforming to the method and discipline. Adaptors are concerned with resolving problems rather than finding them. By contrast, innovators break patterns of accepted modes of thought and action and use creative arrangement and procedures to make a decision. They are problem and solution finders; forward-looking; and tend to challenge traditional situations. LaMont, Danis and Dollinger (2008) found that innovators nascent entrepreneurs, in general, have greater growth expectations for their firms than adaptors. Moreover, several studies have supported the positive relationship between CEOs' openness to innovation and adoption of innovative practices (Daellenbach et al., 1999; Souitaris, 2001). Cavusgil (1980) argues that export behavior is an innovation adoption process since it involves a new process of decision making and information gathering. Thus, we expect global nascent entrepreneurs to have innovative decision-making style.

H5: Nascent entrepreneurs who have innovative decision-making style are more likely to have stronger international orientation.

Risk Attitude

Risk attitude of international entrepreneurs has been argued to be an important determinant of internationalization (Johanson and Vahlne, 1977). The influence of the positive attitude of entrepreneurs on the initiation of international operations has been strongly supported in the literature (Axinn, 1988; Gupta and Govindarajan, 1984). Halikias and Panayotopoulou (2003) found risk attitude to be a distinguishing feature between born global (INV) and traditional firms. However, other authors do not agree that risk propensity is driving factor to successful international ventures (Moini, 1995; Jaffe et al. 1988). Based on the fact that export activity involves a special risk, we support that the positive attitude of nascent entrepreneurs toward risk will influence their export intention.

H6: Nascent entrepreneurs who have greater risk taking attitude will have stronger international orientation.

High-Tech Industry

Though international entrepreneurship literature has identified international new-ventures in some traditional mature industries (McAuley, 1999), most ventures with early and accelerated internationalization are found to operate in high-tech industry (e.g., Madsen and Servais, 1997; Knight and Cavusgil, 1996). Preece, et al. (1999) explain that high-tech ventures have more incentives to internationalize rapidly because of their narrow niche market, specialization and high R&D costs. In order to support the expenses associated with the nature of their activity, they need to target simultaneously markets all around the globe. Bell, McNaughton, Young, and Crick (2003) argue that firms in the high-tech industry have more proactive approach and often target difficult markets. In consistence with these studies, we expect that new ventures in high-technology business will influence nascent entrepreneurs' choice to go global.

H7: Nascent entrepreneurs who expect to have a high-tech business will have strong international orientation.

Research Design

Sample Selection and Data Collection Procedure

This study uses data from the Entrepreneurship Research Consortium Panel Study of Entrepreneurial Dynamics I (ERC/PSED I), a national panel study of nascent business entrepreneurs. Data in the ERC/PSED were collected from 830 randomly selected nascent business entrepreneurs. Both telephone interview and mail surveys methods were used. The survey took place from 1998 to 2003. Reynolds (2000) provides a detailed description of this database's development and content. To identity nascent entrepreneurs, they were asked the following question during the initial telephone screening interview: "Are you, alone or with others, now trying to start a new business?" Respondents who answered "yes" were then asked if they were willing to participate in more extensive investigation. Over 780 nascent entrepreneurs went on to complete the phone and mail portions of the survey. Of 559 nascent entrepreneurs who completed the question on international orientation, 142 answered questions related to their personal characteristics and innovation activities.

Variables and Measure

Dependent variable: International orientation

To measure the international orientation of nascent entrepreneurs, we use the percentage of expected international customers. Nascent entrepreneurs were asked: "Within the first three to four years, what percentage of your customers do you expect to be international, that is, outside the United States?" We believe that using a quantitative variable to measure the international orientation will provide more information about nascent entrepreneurs' involvement in international activities. This measure also captures varieties of entry modes and does not only focus on export.

Explanatory variables

Table I describes the explanatory variables and items related to each variable. As shown in Table I, the following item is used to capture nascent entrepreneurs' risk attitude: "I enjoy the challenge of situations that many consider 'risky'." The response scale was anchored by completely true (5) to completely untrue (1). Items in the scale were coded again into dichotomous variables. Because of the high level of correlation between the five items, we chose the "Mostly untrue" item to estimate the impact of risk on the model. A negative coefficient is then expected, in that, high negative score will imply a greater degree of risk preference.

Nascent entrepreneurs' age as a control variable:

Research on nascent entrepreneurs has used age as a control variable (Honig, Davidsson and Karlsson, 2005). Moreover, studies found a negative association between the manager's age and export intention, propensity, and/or intensity (Suarez-Ortega and Alamo-Vera, 2005; Jaffe et al., 1988; Reid, 1981). Younger entrepreneurs tend to be more cosmopolitan and global minded than the older ones. We expect a negative relationship between nascent entrepreneurs' age and their international orientation.

Results and Discussion

Table II provides the descriptive statistics and correlation matrix for the explanatory variables used in the multiple regression. The table shows four correlations statistically significant at (p<0.05) and (p<0.01): a-correlation between technology and expertise variable and R&D expenditure (r=0.255); b-correlation between high-tech industry and technology and expertise variable (r=0.393); c- correlation between R&D expenditure and patent (r=0.220) and d-correlation between high-tech industry and R&D expenditure (r=0.197). Because of the high degree of correlation, four models were specified using each of these correlated variables at a time, in addition to one model with interaction term between the possession of new product, process or expertise and processing of patent.

Table III reports results of the regression analysis of nascent entrepreneurs' international orientation on the innovation, entrepreneur and high-tech industry variable as well as on the control variable (age). All five models are statistically significant with an R^2 ranging from 0.09-0.19.

As expected the control variable (age) has a negative impact on the international orientation of nascent entrepreneurs. Younger NEs are more likely to go global. Indeed, born-global entrepreneurs are young and active (Luostarinen and Gabrielsson, 2002).

The first hypothesis (H1) states that nascent entrepreneurs who have major innovative product or service are less likely to have an international orientation from the early stage of business formation. Models (3) and (4) show that the relationship between NEs' international orientation and product or service radicalness is statistically not significant. This finding suggests that radical innovation may not be considered in the determination of NE's international orientation. New-ventures with radical innovation may not stay small by the time they commercialize their innovation at the international level. Highly innovative pharmaceutical start-ups for example are continuously absorbed into larger multinationals (Acs, Morck, Shaver and Yeung, 1997).

TABLE I
Description of the Explanatory Variables

	Variables	Item	Description
Personality variables	Decision Style	Q327 (recoded)	If someone asked you which kind of person you are, would you say that you preferred "doing things better" or "doing things differently?" 1. Doing things better 2. Doing things differently 3. Both
	Risk 1	QL1Q	The following statements can be used to describe most people. How accurately would they describe you? I enjoy the challenge of situations that many consider "risky" 1- Completely untrue 2. Mostly untrue 3. It depends 4. Mostly true 5. Completely true
Technology variables	Patent	Q124	Has an application for a patent, copyright or trademark relevant to this new business been submitted?
	R&D spending	Q300	Will spending money on research and development be a major priority for this new business?
	Technology and expertise	mean(Q302e, Q302f, Q302g)	Please indicate if the following are insignificant, marginal, important, or critical for the new firm to be an effective competitor? 1-New or advanced product technology 2- New or advanced process technology 3- Technical or scientific expertise
	Products and services radicalness	Q299	Were the products and services to be provided by your new business available in the market place 5 years ago?
High-tech industry	High-tech	Q301 (recoded)	Would you consider this new business to be hi-tech?

TABLE II	Correlation of independent variables (N=142)								
	Mean	SD	1	2	3	4	5	6	7
1-Age of NE	40.49	10.65							
2-R&D spending	0.29	0.45	0.0157						
			0.8527						
3-Radical innovation	0.38	0.48	0.0426	0.0401					
			0.6144	0.6357					
4-Technology and expertise	2.48	0.9	0.07	0.2559*	0.1039				
			0.4078	0.0021	0.2183				
5-Hi-Tech business	0.33	0.47	-0.0966	0.1974*	0.0095	0.3930*			
			0.253	0.0185	0.9108	0.0001			
6-Patent	0.25	0.43	-0.0673	0.2205*	-0.0028	0.0311	0.0206		
			0.4262	0.0084	0.9737	0.7132	0.8074		
7-Adaptation/innovation	0.33	0.47	-0.1247	0.1198	0.0576	0.0986	0.0883	0.0914	
Decision style			0.1394	0.1555	0.4957	0.243	0.296	0.2791	
8-Risk attitude	0.13	0.34	-0.0171	-0.0442	-0.0284	-0.0397	-0.0442	-0.1533	
			0.8403	0.6017	0.7372	0.6394	0.6017	0.0686	

TABLE III
Multiple Regression Analysis of the International Orientation of Nascent Entrepreneurs (N=142)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept term	5.145†	6.225*	9.160**	6.314*	6.288†
1-Age of NE	-0.136*	-0.150*	-0.191**	-0.160*	-0.192**
2-R&D spending			2.923*		
3-Major innovation			0.981	0.978	
4-Technology and expertise					1.934*
5-High-tech business	3.393**	3.724*		3.140*	
6-Patent	4.846**	5.427***			
7-Adaptation/Innovation Decision style	3.457*				
8-Risk attitude	-2.304		-2.960	-1.498	-2.993
Interaction term 4*6				2.280***	
R^2	0.19	0.15	0.09	0.19	0.09
F	6.54***	8.63***	3.40*	6.38***	4.85**
Mean VIF	1.03	1.02	1.01	1.04	1.00

*** Significant at 0.001 **Significant at 0.01 *Significant at 0.05 †Significant at 0.1

The second hypothesis (H2), regarding the impact of NEs' technology and expertise on their international orientation, is strongly supported. The combination of product innovation, process innovation and scientific expertise appear to predict the international orientation. While previous research focuses on the importance of product innovation as a determinant of internationalization (Cassiman and Martinez-Ros, 2007), the present study suggests that NEs who combine product and process innovations, and possess a scientific skills or expertise are more likely to have an international orientation. However, Table IV presenting the regression model of the international orientation on each of these categories separately shows that product innovation and scientific expertise have the highest impact.

Patent and R&D expenditure are used to measure the importance of innovation in the activities of new ventures. Hypothesis 3 suggests that nascent entrepreneurs who applied for a patent, copyright or

trademark are more likely to have greater international orientation. The same way, hypothesis 4 advocates the importance of R&D expenditure in stimulating the international orientation of NEs. Both hypotheses are strongly supported. Substantial involvement of new ventures in protected innovative activity is a strong predictor of NEs' international orientation.

Considering the influence of NEs characteristics on the international orientation, model 1 (Table 1) confirms a positive relationship between the innovative decision style of NEs and their international orientation. It shows a strong significant effect ($p<0.05$) with a positive coefficient (3.45). NEs with innovative decision styles break with the traditional way of doing business local to include the global market in their first business plan.

Hypothesis 6, suggesting that nascent entrepreneurs who have greater risk taking attitude will have stronger international orientation is not confirmed throughout all models (Table II). Risk taking attitude seems to be less significant when NE possesses high innovative skills. According to Liao and Welsch (2008) technology-based nascent entrepreneurs rely greatly on their technically advanced products and believe that they would "sell themselves."

With regard to NEs positioning in a high-tech industry and its impact on the international orientation (hypothesis 7), models (1, 2 and 4) show a strong positive relationship ($p<0.001$). This confirms research in international entrepreneurship claiming high-tech industry as a driver of early internationalization (Madsen and Servais, 1997; Knight and Cavusgil, 1996; Bell, 1995). As shown in Table III, the impact of the interaction term on NEs' international orientation is tested. The joint effect of possessing a combination of product, process technology and expertise and protecting them with a patent is strongly significant ($p<0.001$). Thus, NEs with innovative product, process and scientific expertise who are in the process of patenting their innovations, are more likely to go global than those who possess technology and expertise but are not trying to protect them. This confirms the importance of protecting technologies from competition as a determinant of successful entrepreneurs (Shane, 2001).

TABLE IV

Multiple Regression Analysis of Technology and Expertise (N=126)

Variables	**Model 6**	**Model 7**
Intercept term	10.54***	11.084***
Age of NE	-0.228**	-0.232**
Product innovation	4.713*	
Processes innovation		1.173
Expertise	3.697†	4.290*
R^2	0.12	0.09
F	5.76***	4.28**

In post-hoc analysis, we examined the impact of innovation on the local nascent entrepreneurs to reinforce our hypotheses on the role of innovation in the international orientation of NE (see Table IV). Model 9 (Table IV) shows that R&D expenditure impact negatively NEs who intend to do business locally. This means that innovation is not a predictor of local market orientation. Moreover, model 8 (Table IV) suggests that innovative decision style is not a characteristic of local NEs since it is negatively correlated with local market orientation. Local NEs possess adaptive decision style.

TABLE V
Multiple Regression Analysis of Local Nascent Entrepreneurs (N=212)

Variables	**Model 8**	**Model 9**
Intercept term	72.760***	67.262***
1-Age of NE	-0.178	-0.117
2-R&D spending		-14.89**
3-Major innovation		2.280
4-Technology and expertise		
5-High-tech business	-2.190	
6-Patent	-6.901	
7-Adaptation/Innovation Decision style	-10.34*	
8-Risk attitude	16.336*	17.186**
R^2	0.06	0.07
F	3.00*	4.35**
Mean VIF	1.03	1.01

Conclusion

In this study we focused specifically on the role of technological innovation and innovative style of the entrepreneur in determining the international orientation of new-ventures. Using a broad sample (N=142) of nascent entrepreneurs, we sought to understand what components of innovation determine NEs international orientation. The impact of innovative style and risk attitude of NEs as well as high-tech industry on the international orientation were tested. Few empirical studies in the field of international entrepreneurship have examined the role of innovation in the explanation of early internationa-

lization decision of NEs. Thus, this paper contributes to advance our knowledge of the early internationalization decision by selecting different dimensions to assess the role of innovation. An explanation is provided of why some entrepreneurs are oriented toward the international market at an early stage of the business formation.

A majority of the studies have used R&D expenditure as a proxy of innovation and as a basis to distinguish between innovator and non-innovators (e.g., Bloodgood, et al., 1996). In this study, four measures are chosen as proxies of innovation: Patent, R&D expenditure, technology and expertise, and new products or services. Each of these variables captures a different dimension of innovation and provides additional information about the importance of innovation in explaining the international orientation of NEs. Results show that NEs who expect to invest in R&D and are in the process of patenting an innovation are more likely to be oriented toward the international market. Moreover, the possession of innovative products, scientific expertise or a combination predicts the international orientation of NEs. However, process innovation as well as radical innovation does not appear to impact the early internationalization decision. This finding is consistent with Becker and Egger's (2007) study that confirms the importance of product innovation more than process innovation as a determinant of the exporting behavior.

Nascent entrepreneur's characteristics are used to emphasize his or her role as unique player and catalyst in transforming innovation into action and making decisions. We used age, risk attitude and decision style as three variables that would impact on the internationalization orientation taking into account the technological context of NEs. As we expected, results shows that younger NEs with innovative decision styles are more likely to choose the internationalization from an early stage of their business creation. However, positive attitude toward risk appears to be non-significant when tested with innovation variables. This suggests that ambiguity and uncertainty related to the internationalization that usually increase the necessity of risk-taking attitude may become less important when NEs possess a technology or scientific expertise. Technology based NEs may feel more confident and may relay completely on their innovations without questioning the risk related to the internationalization.

Overall, these results support that NEs' international orientation is a combination of their innovative activities and decision styles. Investment in R&D is no more the domain of larger firms; rather it is becoming a determinant of NEs' internationalization - namely, NEs who have predisposition to make novel decisions.

This study provides some potential insight for government organizations to encourage innovation activities from an early stage of business creation and to promote new-ventures internationalization. It is apparent in this study that stimulation of the international orientation depends on entrepreneurs who are more open to new decision and have innovative products and scientific expertise. Thus, providing support to innovative NEs may be necessary to help them select international market and cope with the global competition. Results presented in this study support the notion that young entrepreneurs are thinking across borders (often from the very start), and that to support nascent entrepreneurial development, governments need to create an ecosystem that supports and sustains entrepreneurs (Isenberg, 2008 and 2010).

The paper has a number of potential limitations that may be addressed by future research. First, while we employed different measures of innovation, these measures were highly correlated and could not be aggregated in a single full model. Research may extend our finding by considering additional con-

tributing variables to the model and selecting a unique measure of innovation to avoid redundancy. Second, although the PSED database provides a longitudinal survey, we based this study on a cross-sectional analysis taking into account the first wave of survey only. Future research may further the analysis by including the other waves to compare how NEs' innovative activities evolve over time and when through this evolution, NEs adopt the international orientation. This paper confirms Rialp-Criado's et al. (2010) conceptual study on the role of innovation capacities in stimulating the early decision of internationalization. Further studies are needed to explore innovative international NEs after business creation to understand the trajectory of international new-ventures from the gestation phase.

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Psychological Predictors of Entrepreneurial Interest in Japan

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Abstract

This research aimed at identifying socio-psychological predictors of entrepreneurial interest in Japan. A survey of 114 Japanese researchers and developers from a major chemical manufacturer showed that interest in creating start-ups increased as employees reported more positive beliefs about innovation, perceived themselves as being more responsible for creating work, had more opportunistic view about starting a new business, were more self-confident in starting a new business, had a more humanistic impression of start-ups, and were higher in risk propensity. Entrepreneurial interest also increased as people pursued the goal of realizing their dream, the goal of meeting challenges, and the goal of being in the vanguard of the time. Fear of failure was the only variable in our study that undermined entrepreneurial interest. Although growth orientation and general self-efficacy failed to predict entrepreneurial interest, they were significantly associated with many of the predictors of entrepreneurial interest, suggesting that they contribute to entrepreneurial interest indirectly.

Introduction

Over the past decade, Japan has implemented institutional, legal, and financial changes to increase the number of startup ventures. Despite these initiatives, early-stage entrepreneurial activity remains extremely low in Japan compared to other industrial nations such as the U.S. or the U.K. For example, the Global Entrepreneurship Monitor reports that in 2009, the proportion of Japanese aged 18-64 who are involved in entrepreneurial activity as a nascent entrepreneur or as an owner manager of a new business was a mere 3.3 percent, the lowest rate out of 54 countries investigated.

Researchers and lay people alike list Japanese propensity toward risk aversion and fear of failure as major barriers to Japanese entrepreneurship (for example, Feigenbaum and Brunner, 2002; Helms, 2003). Yet, to our knowledge, very little research has empirically examined the socio-psychological determinants of entrepreneurial motivation in Japan. Our research aimed at identifying socio-psychological predictors of entrepreneurial interest among employees at research and development divisions of a major Japanese company. We examined a wide range of variables that have been previously identified as predicting entrepreneurial intention in European and American settings.

Entrepreneurial Mindset

Research on entrepreneurial cognition has regained much attention over the last few years (see Mitchell, Busenitz, Lant, McDougall, Morse, and Smith, 2002). First, we expected that believing in the importance of innovation, perceiving new business as an opportunity (rather than a risk), perceiving work as something that one creates (rather than receives), having self-efficacy in starting a new business, and holding a positive humanistic image of start-ups would each contribute to greater interest in creating a start-up. Robinson, Stimpson, Huefner, and Hunt (1991) found that entrepreneurs have more positive attitude toward innovation than non-entrepreneurs. Barbosa, Kickul, and Liao-Troth (2007) found that appraising the uncertainty of starting a business as an opportunity rather than a risk was associated with greater entrepreneurial intention. Barbosa and colleagues also found that having confidence in starting a new business and having a desirable image of start-ups both predicted entrepreneurial intention (see also Krueger, Reilly, and Carsrud, 2000; Tkachev and Kolvereid, 1999).

Life Goals

Amit and his colleagues examined the extent to which entrepreneurs value stability, vision, lifestyle, power, challenge, innovation, leadership, independence, ego, and contribution over wealth attainment (Amit, MacCrimmon, Zietsma, and Oesch, 2000). Our study focused on three values that entrepreneurs judged as being over three times as important as wealth attainment—vision, challenge, and innovation—and tested whether employees who have the goals of realizing their dream (vision), trying out something challenging (challenge), and being in the vanguard of the time (innovation) show greater interest in creating a startup.

Risk Propensity

Research on entrepreneurs' risk propensity has provided conflicting findings. Some research reports that entrepreneurs engage in riskier behaviors than non-entrepreneurs (for example, Begley and Boyd, 1987; Cromie and O'Donoghue, 1992), while others report no difference between the two groups (for example, Brockhaus, 1980; Low and MacMillan, 1988). Stewart and Roth (2001) conducted a meta-analysis of studies that compared risk propensity between entrepreneurs and managers and found a significant but moderate differences between the two groups. Controversial findings might result from the fact that in a given situation, entrepreneurs perceive lower risk than non-entrepreneurs (Palich and Bagby, 1995). In our study, we chose to measure employees' preference between a certain and a riskier alternatives and tested whether preference of a riskier alternative correlated with entrepreneurial interest.

General Attitude toward Challenges and Difficulties

In addition to an entrepreneurial mindset, we predicted that people who have a positive attitude toward challenges and difficulties would show greater interest in creating a start-up. Fear of failure has been repeatedly identified as one of the major barriers in stating a business (for example, Begley and Wee-Liang, 2001; Kouriloff, 2000). In contrast, general self-efficacy has been repeatedly identified as an important antecedent of entrepreneurship. For instance, undergraduate students who aspire to becoming an entrepreneur reported higher self-efficacy than those who aspired to becoming a manager; similarly, entrepreneurs were higher in self-efficacy than non-entrepreneurs (Chen, Green, and Crick, 1998; Markman, Balkin, and Baron, 2002).

Although not many studies have investigated the effect of growth orientation in a business setting, our study also included a measure of how much people perceive failures and difficulties as an opportunity for growth. Research in social and educational psychology indicates that belief in improvement and a general orientation toward learning can reduce the threat of failure, encourage persistence, and promote challenge seeking (Dweck, 2000; Niiya, Crocker, and Bartmess, 2004). Therefore, we hypothesized that growth orientation would buffer the negative effect of fear of failure and predict greater entrepreneurial interest.

Because general self-efficacy, growth orientation, and fear of failure are general individual characteristics that are not specific to entrepreneurial interest, we speculated that they may not directly predict entrepreneurial interest. Therefore, we also explored whether they relate to entrepreneurial interest indirectly, by predicting other antecedents of entrepreneurial interests, such as entrepreneurial mindset, life goals, and risk propensity.

Respondents

We asked the human resources department of a major Japanese chemical manufacturer to distribute our questionnaires to their developers and researchers either by handing out the actual questionnaires or by attaching them to e-mails. The company, which was founded over 50 years ago, is listed in the first section of Tokyo Stock Exchange and produces electronics, semiconductors, automobiles, and medical and architectural materials. Respondents were R & D researchers from two of the three research institutes and one of the two factories who work mainly on basic research and applied research prior to production. Engineers in manufacturing technology and frontline operators were not included in our sample. We restricted the age range so that the youngest would be in the late twenties (the youngest age at which one could move from a rank and file to an executive) and the eldest in the late forties (the eldest age at which one could be active in the research front lines).

We received a reply from 114 respondents, including 21 general managers (18 percent), 51 managers or chief scientists (45 percent), 10 assistant managers or senior staffs (9 percent), and 28 rank-and-file employees (25 percent). Most respondents were male (n = 103; 90 percent) and respondents' age ranged from 28 to 55 with a mean of 41.4 (SD = 5.62) and a median of 42. About half of the

respondents had a master degree (n = 60; 53 percent); only a few had a doctoral degree (n = 9; 8 percent). The remainder (n = 42; 37 percent) had an undergraduate degree.

Measures

Entrepreneurial Interest

We took the average of the following five items to create an index of entrepreneurial interest: "I would like to create a start-up if I can find good technological seeds," "I would like to create a start-up based on my research if there is an appropriate CEO," "I would like to create a start-up based on my research as a CEO," "If someone has good technological seeds to create a start-up, I would like to take part in it," and "I would like to be involved in a start-up as a technological consultant" (α = .84). We also included one item that assessed one's interest in corporate venturing ("If I have a chance to get involved in a corporate venturing, I would like to contribute") to statistically control for its effect. Respondents used a 5-point Likert type scale ranging from 1 = *Not at all* to 5 = *Very much*.

Entrepreneurial Mindset

All the measures below (unless otherwise noted) used a 7-point Likert type scale ranging from 1 = *does not describe me at all* to 7 = *describes me very much*.

Positive Belief about Innovation. We averaged two items from the Entrepreneurial Attitude Orientation scale (Robinson, 1991): "I believe it is important to continually look for new ways to do things in business" and "I believe it is important to approach business opportunities in unique ways" (r = .46, p < .001).

Job Perception. Two items assessed one's perception of autonomy at work: "Work is something that one creates" and "Work is something that one receives from others". Because the two items were significantly negatively correlated (r = -.60, p < .001), we reversed the second item and averaged the two.

Opportunistic Perception. How much one perceives starting a new business as an opportunity (rather than a risk) was measured by averaging the following three items from Barbosa, Kickul, and Liao-Troth's (2007) Multidimentional Scale of Entrepreneurial Risk Perception: "I see the possibility of starting a new business as a potential opportunity to pursue," "Starting a business may affect my personal life in a positive way," and "Starting a business may affect my social life in a positive way" (α = .60).

Entrepreneurial Self-Efficacy. We included one item measuring one's self-efficacy in starting a new business: "If I wanted to, I could easily start and run a business" (Tkachev and Kolvereid, 1999).

Social Image. Respondents also rated their overall impression of start-up companies using paired adjectives. For example, we indicated "warm" and "cold" at both ends of a 7-point scale, with the marker "neither" at the center. We averaged the extent to which respondents rated the start-ups as "warm", "charitable", and "not lonely" (α = .55).

Life Goals

We asked respondents to rate how much they pursued the following goals in their life on a scale ranging from 1 = *Not at all* to 7 = *Extremely*: "Realize my dream," "Try out something challenging," and "Be in the vanguard of the time" to test whether having these goals predict greater entrepreneurial interest.

Risk Propensity

We assessed respondents' tendency to choose a riskier option over a more certain option using three items adapted from the Risk Style Scale (Forlani and Mullins; 2000). Respondents indicated their preference for each of the following pairs: "An 80% chance of getting 4,000,000 yen vs. Receiving 3,200,000 yen for sure," "A 50% chance of getting 5,000,000 yen vs. Receiving 2,500,000 yen for sure." We added the two items to create an index of risk propensity so that higher value indicates greater likelihood of selecting riskier choices ($r = .58$, $p < .001$).

General Attitude toward Challenges and Difficulties

Fear of Failure. Two items from Elliot and Church's (2001) fear of failure scale assessed the degree to which one fears failure: "When I start doing poorly on a task, I feel like giving up" and "If given a choice, I have a tendency to select a relatively easy task rather than risk failure" ($r = .53$, $p < .001$).

Growth Orientation. We used the following two items from Dykman's (1998) Goal Orientation Inventory to measure the extent to which one seeks to improve from setbacks: "I approach stressful situations knowing that the important thing is for me to learn and grow from these experiences" and "The attitude I take toward possible setbacks and disappointments is that they'll end up being good learning experiences" ($r = .55$, $p < .001$).

General Self-Efficacy. Three items from Chen, Gully, and Eden's (2001) General Self-Efficacy Scale measured one's overall confidence in life: "I can handle the situations that life brings," "I am strong enough to overcome life's struggles," and "I usually feel I can handle the typical problems that come up in life" ($\alpha = .78$).

Two bilinguals translated English questions into Japanese through back-translation method.

Results

Table 1 (see tables / figure at the end of this article, after the references) presents the means, standard deviations, and correlations of the variables. We first examined whether the different measures of entrepreneurial cognitions, life goals, risk propensity, and general attitudes toward challenges and difficulties predict entrepreneurial interest using multiple regressions. We conducted separate regressions for each of the predictor, controlling for respondents' age, sex, and job status. As shown in Table 2, all

the predictors, except growth orientation and general self-efficacy significantly predicted entrepreneurial interest in the expected direction: Interest in start-ups increased as employees attributed greater importance to finding new ways of doing business (β = .30; $p < .05$), perceived themselves as being responsible for creating work (β = .27; $p < .05$), had more opportunistic view about starting a new business (β = .33; $p < .01$), were more self-confident in actually starting a new business (β = .41; $p < .001$), and had a more humanistic impression of start-ups (β = .41; $p < .001$). Interest in start-ups also increased as employees pursued the goal of realizing their dream (β = .23; $p < .05$), seeking challenges (β = .30; $p < .01$), and being in the vanguard of the time (β = .41; $p < .001$). Consistent with our hypothesis, preference for a riskier alternative was associated with greater entrepreneurial interest (β = .36; $p = .001$). Fear of failure predicted lower entrepreneurial interest (β = -.41; $p < .001$), but growth orientation and general self-efficacy did not directly predict entrepreneurial interest (βs = .06 and .10, *n.s.*).

Interest in corporate venturing significantly predicted entrepreneurial interest (β = .27; $p < 05$), explaining an additional 6 % of variance after controlling for age, sex, and job status. Although many of our predictors were significantly correlated with interest in corporate venturing (see the bottom line of Table 1), these variables still predicted entrepreneurial interest even after we controlled for the interest in corporate venturing. As shown in the right half of Table 2, entering interest in corporate venturing in the regression slightly reduced the effect of each predictor but all the coefficients remained significant. This finding suggests that these variables account for entrepreneurial interest beyond one's interest in corporate venturing.

Although growth orientation and general self-efficacy did not directly predict entrepreneurial interest, we expected that they would predict the variables that are associated with entrepreneurial interest. As expected, growth orientation significantly predicted positive belief about innovation (β = .30; $p = .001$), job perception (β = .19; $p < .05$), opportunistic perception (β = .26; $p < .01$), and the goals of realizing one's dream (β = .35; $p < .001$), trying out something challenging (β = .30; $p < .01$), and being in the vanguard of the time (β = .21; $p < .05$; see Figure 1). Growth orientation marginally predicted risk propensity (β = .19; $p = .06$), but did not predict entrepreneurial self-efficacy (β = .02; *n.s.*) nor social image (β = .05; *n.s.*).

General self-efficacy predicted positive belief about innovation (β = .31; $p < .001$), job perception (β = .32; $p = .001$), entrepreneurial self-efficacy (β = .24; $p < .05$), risk propensity (β = .30; $p < .01$), and the goals of realizing one's dream (β = .22; $p < .05$), trying out something challenging (β = .26; $p < .05$), and being in the vanguard of the time (β = .20; $p < .05$), but did not predict opportunistic perception (β = .16; *n.s.*) nor social image (β = .01; *n.s.*).

Fear of failure predicted job perception (β = -.24; $p < .05$), risk propensity (β = -.33; $p < .01$), and the goals of realizing one's dream (β = -.25; $p < .05$), trying out something challenging (β = -.41; $p < .001$), and being in the vanguard of the time (β = -.27; $p < .01$), but did not predict any of the other variables (-.15 < βs < .01; *n.s.*).

Finally, we examined the relationships between general self-efficacy, growth orientation, and fear of failure. General self-efficacy significantly predicted increased growth orientation (β = .42; $p < .001$)

but surprisingly, it did not predict reduced fear of failure (β = -.11; *n.s.*). Growth orientation and fear of failure were only moderately correlated (r = -.20, p < .05) and did not predict each other even after controlling for sex, age, and job status (βs < -.15, *n.s.*)[1].

Summary and Discussion

The purpose of this paper was to explore the socio-psychological antecedents of entrepreneurial interest in Japan. We examined a wide range of variables that have been previously identified as predicting entrepreneurial interest in European and American cultures and found that most of these variables predict interest in creating start-ups in Japan as well. As predicted, entrepreneurial interest increased as people had more positive beliefs about innovation, perceived themselves as being more responsible for creating work, had more opportunistic view about starting a new business, were more self-confident in starting a new business, had a more humanistic impression of start-ups and were higher in risk propensity. Entrepreneurial interest also increased as people pursued the goal of realizing their dream, the goal of meeting challenges, and the goal of being in the vanguard of the time. Fear of failure was the only variable in our study that undermined entrepreneurial interest. Although growth orientation and general self-efficacy failed to predict entrepreneurial interest, they were significantly associated with many of the predictors of entrepreneurial interest, suggesting that they contribute to entrepreneurial interest indirectly.

Despite the gaps in legislature, availability of venture capitals and incubation systems between Japan and other Western nations, our study showed that the psychological antecedents of entrepreneurial interest in Japan were very similar to those from the other nations. We believe that our study provided an important first step toward cross-cultural comparative study. Future studies should examine the differences in the means of these variables, as well as differences in the associations between these variables and entrepreneurial interests.

In addition to fear of failure, which has been often singled out as the major psychological culprit of low start-up rate, our study showed that other indices of entrepreneurial mindset contributed to one's interest in creating a start-up. For example, we found that entrepreneurial self-efficacy, positive social image, and the goal to be in the vanguard of the time each predicted entrepreneurial interest just as much as fear of failure did, both in terms of the strength of association and the amount of variance explained. Further studies should explore whether enhancing entrepreneurial mindset would interact with fear of failure to moderate its negative impact on Japanese entrepreneurial interest.

Our study has a couple of limitations that need to be addressed in future research. One major limitation was the exploratory nature of the study. The model needs to be tested again with a new sample

[1] We repeated the above analyses controlling for interest in corporate venturing. Again, these coefficients remained significant even when we controlled for the effect of interest in corporate venturing except that growth orientation was no longer a significant predictor of risk propensity (β = .16; *n.s.*) and wanting to be in the vanguard of the time (β = .15; *n.s.*); fear of failure no longer predicted entrepreneurial self-efficacy (β = -.12; *n.s.*).

using structural equation modeling before we can draw any firm conclusion. Moreover, the data were correlational and did not allow any causal inferences. It would be important in future studies to examine whether an intervention that changes potential entrepreneurs' mindset would actually cause an increase in their interest in creating a start-up or even an increase in the actual creation of start-ups.

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Table 1: Means, Standard Deviations, and Correlations among Key Variables

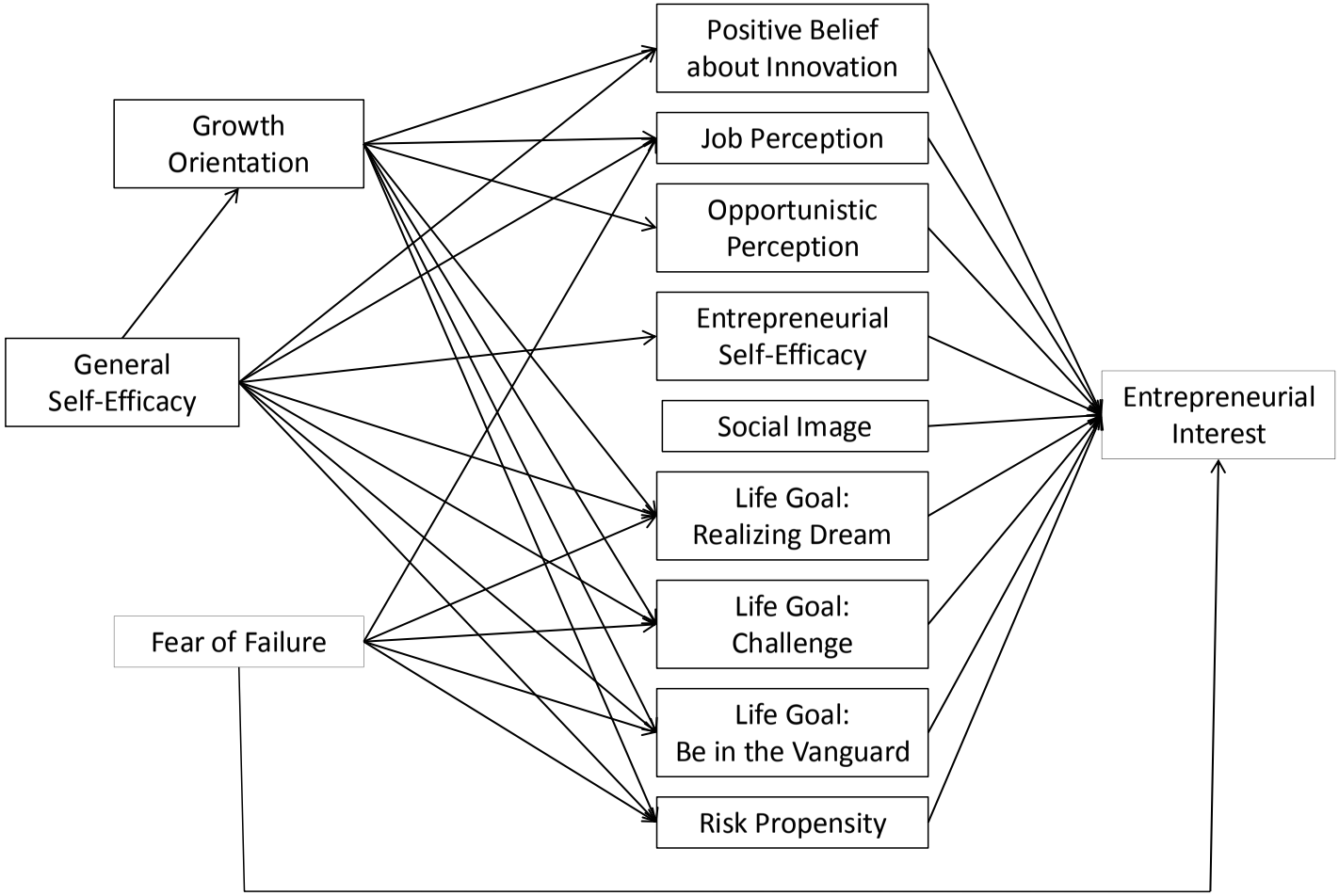
		N	*Mean*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Entrepreneurial Interest	95	2.46	.78																		
2	Positive Belief about Innovation	113	5.06	1.05	.24*																	
3	Job Perception	113	5.52	.91	.25*	.39**																
4	Opportunistic Perception	114	5.15	.80	.34**	.25**	.14															
5	Entrepreneurial Self-Efficacy	114	2.31	1.03	.39**	-.01	.09	.14														
6	Social Image	113	3.63	.79	.40**	-.03	-.04	.25**	.30**													
7	Life Goal: Realize one's dream	112	4.96	1.18	.24*	.13	.27**	.03	.07	.08												
8	Life Goal: Try out something challenging	113	4.34	1.14	.30**	.17	.19*	.18	.01	.10	.23*											
9	Life Goal: Be in the vanguard of the time	110	3.70	1.49	.39**	.19*	.08	.16	.32**	.12	.35**	.40**										
10	Risk Propensity	113	.94	.89	.34**	.13	.17	.12	.26**	.09	.15	.20*	.15									
11	Fear of Failure	113	3.45	1.05	-.38**	-.18	-.31**	-.03	-.10	-.14	-.26**	-.42**	-.26**	-.27**								
12	Growth Orientation	113	5.58	.88	.08	.32**	.23*	.28**	-.01	.04	.35**	.33**	.22*	.18	-.20*							
13	General Self-Efficacy	112	4.61	1.06	.11	.36**	.33**	.15	.23*	.03	.21*	.23*	.22*	.30**	-.18	.41**						
14	Sex (0 = female; 1 = male)	111	.92	.27	-.07	.05	-.03	.08	-.04	-.15	-.15	.06	.12	-.09	-.03	.04	-.07					
15	Age	110	41.42	5.62	-.07	.04	.12	-.01	-.13	-.12	.05	.07	-.14	.02	.07	.01	-.16	.25**				
16	General Manager (0 = no; 1 = yes)	110	.19	.39	-.05	.29**	.30**	-.01	-.06	-.08	.12	.11	-.03	.05	-.22*	.11	.17	.14	.36**			
17	Manager (0 = no; 1 = yes)	110	.46	.50	.05	.02	.08	.10	.01	.09	-.16	-.07	.01	-.01	.11	-.06	-.11	.05	.20*	-.45**		
18	Leader (0 = no; 1 = yes)	110	.09	.29	-.14	-.10	-.17	-.15	-.01	.01	-.01	-.12	-.10	.01	.23*	-.14	-.16	-.03	-.02	-.15	-.29**	
19	Interest in Corporate Venturing	95	4.03	.81	.26*	.19	.33**	.24	.10	.30**	.07	.24*	.25*	.17	-.28**	.22*	.14	-.04	-.07	.06	.25*	-.16
* < .05; ** < .01																						

Table 2: Summary of Regression Analyses Predicting Entrepreneurial Interest

	Model 1[a]					Model 2[b]				
	B	β	*p*	R^2_{total}	ΔR^2	B	β	*p*	R^2_{total}	ΔR^2
Constant	2.94		<.001			1.45		.11		
Sex (0 = female; 1 = male)	-.15	-.05	.63			-.13	-.05	.68		
Age	-.01	-.06	.69			.01	.04	.78		
General Manager (0 = no; 1 = yes)	-.08	-.04	.81			-.30	-.15	.34		
Manager (0 = no; 1 = yes)	.01	.01	.96			-.21	-.13	.40		
Leader (0 = no; 1 = yes)	-.42	-.13	.25			-.40	-.12	.27		
Interest in Corporate Venturing						.27	.28	.02	.09	.06
Positive Belief about Innovation	.20	.30	.02	.09	.07	.18	.24	.03	.14	.05
Job Perception	.25	.27	.02	.09	.06	.20	.23	.05	.13	.04
Opportunistic Perception	.33	.33	.01	.14	.10	.29	.29	.01	.17	.07
Entrepreneurial Self-Efficacy	.32	.41	<.001	.20	.16	.30	.39	<.001	.24	.14
Social Image	.40	.41	<.001	.18	.15	.36	.37	.01	.21	.11
Life Goal: Realize one's dream	.16	.23	.03	.08	.05	.14	.22	.05	.13	.04
Life Goal: Try out something challenging	.22	.30	.01	.11	.09	.18	.25	.02	.15	.05
Life Goal: Be in the vanguard of the time	.21	.41	<.001	.18	.16	.19	.37	.01	.21	.12
Risk Propensity	.31	.36	.01	.16	.13	.28	.32	.01	.19	.10
Fear of Failure	-.30	-.41	<.001	.17	.14	-.27	-.37	.01	.20	.11
Growth Orientation	.06	.06	.56	.03	.01	-.01	-.01	.96	.09	.01
General Self-Efficacy	.07	.10	.90	.04	.01	.05	.07	.52	.09	.01

[a] Model 1 controls for sex, age, and job status. [b] Model 2 controls for sex, age, job status, and interest in corporate venturing.

Figure 1: Summary Model of Socio-Psychological Factors Predicting Entrepreneurial Interest



Development of Opportunities in the Value Chain of Rural High Quality Restaurants: Case Tertti Manor

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Abstract

This paper analyses the opportunity development of high quality rural restaurant in Finland. The research questions posed are: How do the high quality rural restaurants identify business opportunities? How do they develop these opportunities to business concepts? What kind of business models will be developed on the basis of the value chain characteristics? Ardichvili et. al. (2003) opportunity development and Baron (2006) pattern recognition frameworks will be used as the basis for the analysis. Opportunity development is thought to proceed from the value creation capability through business concept to business model of a firm. Business concepts include all the value chain decisions of the firm. The overall data was gathered from high quality restaurants and their perceived value chains in Iceland, Finland, Norway and Sweden. Finnish case was selected for the analysis because it represented private ownership. The analysis suggests that value creation capability is generated both through underutilised resources and unemployed services. In the Finnish case underutilised resources were unused facilities like buildings, gardens etc. and unemployed services local supplier networks. From the pattern recognition perspective current trends such as climate change, healthy food and the development of infrastructure have been utilised in the development of businesses. Finnish case firm experienced that it is a trendsetter but innovations were mainly results of effective benchmarking and mimicking.

Introduction

In 2007 Nordic Innovation Centre launched "New Nordic Food" program. Nordlands Research Institute from Bodø, Norway led the consortium including Helsinki School of Economics, Small Business Center, Finland, Jönköping International Business School, Sweden and Reykjavik University Iceland. The focus of the established EXPLORE –project (Experiencing Local food Resources in the Nordic countries) was on rural high quality restaurants. This paper analyses the Finnish results of the project from the perspective of opportunities within high quality rural restaurants.

Business opportunities are seen as one of the most important ingredients in entrepreneurial process in current entrepreneurship research (e.g. Ardichvili et. al., 2003; Sarasvathy et. al., 2003; Shane and Venkataraman, 2000). Opportunities are defined as the consequences of new ideas, inventions, beliefs and actions which generate new products and services, new ventures, markets, standards or practices (Venkataraman, 1997; Sarasvathy et. al., 2003). According to Companys and McMullen (2006) oppor-

[1] The data and business model analysis for this paper was collected and completed by Senior Researcher Sinikka Mynttinen.

tunities could be classified as economic, cultural, cognitive, and socio-political opportunities depending on the birth mechanism and the context of an opportunity.

Littunen and Virtanen (2009) discovered that motivation for start-up differentiated growing firms from the non-growth companies so that growing firms are more opportunity driven. This finding emphasizes the importance of opportunities in the start-up stage. However, Littunen and Virtanen (2009) as well as Heimonen and Virtanen (2009) suggest that opportunity driven entrepreneurial behaviour will be of utmost importance for the growth and development process of businesses, too. The perceptions and measures in seizing and developing the opportunities may change during the course of time because of learning and changes both in external and internal (resources) environment and strategies of the venture. In the existing businesses opportunities form the so called strategic options. The idea of strategic options follows "corridor principle" suggested by Ronstadt (1988). After the start-up of the firm it will proceed first with the original idea but in the course of time discovers new opportunities which demand for similar evaluation and decision making as the ones at the start-up stage.

When we analyse high quality local restaurants they may not match the definition of entrepreneurship even if they were privately owned family businesses either. Growth orientation is totally different compared for example with high tech born global firms. However, example like elBulli and Ferran Adria suggest that we should not exclude this kind of businesses from the analysis because of their different goals and objectives of the entrepreneur. elBulli is an excellent example of appreciation of creativity and exclusivity and different perspective on growth of the firm.

In this study we will focus opportunities from the perspective of the development of opportunities (Ardichvili et. al., 2003) and pattern recognition (2006). Deviating from the main stream entrepreneurship literature we use these frameworks on the opportunities within the existing restaurant businesses. The opportunities may be based on innovations but taking into account the nature of the branch of industry it will be quite evident that innovations are mainly competence enhancing, not competence destroying innovations. In addition to new products and services and production processes innovations may include new sources of supply of raw materials, new markets as well as new forms of organisations (networks, business models).

The purpose of this study is to introduce and apply opportunity development framework combined with pattern recognition framework within the context of value chain of high quality rural restaurants in Nordic countries. In the case description we concentrate on one case but reflect the implications with the outcome of the other Finnish cases and Nordic countries, too. The research questions of the study are: How do the high quality rural restaurants identify business opportunities? How do they seize and develop these opportunities to business concepts? What kind of business models will be developed on the basis of the value chain characteristics?

Theoretical framework

Shane and Venkataraman (2000) analyze the process of entrepreneurship starting with an opportunity and ending with the exploitation of that opportunity. The factors they differentiate include a) the existence of entrepreneurial opportunity, b) discovery of opportunity and c) decision to exploit an opportunity. Similarly as Baron (2006) they conclude different observers will give dissimilar interpretations to the opportunities because of their prior knowledge and backgrounds. Baron's (2006) idea of opportunity events, changes and trends in external world are interpreted and perceived to build a cog-

nitive framework which could be for example prototype, exemplar or new way of doing business. Combined with knowledge and experience and active search and alertness this cognitive frame may lead to new businesses. Shane & Venkataraman (2000) point out the impact of intuition of the actors and, alike Ardichvili et. al., (2003), information asymmetry as the triggers of idea and opportunity recognition.

In the discovery of opportunities the Shane and Venkataraman (2000) refer to information corridors and cognitive properties. Information corridors mean that human beings possess different stocks of information which have an influence on their ability to recognize particular opportunities. Some people are more able to identify an opportunity when they see one which means that they are better equipped with cognitive properties proper for opportunity identification. Decision to exploit opportunity depends on the nature of opportunity and individual differences of the executor (Shane and Venkataraman, 2000). The nature of opportunity means that entrepreneur believes that the seized opportunity will add value to the business. Individual differences are formed by economic status, internal locus of control, need for achievement, optimism, perceptions and social status of the entrepreneur.

Sarasvathy et. al. (2003) consider that an entrepreneurial opportunity consists of a set of ideas, beliefs and actions that enable the creation of future goods and services in the absence of current markets for them. They present three different views of entrepreneurial opportunity from the market perspective; seeing the market as 1) an allocative process, 2) a discovery process or 3) a creative process. Sarasvathy et. al. (2003) differentiates also two types of knowledge; scientific knowledge, and dispersed information of particular place and time. The second type becomes especially important when there is a high level of uncertainty. If the distribution of information exists and is known, we will have opportunity recognition, if the distribution exists, but is unknown, there will be need for opportunity discovery, and as a third alternative; if the distribution is non-existent (and unknown) there will be need for opportunity creation.

One possible line of thought is connected with the different types of entrepreneurial opportunities and value creation (Ardichvili et. al. 2000). Some needs could be identified where resources could be available to connect these resources to exploit the identified opportunities. Ardichvili et. al. (2003) proposes that opportunities are based either on underutilised resources or unemployed services (for example new technology or proprietary knowledge). These characteristics will build up value creation capability for the business.

When market needs will be defined in the terms of benefits and value sought and resources more precisely opportunity progresses to business concept. After mature business concept has been developed it will grow into business model which will include the strategy how to create and capture value. Business plan will be the most elaborated form of opportunity including detailed and differentiated business concept and business model as well as financial model.

The benefits of Baron's (2006) pattern recognition approach helps to explain the relationships between active search, alertness, and prior knowledge of entrepreneur. This framework may be utilized and applied to the value chain of restaurants. We may pose the hypothesis that experience in some part of the value chain and/or in stakeholder relationships helps to build innovative and cost-effective methods for exploitation of new opportunities.

On the other hand, external shocks and critical events may have a crucial impact on needs as well as on the strategies of the business (Baron, 2006, Heimonen and Virtanen, 2009). For example increased need for local food production processes may lead to the demand for incremental and com-

plementary services that could have an impact on the holistic business. It may have an impact on the strategies to introduce certain kinds of tailored services in the future, too. This follows the so called corridor principle (Ronstadt, 1988) or strategic option thinking.

If we follow the idea of development of opportunity in the context of high quality restaurants we may proceed from value creation capability to business concept. Business concept is closely connected to the decisions about value chain activities. According to Porter (1985) value chain means value adding activities of a firm including both inbound and outbound logistics, marketing and sales as well as support activities. Firms use value chain information in order to improve their value systems or to create new business models.

Shafer et. al. (2005) defined a business model as a representation of a firm's underlying core logic and strategic choices for creating and capturing value within a value network. This definition was based on the classification of the components of business models into four primary categories - strategic choices, value network, creating value, and capturing value – under which categories they included different components. According to Shafer et. al. (2005) the components included in Magreta's (2002) business model, which was used as a framework in Ljungren et. al. (2010) emphasizes two aspects of business models: 1) the creation of value for customers and 2) the revenue models which indicate how to make money. However, from the perspective of opportunity development Shafer et. al. (2005) broader definition makes possible the analysis where strategic choices and value networks are included more deeply. Thus the outcomes of this study will be reflected with the framework of Shafer et. al. (2005).

Data and methodology

The data was gathered from high quality restaurants and their perceived value chains in Iceland, Finland, Norway and Sweden in the context of the EXPLORE-project financed by Nordic Innovation Centre. From each country 2 – 3 case restaurants and their interest groups were interviewed and cases were constructed to form the data set of the study. Altogether 11 restaurants were analyzed. The framework for analyzing opportunities within value chain of the cases will be used in investigating entrepreneurial processes and learning of the entrepreneurs. In this study we concentrate on one Finnish case but the comparisons will be made with other cases and countries, too.

In collection of the data we used the same framework for the cases. The selection of the restaurants were based on the criteria that they were (a) considered to deliver high quality food and experiences, b) were located outside of cities in rural locations, and (c) the menus had a local/regional profile, relying on local ingredients. In Finland the reason behind the selection of the Anttolanhovin Kartano, Kenkävero and Tertti Manor House was the fact that they all belong to the Charms of Saimaa chain which was selected as a candidate for national prize winner in "European Destinations of Excellence" in 2007. Those destinations which have developed a new tourism offer based on the appreciation of their specific local intangible heritage will have the possibility to compete at national level and be selected as 2007 destination of excellence. Moreover the Finnish Travel Quality Award 2008 was given to Tertti Manor House based on the originality and manor milieu resting on locality and national culture. "*Tertti Manor has arisen as an internationally interesting resort. It has succeeded in the development of tourism services very decisively. The garden of the manor is unique in Finland*". In 2010 Tertti Manor was given the honorary title by the Society of Finnish Gastronomy.

The research team developed common interview guides which have been used in the data gathering process albeit also this had to be adapted to the specific empirical and national context. The case study approach implies that interviews are conducted not only with the entrepreneurs/owners of the restaurants but also with some of their suppliers, and also with individuals representing policy organizations. Altogether 95 interviews were conducted in different countries. In Finland two farmers and 7 small case food were interviewed in addition to three restaurant managers. Secondary data such as documents menus, brochures, policy documents, strategic plans for policy organization were used to gain wider understanding of the properties of value chain.

Start-up and development of business opportunities

The Manor House traditions in Tertti have been enhanced by the Pylkkänen family since 1894. The place is located along the highway 7 kilometers from the centre of Mikkeli Town. Restaurant was started by the owners Matti and Pepita Pylkkänen in 1978 after a transfer of the manor to the descendant. The main motivation for the start-up of restaurant business was a desire to maintain the family estate alive. The early days' vision was to repair the buildings and to grow vegetables in order to give support to the restaurant business.

"*Desire to make progress in business was keen, although no earlier experience existed!*"

At the start-up stage the restaurant business was not very much opportunity driven. When the interviewees were asked about their main business opportunities it was noticed that their perception about opportunity focused mainly the products and services and the surroundings not as much markets, customers and their needs. The main business idea of Tertti Manor is to produce experiences in accordance with the traditions of the Manor itself and the region. Although traditions are respected, the services are constantly up-dated. In the beginning the serving in the restaurant was only on order basis: At that time restoration of the family estate and growing of vegetables for the restaurant business were the main targets.. The restaurant was run by the young owners and their parents. In 1982 accommodation service was started in a granary. A year later the stable was renovated to serve as a festival hall. A few years ago a garden was established on old ruins.

First, there was a small shop in one of the rooms of the manor house selling mainly self-made food products. Just recently, a separate shop building was opened and the products are sold by internet, as well. Thus, starting from restaurant business Tertti Manor has grown into tourism and experience industry. The course of development has been planned, but also intuition plays a big role in finding out new, up to date, ways of serving the customers better.

Reflecting the outcomes of the case to Ardichvili et. al. (2003) value creation capability it could be proposed that these opportunities are based both on underutilised resources and unemployed services. Underutilised resources are unused facilities like buildings, gardens etc. and unemployed services local supplier networks. From the pattern recognition perspective current trends such as climate change, healthy food and the development of infrastructure have been utilised in the development of businesses.

Strategies and business model

While relying much on benchmarking abroad in its business development, Tertti Manor can also be seen as a trendsetter in its own environment in Finland. Ideas for the business have been searched for abroad and one of the most important models has been Rosendahls trädgård in Sweden. Some of the new ideas and concepts of business stem from these trips of benchmarking to e.g. Sweden, Italy, England, Ireland and South-Africa. Tertti Manor has also very close cooperation with some of their customers, who have initiated and developed ideas with them. The entrepreneurs are more and more conscious about the necessity to add customer value by combining different experiences with restaurant services. These additional experiences may include very precise introduction of the raw materials and the details of the meal.

"If we have a look at our breakfast table, there are signs so that people can see the producers of all local products*. It is a matter of great importance for us…although we have only five rooms, we do it in a different way…our own way.*"

In the Nordic rural restaurants the trend which transforms the attention from the plate and meal to the holistic experience of the customer during the visit will be observed (Ljungren et. al. 2010). This has lead to changes in the business models of these high quality rural restaurants, too. Extraordinary experiences demand for superior quality which has increased the interest in local raw-materials and recipes. This has clear impact on the versatility of the supply of raw materials, costs and logistics as well as on the relationships with the suppliers.

Following the idea of the components of business model by Shafer et. al. (2005) we will first introduce the strategic approaches of the case businesses. Strategic choices include capabilities and competencies of the firm. In this analysis this will be reflected in learning of the firm in the opportunity development process.

Cooperation and Learning

"Charms of Saimaa" is a network business model developed by small experience producers. All the Finnish case restaurants including Tertti Manor are owners in the company Saimaan Charmantit Oy which is behind the brand Charms of Saimaa. Charms of Saimaa was established to enhance cooperation and marketing of tourist attractions in the heart of the Saimaa Lake district. They have jointly produced a brochure in several languages, co-marketing in internet, national advertising and video for international customers. The partners give concrete support to one another by e.g. recommending each other to customers, when an opportunity comes. In order to attract foreign customers it is important to have large enough volume of high-quality destinations in one district.

There are criteria for the members in Charms of Saimaa including experience of tourism, reliability, high-quality and friendliness through the idea of faces behind the service (host and hostess running the business). The brand "Charms of Saimaa" has become well-known in a very short time and has already given a positive drive to the tourist and experience industry in the region. "*We are a part of the chain. At the moment I feel the size of the combination is good" (14 members)* .

Common concept is combination of accommodation, theatre performances and other local events and services. Tertti Manor has cooperation with the local organizers of events and the theatre. Further,

Tertti Manor has found it very valuable to develop products of their own together with a university unit in town Mikkeli, as well as, cooperation with a well-known local researcher of herbs.

"A good example is a product development process: we have an idea, and we look for a producer… well, the university unit *in Mikkeli has a good field of contacts ready. When an analysis is needed, e.g. how to get this mushroom product preserved…, there it is! Compared to the situation, where we would made attempts and experiments ourselves, they already have the knowledge, skills, and advice needed*."

The basic idea behind the development and learning is to set goals for oneself and then determinedly pursue for them. Having got to learn the different characteristics of each other, Mr. and Mrs. Pylkkänen have found them an important resource for the enterprise. Their characteristics complete each other making them good partners.

"*I am a persistent and hard-working maker, while my wife is… how to put it… a 'hoover of ideas' or 'lighter of fires', which I then put out. On* the *other hand, in the case we both think this is a good idea, it will most probably work out, too*."

Benchmarking abroad is a crucial way of learning: places of high quality food, manor houses, wine yards, market halls etc. Other elements of learning are colleagues, restaurant cooks, and other experts, also, among customers. Customer feedback is extremely important for learning and it is in active use

"*For example, one of our customers is a lady, who works for a big bank as a chief hostess. Lately she also finished a* book *'The best cook book in the city'. She has seen almost everything in our country and she is a good customer of ours. Then there is this chief consul of high quality food in Finland, who was one of the first to buy our vorsmack in the market hall of Helsinki. He called us that it was great, but the recipe had to be changed. We worked on it… and nowadays we co-operate a lot and he is a good friend, too.*"

Revenue model

The revenue model is based on a comprehensive idea of experience production and allows earning medium margins while serving medium volumes of customers. By combining high-quality food including in-house and local specialties with overnight stay experiences in peaceful, countryside surroundings of the Manor or visits to the walled garden, herb garden or exclusive shop the restaurant has become an attractive destination for local, national and international visitors and generated diversified revenue streams to the business. The future value capturing is based on all the current activities but more and more revenue will be expected to be generated by emerging role of e-shopping.

From the perspective of business models it could be said that Charms of Saimaa chain sets norms and standard for the quality of services and thus there will be a lot of similar features in business models, too. All the Finnish case restaurants are partners in Charms of Saimaa network which promotes branding of its members through story telling. All of them experience a challenge of large number of local suppliers which especially sets certain requirements for logistics. Possibly the most remarkable difference between entrepreneurial and association driven business is connected with the organisation and learning. In Tertti Manor one remarkable advantage was effective learning dynamics which could be used to renew and reshape the organisation very flexibly. This kind of strategic agility will be extremely important in economic downturns and in a turbulent environment.

Conclusions and Implications

The major contribution of the paper will be to point out the role of opportunity development in the process of development of businesses in the value chain of high quality restaurants. The analysis suggests that value creation capability is generated both through underutilised resources and unemployed services. In the Finnish cases underutilised resources were unused facilities like buildings, gardens etc. and unemployed services local supplier networks. From the pattern recognition perspective current trends such as climate change, healthy food and the development of infrastructure have been utilised in the development of businesses.

Even if the Finnish case firm experienced to be a trendsetter its innovations were mainly results of effective benchmarking and mimicking. The most appropriate for successful business in this respect will be the context of the business. The example of this study imply that favourable context does not mean only the vast flow of people around the restaurant but the atmosphere and culture as well as presence of highly skilled workers and creative effort.

Local restaurants in the Charms of Saimaa network act as the drivers of tourism in Etelä-Savo region. The network sets quality standards for its owners and partners which improve their credibility. Since value chain of restaurants includes a large amount of diverse local producers the credibility will be reflected to these local actors, too. Even if quality systems are important but in some cases individual, traditional knowledge and its use is necessary especially in story telling. Narratives are essential part of the activity in Charms of Saimaa. In local tourism industry the use of narratives and story telling are effective ways for differentiation. In Finnish cases collaboration with event organizers is also essential. From the perspective of product and service development customers are experienced as best sources of information. There are examples that several recipes have been revised after customer feedback

In Tertti Manor one advantage was the effective learning dynamics which could be used to renew and reshape the organisation very flexibly. This kind of strategic agility will be extremely important in economic downturns and in a turbulent environment.

In this study I have investigated mainly one case restaurants and the opportunity focus is not so self evident. Opportunity focus will be introduced both through horizontal and vertical integration. Value chain of restaurants includes a large amount of diverse local producers and they are collaborating within the common network. One critical element for the studying all the Finnish case restaurants in opportunity development framework is the fact that two of the three case firms are not classified as entrepreneurial businesses. Thus they were excluded from the analysis. However, these businesses are owners in the common network Charms of Saimaa which could be seen as an entrepreneurial effort in experience industry. This raises a question about the applicability of opportunity framework as the basis for entrepreneurship theory since the managers of association owned businesses seem to develop their opportunities quite similarly as entrepreneurial firms.

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Entrepreneurship and Development – Do We Really Know Which Entrepreneurship Types Contribute (Most)?

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1. Introduction

As Baumol (1990: 177) pointed out in his seminal contribution, entrepreneurship can take various forms, and not everything labelled as 'entrepreneurial' might be desirable from a macroeconomic and societal perspective. This poses the questions of which types of entrepreneurial activities will have the greatest effects on economic development. This paper revisits the commonly held assumption that we can distinguish types of entrepreneurship in relation to their contribution to economic growth respectively development. The paper departs from a critical review of concepts which explicitly and implicitly have dominated the "entrepreneurship and economic development" debate over the past years, in particular the motivation-based distinction between push/pull or opportunity and necessity entrepreneurship, where opportunity-based entrepreneurial activities are considered to positively contribute to employment growth and innovation and vice versa, and the concept of productive and unproductive entrepreneurship. The main argument presented in this paper is that the dichotomy of these and similar concepts, albeit facilitating empirical application, needs to be set aside in favour of a contextualised perspective which understands and models the links between entrepreneurship and development as temporally and situational bounded.

Section 2 reviews the concepts of push/pull, opportunity/necessity entrepreneurship, proprietorship versus entrepreneurship and productive/unproductive entrepreneurship, while section 3 outlines some shortcomings, illustrated by evidence from own research projects. Section 4 concludes with suggestions as to how to move beyond entrepreneurship typologies in the discussion on the link between entrepreneurship and economic development.

2. Types of Entrepreneurship and Economic Development: A Conceptual Review

2.1 Pushed or pulled, necessity- or opportunity-driven – Who contributes (more) to economic development?

Several micro level studies have investigated individual motives for entering entrepreneurship as one possible predictor for later performance, distinguishing between, for example, push and pull entrepreneurs (Amit and Muller 1995) or necessity- and opportunity-based entrepreneurs (Block and Koellinger 2009). The latter has been developed in the context of the Global Entrepreneurship Monitor (GEM), where since 2001, GEM surveys have asked respondents to indicate whether they started and grew their business in order to "take advantage of a business opportunity" or "seek better opportunities"

(opportunity entrepreneurship) or "because you have no better choices for work" *(necessity entrepreneurship)* (Reynolds et al. 2002: 12). Similar to researchers that have identified push- and pull motivations, GEM authors view opportunity-based entrepreneurship as reflecting a voluntary career choice, whilst necessity-based entrepreneurship is a decision based on other options not being available, or judged to be unsatisfactory. The former refers to so-called 'reluctant entrepreneurship', where people are pushed into business ownership because they have actually lost employment, or are threatened with redundancy. Depending on the opportunities for alternative employment, entrepreneurship is viewed essentially as a survival strategy. This also resonates with Scase (1997; 2003) who distinguishes between proprietorship and genuine entrepreneurship in the context of transition economies, where proprietorship would be reflected in notions such as starting a business in order to sustain a family or to raise income, in situations where individuals have no better work options. It can also be connected to spells of unemployment or hidden unemployment or taking up business activities additional to their waged employment, in order to supplement income. In that case, entrepreneurs would have little surplus income to invest in developing their ventures and would use business income to sustain themselves and their families. Entrepreneurship, as understood by Scase, would include entrepreneurs who reinvest business income into their ventures, aiming at business development.

One of the issues that arise from this type of analysis is the relationship between the motives for starting a venture in the first place and its subsequent performance. Amit et al. (1996: 2), for example, suggest that "the decision to start a new venture gives a strong basis for predicting the likely success." For decades, research has used business motivations to construct taxonomies of entrepreneurs, in order to identify distinctive entrepreneurial behaviour, including an orientation towards business growth (e.g., Cooper and Dunkelberg 1986; Stanworth and Curran 1976). Some studies have explicitly investigated the relationship between business and/or personal goals and subsequent enterprise development (e.g., Dahlqvist et al. 2000; Delmar and Wiklund 2008; Wiklund and Shepherd 2003). Delmar and Wiklund (2008) found a positive relationship between an individual's intention and realized growth, at least for employment growth, arguing that one needs to take into account the moderating role of resources and availability of opportunities, as well as an individual's intention to grow. Based on GEM data, Autio (2005: 33) shows that necessity motivation appears to influence expectations for business development, with low expectation nascent entrepreneurs more than four times as likely to indicate a necessity motivation compared to high expectation nascent entrepreneurs. On the contrary, Dahlqvist et al. (2000), as well as Solymossy (1997), in a study on Hungarian entrepreneurs, conclude that initial start-up reasons are not a reliable indicator of subsequent survival, size or growth respectively.

Other studies show that entrepreneurs who set up businesses because they are unemployed contribute to employment for the business owners, but not to economic growth (e.g., Van Stel and Storey 2004). Also, necessity-based entrepreneurship was shown to vary significantly between countries respectively country groups, with necessity entrepreneurship decreasing with increasing economic development and a stable business environment: "The average pattern (…) is of a decline in overall levels of early-stage entrepreneurial activity with increasing economic development, and relatively low levels of necessity entrepreneurship in innovation-driven countries." (Bosma and Levie 2010: 19), while the current recession contributed to levels of necessity entrepreneurship (Bosma and Levie 2010: 6). In general, studies based on GEM data (e.g., Acs and Varga 2005; Wennekers et al. 2005; Wong et al. 2005) tend to view so-called necessity entrepreneurship as a more negative factor as far as national growth and development are concerned.

However, economic theory has suggested that increased unemployment which would result in higher levels of necessity-driven entrepreneurship could also foster economic development because it would lead to increased entry into entrepreneurship as the opportunity costs of starting a business are decreased (Evans and Jovanovic 1989). Several macro level studies have investigated this relationship between unemployment and entrepreneurship (e.g., Evans and Leighton 1989; Reynolds et al. 1994). Bögenhold and Staber (1990) demonstrated a positive correlation between self-employment and unemployment across various OECD-countries where unemployment might have acted as an additional push factor to motivate a business start. Other authors have questioned this evidence indicating negative relationships between unemployment and the self-employment rates for various countries and regions (e.g., Blanchflower 2000). In reviewing such studies, Storey (1991: 177) pointed to methodological issues, where the positive correlation between growing unemployment and a growth in venture creation rates is mainly confirmed by time series analysis, while cross sectional studies appear to indicate the reverse. Meager (1992) came to a similar conclusion, based on an Anglo-German comparison, showing that whilst unemployment acts as a push factor for self-employment, falling economic activity acts as a damping influence on self-employment. Recently, Thurik et al. (2008) found for 23 OECD countries two distinct relationships, namely the "refugee" and "entrepreneurial" effect: While unemployment rates may result in higher start-up activity, this "refugee effect" is considerably weaker than the subsequent "entrepreneurial effect" which reduces unemployment in later periods because of increased entrepreneurial activity. Blanchflower (2004: 7) summarised the discussion by stating that "It does seem then that there is some disagreement in the literature on whether high unemployment acts to discourage self-employment because of the lack of available opportunities or encourage it because of the lack of viable alternatives."

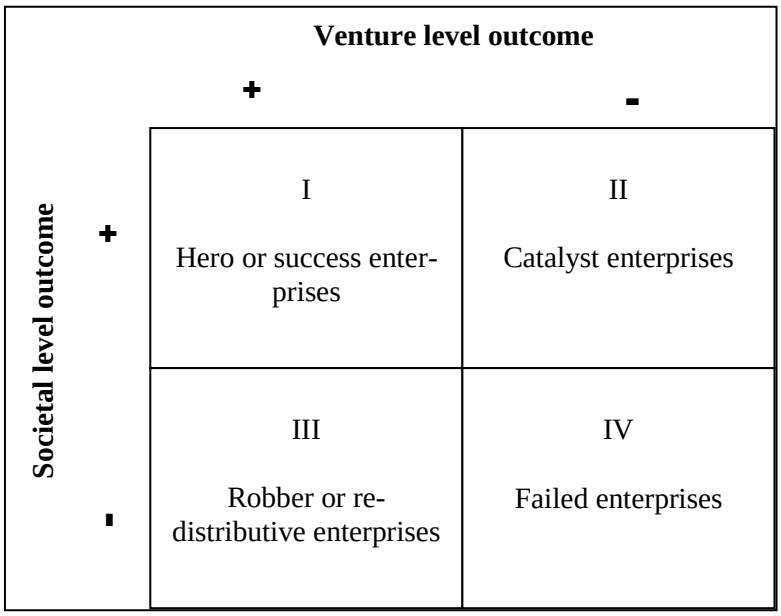
2.2 Is it productive or unproductive entrepreneurship that fosters economic development?

According to Baumol, the economic contribution of entrepreneurship depends on the allocation of entrepreneurship between productive and unproductive entrepreneurial activities, with the respective (country) context having a major impact on this allocation (Baumol 1990: 3): "But there are a variety of roles among which the entrepreneur's efforts can be reallocated, and some of those roles do not follow the constructive and innovative script that is conventionally attributed to that person. Indeed, at times the entrepreneur may even lead a parasitical existence that is actually damaging to the economy. How the entrepreneur acts at a given time and place depends heavily on the rules of the game-the reward structure in the economy-that happen to prevail."

Productive entrepreneurship includes any activity that indirectly or directly contribute to economic output or the capacity of the economy to produce additional output (Baumol 1993: 30). Unproductive and destructive entrepreneurship includes, but is not limited to, rent seeking, illegal activities and shadow activities or different forms of corruption. Oftentimes, and for reasons of empirical assessment, productive activity is understood as legal, registered business and any illegal or informal types of entrepreneurial ventures are seen as unproductive because little, if any, value is added to the economy and society (Baumol 1993). Moreover, these activities circumvent and defy the legal and normative framework of a society and will have a destructive role in an economy in those cases where they attract followers.

Generally, productive entrepreneurship is seen as an "essential factor of the economic performance of a country." (Davidsson and Henrekson 2002: 1), although most entrepreneurship research assumes a direct link between entrepreneurial activities at micro level and economic development at macro level. In this regard, Davidsson and Wiklund (2001) suggest a four-fold typology of enterprises (Figure 1), which differentiates between outcomes of entrepreneurial activities at either the micro level (venture) or the macro level (society). Two of these enterprises contribute nothing at society level, namely "robber" and "failed" enterprises. Only the "hero" enterprise contributes at both society and venture level: they introduce new products or services and also create personal income and wealth. Referring this back to Baumol's concept, the "hero" category is analytically unproblematic (Davidsson 2004) and can be classified as productive entrepreneurship, although entrepreneurs within this category also might apply 'unproductive' strategies during venture development. The catalyst enterprise represents a mixture of productive and unproductive outcomes: Catalyst enterprises are unsuccessful at firm level, but contribute to macro level development. This could include ideas and methods developed by one enterprise which however does not generate profit, and where these ideas are imitated and successfully exploited by others (Davidsson and Wiklund 2001).

Figure 1: New Enterprise Outcomes on Different Levels



Source: Davidsson and Wiklund (2001).

However, Davidsson (2004: 14) points out that "(…) we have to live with the fact that in real economies 'legal, yet re-distributive' and 'illegal, yet societal beneficial' are both possible.", thus highlighting the difficulties of developing clear-cut categories. For example, take a closer look at failed enterprises: are they really unproductive? Certainly in a short term perspective: Failed enterprises initially do not contribute to macro development. But, might change in the long run if these entrepreneurs learn from their failure and start again, this time successfully (Sauka and Welter 2007).

3. Why is it so Difficult to Determine which Entrepreneurship Types Contribute (Most) to Economic Development?

Several of the research projects I have been involved in over the past years, highlight the difficulties of adequately distinguishing between opportunity/necessity-based entrepreneurs (or push/pull, proprietorship/entrepreneurship) or productive/unproductive entrepreneurship. For example, a study of women entrepreneurs in Ukraine, Moldova and Uzbekistan (Welter et al. 2006) shows that women entrepreneurship is stimulated by both a desire for personal autonomy and an economic necessity. This is reflected in women having a variety of motives to start a business, where both push and pull factors appear to overlap, which supports the view that these categories should not be viewed as being mutually exclusive, but rather that entrepreneurs set up and develop a business for a variety of reasons, depending on their situation, the external environment and access to resources and skills.

Moreover, empirical evidence also demonstrates that entrepreneurs neither fit neatly into the proprietor or entrepreneur categories. Instead, case evidence from several projects shows more complex relationships between entrepreneurship as an economic necessity, or responding to potential market niches, and a desire to realise a 'dream' at start up; and during business development entrepreneurs 'switch' between either of these categories (e.g., Welter and Smallbone 2008). For example, both cases in Box 1 demonstrate the difficulties involved in clearly identifying categories for the entrepreneurs and thus determining (or even predicting) their contribution to macro development: Their entry into entrepreneurship was both push and pull-motivated, they showed both more of proprietorship behaviour in the first years, but they always exhibited entrepreneurial skills as well. In terms of their contributions to economic development, both created their own employment, Case A catered for local demand while Case B, over time, also contributed to innovation and created new jobs.

Box 1: Between necessity entrepreneurship, proprietorship and opportunity-driven entrepreneurship

Case A: This entrepreneur in the Namangan region in Uzbekistan set up her business in 1993, specialising in sewing and selling national costume (chapans) and children trousers. The entrepreneur is 47 years old and had been teaching at a school for 27 years before starting her own business. Venture creation was motivated both by a demand for higher quality goods at the beginning of the 1990s, as perceived by the entrepreneur, and by her need to supplement her teaching salary. Whilst initially the business was profitable, this changed after 1997, due to an increase in competition from illegal firms. The entrepreneur responded by planning to give up her sewing production and instead, settling on food processing, i.e., drying tomatoes and processing tomato paste, which she considers more rewarding in terms of income under the current economic circumstances. In this case, her current entrepreneurial activities appear to be driven by 'necessity' reasons, as the need to generate income appears to be the key driver.

Case B: This entrepreneur is 54 years old and was born in East Germany, in the former German Democratic Republic. After finishing school, she trained as retail saleswoman and worked as a general manager of a supermarket. With reunification, the entrepreneur lost her former job. She started further education, in order to learn about market economies and business management. After her degree, she worked in the commercial cleaning branch. She was responsible for organizing the cleaning of a big supermarket chain in her region; and this constituted her first contact with the commercial cleaning branch – retrospectively an important time for her to gain sector knowledge and experiences for her own business, although she never considered having her own business at that time. After four years, she again lost her job because of internal restructuring of the company. At the same time, her marriage broke up. "That was the moment I thought about becoming self-employed for the first time. I thought I can do on my own what I`ve done before on my job." Shortly after her second spell of unemployment, in 1995, she started out as a self-employed cleaning lady and additionally trained as 'Meister' at the same time in order to set up a business in the commercial cleaning sector. Over time, word-of-mouth recommendation led to more and more jobs, resulting in her hiring more and more employees. But the entrepreneur also experienced health problems because of her

constant contact with aggressive chemicals which led her to experiment with various natural substances. She developed a natural cleaning powder based on beetroot as renewable raw material. In 2003, she obtained the German patent for her manufacturing method and the composition of the cleaning powder, in 2005 the European patent.

Source: Case A reported in Welter and Smallbone (2008), case B from Ettl and Welter (unpublished manuscript).

It is equally difficult to empirically distinguish between productive and unproductive entrepreneurs. Baumol (1990) generally classified innovation as productive activities and rent-seeking or organized crimes as unproductive ones. However, research on entrepreneurship in post-socialist countries illustrates the complexities and fallacies of this concept. Several studies in transition contexts, where the business environment is characterised by turbulence, ambiguity and uncertainty, have demonstrated that most new and small companies are actually involved both in productive and unproductive, in particular rent seeking, activities at the same time (e.g., Manolova and Yan 2002; Rehn and Taalas 2004; Smallbone and Welter 2001; Smallbone and Welter 2009; Welter and Smallbone 2009; Yan and Manolova 1998). Especially in early transition stages when legislation and rules are not yet in place and implementation gaps occur, defiance and avoidance strategies may be required to ensure the survival of the enterprise, but these strategies also could help entrepreneurs develop their activities from simple trading towards more substantial businesses as illustrated by the case reported in Box 2.

Box 2: Between productive and unproductive entrepreneurship

Case C: This firm is located in Zakarpattya in Ukraine. Since 2000, it has been an official representative of a Czech firm, selling second-hand clothes and footwear to a network of enterprises in Ukraine. By Ukrainian standards, it is a large supplier, ranking 13 in 2002. The company employs 11 persons, including four drivers in another small business providing cargo services. The entrepreneur is 37 years old. He attended the Kiev Institute of Light Industry, obtaining a degree from the Department for the Automation of Technological Processes. Since he was a teenager, he occupied himself with trading different goods in order to earn money. Already in 1991, he registered as an individual entrepreneur. At that time, he mainly was involved in – illegal – shuttle trade, but he refrained from elaborating on this in more detail. After having earned some capital, he opened a company (with friends) selling input material and accessories for the light industry in Kiev. When moving to Western Ukraine, he sold his share in that company and opened two enterprises, only one of which turned out to be successful. Nevertheless, for someone who started his life as a petty trader, this individual has acquired the attributes of a habitual entrepreneur.

Source: Welter and Smallbone (2009).

4. Outlook: Moving Beyond Typologies of Entrepreneurship

So far, the initial question of which type of entrepreneurship contributes most and has the longest lasting effects has not been answered in a satisfactory way. Entrepreneurship research tends to be rather inconclusive with regard to identifying clear cut typologies. The previous sections indicate a major difficulty with any of the typologies reviewed in this paper, namely the problem of categorizing ventures once and for all into either one of the categories, in order to determine their contribution to macro level development. This is because not all individuals will respond in similar fashion to similar circumstances. The specific decision making context they face may be influenced by their own previous experience and other antecedent influences, including their underlying attitudes towards running their own businesses, as well as by current external conditions and triggered by specific stimuli.

Entrepreneurship is a dynamic phenomenon, it is fluid, and it should be interpreted as a non-linear process. Therefore, static categories based on motivations, expectations and behaviours cannot (adequately) reflect the contribution of entrepreneurship to economic and social development nor do they

help in identifying that particular entrepreneur or entrepreneurial behaviour which contributes most. Although entrepreneurs might be primarily survival-oriented at one point during venture start or development, their personal ambitions and strategies could still be driven by 'genuine' elements of entrepreneurship. Nor does 'unproductive' behaviour prevent entrepreneurs from contributing to macro level development, as seen in the case of informal activities developing into more substantial and legalized ventures over time. In those cases, evasion strategies during the initial stage of venture creation helped entrepreneurs accumulate resources and thus contribute to employment or innovation in the long run. This needs to be taken into account for the discussion of which type of entrepreneurship contributes (most) to economic development.

But, if these categories are not mutually exclusive and if they change over time, if entrepreneurs "switch" between categories, because they learn and adapt their expectations and behaviour during venture development, where does that leave us when considering entrepreneurship and its contribution to economic development? Obviously, it is all forms of entrepreneurship that can contribute to economic and also social development, including those which entrepreneurship researchers (still too often) consider as non-productive *depending on when and where this particular type of entrepreneurship happens*. There is a need to recognise the co-existence of a multitude of motivations and entrepreneurial behaviours (Smallbone and Welter 2003; Williams and Round 2009), and their changes over time. With regard to the concept of unproductive and productive entrepreneurship, Sauka and Welter (2007) suggest to consider both output and entrepreneurial behaviour in order to decide whether something is productive or unproductive. They argue that in the current entrepreneurship literature there is no agreement as to whether Baumol's concept refers to activities only or to output or to both. This 'mix' of two different dimensions, activity and output, in combination with a blurred and often inappropriate use of terminology, could be a key to the problems in applying this concept empirically.

Understandably, politicians are more in favour of evidence which seems to demonstrate simple relationships between entrepreneurship and (economic) development, as they could attempt to influence those. However, any recommendations based on concepts such as opportunity-/necessity, push/pull or unproductive/productive entrepreneurship will be problematic unless the respective context is taken into account. In other words, if we contextualise these concepts, or in other words, acknowledge that they are bound by time and situations, we can continue using them.

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Chancen bei der Entwicklung studentischer Unternehmensgründungen mit wissenschaftlichem Hintergrund
(Opportunities in the Development of Student Academic Spin-Offs)

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Abstract

This empirical study examines the impact of entrepreneurial opportunities on the formation of entrepreneurial intention. Thereby, the study considers the specific university environment and research commercialization via university spin-offs in two ways. First, it focuses on entrepreneurial opportunities which emerge from present research results or students' studies. Second, it includes the entrepreneurial environment of the university by introducing the concept of a university's entrepreneurial climate. The results show that for research commercialization via spin-offs attitude is the main driver in the intention creation process. Furthermore, opportunity identification influences intention creation as well. Moreover, it came to light that opportunity identification mediates the relationship between self-efficacy and intention. Entrepreneurial climate has two effects directly by influencing attitude creation and indirectly by moderating the intention behavior relationship.

1 Einleitung

1.1 Ausgangssituation

An den Hochschulen der meisten entwickelten Länder konnte in den letzten Jahrzehnten ein Paradigmenwechsel beobachtet werden. So änderte sich das Bild dieser Einrichtungen von einem „geschlossenen" hin zu einem „offenen" Innovationssystem". Dabei ist dieser Prozess mit einer gestiegenen Zahl unternehmerischer Aktivitäten innerhalb der Hochschulen verbunden. Zeugnisse dieser Entwicklungen in Europa stellen verschiedene Initiativen seitens der Europäischen Union, der Länder und einzelnen Hochschulen dar (vgl. Rothaermel et al. 2007). Durch diese Anstrengungen ist eine deutliche Zunahme an gründungsspezifischen Ausbildungs-, Weiterbildungs- und Beratungsangeboten sowie Technologieverwertungsstellen innerhalb von Hochschulen und Forschungseinrichtungen zu verzeichnen. Einige Autoren sprechen in diesem Zusammenhang sogar von einer neuen dritten Hochschulaufgabe. Neben der Förderung von Forschung und Lehre sehen diese die Förderung akademischer Unternehmensgründungen als Hochschulaufgabe (vgl. Etzkowitz 2003; Etzkowitz 2006). In der Literatur sind für diese Unternehmensgründungen die Begriffe „academic spin-off" oder „academic

spin-out“ geläufig und bezeichnen allgemein Unternehmensgründungen mit wissenschaftlichem Hintergrund (Friedman, Silberman 2003; Mansfield 1991).

Gründe für dieses gestiegene Interesse werden unter Anderem in den positiven Effekten akademischer Unternehmensgründungen für die wirtschaftliche Entwicklung von Regionen oder Ländern und die Verbreitung technologischer Innovationen gesehen. Zusätzlich öffnen diese Verwertungsmöglichkeiten die Forschung für aktuelle Markt- und Kundenbedürfnisse, erlauben so eine fokussierte Forschungsarbeit und nehmen eine aktive Rolle beim Wissens- und Technologietransfer zwischen Hochschule, Industrie und Wirtschaft ein. Nicht zuletzt sind Unternehmensgründungen auch eine zusätzliche potenzielle Einnahmequelle für Hochschulen (Friedman, Silberman 2003; Varga 1999; Mansfield 1991).

Eine wichtige Voraussetzung für die Gründungen von Unternehmen ist es, Geschäftsmöglichkeiten zu identifizieren, zu bewerten und anschließend zu entwickeln. Dieser Prozess wird in der Literatur als „Opportunity Recognition“ beschrieben (Ardichvili, Cardozo, Ray 2003; Ozgen, Baron 2007). Entscheidend für die Verwertung des an Hochschulen entstehenden Wissens bzw. entwickelter Technologien ist, dass Geschäftsmöglichkeiten auf Grundlage dieser Forschungsergebnisse erkannt und im Rahmen einer Unternehmensgründung auch umgesetzt werden.

Im Laufe der bereits an vielen Hochschulen erfolgreich etablierten Qualifikationsmaßnahmen zur Stärkung der unternehmerischen Fähigkeiten von Studenten, hat die Verwertung aktueller Forschungsergebnisse durch akademische Unternehmensgründungen verstärkt an Bedeutung gewonnen. Dies wird nicht zuletzt auch durch vielfältige Förderinstrumente seitens der Europäischen Union oder ihrer einzelnen Mitgliedsstaaten verdeutlicht.

Die vorliegende Arbeit untersucht, welche Einflussfaktoren auf die Identifikation von Geschäftsmöglichkeiten bisher in der Literatur existieren und überträgt dies auf den Gründungsprozess an Hochschulen. Dabei wird auf Grundlage der Literaturanalyse ein Modell vorgeschlagen, welches sowohl die Identifikation von Geschäftsmöglichkeiten als auch das Hochschulumfeld in den Gründungsprozess integriert. Anschließend gibt die Arbeit einen Überblick zur empirischen Prüfung des Modells und den daraus resultierenden Ergebnissen. Letztendlich werden Implikationen für die Forschung und Praxis aufgezeigt.

2 Theoretische Grundlagen

2.1 Einflussfaktoren auf den Gründungsprozess

Ohne Zweifel sind der unternehmerische Prozess und dahinterliegende Einflussfaktoren seit langer Zeit wichtige Untersuchungsgegenstände der Gründungsforschung. So nennt die Literatur eine Reihe psychologischer Konzepte, die einen starken Einfluss darauf ausüben, ob Personen unternehmerisch handeln oder nicht. Im Detail konnte dargestellt werden, dass unternehmerisches Verhalten maßgeblich von der Absicht beeinflusst wird, dieses durchführen zu wollen (Shapero 1982, Ajzen 1991).
Diese Gründungsabsicht hat wiederum entscheidende Einflussfaktoren. Aufbauend auf den Ergebnissen Ajzens (1991) wird in theoretischen Arbeiten und in zahlreichen empirischen Untersuchungen die Einstellung gegenüber unternehmerischer Selbständigkeit genannt und deren positive Beziehung mit der Gründungsabsicht untersucht (Carr, Sequeira, 2007; Degeorge, Roberts, 2008; Gird, Bagraim,

2008; Kolvereid, Isaksen, 2006; Liñán, Chen, 2009; Liñán, 2008). Die Ergebnisse zeigen, dass Personen, die eine positive Gründungseinstellung besitzen, eine höhere Wahrscheinlichkeit haben, eine Gründungsabsicht auszubilden.

Eine weitere häufig diskutierte Einflussgröße ist die individuelle unternehmerische Selbstwirksamkeit. Forschungsergebnisse zeigen, dass Personen, die überzeugt sind, unternehmerische Aufgaben erfolgreich lösen zu können auch eine stärkere Gründungsabsicht haben (Carr, Sequeira 2007; Cooper, Park 2008; Kolvereid, Isaksen 2006; van Gelderen et al. 2008).

Jüngste Ergebnisse der Gründungsforschung haben zudem die Identifikation von Geschäftsmöglichkeiten für das Forschungsfeld unterstrichen und vermehrt auf die Forschungsagenda gesetzt.
Bisher ist es allerdings noch nicht gelungen, diese beiden Ströme, Forschungen zur Gründungsabsicht und Forschung hinsichtlich der Identifikation von Geschäftsmöglichkeiten, zu vereinen.

2.2 Identifikation von Geschäftsmöglichkeiten

Die Geschäftsmöglichkeit, die „entrepreneurial opportunity“, wird als eines der Schlüsselkonzepte in der Gründungsforschung angesehen und stellt eine der entscheidenden Phasen im Gründungsprozess neuer Unternehmen dar (Lumpkin, Lichtenstein 2005; Park 2005). So bezeichnen Bygrave und Hofer (1991) einen Entrepreneur als eine Person, „who recognizes an opportunity and creates an organization to pursue it.” (Bygrave, Hofer 1991). Beide Forscher sind es auch, die die Wahrnehmung von Geschäftsmöglichkeiten als eigenen Forschungsgegenstand innerhalb der Gründungsforschung einführen und diesen als Ausgangspunkt des Gründungsprozesses betrachten.

Weitere Autoren festigen diese Stellung, indem sie ebenfalls auf die Bedeutung unternehmerischer Chancen für den erfolgreichen Bestand und das Wachstum bereits etablierter Unternehmen verweisen (z.B. Eddleston et al. 2008, Oviatt, McDougall 2005). Zudem bezeichnen Shane und Venkataraman (2000) die Entdeckung, Bewertung und Verwertung unternehmerischer Chancen als „defining feature of the field of entrepreneurship“. Diese Autoren sind es auch, die feststellen, dass sich die Fähigkeit, Geschäftsmöglichkeiten zu erkennen von Person zu Person unterscheidet. So gibt es Personen, die sehr häufig Möglichkeiten für unternehmerische Aktivitäten identifizieren, wohingegen andere Personen wahrscheinlich niemals auf Geschäftsmöglichkeiten stoßen.

Ausgehend von diesen Überlegungen ergeben sich für akademische Unternehmensgründungen spezifische unternehmerische Chancen, die auf Forschungsergebnissen der Hochschule basieren. Demnach ist es für erfolgreiche Unternehmensausgründungen aus Hochschulen erforderlich, dass Hochschulangehörige in Forschungsarbeiten und den im Studium vermittelten Inhalten Geschäftsmöglichkeiten sehen. Um dieses Themenfeld zu erschließen, führen wir die Identifikation von Geschäftsideen mit Hochschulhintergrund vor.

Als wichtigen Einflussfaktor auf die Identifikation von Geschäftsmöglichkeiten sieht die Literatur das aus dem Gründungsprozess bekannte Konstrukt, die Einstellung gegenüber der eigenen Unternehmensgründung (Shane 2000; Shane, Venkataraman 2000). Erkenntnisse der Wahrnehmungspsychologie unterstreichen dies und verweisen auf den Einfluss der Einstellung auf die Aufnahme und Speicherung verbundener Informationen (Holbrook et al. 2005).

Außerdem bekräftigen Forschungsergebnisse, dass nicht nur das bloße Wissen einer Person den Identifikationsprozess beeinflusst. Vielmehr benötigt es auch die Überzeugung der Person, dieses

Wissen anwenden zu können und die zur Gründung eines Unternehmens notwendigen Fähigkeiten zu besitzen. So unterstreichen Forschungsergebnisse, dass die individuelle unternehmerische Selbstwirksamkeit ebenfalls einen Einfluss auf die Identifikation von Geschäftsmöglichkeiten hat (Ardichvili, Cardozo, Ray 2003; Ozgen, Baron 2007; Park 2005).

2.3 Gründungsklima

In der Literatur konnte bereits erfolgreich gezeigt werden, dass unternehmerisches Verhalten nicht unabhängig von Umwelteinflüssen stattfindet. Vielmehr stellt das Umfeld des Unternehmensgründers einen Kernfaktor im Gründungsprozess dar (Gartner 1985). Im akademischen Umfeld stellt sich die Frage, welchen Einfluss die Hochschule auf den Gründungsprozess hat.

Hinweise zur Beantwortung dieser Fragen lassen sich in der Organisationsforschung finden. So wurde in diesem Forschungsfeld untersucht, welchen Einfluss das Organisationsumfeld auf verschiedene Aspekte des Verhaltens der Organisationsmitglieder hat. Als ein vielversprechendes Konstrukt hat sich in diesem Zusammenhang das Organisationsklima herausgestellt.

Generell bezieht sich das Konstrukt Organisationsklima darauf, wie die Organisation von ihren Mitgliedern wahrgenommen wird (Hellriegel, Slocum 1974; James, Jones 1974; Schulte et al. 2006). Verschiedene wissenschaftliche Untersuchungen haben darauf hingewiesen, dass es auch spezielle Klimakonzepte innerhalb einer Organisation geben kann. Schneider und Reichers (1983) argumentieren sogar, dass das Klimakonstrukt einen speziellen Bezug benötigt, um dessen Aussagekraft zu steigern. Als Resultat sind mittlerweile verschiedene Klima mit unterschiedlichen Bezugspunkten bekannt. Dazu gehören beispielsweise Serviceklima (Schneider et al. 1998), Gerechtigkeitsklima (Liao, Rupp 2005), Innovationsklima (Anderson, West 1998) oder Sicherheitsklima (Wu et al. 2007).

An diese Forschungsergebnisse anknüpfend wird das Gründungsklima an Hochschulen eingeführt. Dieses psychologische Konzept bündelt und erfasst die Wahrnehmung der Hochschulmitglieder von einer Vielzahl möglicher Gründungsaktivitäten und Tätigkeiten zur Gründungsförderung an ihrer Hochschule. Ausgehend von den Annäherungen an den allgemeinen Klimabegriff und die bereits untersuchten Sub-Klima lässt sich das Gründungsklima wie folgt definieren:

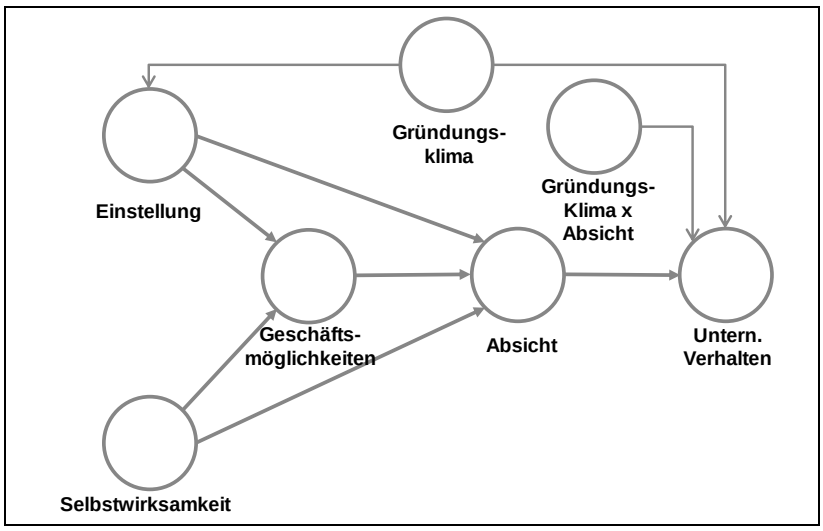
Das Gründungsklima an Hochschulen ist ein Teil des allgemeinen Hochschulklimas, welches sich auf die summarische Wahrnehmung der Organisation Hochschule durch die Hochschulangehörigen bezieht (in Anlehnung an Schneider 1975). Dabei wird das Organisationsklima als die Wahrnehmung unterschiedlicher Merkmale der Organisation durch die Organisationsmitglieder konzeptualisiert. Diese Merkmale können Ereignisse, Prozeduren oder Praktiken innerhalb der Organisation Hochschule sein (Patterson et al. 2005). Das Gründungsklima bezieht sich somit auf die Wahrnehmung der Hochschulmitglieder von gründungsspezifischen Ereignissen, Prozeduren oder Praktiken an ihrer Hochschule.

Weiterführende Untersuchungen zeigen, dass das Gründungsklimas bei Studenten besonders von der Wahrnehmung unternehmerischer Lehrangebote und gründungsspezifischen Inhalten der Hochschulkommunikation abhängt. Als weitere Einflussvariablen fanden sich die Wahrnehmung unternehmerischer Vorbildern sowie das Wissen darüber, dass die Förderung unternehmerischer Aktivitäten Teil der Hochschulziele sind (Geißler, Häfner, Jahn 2009).

2.4 Modell des akademischen Gründungsprozesses

Ausgehend von der Literaturanalyse und den bisher dargestellten Wirkungszusammenhängen schlagen wir das in Abbildung 1 dargestellte Modell vor.

Abb.1: *Modell des Gründungsprozesses akademischer Ausgründungen*



Es wird erkenntlich, dass anhand der bisherigen Ergebnisse der Literatur sowohl Gründungseinstellung als auch Selbstwirksamkeit als Einflussvariablen auf die Identifikation von Geschäftsmöglichkeiten und die Gründungsabsicht wirken. Des Weiteren bildet die erfolgreiche Identifikation von Geschäftsmöglichkeiten die Ausgangsbasis für die Ausprägung einer Gründungsabsicht und letztendlich unternehmerisches Verhalten. Zudem zeigen Untersuchungen, dass dieser Gründungsprozess nicht unter Ausschluss der Umwelt verläuft. Daher integriert das Modell das Hochschulumfeld durch das Konstrukt Gründungsklima, welches sich positiv auf die Einstelllung gegenüber einer Unternehmensgründung und auf das unternehmerische Verhalten auswirkt. Zudem wird angenommen, dass es als Moderator verstärkend auf den Zusammenhang zwischen Gründungsabsicht und unternehmerischem Verhalten wirkt.

3 Empirische Studie

3.1 Stichprobe

Um unsere Annahmen empirisch zu prüfen, wurden an zwei deutschen Hochschulen Online-Fragebögen verteilt, wobei sich insgesamt 173 Studenten an der Untersuchung beteiligten. Dabei setzt sich das Sample zu 50,9 Prozent aus Frauen zusammen. Das Durchschnittsalter liegt bei 24,6 Jahren (Standardabweichung 4,6).

Hinsichtlich der untersuchten Variablen wurde, soweit möglich, auf bereits bestehende und getestete Skalen zurückgegriffen (7-stufige Ratingskalen mit 1 = ‚stimme überhaupt nicht zu' bis 7 = ‚stimme voll und ganz zu').

Einstellung gegenüber der eigenen Unternehmensgründung wurde mit fünf Items erhoben (Perugini, Bagozzi 2001; α = 0,93). Für die Messung der Identifikation von Geschäftsmöglichkeiten mit Hochschulhintergrund kamen in Anlehnung an Ozgen und Baron (2007) drei Items zum Einsatz (z.B.: „Durch mein Studium erkenne ich häufig Chancen, die man für eine Unternehmensgründung nutzen könnte (auch wenn ich diese nicht verfolge)", α = 0,81). Auf Grundlage der Untersuchung von Chen et al. (1998) wurde zur Messung der unternehmerischen Selbstwirksamkeit eine 5-Item-Skala entwickelt, welche die bei Chen et al. (1998) aufgeführten Fähigkeitsgebiete abdeckt (z.B.: Marketingmanagement, Management von Unternehmenswachstum, Eingehen von Risiken, Kontrolle der Finanzen; α = 0,76). Aufgrund bisher fehlender Gründungsklima-Skalen entwickelten wir basierend auf Untersuchungen der Organisationspsychologie eine Skala mit fünf Items (z.B.: „Meine Hochschule steckt viel Arbeit in den Versuch, die Gründung von Unternehmen zu fördern.", „Angehörige meiner Hochschule werden zu unternehmerischen Aktivitäten ermutigt.", oder „Meine Hochschule hat ein Klima erschaffen, in dem unternehmerische Selbständigkeit gefördert wird.", α = 0,95). Dabei adaptierten wir Items des Dienstleistungsklimas (de Jong et al. 2004) sowie des Innovationsklimas (van der Vegt et al. 2005) für unseren Kontext. Um bisheriges unternehmerisches Verhalten zu erheben, kamen fünf Items zum Einsatz (de Clercq, Arenius 2006). Dabei gaben die Befragten an, ob sie innerhalb des letzten Jahres etwas unternommen haben, um ein eigenes Unternehmen zu gründen (z.B. das Verfassen eines Businessplans, die Suche nach einem geeigneten Unternehmensstandort oder das Ansparen von Geld).

3.2 Methodik

Zur Analyse der Daten und Überprüfung des theoretischen Modells kam der Ansatz der Partial-Least-Squares (PLS) - Methode zum Einsatz (Fornell, Bookstein 1982; Wold 1982).

Tab. 1: *Mittelwerte, Standardabweichung und Korrelationen der Modellvariablen*

	Mittelwert	***SD***	***1***	***2***	***3***	***4***	***5***
1 Untern. Verhalten	0,76	1,22	1				
2 Gründungsabsicht	3,52	2,09	,55*	1			
3 Gründungseinstellung	4,57	1,51	,41*	,73*	1		
4 Selbstwirksamkeit	4,52	1,07	,44*	,48*	,37*	1	
5 Geschäftsmöglichkeiten mit Hochschulhintergrund	3,84	1,36	,51*	,50*	,39*	,45*	1
6 Gründungsklima	3,94	1,53	,27*	,08	,13	,11	,23*

Anmerkung: *N = 173; * Die Korrelation ist auf dem Niveau von 0,01 (2-seitig) signifikant.*

Die Ergebnisse in Tabelle 1 und 2 zeigen, dass das Messmodell alle in der Literatur genannten Anforderungen erfüllt, was für eine reliable und valide Messung spricht (Fornell, Larcker 1981; Hair et al. 2006).

Tab. 2: *Güte des reflektiven Messmodells (N = 173)*

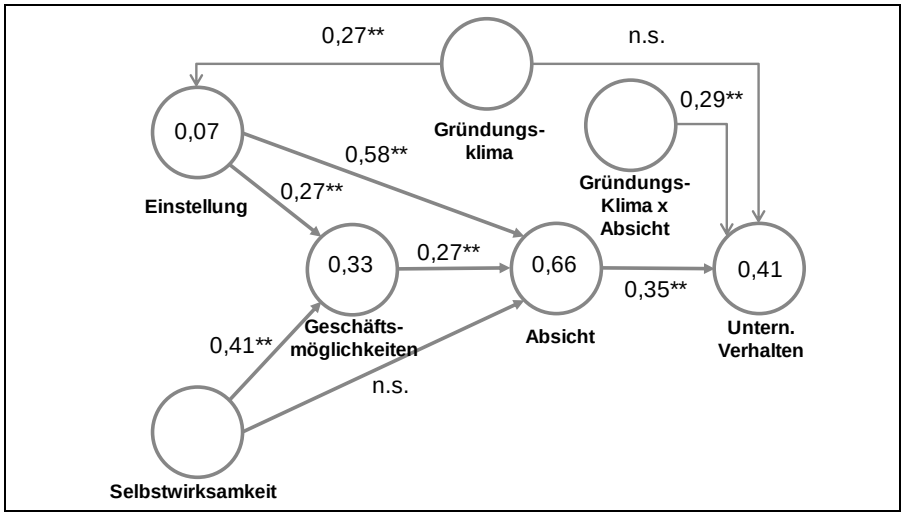
	CR (≥0.7)	***AVE (≥0.5)***	***Fornell/Larcker (DEV > Corr²)[b]***	***R^2 (>0.3)***	***Q^2 (>0)***
Gründungseinstellung	0,97	0,88		0,07	0,06
Selbstwirksamkeit	0,86	0,61	0,61 > 0,23	-	-
Gründungsabsicht	0,97	0,92	0,92 > 0,53	0,66	0,60
Geschäftsmöglichkeiten mit Hochschulhintergrund	0,93	0,81	0,81 > 0,26	0,33	0,26
Unternehmerisches Verhalten	0,86	0,61	0,61 > 0,30	0,41	0,25
Gründungsklima	0,95	0,86	0,86 > 0,07	-	-
Gründungsklima x Gründungsabsicht	0,98	0,85	0,85 > 0,05	-	-

Anmerkung: *CR = Konstruktreliabilität, DEV = durchschnittlich erfasste Varianz, Korr² = höchste quadrierte Korrelation zwischen den Konstrukten, R^2 = Bestimmtheitsmaß, Q^2 = Prognoserelevanz (Stone-Geisser Kriterium)*

3.3 Ergebnisse

Die Analyse des Strukturmodells und der entsprechenden Pfadstärken (vgl. Abb.2) ergibt, dass sich die Identifikation von Geschäftsmöglichkeiten mit Studienhintergrund signifikant auf die Gründungsabsicht auswirkt ($\beta = 0{,}27$; $p < 0{,}01$), welche wiederum das unternehmerische Verhalten beeinflusst ($\beta = 0{,}35$; $p < 0{,}01$). Weiterhin ist erkennbar, dass die Gründungseinstellung sowohl auf die Identifikation von Geschäftsmöglichkeiten ($\beta = 0{,}27$; $p < 0{,}01$) als auch stark auf die Gründungsabsicht wirkt ($\beta = 0{,}58$; $p < 0{,}01$). Kein signifikanter Effekt findet sich bei dem Zusammenhang zwischen Selbstwirksamkeit und Gründungsabsicht. Vielmehr beeinflusst die Selbstwirksamkeit stark die Identifikation von Geschäftsmöglichkeiten ($\beta = 0{,}41$; $p < 0{,}01$).

Abb.2: *Modell des Gründungsprozesses akademischer Ausgründungen*

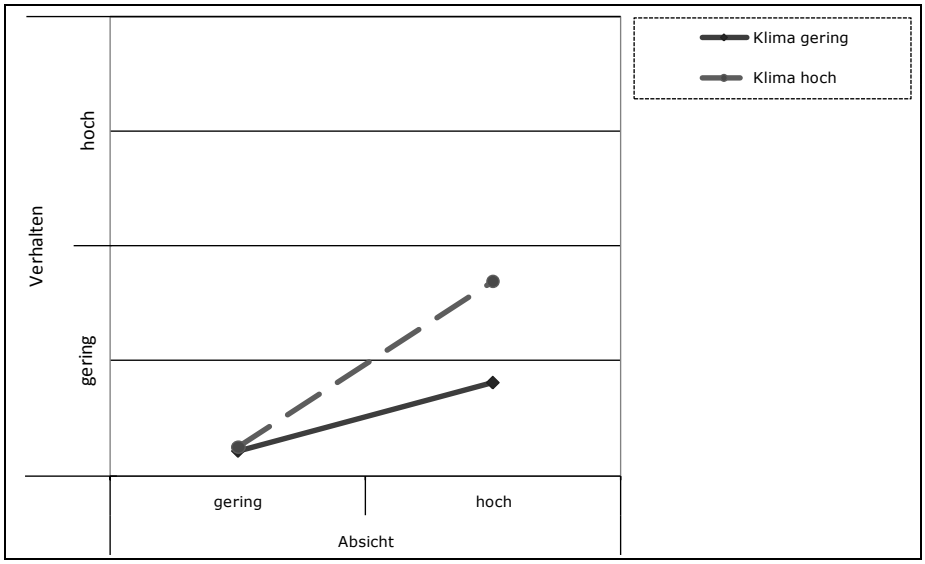


Anmerkung: *** p < 0,01; N = 173*

Ein Mediator-Test nach Baron und Kenny (1986) bestätigt, dass die Identifikation von Geschäftsmöglichkeiten als Mediator zwischen Selbstwirksamkeit und Absicht wirkt. Bezüglich des Gründungsklimas an der Hochschule lässt sich feststellen, dass es einen signifikanten Einfluss auf die Ein-

stellung aufweist ($\beta = 0{,}27$; $p < 0{,}01$). Der Einfluss auf das unternehmerische Verhalten hingegen ist nicht direkt signifikant.

Abb.3: *Interaktionseffekt Gründungsklima x Gründungsabsicht*



Eine weiterführende Moderator-Analyse lässt aber erkennen, dass das Klima den Zusammenhang zwischen Absicht und Verhalten positiv beeinflusst (vgl. Abb.2 und 3). Abbildung 3 zeigt, dass Personen mit hoch ausgeprägter Gründungsabsicht unter dem Einfluss eines positiven Klimas mehr unternehmerisches Verhalten aufweisen, als unter schlechter wahrgenommenen Klimaeinflüssen.

4 Implikationen

Die vorgestellte Untersuchung integriert die Identifikation von Geschäftsmöglichkeiten in den Gründungsprozess. Insbesondere bildet sie dabei Unternehmensgründungen als Teil des Technologietransferprozesses ab, indem die Identifikation von Geschäftsmöglichkeiten mit Hochschulhintergrund aufgenommen wird. Weiterhin berücksichtig das Modell durch Integration des Gründungsklimas als Umfeld-Variable die spezifischen Erfolge der Gründungsförderung an Hochschulen der vergangenen Jahre. Durch die Analyse der empirischen Befunde können bisherige Arbeiten bestätigt werden, die die Gründungsabsicht als bedeutenden Prädiktor von Gründungsverhalten ansehen (Shapero 1982, Ajzen 1991). Gleiches gilt auch für den Einfluss der Gründungseinstellung (Carr, Sequeira 2007; Gird, Bagraim 2008; Liñán, Chen 2009; Liñán 2008) und Selbstwirksamkeit (Cooper, Park 2008; Kolvereid, Isaksen 2006; van Gelderen et al. 2008) auf die Gründungsabsicht. Hinsichtlich des Einflusses der Identifikation hochschulspezifischer Geschäftsideen offenbart die Analyse eine starke Wirkung auf die Verhaltensabsicht. Demnach prägen Personen, die häufig Geschäftsmöglichkeiten erkennen, eher die Absicht aus, ein Unternehmen zu gründen. Zusätzlich geben die Ergebnisse Hinweise, wie diese Fähigkeit verbessert werden kann. So ist es einerseits notwendig, dass angehende Unternehmensgründer überzeugt sind, selbst über gründungsspezifische Fähigkeiten zu verfügen, da sich dies positiv auf die Identifikation von Geschäftsmöglichkeiten mit Hochschulhintergrund auswirkt. Andererseits ist es ebenso in kleinerem Ausmaß möglich, die Fähigkeit der Identifikation von Geschäftsmöglichkeiten

durch die Gründungseinstellung zu stimulieren. Interessant scheint auch die Tatsache, dass kein direkter Zusammenhang zwischen Selbstwirksamkeit und Absicht gefunden werden konnte. Vielmehr wirkt die Identifikation von Geschäftsmöglichkeiten als Mediator in diesem Prozess. Dieses Ergebnis lässt Rückschlüsse auf eine verbesserte Ausbildung angehender Unternehmensgründer zu. So genügt es nicht nur, diese hinsichtlich anstehender unternehmerischer Aufgaben zu trainieren. Vielmehr sollte zusätzlich die Fähigkeit geschult werden, Geschäftsmöglichkeiten zu erkennen und zu entwickeln. An dieser Stelle knüpft sich weiterer Forschungsbedarf an. So stellt sich beispielsweise die Frage, wie dieser Prozess weiter unterstützt und verbessert werden kann.

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Rencontres de St-Gall 2010

Wednesday Morning, Sept. 8, 2010

Topic C

Venture Growth and Transition

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Measuring the Performance of International SMEs – A Scoping Study

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Abstract

Whilst internationalization has long been considered an important aspect of entrepreneurship research, only few studies exist on the potential linkages between internationalization and performance among small and medium sized enterprises (SMEs). The analysis of the research presented in this paper suggests that there are at least two categories of factors that constitute potential performance measures for SMEs seeking to expand beyond national borders: qualitative and quantitative ones. Since qualitative aspects of internationalization performance have thus far been largely neglected in the extant literature, this topic appears promising for further research. Applying a case study approach we assess the performance measures applied by young internationalizing ventures as well as by rapidly internationalizing mature firms. One important lesson of this work is that much more work needs to be done to fully comprehend those factors which might serve as purposeful measures for international performance. At best this paper presents only a glance at a situation that is both highly complex and continuously evolving for SMEs.

Introduction

According to several authors, firms venture abroad in order to improve their performance [e.g. see Beamish et al. (2003), Kim *et al. (1989; 1993)*, Ghoshal (1987), Kogut (1985)]. Being one of the most addressed research problems in the field of international management, approximately a hundred studies have investigated the question of whether and how internationalization affects firm performance (Ruigrok et al., 2007). Yet, these studies have by and large been conducted among large, often publicly listed companies. Whilst internationalization has long been considered an important aspect of entrepreneurship research, few studies exist on the potential linkages between internationalization and performance among small and medium sized enterprises (SMEs). What is more, the question of how to measure the performance of internationalization has largely been neglected in literature thus far. Considering that "[s]maller business are not smaller versions of big business" (Shuman et al., 1986, p.8), and that smaller enterprises deal with a unique set of size-related issues, it must be questioned whether performance measures used by large firms, are also applicable to SMEs.

The purpose of this paper is twofold: First, it attempts to frame the critical issues and questions SMEs face when attempting to measure the success of their geographic expansion. Second, the paper attempts to identify and broadly categorize some of the relevant measures for internationalization success. This paper represents work in progress and a "report from the field" as the topic of performance measurement of the internationalization process is constantly evolving.

Review of the literature

Internationalization

According to Baronchelli and Cassia (Baronchelli & Cassia, 2008), there are two major approaches to the internationalization of the firm: the stage approach (companies start selling products in their home markets followed by looking at new countries) and the born global approach (companies start their international activities from their birth). For the stage approach there are two main models: the Product Life Cycle Theory (Vernon, 1966) and the Uppsala Internationalization Model (Johanson & Vahlne, 1977; Johanson & Vahlne, 1990).

Vernon (1966) considers the internationalization process of the firm to follow the development of the Product Life Cycle: companies usually introduce new products only in their home market and then they eventually go abroad in the product maturity phase.

In the **U-model**, the process of internationalization is described as "a gradual acquisition, integration and use of knowledge about foreign markets and operations and a successively increasing commitment to foreign markets" (Snuif, 2000). More exactly, Johanson and Wiedersheim-Paul(1975) regard internationalization as a slow and incremental process whereby internationalizing firms pass through four distinctive stages, each level reflecting different degrees of involvement in the foreign country: no regular export activities, export via independent representatives, establishment of an overseas sales subsidiary and finally overseas production / manufacturing units. Furthermore, Johanson and Vahlne (1977) developed a model that considers internationalization as causal cycles in which knowledge about foreign markets and market commitment are affected by the firms's current activities and commitment decisions. Moreover, Johanson and Vahlne (2003; 2006) add some other factors to their model: business relationship learning and commitment; commitment and opportunity development. Business relationship learning and commitment enable the companies to enter new markets in which they can develop new relationships which give them a platform for entering other country markets. The commitment and opportunity development is positively related to mutual relationship commitment with firms in the market and to the partner firms' network in the market.

Companies that enter foreign markets typically face a range of costs associated with their international expansion. In a first phase these costs include learning costs in general, but more specifically also costs for adjusting to the foreign environment. This concept which is referred to in the literature as "the liability of foreignness" (Zaheer, 1995) considers that new entrants typically display a lack of familiarity with legal, social, and economic conventions, as well as consumer preferences and cultural features of the targeted foreign markets .

In a second phase, firms that enter foreign markets are typically obliged to adapt their routines and processes to function within these markets. When further entering subsequent markets these companies usually do benefit from the experience they had previously made with market entries (Vermeulen et al., 2001), yet these ventures are nonetheless confronted with the tasks of adapting some of their existing routines and creating some new ones in order to optimally serve this foreign market. Though beneficial to the development of capabilities, these adaptive changes in routines are costly undertakings. Routine generation and adaptation will consume additional resources (Mitchell et al., 1994) that can be significant and long-lasting and in the worst case fatal to the venture (Singh et al., 1986).

In a third phase companies regularly incur yet additional costs associated with their internationalization. These costs stem from an increased organizational and environmental complexity which leads to incremental costs for governance, coordination, and transaction that may outweigh the benefits gained from internationalization (Zaheer et al., 1997). In addition, internationalization increases firms' exposure to financial and political risks resulting from currency fluctuations, governmental directives, and trade regulation (Reeb *et al.*, 1998; Sundaram *et al.*, 1992)

In other words, SMEs that go abroad lack the positional advantages of their mature and well established competitors (Hannan, 1998; Stinchcombe, 1965). Making up for the lack of routines and the positional disadvantages is costly and will add to the mortality hazard of the internationalizer (Mitchell et al., 1994). Hence, the question whether to expand internationally or not is a crucial question that should be pondered well by any SME management. However, instrumental to this decision is an idea of how to actually measure the success of the internationalization efforts. SMEs must be aware of how to appraise their internationalization performance.

Performance

The literature provides a variety of means of **performance measurement** and also many ways of its classification. For example, Madsen (1987) classified the performance in four groups: export profitability, export volume, export growth and other indicators, such as perceived success. On the other hand, Dennis (1990) distinguished qualitative performance (perceived success) from quantitative performance (for example, volume export). Furthermore, the measurement of the dependent variable export performance has evolved significantly over time in two directions: firstly, by using multiple measures instead of single measures, and, secondly, by incorporating subjective measures next to objective ones (Voerman, 2003).

The link between the internationalization and the performance of ventures has sparked widespread research throughout the last thirty years. Researchers have not only provided literature reviews on that topic [e.g. see Annavarjula *et al. (2000)* or Ramaswamy (1992)], but also meta analyses on the internationalization-performance relationship [e.g. Bausch et al. (2007)]. Yet, despite being the subject of extensive discussion in the strategy and international business area over the past three decades, findings on the magnitude and direction of this relationship have been inconsistent and contradictory (Annavarjula *et al.*, 2000; Capar *et al.*, 2003; Contractor *et al.*, 2003).

The link between performance and the degree of internationalization has been examined by various scholars in an attempt to empirically prove the theoretical argument that international expansion represents a precondition for superior financial success. Seeing internationalization only as beneficial to a firm, the first studies conducted in the 1970s and 1980s hypothesized a linear relationship between the degree of internationalization and firm performance [e.g. see Grant (1987)]. Later research conducted during the late 1980s and 1990s suggested an inverted-J curve of the internationalization-performance relationship, hypothesizing that there could be a point in a ventures' foreign expansion process at which international complexity starts to burden managerial and organizational capacity (Daniels et al., 1989; Gomes et al., 1999) . Yet, even this position did not remain unchallenged for long, for other researchers found evidence in support of a U-shaped form of the internationalization-performance linkage (Capar *et al.*, 2003; Ruigrok *et al.*, 2003), whilst yet others determined facts subs-

tantiating an inverted U-shaped form (Geringer et al., 1989; Hitt et al., 1997). In recent years scholars have partially consolidated these apparently contradictory evidence by suggesting that a horizontal-S curve best describes the internationalization performance relationship (Contractor *et al.*, 2003; Lu *et al.*, 2001).

Additionally, Julien and Ramangalahy (2003), using a sample composed of 346 exporting manufacturing SMEs, found that their performance is determined by their access to and management of foreign market information which can be translated into their competitive strategy.

Knight and Cavusgil (2005) suggest that entrepreneurial orientation, technological leadership and the strategies of differentiation and focus are the key drivers for superior international performance in Born Globals.

In order to see the differences between SMEs that export and the ones that develop their activities solely within their domestic markets, St-Pierre (2003), conducted a comparative study which led to several noteworthy findings: the size of the business influences the potential for exporting, the diversity of a firm affects its export destinations, and international SMEs are more profitable and more innovative than their domestic peers. Moreover international SMEs also have a larger network.

On the other hand, Sapienza, Auto, George and Zahra (2006) suggest in a conceptual paper that early internationalization will decrease the likelihood of survival and increase the venture's sales growth. Effects that are influenced by three other factors: organizational age, managerial experience and resource fungibility. Firm age, prior international managerial experience and fungibility of the firm's endowments will decrease the negative effects of internationalization on the probability of firm survival and it will increase the positive effects of internationalization on the probability of firm growth. Furthermore, Fernhaber and McDougall-Covin (2010) verified Sapienza's et al. (2006) propositions through a study made on 176 new high-technology ventures and confirmed the existence of **curvilinear relationships** between survival and internationalization and between sales growth and internationalization. More specifically, survival exhibited an inverted U-shaped relationship with internationalization, while sales growth held a U-shaped relationship with internationalization.

The varying outcomes of those studies may be partly contributed to differing operationalizations of the main variables, internationalization and performance (Sullivan, 1994). Yet, whilst for both factors various measures were used, common patterns emerge. In their analysis of 36 studies, Bausch et al. (2007) list the most frequently used measures. From this analysis it can be concluded that the vast majority of studies operationalized internationalization as "foreign sales to total sales" or derivatives hereof.[1] Performance was mainly measured by using rentability figures such as Return on Assets (ROA), Return on Sales (ROS) or Return on Equity (ROE). Sales growth was used as the next most frequently used figure.

International New Ventures or Born Globals and Reborn Globals

The rather recently discovered phenomenon of Born Globals (Rennie, 1993), International New Ventures (Oviatt & McDougall, 1994) or Global Start-Up, has prompted calls for the revision of received internationalization theories (Oviatt *et al.*, 1997). The term refers to ventures that strive for a rapid international growth from early on in their corporate lives and that pursue a Global strategy from

[1] (such as foreign subsidiary sales to total sales or export sales to total sales)

inception (McDougall *et al.*, 1996; McDougall *et al.*, 1994; Oviatt *et al.*, 1994, 1997). More specifically, and according to Oviatt and McDougall (1994, 46), an international new venture is defined as "a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of output in multiple countries. The distinguishing feature of these start-ups is that their origins are international, as demonstrated by observable and significant commitments of resources in more than one nation". One year later, Oviatt and McDougall (1995), added a list of important characteristics for a successful international new venture: a global vision from inception, managers with previous international experience and strong international business network, pre-emptive technology or exploited marketing, unique intangible asset, a strong link between product or service extensions and their unique asset, and a closely coordinated organization worldwide.

Accordingly, international new ventures or Born Globals regularly display a rapid and dedicated internationalization pattern which is often fuelled by the wish to make use of a 'first mover advantage' and to 'lock-in' new customers (Bell et al., 2001). Furthermore, a strong motivating factor is the urgency to speedily exploit proprietary knowledge as the main source of competitive advantage. This is even more so the case in sectors where rapid technological transformation, coupled with the difficulty of protecting intellectual property, narrow the time frame of commercial opportunity (Bell et al., 2001).

The extant literature provides evidence that firm internationalization may be spurred by particular 'episodes' that can lead to rapid international expansion or de-internationalization (Oesterle, 1997). Particular incidents, such as emerging opportunities in international markets, favorable exchange rates or an unfavorable economic situation in the domestic market, many prompt ventures to rapidly internationalize (Bell et al., 2001). Consequently, firms may go through periods of swift internationalization, followed by periods of consolidation or even retrenchment.

As an extension to the existing Born Global research, Bell et al. (2001) have identified the existence of what they labeled 'Born-again' Global firms. Bell et al. describe these as companies that have been well established in their home markets, with apparently no great motivation to go international, but which suddenly embark on a speedy and bold internationalization journey. Their underlying motivations are essentially the same as those of Born Globals, yet the swift move beyond national borders happens rather late in their corporate life.

Methodology

As mentioned above, this research strives to pinpoint critical issues and questions SMEs face when attempting to measure the success of their internationalization efforts and to identify and broadly label some of the relevant measures for internationalization success. Hence, and being of exploratory nature, this work is built on a qualitative approach.

Case Selection

Participants of our study comprised a sample of 4 companies from a variety of industrial sectors and company sizes. The firms were selected through purposeful sampling (LeCompte *et al.*, 1993; Patton, 1980). This criterion-based selection method allows a structured sample that fits a predefined

profile to be generated (Barringer *et al.*, 1998). Companies included in the sample had to be either Born Globals or ReBorn Globals, private, and to qualify as SMEs.

Moreover, we set great store by selecting firms that represented polar categories in terms of their internationalization behavior (Eisenhardt, 1989). Using "types" (Eisenhardt *et al.*, 2007) rather than adopting replication logic (Yin, 1989) ensured that theoretical classes (Eisenhardt, 1989) were filled. In particular, three firms represented the ideal type of "Born-Global" firms whilst another one represented textbook "reBorn Global" type.[2]

Data Collection and Coding

The data essential for this study was primarily collected from interviews. A first session of Interviews was held in 2006 (April – June) and a second session with the same persons in 2009 (June – September).Where applicable, additional archival sources were consulted. In-depth interviews of a duration of approximately two hours were conducted with a senior manager and a second person involved in strategic decisions from each of the companies following a predesigned outline. Supplemental archival data included information published on the Web, company brochures, documents, and magazine or newspaper reports. Whenever possible the interview data and the data obtained from the archival sources were triangulated, revealing a high level of consistency (Denzin, 1988; Janesick, 1994).

Results

Company A

Internationalization History. Company A is a family-owned business that provides products and services for luminous advertising. Initially focusing on the production of neon tubes, it expanded its scope into planning and implementation of visual communication strategies and developing corporate identity concepts.

The origins of Company A date back to 1977 when the business was still part of the operations of a larger firm and taken over by the current owners. It initiated its first geographic expansion in 1989 when it boldly ventured into the German market by acquiring a German firm of similar type. This rather late move, combined with the significant revenues it generated abroad henceforward, is typical for a Reborn Global.

Germany was chosen for the close geographic proximity to Switzerland, as well as the close cultural fit. Moreover, Company A had already existing client relationships in Germany at that point in time. Over the next 14 years Company A established itself in most parts of Europe, before expanding Globally in 2003. Here, too, the already existing client relationships were a major incentive. Today Company A operates affiliates in six different countries as a holding and supplies the rest of the world from these six countries. The group has a total of 500 employees of which 340 work in Europe, while 160 work in Switzerland; a small number of employees work in China.

[2] Note that this is work in progress; further types will be included in the research sample.

When internationalizing, scale effects played a major role for Company A. Cooperating internationally allowed Company A to not only focus more closely on the client, but also to render their services more efficiently. Learning from other cultures and understanding their way of conducting business provided Company A with the opportunity to expand its know-how and to build up further competencies. Whenever possible, Company A tried to learn from the given situation abroad und tried to use it to its advantage.

Performance Measurement. Company A measures the performance of its internationalization efforts in several ways. Turnover is used as the main financial measure. Furthermore client feedback is gathered in a structured way and the efficiency of operations is regularly tracked by calculating the corresponding actual operations figures and comparing them to anticipated numbers.

Company B

Internationalization History. In 1965 Company B was founded as a family company providing engineering services. Over time it has developed into a company developing and manufacturing highly sophisticated shakers and fermenters for biotech firms.

Due to a less developed home market and a lack of domestic demand, the company was obliged to conduct international business from the beginning and thus qualifies as a Born Global. Today Company B has five affiliates in Western Europe, a shell company in the US as well as diverse partnerships. Other markets are served by exporting to dealers in the specific countries. In total 130 employees work for Company B of which 30 work abroad. Approximately 90% of all clients are domiciled abroad.

The management of Company B considers personal contacts the most important factor for internationalization; almost the entire current contract volume stems from personal ties established throughout the development of the firm. Cold calls, etc., play no role for the current quantities ordered.

Acquiring new competencies and developing new capabilities, such as customer oriented processes is considered to be the largest benefit gained from internationalization. The diversity of client demands in the various countries forces Company B to display a high degree of client centricity. Adjusting the process to optimally serve diverging international client needs is therefore seen as a key capability which provides the firm with the necessary flexibility to strive in different contexts.

Performance Measurement. In the case of company B, the financial figures, such as turnover and profit, etc., are the prime measure for international performance. Second, market share as well as brand awareness are used to determine internationalization success. Despite being very hard to operationalize, know-how gains are also used to evaluate the results of venturing abroad.

Company C

Internationalization History. Company C is a highly specialized venture which develops and produces laser-based cutting systems. The business was founded in 1997 following the discovery of the underlying technology in 1993. The clients of Company C are Globally leading manufacturers in

the areas of semiconductors, photovoltaics, LED-displays, medical appliances, automotives, as well as machinery tools and watch producers.

Facing a rather limited domestic market from the start, Company C has been internationally oriented since its foundation. For this purpose it had initially established a strong distribution and service network in Switzerland, complemented by sales agents and distribution partners abroad. As such, it constitutes a typical Born Global. Yet this setup has changed over time. In order to better accommodate their client needs, Company C applied a stronger regional approach and established affiliates abroad. Today Company C is active in 15-20 international markets with subsidiaries in the US, China, Japan and South Korea. The total workforce comprises 75 employees, of whom 15 work abroad.

Company C cooperates in numerous partnerships and maintains a wide network of suppliers. These alliances foster prototyping, product display, and R&D in general. Nevertheless Company C sets great store by assembling the final product. In this way it can remain highly client-focused and can flexibly fulfill individual client requests whilst keeping at bay other tasks it does not consider its core capability.

Performance Measurement. Company C considers the development of competencies the biggest benefit of its internationalization efforts. It constantly strives to further expand these competencies by engaging the networks mentioned above. According to the management of Company C, a whole range of products emerged explicitly from international cooperation with partners from numerous countries. As a side effect of international expansion, Company C also considers economies of scale as one of the major successes of its internationalization efforts. Another important aspect indicating the success of internationalization is – according to Company C's management – a high degree of client satisfaction. Since Company C is a niche player which serves numerous Global companies, it views its international scope as a condition *sina qua non* for achieving the highest possible degree of client satisfaction. Last but not least, employee satisfaction is an important aspect in Company C's internationalization activities. Despite its rather small size it can offer its employees an international development path which provides a substantial competitive advantage over other SMEs which are not as international.

Company D

Internationalization History. Company D is a wholesale company that supplies compressed hard metal objects, such as cutters, tubes, bent pipes, coolant bores and unnotched specimen which are typically used in the production processes of other industry firms.

The business was founded in 1980 and initiated its first geographic expansion to Germany, the UK and Italy in 1981. This was accomplished using direct exports as well as wholesalers and sales agents. Due to its early moves into the international arena it can be considered a Born Global. Currently Company D is active in seventeen countries through agents. Furthermore it operates subsidiaries in the US, in Germany, France and Spain. Today it employs a staff of 200, of which 160 are located in Switzerland. A further 30 are employed in the US and an additional 10 appointees work in the different European locations.

From early on foreign clients approached Company D asking for their products, spurring the speed of its internationalization. This period of rather uncoordinated international expansion lasted until

1996, at which time a structured approach was applied. The management defined specific targets which countries to approach, the market share it was striving to obtain, and which competitors to concern to potentially engage in alliances. Furthermore, the firm's management specifically targeted countries that were not only highly developed and familiar to the administration, but also whose languages it could speak. The management was convinced that only in such countries could it provide the highest degree of product quality and yield the corresponding revenues.

Performance Measurement. Economies of scale were named as one of the most important benefits derived from internationalization. Catering for a larger market allowed Company D to extend its volume and thus to reap the corresponding benefits from a larger scale of production. Another important success indicator of the internationalization efforts of Company D is risk diversification. Serving a broad range of countries allows Company D to rebalance sales efforts should one or several markets develop adversely. In this way the revenues of Company D are less susceptible to market volatilities.

An additional major gain from internationalization is the development of competencies through close cooperation with foreign clients and suppliers as well as universities abroad.

Apart from these success indicators, Company D considers financial figures an appropriate measure for internationalization success. It therefore tracks financial measures such as revenues, overall and costs, and keeps a close eye on the prices it can demand for its products in the specific markets.

Next to these benefits, Company D appreciates the increased client satisfaction it achieves through being closer to its foreign clients and the improved employee satisfaction it arrives at by offering an international career path and a multicultural work environment.

A summary of the individual case studies is provided in Table 1.

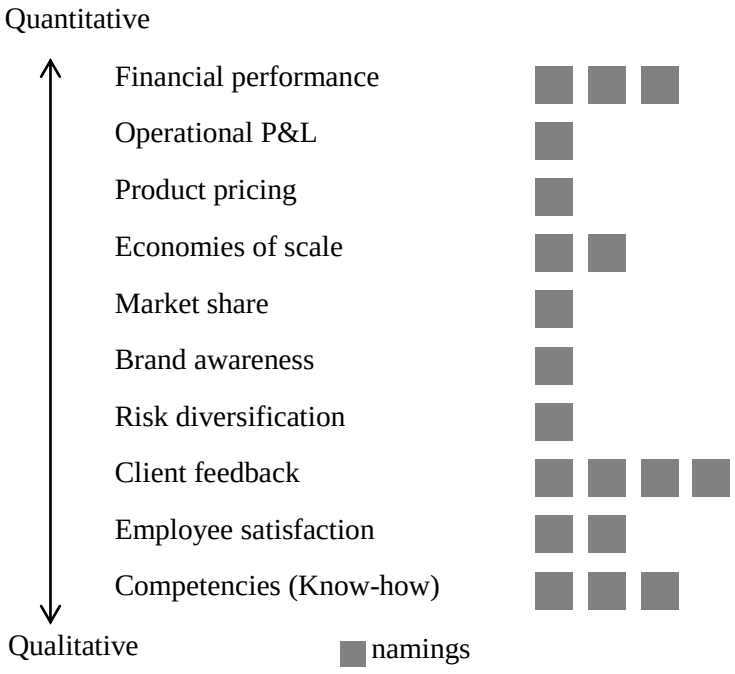
Table 1: Summary of individual case studies

	Company A	**Company B**	**Company C**	**Company D**
Products / service focus	Luminous advertising	Biotec equipment	Laser technology	Hard metal products
Year company founded	1977	1965	1997	1980
Year of first international expansion	1989	1965	1997	1981
Internationalization type	ReBorn Global	Born Global	Born Global	Born Global
Number of employees total	500	130	75	200
– of which in Switzerland	170	100	60	160
– of which abroad	330	30	15	40
Means of performance measurement	Client feedback Financial performance Operational P&L	Financial performance Market share Brand awareness Know-how Client satisfaction	Competencies Economies of Scale Client satisfaction Employee satisfaction	Economies of Scale Risk diversification Competencies Financial performance Product pricing Employee satisfaction Client satisfaction

Results of Analytic Induction

Following the stepwise approach suggested by Cressey (1971) we analyzed the data from the four case studies. The analyses of the cases revealed findings that corroborated and contradicted earlier findings. Indeed, some of the survey companies did measure performance in terms of quantitative financial figures as Bausch et al. (2007) had acknowledged. Yet, additional qualitative figures are just as important to internationalizing SMEs, if not more important. Client satisfaction, for example, was named as a measure for international performance by three of the four survey firms. Similarly, know-how gains or competencies development were stated as important measurements for international performance (see Figure 1). These qualitative factors have not been captured in previous studies on internationalization performance.

Figure 1: International performance factors of SMEs



Conclusions

Swiss SMEs represent the backbone of the Swiss industry. Increasingly they are seeking to expand their business into international markets, which puts additional strain on their comparably limited resources. This paper has identified the existence of alternative, mainly qualitative, measures of internationalization performance. Although the research described is essentially exploratory in nature, there is sufficient evidence from the findings to warrant a much fuller investigation into the measurement internationalization performance of such firms and into the nature of their attempts to assess the effectiveness of their undertakings.

The analysis of the research presented in this paper suggests that there are at least two categories of factors that constitute potential performance measures for SMEs seeking to expand beyond national

borders: qualitative and quantitative ones. Since qualitative aspects of internationalization performance have thus far been largely neglected, this topic appears promising for further research.

Our final conclusion is that much more work needs to be done to fully comprehend those factors which might serve as purposeful measures for international performance. At best this paper presents only a glance at a situation that is both highly complex and continuously evolving for SMEs. For this reason this research intentionally provides a number of view- points from a range of entrepreneurial organizations. These, among many more not touched upon here, contribute to the larger issue of how performance is actually measured by the practitioner entrepreneur in Switzerland today. The potential levers and constraints identified on the basis of the analysis of the research will be used in follow-up work that will focus on further refining performance measure for the internationalization of Swiss SMEs.

Limitations and Research Directions

All studies come with limitations. In our case the use of a purposeful sample certainly limits the study's generalizability. Yet, researchers often use such samples to strengthen the internal validity of a study which potentially requires either a high degree of comparability or diversity among the research subjects [e.g. Barringer *et al.*(1999), Brews *et al.*(1999)]. In this study, the purposeful sampling method provided two important methodological advantages. On the one hand, it allowed for selecting information-rich cases for indepth study and on the other hand, it permitted a minimum of variation to be introduced. Yet, this study will include further companies to further investigate the preliminary findings. A further research direction emerges from a quantitative research perspective. A large sample survey covering a wide range of different industries in various regions of Switzerland would further enhance the generalizability of any findings. Furthermore it could also be of interest to understand whether the performance measurement of internationalizing Swiss firms differs from those of ventures residing in other countries. For this purpose an international comparative study would certainly be highly beneficial.

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Generalising Theories Explaining the Different Modes of SME Development and the Associated Growth Trajectories

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Abstract

Previous research has identified two forms of "abnormal" growth – styled as business dwarfism and gigantism - which can both lead to missed opportunities for owners/entrepreneurs and local economies, and even to business crisis and collapse. It has also shown that stunted and inflated growth phenomena, rather than being characterised by completely different rules and rationales, are closely related and that certain fundamental structures and processes underpin both those forms of abnormal company growth behaviour. This paper reports an examination of a further SME phenomenon – what we have chosen to call "micro-giants". These are companies that would be categorised as relatively small firms but are actually competing successfully in non-niche markets with much larger firms, or even multinational giants. As such, these firms have grown their sales to significant levels by what might be considered a normal growth trajectory.

Three detailed case studies of micro-giant firms are described. Detailed structures inter-relating the firms' strategic assets are examined and found to be similar in many respects to those identified for firms experiencing abnormal growth. It is contended that viewing the management of strategic assets as part of the normal business management process, while reflecting that both normal and abnormal growth behaviours can ensue, is a *physiological* approach. This is distinct from the "where things went wrong" or *pathological* approach of the earlier work. This reinforces the validity of the strategic asset management models as tools for understanding small firm growth dynamics

Keywords: *Small Firm Growth; Dwarfism, Gigantism, Micro-giants; Case Studies; Modelling & Simulation*

Introduction

There are many factors that determine how firms develop over time and what form of growth trajectory they exhibit (including no growth!). Some of these are external and concern market conditions, the competiveness within the sector, general availability of finance, and so on, others are internal and concern the ambitions and aptitude of the owners, access to family resources and other similar factors.

There is really, therefore, no such thing as "normal" development for an SME. That said, the literature contains ample material relating to general theories about small firm growth and a number of growth archetypes have been put forward which usually imply some notion of normal growth, typically with a growth curve following an "S" shaped trajectory. A programme of research based on over fifteen detailed case studies and analysis with quantitative models has been investigating patterns of SME development that does not confirm to the steady growth mode following an S curve, and which may, therefore, be considered as "abnormal". The research so far has adopted what might be considered a pathological approach – considering how various distortions or deformities have lead to deeply disappointing outcomes caused by business dwarfism and gigantism. This paper takes a different view to investigate to what extent the analysis can be extended to other small firm growth patterns by using the model structures and processes established in that previous work. This approach involves the study of an organisation's vital processes and the functioning of different internal structures using both diagrams to reflect possible mechanisms and processes, and system models to examine the relationships between structure and behaviour. This might be considered a generic or physiological approach.

Our previous research identified two forms of abnormal growth – what we have styled as business "dwarfism" and "gigantism". These can both lead to missed opportunities for owners/entrepreneurs and local economies, and even to business crisis and collapse. It has also shown that stunted and inflated growth phenomena, rather than being characterised by completely different rules and rationales, are closely related and that certain fundamental structures and processes underpin both those forms of "abnormal" company growth behaviour. This paper reports an examination of a further SME phenomenon – what we have chosen to call "micro-giants". This is where companies that would themselves be categorised as relatively small firms are actually competing, and competing successfully, in non-niche markets with much larger firms, or even multinational giants. Such firms are likely to have access only to modest, small-firm level strategic assets, and possibly operating in many regards like typical small firms (e.g. through close family-owner processes), and yet they have to maintain new product development processes, distribution networks, global materials sourcing, and so on, that are comparable to their giant competitors.

Three detailed case studies have now been undertaken on small firms which are competing with much larger companies, albeit in geographically delineated sectors of markets. The case study firms are in the book publishing, foodstuff, and domestic cleaner product sectors of the retail consumables market. These companies have grown to quite respectable size, though they have arguably now plateaued as their growth is constrained by the geographical areas in which they operate. They have therefore grown steadily and following an S shape growth trajectory, and their development is likely to be considered "normal". Following the detailed examination of these new cases, the structures capturing the inter-relationships and management of strategic assets, as developed in the earlier cases, were revisited to assess to what extent the structures previously identified apply also to the micro-giant situation. The central issue being investigated is that if the structures and decision processes identified in the earlier studies of "abnormal" growth also form the basis for studying the phenomenon of the micro-giant, then they similarly apply to what is argued is normal growth. This would suggest that abnormal phenomena like dwarfism and gigantism and normal growth types like the micro-giants are driven by common structures, and, as such, any outcome could result in a small firm's development simply depending on the balance of pressures on the growth leverage points and thus on how the interreactions between the strategic assets play out over time.

If the structures can also explain the drivers of growth in micro-giants and potentially lead to simulations of micro-giant behaviour as created in the earlier abnormal growth studies, then the range of small firm growth phenomena that can be characterised and examined with this approach is extended. This would suggest that the characterisation of strategic resource management in terms of dynamic feedback structures as a single core construct that is able to reflect normal and abnormal growth behaviours is pointing towards a common general theory that can explain how quite different modes of SME development can emerge.

Driving Processes Identified in Earlier Abnormal SME Growth Research

Previous work by the authors has used the System Dynamics methodology to support the various key actors in better framing the systems which generate dwarfism and gigantism behaviours (Bianchi & Winch 2006, 2008, Bianchi et al., 2006). System dynamics is used to map system structure to capture and communicate understanding of behaviour driving processes and the quantification of the relationships to produce a set of equations that form the basis for simulating possible system behaviours over time. The underlying principle is that if process structure determines system behaviour, and system behaviour determines company performance, then the key to developing sustainable strategies to maximise performance is understanding the relationship between processes and behaviours and managing the leverage points.

The earlier work on suggested a set of possible business structures based on feedback thinking and structural diagrams reflecting a resource-based view of the firm (see, e.g., Amit & Schoemaker 1993; Dierickx & Cool, 1989; Warren 2002). The earlier studies of both the dwarf and gigantism phenomena have confirmed that the management of strategic assets, and more specifically the maintenance of an appropriate balance between the assets, is the key to sustainable growth. (Strategic assets is a catch-all term and includes a range of assets or resources critical to the success of a firm.) The emerging models all centre on the building up and decline of key core assets:

- financial assets,
- the quality of products or services,
- customer base, and
- production capacity (e.g. human resources, machinery).

Each of the strategic assets can to some extent be controlled in isolation of the others; however, where there is not balanced growth or coherence in the assets, then firms will likely be unable to grow to achieve maximum potential, or might grow in a non-sustainable way. The generic business structure created is as shown in Figure 1.

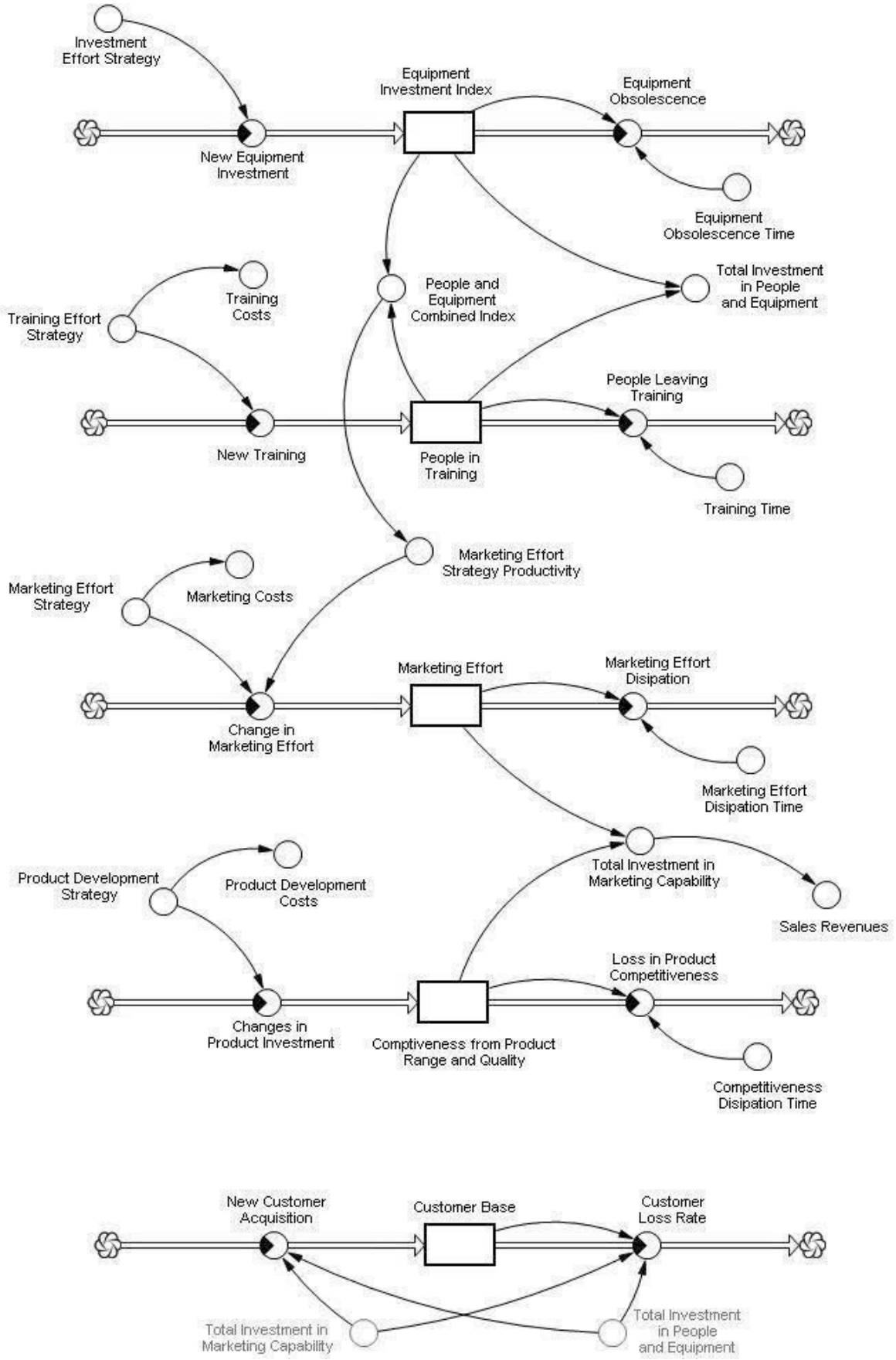


Figure 1: An Integrated Representation of Strategic Asset Management

This stock-flow diagram shows the resource management processes that exist in all companies and controlled to various levels of effectiveness. It has been argued that ineffective control of the balance between the key strategic assets is what has lead to abnormal growth. This interpretation could be viewed as a "pathological viewpoint", taking a definition of pathology that involves (a) The scientific study of the nature of disease and its causes, processes, development, and consequences, (b) the anatomic or functional manifestations of a disease, and (c) a departure or deviation from a normal condition (The American Heritage Dictionary of the English Language, 2000).

Of course, dwarf firms are not firms that fail, but ones which survive and possibly operate reasonably profitably over long periods albeit at a small size and without fulfilling their full potential. That said, the view in the research is that such firms have not grown normally in the sense that they have not gone through the "S"-shaped company lifecycle of start-up, growth, and maturity when they reach natural externally constraining limits to further growth. Similar issues concerning the dynamics surrounding strategic asset management and asset balance also apply in gigantism situations. Such firms have also been considered abnormal in their growth trajectories as over-ambitious growth plans, often prompted by access to growth initiative funding and support, have caused an 'overgrowth and collapse' mode of behaviour whereby the excessive growth has been unsustainable leading to crisis and even demise of the company.

However, it could be that the generic structure identified above can also explain a wider variety of trajectories and be the basis for models that simulate other forms of more normal growth. In this respect the viewpoint is not a pathological one, in the sense that it is focussing on abnormalities or what has gone wrong, but rather is a physiological viewpoint. Using the same authority's definition of physiology (in a biological context): "The scientific study of an organism's vital functions, including growth and development, the absorption and processing of nutrients, the synthesis and distribution of proteins and other organic molecules, and the functioning of different tissues, organs, and other anatomic structures. Physiology studies the normal mechanical, physical, and biochemical processes of animals and plants." (The American Heritage Dictionary of the English Language, 2000).

This paper now examines whether the generic models are applicable to companies that have experienced more normal growth trajectories and can therefore be the basis for a physiological approach to studying SME growth in general.

The Micro-Giants – A Growth Type That is Unusual But Not Abnormal

Small firms that are able to compete head-on with much larger firms in non-niche market places is a relatively rare but not unheard of phenomenon. The literature however typically treats going global and competing against much larger firms as part of the same package. The literature reflects a limited number of semi-detached streams of thinking. The first focuses on how SMEs can leverage their capabilities and compete internationally by joining forces with other firms, either in terms of networking with other SMEs or by partnering with multinationals. For example: Gilmore et al. (2006) evaluated the potential for networking to leverage marketing activity by small firms in the food distribution industry in the UK; Alvarado and Granados (2009) considered specifically how the "multi-enterprise tie" allows smaller firms to have a stronger position when negotiating with large firms in Mexican agro industry SMEs; and Coro and Volpe (2004) observe the particular role of SMEs in "complementing the strategy and technological supply chain" of large multi-national firms.

The importance of SMEs in many economies, and that, consequently, there is a need and even responsibility on government agencies to support SMEs' competitive resource building is a second stream. Lee (2007) commented that many SMEs that are playing leading roles in national industries are now faced with opportunities of increased overseas markets alongside the challenges of decreased domestic markets due to the expansion of free trade agreements. However, it was also remarked that it is not easy for SMEs to compete with multinational companies in this respect, as they have comparative disadvantages in terms of finance, manpower, technology and overseas marketing, and appropriate support from the government and self-rescue efforts of SME themselves are essential requirements.

Relatively few articles focus on the internal management processes of firms that are attempting to compete with much larger firms. Winch and Gill (2003) looked at high technology small firms and discussed how adopting a deep niche strategy – operating in a small, specialized and defendable niche markets – enables them to remain competitive in the face of much larger firms with huge R&D budgets. Other research typically takes a resource-based view and advocates the building of internal resources and capabilities by SMEs to generate sources of competitive advantages (Maranto-Vargas & Gómez-Tagle Rangel 2007). Vagadia (2009) advocated the use of outsourcing by SMEs as a way of boosting their competitive resources (though this is hardly a surprising conclusion as he is the CEO of a specialist outsourcing company. Banks are also urged to develop their internet platforms so that they can then support SMEs with international trade services to help them to become global (Fromatim 2007).

Of particular interest in this paper is a specific category of small firm that we call "micro-giants". The term micro-giant is used here explicitly to signify a slightly different concept from that of the small giant (Burlingham 2005). Small giants are considered as private companies whose owners have not only financial (such as EBITDA) or growth targets, but also a number of non financial goals, such as having great relationships with suppliers, providing good personalized service to customers. Such companies often do not have a professional management and rely fully on their owners' capabilities, intuition, flair for business and personal contacts. Such companies have also intimate relationships with the local community (e.g. city), so that they become a model for the local citizens. Also their internal environment provide an intimate workplace. Most small giants have a local geographic area and consist of individual units, e.g. restaurants, hotels, or handcraft workshops.

The term micro-giant does not just relate to the company per se, but specifically the position of the firm in relation to its main competitor(s), which is or are much larger, often multinational, firm(s) in a non-niche and non-local market. The firm can be viewed as a "giant" since it is successful in spite of the competition of much larger firms, and because of its own much reduced size in comparison to the competitors means it can be also defined as "micro". From Table 1 it is possible to observe that our definition of micro-giant firms has a number of factors in common with the existing definition of small giant, but actually the two concepts are not the same.

	Micro-Giants	*Small-Giants*
Type of company (property)	Private	Private
Company Age	Mature (at least 2nd generation)	Not necessarily old or mature (also 1st generation firms)
Focus of analysis	Comparison firm in relation to competitors (*giant*)	Mainly an internal analysis of the firm to understand its structure and processes and associated effects on performance
Ownership vs. management	They may lack of a managerial structure. Significant weight of the owner in management decisions	Lack of a managerial structure. Significant weight of the owner in management decisions
Market	Non-niche	Niche or Non-Niche
Geographic scope of activities	Non-Local	Local and non-local

Table 1: A comparison between micro-giants and *small giants*.

A non-evolutionary approach characterizes our view to the micro-giants phenomenon. According to the evolutionary model (Greiner, 1997), growth is seen as a necessary step in order to allow a firm to survive over time. However, empirical evidence shows examples of SMEs competing against much larger (often multinational) firms, whose owner-entrepreneurs have decided not to pursue their own firm's growth.

There are examples of micro-giants which are successful in their non-niche markets and their own competition against much larger firms. This is a relatively rare situation but one that is a "normal" pattern. Such a "normal" pattern mirrors a parallel normal pattern of behaviour relating to a typical firm that grows from an initial small size to a medium, to move towards a large size, maybe eventually to become a multinational firm.

From the following Figure 2 it is possible to note how both giants and micro-giants have a similar profile of growth. In fact, such growth can be depicted through an s-shaped curve. However, while a giant firm has dimensional growth targets and aims to increase its size over time, a micro-giant has more qualitative goals. The difference between the two is captured in the figure by the "gap in size".

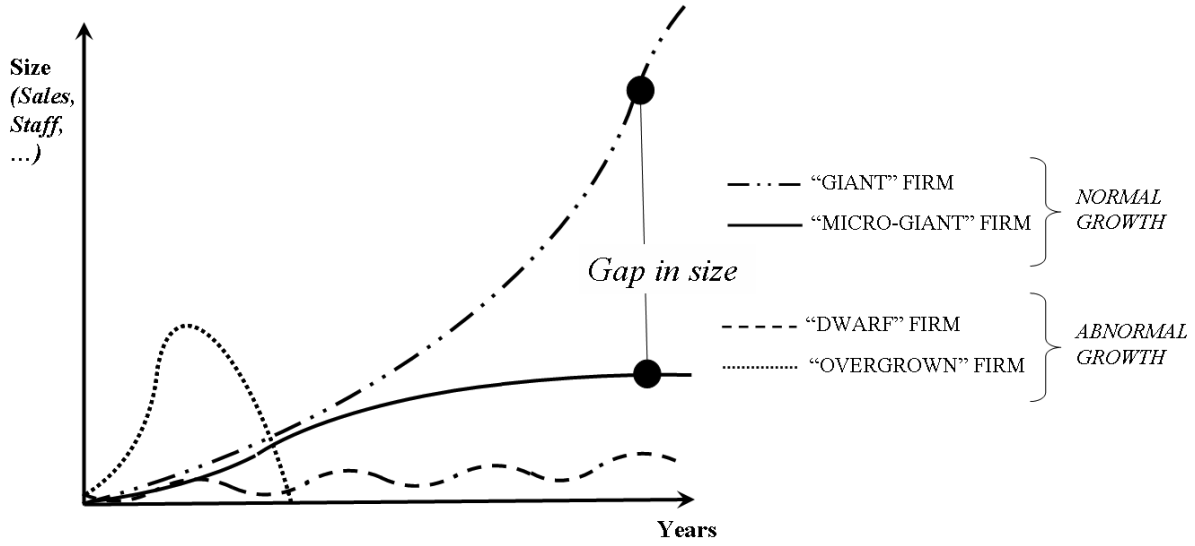


Figure 2: Trajectories defining Normal and Abnormal Growth

Three Case Studies of Micro-Giant Firms Growth Development

Three specific companies have been investigated through in-depth case study analysis. All three compete at the national level or supra-nationally, exclusively or largely in Italy, in non-niche markets, and all have to compete against much larger firms that are positioned internationally in the business sectors. In each case, detailed maps of their strategic resources and the inter-relationships between have then been developed using the generic structure in Figure 1 as a template.

Sellerio Case

Sellerio is a publishing house sited in Palermo (Sicily, Italy). It was founded in 1963 by the Sellerio family, which envisaged business opportunities in the then cultural context. In particular, well known Sicilian writers as Leonardo Sciascia and Antonino Buttitta supported the spirit of such enterprise. Initially, Sellerio decided to position itself in a 'peripheral' market niche since the core topic of its editions was represented by light and elegant publications, disengaged and far from the heated political debate of those years. In fact, at that time, Sellerio's volumes were all characterized by graphical elegance and contained engravings and pictures provided by important illustrators. The main authors edited by Sellerio came from the Sicilian literature tradition and other European quality niches. All Sellerio's collections consist of light stories, novels, essays and detective stories.

The small size of the publisher – in terms of geographical market boundaries - was maintained until the end of the 1970s when the book 'L'Affaire Moro' by Leonardo Sciascia enjoyed great, but unexpected, success among Italian readers that Sellerio was launched toward a national market positioning. As a consequence, in the world of publishing Sellerio began to represent a small and peripheral entity which, by focusing on its writers' skills and on the related quality of its book production, was successful in the market and, even, began to be able to compete with larger-sized companies. Such success was also sustained by maintaining publication style with original and distinguishing graphics: 'pocket' books with elegant design in terms of colours and covers. This format has always identified Sellerio's books in libraries and book shops and, therefore, has strongly contributed to the continued improve-

ment of the image of the publisher in the national eye. Further, the adoption of this design-lead format has allowed Sellerio to sell its books at lower prices compared to its competitors which instead have maintained a 'classic' book format (hard covers, larger pages size, etc.). And, of course, lower prices correspond to higher selling volumes. During the 1980s, other writers have enriched Sellerio's collections but, particularly, Gesualdo Bufalino who in 1981 – with the book 'Diceria dell'untore' – won the 'Campiello' prize and, in doing so, consecrated Sellerio at a national level.

In the following years, the publisher has continued to compete successfully in the market by acquiring copyrights of important writers but still conserving its familiar approach to management and its small size. Particularly, Andrea Camilleri represents one of the most relevant and world internationally known writers that Sellerio publishes. Nowadays, the Sellerio business model is unchanged and the company still succeeds in defending its market share from 'giant' competitors.

A 'Micro-giant' in the Book Market

The above introduction highlights how Sellerio evolved since its foundation and particularly, how it emerged that the publishing house has all the features for it to be considered a 'micro-giant', as defined in this work. In fact, the direct managerial responsibility of the owner-family, the small number of employees, the peripheral position of the firm, define a small-sized enterprise. On the other hand, successful results in terms of sales performance –attested by its long presence in the market – support Sellerio to compete on a day-to-day basis with 'giant' enterprises. Specifically, the main competitors are: Mondadori, Feltrinelli, Rizzoli and Gems Group.

Strategic assets

The main strategic assets that represent the foundation for the long survival of Sellerio in the book market are:

- *Successful writers' copyrights*: the importance of intellectual capital for the success of enterprises has been remarked by several authors. In this respect, Sellerio has demonstrated a strong inclination to discover and explore the hidden potential of unknown young writers that, due to the nurturing of their skills, have been pushed by the publisher toward success and popularity. Finally, successful writers allow publishers to increase their reputation among distribution channels which will then provide increased shelf-space to such profitable products, contributing further to improving the firm's positioning in the market.
- *Edition quality and graphics*: quality of the product and graphics are considered significant drivers to clearly identify collections and books (Barnard, 2005). In fact, this factor and a high firm's reputation represent distinguishing features that encourage customer s to purchase a publisher's books just by looking at the covers, even when potential customers do not know the authors or topics.
- *Sales promotion*: more than a strategic asset, sales promotion is a marketing tool to strongly encourage the demand of a given product (Stanton, 1981). In this case, Sellerio has always had the ability to produce its books at low costs (pocket, soft-cover format, etc.) and this has led the publisher to frequently compete by lowering books prices and promoting discount campaigns, and this has therefore represented a significant driver for its success in a market where also price is a crucial success factor.

Dynamic Explanation of the Sellerio Competitive System

The System Dynamics approach now allows us to investigate the reasons behind the success of a 'micro-giant' such as Sellerio. This will be possible by linking strategic assets and relevant variables of the competing system in cause-and-effect relations.

The model structure – introduced in Figure 3 – shows five feedback loops: three reinforcing loops whose dominance may produce an exponential behaviour of key-drivers, and two balancing loops which tend to counteract such effects. In particular, Financial Resources play a significant role: they positively influence the amount of Investments in Intellectual Capital and Editing Quality which directly feeds back into both the acquisition of Successful Writers Copyrights and the Quality of Editions and Graphics. The first affects the books' sales display or Exposition in Book Shops due to the changing demand of those goods;, the latter impacts on the Customer Satisfaction in the same direction which, together with the exposition space dedicated to Sellerio's books, eventually changes the firm's Customer Base (R1, R3). As mentioned previously, the company will seek to acquire publishing contracts with successful writers, which can be achieved in two ways: (1) by purchasing copyrights of already well known writers (attraction), and, (2) by discovering young unknown writers and, then, purchasing their copyrights (selection).

Financial Resources also represent the main driver that allows Sellerio to plan Sales Promotions by introducing them in its annual budget. Of course, discounts and promotional activities positively influence the demand of Sellerio's books – measured by the entity of its Customer Base – which, therefore, feeds back again into Financial Resources (R2).

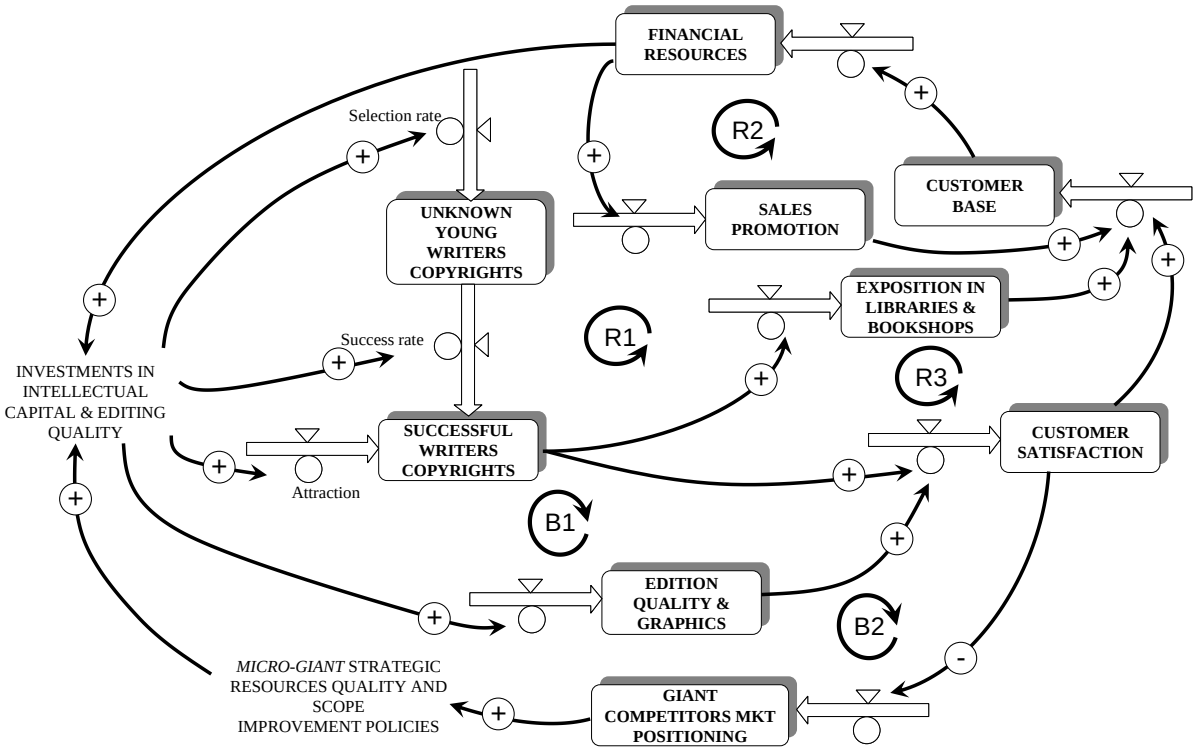


Figure 3: The basic competitive feed-back model of Sellerio

On the other hand, balancing feedback loops determine the connection between Sellerio and its competitors. Sellerio's Customer Satisfaction affects the Positioning of its 'Giant' Competitors in the

market, but in an opposite direction compared to the customer base. In other words, the positioning of competitors is weakened whenever the customer satisfaction of Sellerio increases, and conversely is strengthened whenever it decreases. Logically, the positioning of competitors, *ceteris paribus*, causes changes in Micro-Giant Strategic Resources Quality and Scope Policies, which in turn directly affect Investments in Intellectual Capital and Editing Quality.

As above seen, such investments feed back into both the acquisition of writers' copyrights (B1) and the quality of editions and graphics (B2), which again influence the customer satisfaction of the publisher.

Zappalà Case

Zappalà is a family-owned company that was established in the year 1973 to produce typical Sicilian cheese, such as mozzarella, ricotta and other kinds of cottage cheese.

The first laboratory – that still represents the firm's headquarters – was built in Zafferana Etnea, a small village situated at the slopes of the Mount Etna in Sicily. Since the beginning, production quality, product genuineness, customer service and advanced logistics technology have been the main drivers for the firm's development.

During the 1980s, the company accelerated its growth by building new plants and increasing the whole production capacity. This encouraged the firm to reinforce strongly its commercial presence in both the Sicilian and Calabrian markets, becoming one of the major cheese providers of the main supermarket chains operating in these regions (e.g. Auchan, Carrefour, Conad, Coop, Sma, Despar, Pam, etc). By the end of the 1990s, supported by the increasing financial performance, the aspiration to enlarge its product portfolio had led the company to produce and market milk, frozen food and preserves as well as the cheeses.

The extraordinary growth of the firm has been testified by the increasing acquisition of market share both in regional and national contests. This has required Zappalà to compete directly with a multinational firm Galbani (Lactalis Group), which is still the market leader. Galbani is a much larger firm than Zappalà: the ratio between the two firms – in terms of only milk production volumes – is 15 to 20. Today Zappalà, whose equity owning family has reached its second generation, owns three production plants (Zafferana, Caltanissetta, Butera) and a refrigerated warehouse (Cernobbio, in north Italy, near Como); there are approximately 250 employees and the company is undertaking a globalization process by exporting goods outside of the Italian market (Japan).

A 'Micro-Giant' in the Food Market

Though the above figures could be related to a medium-sized – rather than a small company – according to the *qualitative* perspective suggested by the Bolton Report (Bolton, 1971), Zappalà also displays all those features of a 'small' company, which (again according to the Bolton Report): 1) hold a modest market share; 2) are personally managed by owner-entrepreneur(s); and, 3) are independent from other companies or holdings. In particularly, the founder of Zappalà and his family have always had the direct responsibility of managing both internal and external activities. The entrepreneur's personal contacts, experience and charisma have being playing a crucial role in the company growth processes since its start-up. However, today the lack of a professional management is becoming a lim-

iting factor, because of the increasing volume and scope of activities. Therefore, today the firm may be regarded as in a transition phase. Until now, the owner-entrepreneur has tended to be reluctant to delegate managerial tasks and to adopt control systems and recruit executive staff more suited to the new requirements of the firm, and decision-making processes are essentially led by the personal intuition of the owner-entrepreneur (Bianchi, 2002).

On the other hand, due to the development of its strategic assets, Zappalà has consolidated its position in the food market and is thus today competing with multinational enterprises. This is despite its restricted size and related problems, e.g.: limited access to financial and other strategic resources, modest opportunities to gain economies of scale, and reduced bargaining power compared with suppliers. Last, but not least, some diseconomies in the company profile can be related to its geographical positioning, due to the higher distribution costs (in comparison with many other 'giant' competitors), associated with the lack of logistical infrastructures in Sicily.

Strategic Assets

The basic strategic assets (Bianchi et al., 2004) that Zappalà has developed over time represent the key drivers that drove the company to the success in the food market, at least until 2006. They are:

- *regional attributes of products*: Sicilian food traditions are appreciated all over the world due to their positive effects on health ('Mediterranean diet'); all kinds of cheese reflect traditions and tastiness of the Sicilian food;
- *quality of products and production processes*: high quality standards are guaranteed by selecting high quality and authentic raw materials and strictly controlled processes. Zappalà has also reached and maintains several certifications for food quality (ISO14000, ISO22000, BRC - Global Standard Food, Ecocert Italia, IFS – International Food Standard).
- *customer proximity*: in order to beat larger competitors in the delivery time to many villages in the Sicilian and Calabrian markets, the firm has used refrigerated trucks (which were labelled in the company jargon as 'travelling warehouses')to distribute its products to local supermarkets and small shops with the intent to persuade perspective clients to purchase their product, by competing on price and product quality. Such a system has involved a rapid growth of customers confidence and satisfaction and, consequently, of sales turnover. Due to the increased size of the company, such service has been outsourced since 2008.

Besides these primary strategic assets, *collateral* strategic assets have been developed and supported through the gradual consolidation of *basic* assets over time. Among these, the most relevant is the reputation of the firm. Such an asset has been built by taking care of customer satisfaction, by brand management, and also through intensive advertising. In particularly, advertising campaigns have been characterized by novelty and originality which have successfully contributed to increasing Zappalà's brand standing.

Dynamic Explanation of the Zappalà Competitive System

In order to understand the reason why Zappalà competes successfully in the food market, we again look to linking its strategic assets in cause-and-effect relations to consider dynamic behaviours. The

emerging model – introduced in Figure 4 - shows four feedback loops (two reinforcing and two balancing) which outline critical dynamics of the Zappalà competitive system.
Both reinforcing loops (R1, R2) emphasize those feedbacks which essentially regard the strategic framework of the firm. Specifically, they show how Financial Resources support investments in Advertisement, which in turn sustain Brand Positioning and, eventually, the Company Reputation; this again feeds back into Financial Resources (R1). On the other hand, Product Quality directly influences Customer Satisfaction, i.e., the main driver to maintain and enlarge the Customer Base. The Customer Base in turn generates sales revenues and, consequently, ensure once again Financial Resources to the firm.

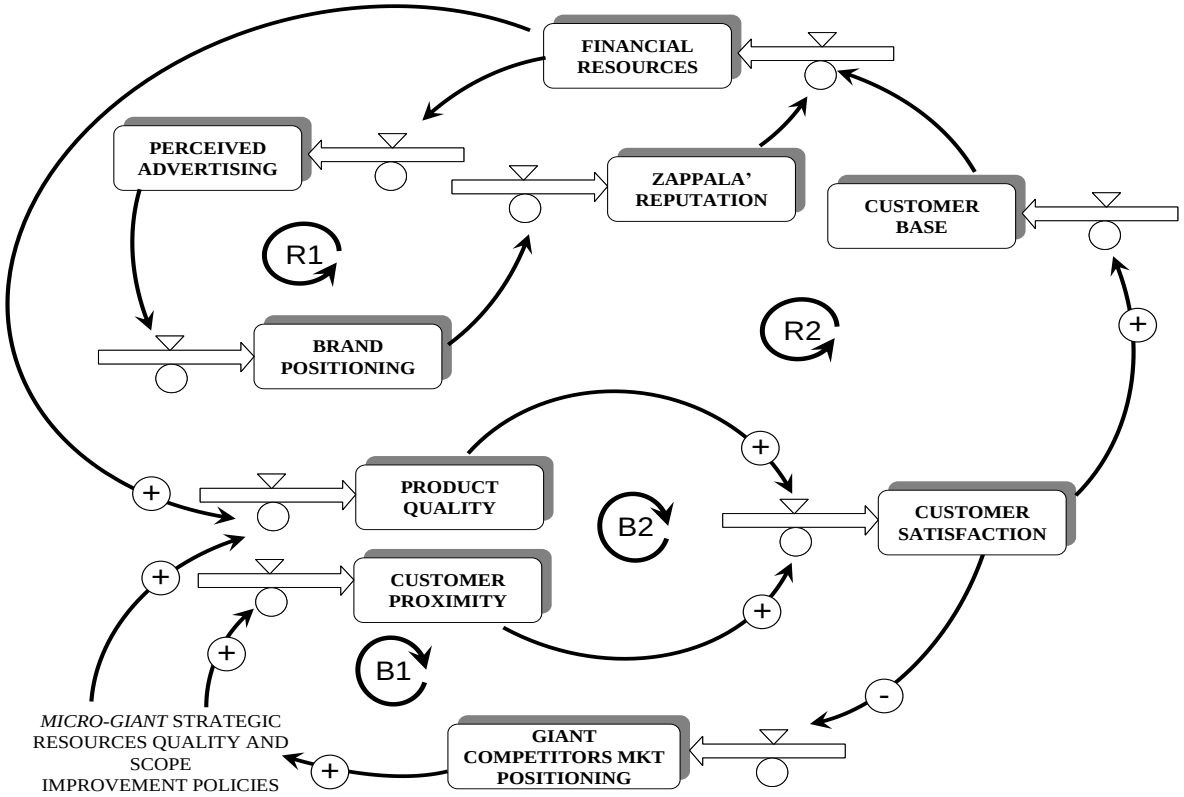


Figure 4: The basic competitive feedback model of Zappalà

Further, balancing loops (B1, B2) restrain the exponential behaviour originating from the above reinforcing loops and, in doing so, take into account market interactions between Zappalà and its competitors. In this case, the satisfaction of Zappalà customers affects in an opposite way the of its 'Giant' Competitors' Mkt Positioning which induces owner-entrepreneurs to focus strategies to improve such significant strategic assets as Customer Proximity (B1) and Product Quality (B2), which definitely support the firm Customer Satisfaction.

Recent Evolutions

As previously discussed, Zappalà is now facing a transition phase. After more than twenty years of growth, the company has gradually reached a significant level in terms of size, number of employees and sales. However, this has not changed the way the firm is managed, both in terms of Board and of strategic conduct. Recently, this has been causing rigidities in adapting to market changes and other contingent needs linked to the firm's growth. Further, the operative/organizational setting of Zappalà

has basically remained similiar to its original formulation, that is, without significant innovative changes and adaptations to market evolution.

In 2008, in order to successfully face such difficulties, the Zappalà family decided to reorganize and rationalize its business activities by adopting strategies more respondent to the new features of the market. In particularly, such processes are being assisted and supported by CAPE Sicilia S.p.A. – a company that operates in private equity business – which has created a strategic alliance with Zappalà, and this has allowed the access of CAPE to decision making processes. In this regard, the Zappalà Board has modified its composition by introducing new members - selected by CAPE on the basis of their experience on food market – and a team of external consultants charged with designing new competitive strategies.

Their objective is to re-orientate the firm toward sustainable levels of profits and to retain competitiveness versus its competitors. To do so, management aims to:

- re-focus the firm onto its 'core business' (mozzarella and cheese production);
- provide more support to the most profitable sales' channels (Sicilian market);
- rationalize promotion and discount policies;
- re-organize internal processes and functions to increase efficiency;
- activate 'cost saving' procedures by emhancing the control system of the firm.

Kemeco Case

Kemeco is a chemical industry located in Palermo (Sicily, Italy). It was established during 1970s by the founder, Pietro Murania, who is still the CEO of the firm. The company name comes from the combination between two words – 'chemistry' and 'ecology' – so to underline its business philosophy oriented to develop and sell products by combining scientific laboratory research and environmental care.

Since its foundation, the core business of Kemeco has been represented by the development and the production of detersives and detergents for domestic cleaning. The industrial plant consists of two groups of laboratories and technical offices which stands on a two hectares area in the peripheral zone of the city. On the other hand, product distribution is carried out in both Northern and Southern Italy through two warehouses, located near Brescia (Lombardy) and Palermo. Kemeco employs about 70 workers and in recent years has reached a sales volume of approximately Euro 20 millions. The firm's customers are the multinational supermarket chains (e.g. Auchan, Carrefour, Conad, Coop, Crai, Sma, Sigma, Despar, Pam, Standa, Esselunga, GS, etc.) as well as small retailers.

The first products launched in the market were represented by toilet detersives (Rio Azzurro label) and scented detergent ammonia (Rio Casa Mia label); despite of a hard competition within the cleaning products sector, in a short length of time such products involved a rapid growth of Kemeco in terms of both sales and market share. On this concern, the successful market penetration of the company has been always supported by original and memorable advertising campaigns which have allowed Kemeco to clearly distinguish its products among a glut of goods on the market and to rapidly gain new market shares in the national context. Furthermore, the focus on production quality and environmental care – also testified by ISO 14001 certification – have characterized the whole company growth experience.

The entrepreneurial spirit and commitment of the founder is a critical driver for the competitive success and has led the firm to diversify the product portfolio by investing continuously in Research & Development (R&D), innovation, new technologies and production capacity. As a result, supported by increasing brand loyalty and customer satisfaction, Kemeco has developed new products so to cover every household cleanliness needs; in addition to toilet and floor detersives, the development of dishes and laundry cleaning products has reinforced the competitive advantage of the firm. Nowadays, as a well-established competitive strategy, Kemeco tries to understand in advance consumers' needs and, consequently, to respond timely to market opportunities by developing and launching innovative products. As described in the next section, such approach has led the firm to successfully deal on the market among Giant competitors.

A 'Micro-Giant' in the Household Cleanliness Products Market

As discussed above, Kemeco is characterized by a small size in terms of staff employed and plant size. The company is also located in a peripheral position of Europe, characterized by logistic criticalities, and is managed as a small family-owned enterprise. Nevertheless, due to a successful managerial approach, its extraordinary growth has led the company to compete in a worldwide arena, which includes both national and multinational enterprises characterized by a huge size and advantages in terms of economies of scale, access to markets and strategic alliances with suppliers and credit institutions. In particularly, Kemeco's main competitors are: Colgate-Palmolive (Ajax label), Unilever (Cif, Svelto, Lysoform, Coccolino), Procter & Gamble (Dash, Ace, Ariel, Swiffer, Viakal, Mastro Lindo) and Henkel (Dixan, Bref, Vernel, Nelsen)[1]. In the light of the above considerations, Kemeco is doubtlessly identifiable as a Micro-Giant firm.

Strategic assets

The most significant strategic assets which determine the success of Kemeco in the household cleanliness market are:

- *Corporate image:* since the launch of its first product in the market, Kemeco has been focused on marketing investments and in improving its communication strategies, in order to empower its product labels and increase brand loyalty among customers. Concerning this, a large use of advertising campaigns – both on TV channels and journals – has been carried out and has made the firm brands well-known in the market. Kemeco commercial advertisement is characterized by creativity, originality and mass media impact. Together with products quality acknowledgement, such advertising 'bombardment' has strongly increased the corporate image of Kemeco which still represents a critical strategic resource for the competitive success of the firm.
- *Founder's entrepreneurial capability:* the establishment and success (or failure) of each enterprise – especially those which are family-owned – strictly depend on the founder's skill to discover market niches where to introduce products. The founder's key-role is specifically emphasized in the start-up phase of the firm, as well as in the first years of entrepreneurial growth. In the Kemeco case, after more than twenty years since its establishment, such role is still crucial

[1] Sales volume of Kemeco's competitors (2009): Colgate-Palmolive 15,327 Ml/$; Unilever 39,823 Ml/€; Procter & Gamble 79,029 Ml/$; Henkel 13,573 Ml/€.

in both the internal organization of productive processes and the external relationships with market actors (suppliers, customers, credit institutions, Public Administrations, and other stakeholders).

- *Innovation and know how:* besides marketing activities, Kemeco allocates a substantial part of its strategic investments in R&D and innovation, in order to continuously renew its production. Therefore, the firm has developed a consistent know how in experimenting and producing chemicals and ecological detergents. This has contributed in providing high quality standards to Kemeco products. Its laboratories today represent an essential strategic asset to face the market competition.
- *Product portfolio diversification:* related to innovation and know how development, product diversification has characterized the successful survival of Kemeco during its life. In fact, by launching different lines of cleaning products (toilet, floor, laundry, and dishes) and a multiplicity of versions for each array, Kemeco has covered the whole hemisphere of household cleanliness needs, and, in doing so, has also met satisfaction and loyalty of customers.
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Dynamic Explanation of the Kemeco Competitive System

The emerging model – displayed in Figure 5 – makes explicit those cause-and-effect relationships which dynamically determine the growth shape of Kemeco as a Micro-Giant firm.

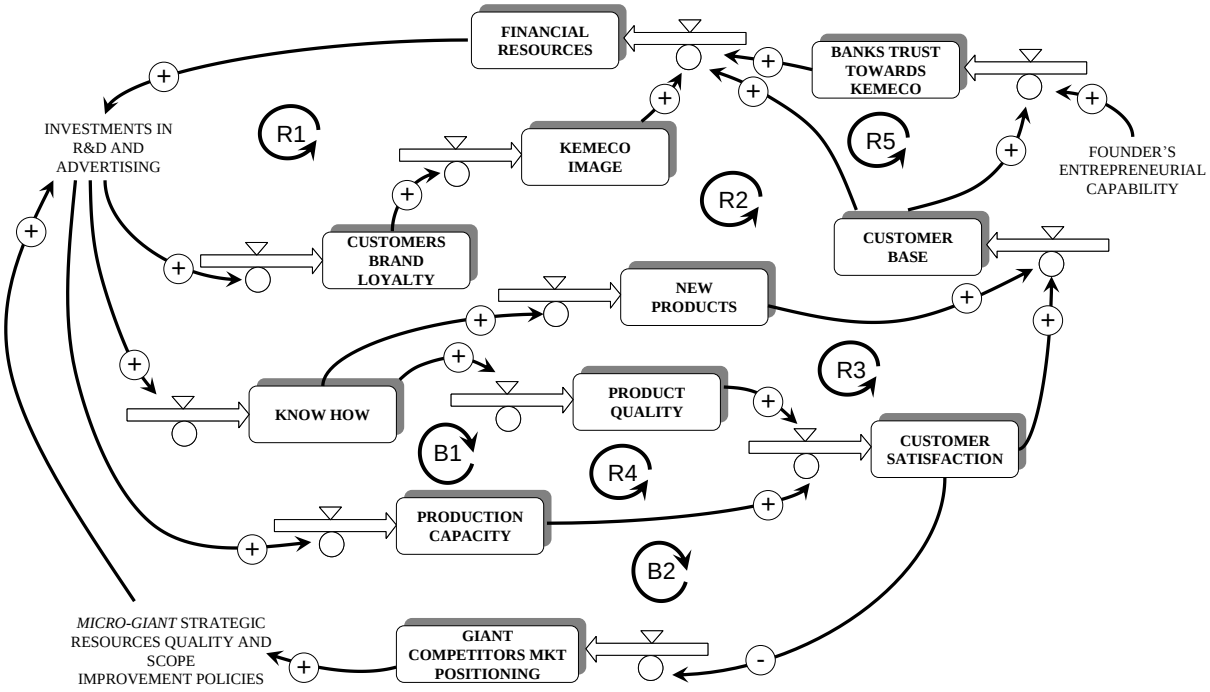


Figure 5: The basic competitive feedback model of Kemeco

Specifically, it consists of five reinforcing and two balancing loops. Financial Resources feed all reinforcing loops. They allow Kemeco to invest in R&D and Advertising, which - on the one hand - determine an increase of Customers Brand Loyalty and, consequently, the strengthening of the firm Image. This impacts again on Financial Resources (R1). Financial Resources also affects Know-How: an increase in Know How raises Product Quality and New Product versions or lines. The former raises

Customer Satisfaction (R3), while the latter enlarges the firm Customer Base. Logically, an increase in the Customer Base *ceteris paribus* enlarges Financial Resources (R2).

In addition, an increase in both the Customer Base and Founder's Entrepreneurial Capabilities determine an increase of credit institutions Trust towards the firm, that is, banks will be favourably disposed to sustain Kemeco investments by lending money (R5). Likewise, Investments in R&D are also responsible for increasing the firm's Production Capacity which, consequently, stimulates its Customer Satisfaction, as it is possible to see in loop R4.

On the other hand, balancing loops (B1, B2) display how Kemeco interacts with its competitors in the market. In fact, Investments in R&D and Advertising determine an increase in both Know-How (B1) and Production Capacity (B2) which feed Kemeco Customer Satisfaction. Since a negative relation between Kemeco Customer Satisfaction and the Positioning of its Giant Competitors in the market exists, an increase of the former generates a reduction of Competitors Market Shares and *vice versa*. This also implies changes in Micro-Giant Strategic Resources Quality and Scope Policies, which positively affect firm's Investments in R&D and Advertising.

Critical Drivers in Micro-Giant Growth and Competitiveness

The prevailing explanation model for a "giant" firm can be related to the dominance of a reinforcing (i.e. growth oriented) loop that is – in the long run – subject to a balancing (i.e. stability oriented) loop [see Figure. 6].

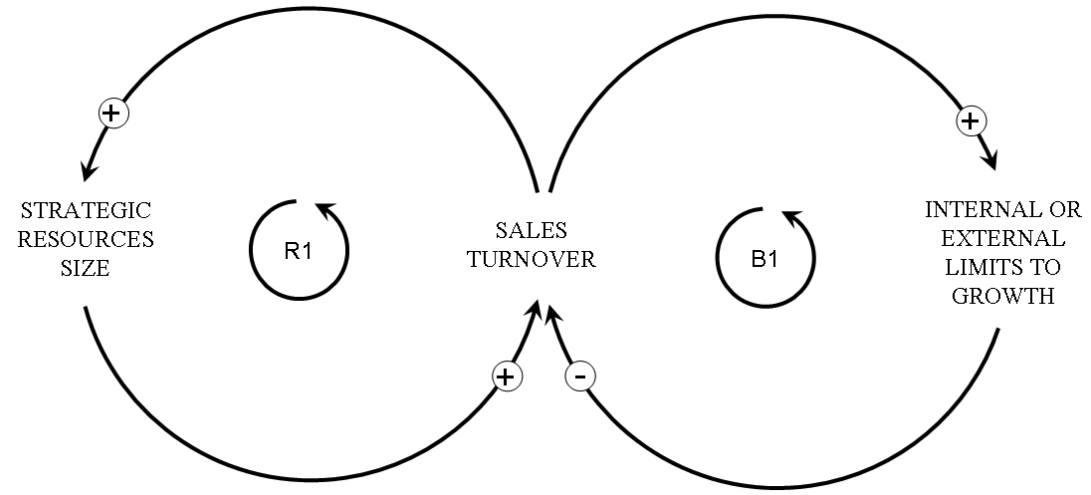


Figure 6: Dimensional Growth in a *Giant* firm (associated with Cash Flows Reinvestment to build Strategic Resources) and related limits.

The structures above as applying to normal large firm growth can be paralleled for micro-giant firms as in Figures 7-a and 7-b.

If we consider the phenomenon on a dimensional viewpoint only, the prevailing explanation model for a micro-giant relates to the dominance of balancing loop. This is because the strategy of a micro-giant firm is to pursue a stable volume of activities and sales turnover (see fig. 7-a). In these terms, a micro-giant could be modelled through similar generic structures to a dwarf business. The difference between the two is that, while the logic of ruling balancing loops is dominant for all strategic resources

in a dwarf business, for a micro-giant the balancing loop is around the desired level of sales turnover or other dimensional size.

The loop B1 in this structure depicts the adjusting processes which characterise dimensional growth in a micro-giant firm: the company increases its investments in strategic assets only if it detects a discrepancy between a desired and actual sales turnover (or other relevant dimensional factor). The perception of such discrepancy generates an adjustment and (maybe after a delay) an increase in the mix of strategic assets (in terms of size, i.e. the quantity or volume, such as for instance, hiring more staff or increasing production capacity). This generates a higher sales turnover, and reduces the perceived gap. This is a typical goal adjustment behaviour.

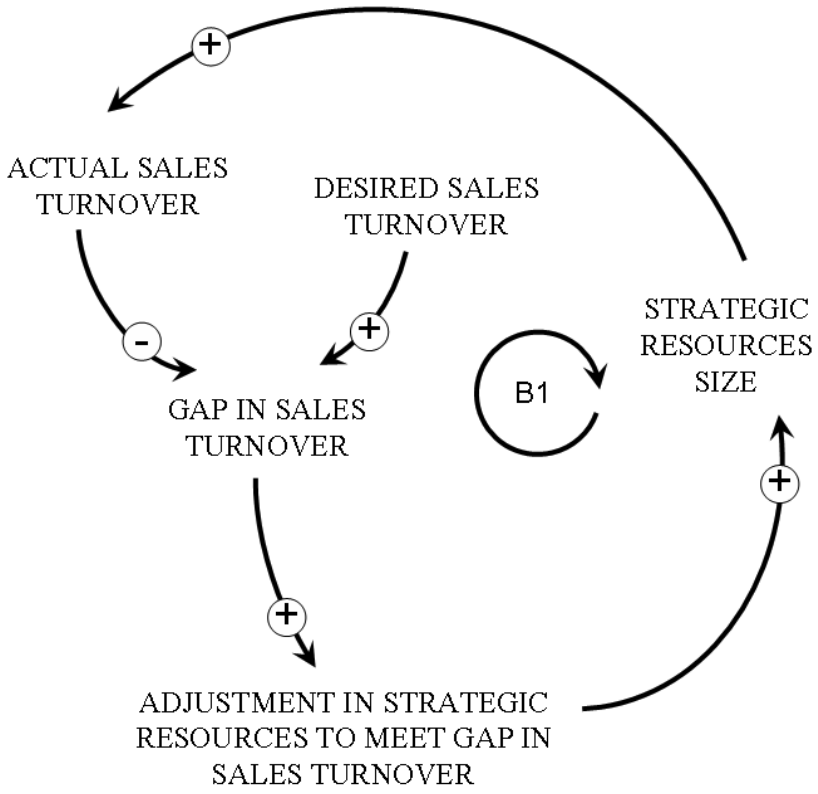


Figure 7 - a: Main loop associated with dimensional growth factors in *micro-giant* firms.

On the other hand, a hidden reinforcing loop may explain the success of the same hypothetical micro-giant firm in its market. Such a reinforcing loop (R1) is fuelled by the learning process (generated both inside the firm and by the interaction of the firm with its stakeholders, and other actors in the competitive system) from the constant pursuit of an improvement of strategic assets quality and scope. Quality is here meant as an opposite concept to the previously mentioned concept of "size". In this case, the main concern is about increasing the level of knowledge (rather than merely staff) or the symmetry between strategic assets and a group of customers' expectations in a wider market where a giant operates, or even keeping high the strategic assets consistency, etc. Though such a reinforcing loop in qualitative growth does not determine a quantitative growth, it is a primary factor explaining a sustainable growth for a micro-giant.

In Figure 7- b the balancing loop B2 shows how a higher product/service quality perceived by customers, a better brand positioning and improved micro-giant firm image reduces the giant competitors' relative competitive advantage.

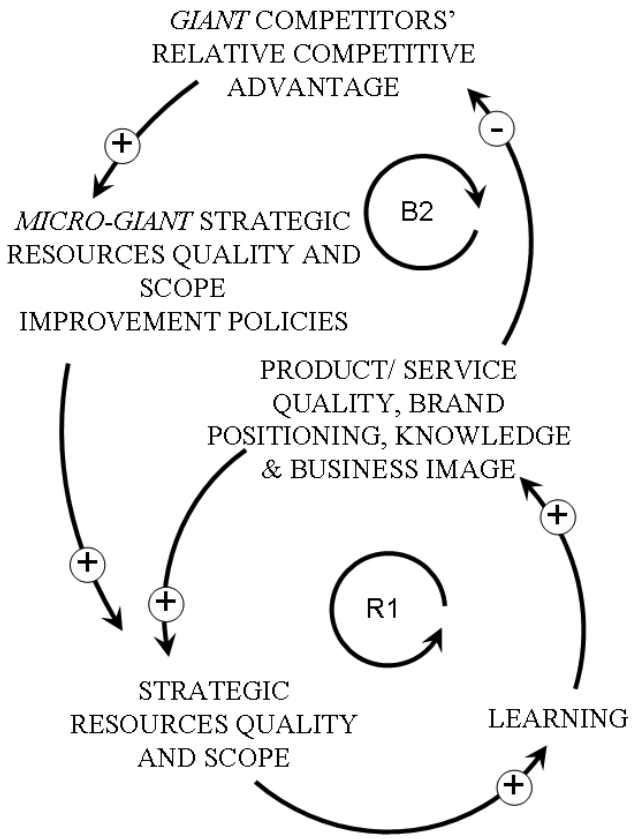


Figure 7 - b: Main loops associated with qualitative growth factors in *micro-giant* firms.

Like dwarf firms, the basis for micro-giants strategic development is the search for stability in their size and on a proper management of a balanced and consistent set of strategic resources. The main difference between micro-giant and dwarf businesses is linked to the constant search for qualitative growth, fuelled by learning processes that characterise the former kind of business. Such a difference allows micro giants to excel in their own markets and directly compete with much larger firms. Table 2 provides a synthesis of the above thoughts.

	NORMAL GROWTH		ABNORMAL GROWTH	
	GIANT FIRMS	MICRO-GIANT FIRMS	DWARF FIRMS	OVERGROWN FIRMS
REINFORCING LOOPS	Quantitative & Qualitative growth	Qualitative growth	N.A	Quantitative growth
BALANCING LOOPS	N.A	Search for size stability	Search for size stability	N.A

Table 2: Dominance of Feedback loops characterising business 'states' in normal and 'abnormal' growth.

Commonalities in Abnormal and Normal Growth Modes

The three cases are all typical examples of stable growth, compatible with financial sustainability principles. As a general issue too, for a micro-giant firm to be successful, entrepreneurs must be aware of the internal sustainability of growth. Possible limits to growth could be related to finance, such as in the Zappalà case. In other cases internal limits to growth are related to the entrepreneur's time or to lack of qualified managers. Ignoring such potential limits to growth may create crisis, even for a successful micro-giant firm. This condition is very close to that of overgrown firms and similar to that of those dwarf companies that have been called *bonsai* and *rickety* (Bianchi et al, 2004). Both kinds of dwarf firms are characterised by an entrepreneur's inclination to change the status quo, i.e. to pursue dimensional growth. They differ since while bonsai firms have a balanced set of strategic assets, rickety firms have an unbalanced and weak strategic assets profile.

Like both the *bonsai* and particularly the *rickety* types of dwarf firm, micro-giants can fall into a crisis if the entrepreneur seeks too fast a growth rate. In a sense, it is possible to assert that when a micro-giant firm undertakes a too fast and intensive rate of growth, in respect to its set of available strategic assets, its profile becomes similar to that of overgrown firms, characterising the gigantism phenomenon. This is similar to what happens to dwarf businesses growing too fast: the cause of their crisis is the same: lack of a balanced level of strategic assets to sustain growth. This concept is shown in Figure 8: on the left hand side we have a physiological state (normal and abnormal growth, for micro-giants and dwarf businesses, respectively) where a study of business processes in stable operation is appropriate; on the right hand side we have a pathological state (abnormal growth associated to gigantism) where things have gone wrong and crisis has emerged.

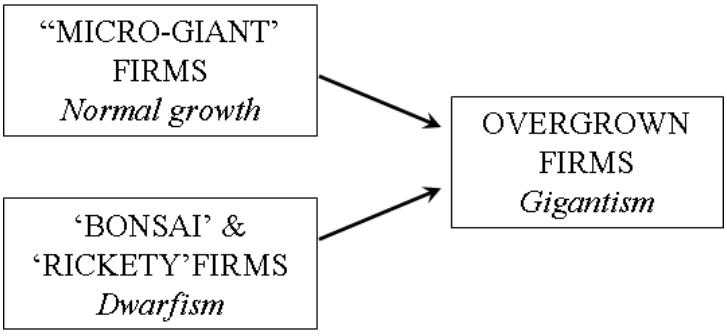


Figure 8: Crisis patterns related to *micro-giant* and *bonsai & rickety* firms

The evidence here suggests that the majority of the structures and decision processes used in the earlier studies of abnormal growth also offers a basis for the study of what we have named the micro-giants phenomenon. In this way, patterns leading to both success and crisis are originated by similar structures to those described concerning abnormal growth (Table 3).

SUCCESS	CRISIS
Balanced mix of strategic resources	Unbalanced mix of strategic resources
Balanced dimensional growth rate leading to a success supported by a sufficient and balanced endowment of available strategic assets	Too fast dimensional growth rate determining crisis due to a weak and unbalanced endowment of available strategic assets
Growth sustained by most levering on intangible resources	Growth sustained by most levering on tangible resources and financials

Table 3: Factors explaining success and crisis emerging from a *micro-giant* firm profile

It has already been demonstrated that maintaining balance between critical strategic assets is the key to understanding what the authors had dubbed "abnormal growth". The generic strategic asset structures developed to reflect the abnormal growth behaviours of dwarf and gigantism small firms have proved not only to be close parallels to the situation of the micro-giants reviewed in the cases, but also a template for capturing the strategic assets structures of small firms that have experienced what might be considered as normal growth trajectories. Further, it is easy to visualise the interrelationships by using simple elaborations of the generic stock-flow diagram models developed previously. It is contended here that by viewing the management of strategic assets as part of the normal business management process, while reflecting that both normal and abnormal growth behaviours can ensue, is a *physiological* approach. This is distinct from the "where things went wrong" or *pathological* approach of the earlier work. This reinforces the validity of the strategic asset management models as tools for understanding small firm growth dynamics, and extends the range of growth situations for which framing and understanding the structures of strategic asset systems offers owner/entrepreneurs and other stakeholders important support in aiming for growth-oriented strategic futures. Because the need to sub-categorise certain types of growth as "abnormal" is removed also emphasises that there will always be a thin line between successful and sustainable growth and constrained or abnormal growth. While, of course, the achievement of optimal growth is always subject to the particular aspirations of the firm's owner-managers, the critical tipping point between a firm achieving normal growth and suffering an abnormal growth trajectory is basically a function of how well the firm can balance its strategic assets.

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Entrepreneurship and Socio-Economic Development in Cross-Countries Analysis

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Abstract

The paper stresses the importance of the nature of entrepreneurial activity ('productive', 'unproductive', 'destructive') to explore real dependence between entrepreneurship and economic development. For this reason, however, the economic development should be viewed in terms other than GDP. The entrepreneurial activity in different countries according to the APS dataset of the Global Entrepreneurship Monitor (GEM) for 2006-2008, on one side, and on the UNDP human development index (HDI), on the other are used to show the significance of entrepreneurial activity for economic development. The HDI modified to measure human capital at different stages of becoming entrepreneurial (HDIE) is introduced as a composite indicator with three components measuring: well-being, skills and social motivation of entrepreneurs. HDIE is revealed to be appropriate for international comparison of human capital development in a bilateral and multilateral context, and among the countries. The possibility to calculate the strength of relationship between the HDIE, as the independent variable, and various dependent variables being micro-level indicators of the political, economic, demographic, social, cultural, health and physical environment is argued.

1. Introduction

Since Schumpeter, there is a consensus about mainstream Economists that entrepreneurship is 'responsible' for economic and social growth. As regards the measurement of the latter, for a good portion of the 20th century there was an implicit assumption that economic growth results in growing Gross Domestic Products (GDP). However, under transition to post-modern, or 'affluent' society, it becomes clear that real economic and social progress should be measured in other indicators than GDP data. The variables could express, among others, a sustainable livelihood, the ability to live a long and healthy life and to have access to decent education. An economy that tries to remain competitive amidst globalization must draw on everyone's talents. So, the GDP's relevance is now under debate as an indicator of entrepreneurship 'benefits' for advanced societies.

We assume that the GDP is less appropriate for cross-countries analysis of entrepreneurship development because it implies (1) a measurement of different types of societies using the same criteria, (2) relevance of the factor which may result from different roots.

To avoid this, for instance the GEM seeks to compare / differentiate countries with different GDP levels and its impact on early entrepreneurship dynamic while dividing all participating countries in three groups with different types of socioeconomic development:

Factor-Driven Economies - Angola, Bolivia, Bosnia and Herzegovina*, Colombia*, Ecuador*, Egypt, India, Iran*

Efficiency-Driven Economies - Argentina, Brazil, Chile, Croatia**, Dominican Republic, Hungary**, Jamaica, Latvia, Macedonia, Mexico, Peru, Romania, Russia, Serbia, South Africa, Turkey, Uruguay

Innovation-Driven economies - Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Japan, Republic of Korea, Netherlands, Norway, Slovenia, Spain, United Kingdom, United States

* Transition country: from factor-driven to efficiency-driven

** Transition country: from efficiency-driven to innovation-driven (Bosma, N., e.a., 2008).

This classification follows to the 2008 Global Competitiveness Report[1] and is relevant to differentiate countries in relation to the type of current economic development. However, even this clustering can hardly be sufficient to differentiate countries: there are some examples where the distances in GDP per capita between societies belonging to the same group are bigger than between countries belonging to a different group. Moreover, countries with comparable GDP per capita seem to belong to different kinds of socioeconomic development.

It looks like GDP is a good indicator to compare the economic well-being of countries with more or less equal socioeconomic models of development. But it seems to be less adequate to measure the economic state of very different types of societies.

That is why problems occur if we try to reveal the correlation between entrepreneurship and economic development arguing in GDP. For instance, Russia which belongs to the group of efficiency driven economies shows in 2006-2009 quite similar rates of adults engaged into entrepreneurial activity like for instance Belgium, France or Germany. And vice versa: countries, belonging to innovation-driven economies, may have different levels of entrepreneurial activity of population.

Taking into consideration a totally different structure of driving forces of economic development, the role of entrepreneurship in the latter may become irrelevant, for instance, in societies with a dominant role of rent from natural resources. Moreover, the amount of GDP per capita in these countries may hardly imply a comparable level of entrepreneurship development like in innovation – i.e., human factor - driven economies.

We should refer to William Baumol's distinction between productive, unproductive and even destructive entrepreneurship. His basic hypothesis was that, while the total supply of entrepreneurs varies among societies, the productive contribution of the society's entrepreneurial activities varies much more because of their allocation between productive activities, such as innovation, and largely unproductive activities, such as rent seeking or organized crime. This allocation is heavily influenced by the relative payoffs society offers to such activities (GEM calls it entrepreneurial framework conditions). This implies according to Baumol that policy may influence the allocation of entrepreneurship more effectively than it can influence its supply. His evidence from ancient Rome, early China, and the Middle Ages and Renaissance in Europe testify the hypotheses. It seems, however, that modern world could easily deliver even more drastically examples of unproductive entrepreneurship – i.e. "rent-seeking, often via activities such as litigation and takeovers, and tax evasion and avoidance effort" (Baumol, W., 915).

[1] http://www.weforum.org/documents/gcr0809/index.html

It may occur when the civil society is weak, and especially under such circumstances when any society possesses important natural resources and plays an important role on international natural resource markets. A relatively high level of GDP may have in such societies much less effect on entrepreneurship development than one might assume taking 'perfect' market economies with comparable level of GDP per capita, and/or may become favorable for mainly 'unproductive' entrepreneurship – with small portion of added and high portion of redistributed value.

Moreover, such a framework conditions may have stronger or weaker or no significant impact on the entrepreneurship development at any level of GDP per capita. So, economies with significant share of natural resources in domestic product but small amount of population may function under a paternalist welfare state policy at a very high level of GDP per capita and very weak incentives to become entrepreneurial. Otherwise, countries with high export quote of natural resources but big population may have autocratic political regimes excluding big groups of population from rent benefiting; enabling bureaucrats to become ruling group it leads to growing administrative barriers preventing bottom-up entrepreneurship development. In any case, the level of GDP is irrelevant to understand the level of entrepreneurial activity. And vice versa: entrepreneurial activity in such societies is rather a marginal issue, with small or absent impact on the GDP formation. Also the main reasons to start-up well known in established market economies – like self-efficacy, need for achievement etc. - may have less relevance to understand the motivation of people trying to establish a new venture in such societies.

Meanwhile, the human development approach in explaining entrepreneurship focus not on the income but on people themselves as actors of both entrepreneurship *and* economic development. Low level of human capital development is, on the one hand, a resulting indicator of quality of human life and wellbeing of society, on the other hand, it is a predictor of entrepreneurial activity – in the sense that a certain level of it is crucial to be creative, to explore opportunity for a new venture and to obtain necessary skills to be successful.

The importance of analyzing entrepreneurship in such a context has recently been emphasized in the entrepreneurship literature (Davidsson, P.). A lot of studies examine the effects of the entrepreneurs' achievements, freedoms, capabilities, education, family structure, occupational background, career history, innovativeness, motivation and so on (Boswell, J.; Bates, T., 1985, 1990; Preisendörfer, P., and T. Voss; Cooper, A.C., et al.; Dahl, M., and T. Reichstein). But all the indicators vary very much between individuals, and between countries as a whole.

In the presented paper we will try, first, to draw up a system of variables measuring human development of entrepreneurship, second, to show various dimensions of human capital correlation with entrepreneurial activity, and finally to construct a human capital based complex indicator of the entrepreneurial potential development of a society.

As this aggregate indicator is chiefly based on statistical principles related to the United Nations Development Program (UNDP) Human Development Index (HDI) methodology (see Halis Akder A., Jahan S., Report of the World Commission…), we have named it Human Development Index in Entrepreneurship (HDIE). In this paper the UNDP HDI Methodology is modified to take account of specific entrepreneurial potential features to apply the HDIE for cross-national comparison of human capital development. The HDIE may be used to calculate the strength of relationship between the HDIE, as the independent variable, and various dependent variables - micro-level indicators of political, economic, demographic, social, cultural, health and physical environment.

2. A System of Indicators Measuring Human Capital Development in Entrepreneurship

Human development in entrepreneurship is about the realization of human potential. It is about what people can do and become - their capabilities - and about the freedom they have in their lives.

An adequate measurement of human capital development in entrepreneurship is possible on the basis of an aggregate composite statistic (named HDIE), including three most important dimensions of progress: (1) sustainable 'wellbeing' of entrepreneurs, (2) good 'health' and long life of enterprises, (3) sufficient education and skills of entrepreneurs.

2.1. Sustainable entrepreneurship

The UNDP has created and developed some composite human development indices apart from the HDI to assess measurable dimensions of human development. Many national human development report teams have not only adapted the indices, but have also come up with innovative methodologies and indicators to measure local human development inequities (Blewitt, J.; Pearce, D., Barbier, E., and A. Markandya; Ratner, B.D.). Complementing composite indicators with other forms of statistical analysis helps to strengthen the research methodology in different spheres of economic analysis. There is the Sustainable Society Index (SSI) among the most important of them. We have used its main definitions to determine a sustainable entrepreneurship.

According to a widely accepted definition, "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Report of the World Commission…). Applying this notion to entrepreneurship, a sustainable entrepreneurship should:

- function under good governance in a entrepreneurially friendly environment;
- meet the needs of the present entrepreneurs;
- do not compromise the ability of future progress in business development,
- develop the venture in a competitive, but fair way.

A sustainability of entrepreneurship, thus, can be measured with a system of quantitative indicators including a percentage of established entrepreneurs among adult population (taking into consideration especially the gender structure), a well proportion of opportunity-based vs. necessity-based entrepreneurs among nascent entrepreneurs, a relatively high percentage of non-entrepreneurial adults tolerant to entrepreneurs, a certain level of optimism about perspectives of doing/starting a business development (comparing with a number of individuals who are prevented from start-up by the fear of failure) and a reasonable share of individuals expecting to start a new venture in the future among adult population.

2.2. Good health and long life of enterprises

The UNDP HDI Methodology considers an ability to live a long and healthy life as one of three basic aspects of human development. This dimension of its progress is measured by life expectancy at birth.

The entrepreneurs' expectations of survival chances can, indeed, be separately calculated for businesses of different stages of their life-cycles.

Using the GEM data, one can introduce an indicator of *early entrepreneurship turnover*, or *entrepreneurship expansion coefficient*, consisting of the proportion of nascent entrepreneurs to entrepreneurs exited or discontinued their businesses in the same period (last year), so this indicator shows how much is indeed an expansion of entrepreneurial potential.

Summing up, an ability to live a long and healthy life for new enterprises can be measured with a system of quantitative indicators including a percentage of positive expectations of early-stage entrepreneurs for any jobs now or in future, a share of high job expectation of businesses, and an entrepreneurship expansion coefficient.

2.3. The access to knowledge and schooling

The state of progress of human capital should be measured with adults' ability to access to decent schooling, knowledge and innovations. This aspect of human development is explored by an aggregate indicator of the adult literacy rate and the combined primary, secondary, and tertiary gross enrolment ratio in the UNDP HDI methodology.

The share of the adult population with the highest level of skills and capacities to start business is considered as a component which an education index have been based on to reveal differences in skills and knowledge among the countries.

Furthermore, the access to decent schooling and knowledge, training in starting a business create a basis for technological innovations and also for new products and services production. Taking both these into account, there remain good reasons to be concerned not only with secondary or post-secondary degrees, but also with calculation of the new products and latest technologies or procedures diffusion.

Hence, the educational component of the HDI can be measured as a share of high educated adults among population, able to start and manage business and to recognize latest technologies and new products (or services) importance.

2.4. HDIE – aggregate indicator for human capital of entrepreneurship

Calculation of the human development index for entrepreneurship (HDIE) is based on the United Nations Development Program (UNDP) human development index (HDI) methodology introduced by the first Human Development Reports (HDR) (Anand, S., and A. K. Sen, 1994a; Anand, S., and A. K. Sen, 1994b).

The HDI sets a minimum and a maximum for each dimension, called goalposts, and then shows where each country stands in relation to these goalposts, expressed as a value between 0 and 1.

We consider the HDIE as an additional adjustment to reflect entrepreneurial activity, so it should utilize the methods of weighting and normalization as the original HDI, making use of maximum and minimum values to create an index for the added components. At the same time HDIE involves expanding the breadth of existing component indices as it is tailored so that additional components (identified above) are included in the calculation.

It is easy to use the HDIE to monitor across-countries and inter-temporal changes of human capital in entrepreneurship in the short-term because the most of including components (except some secondary and post-secondary degrees rate) change rapidly reflecting macroeconomic oscillations. Thus, the

usefulness and versatility of the HDIE as an analytical tool for entrepreneurial potential quality at the national and sub-national levels is enhanced because we have chosen its components that reflect the peculiarities of entrepreneurship and are sensitive to their development levels, rather than rigidly using by national statistics a number of SMEs or a number of self-employers.

The HDIE has been formulated in terms of a country's deprivation or shortfall in each of separate dimensions identified above. The shortfall perspective has some merit in drawing attention to the distance a country still has to travel in order to achieve what is regarded as a desirable target or goal. Thus, at the first stage we have defined Iij as the deprivation indicator for country j with respect to variable Xi:

$$I_{ij} = \frac{\max\limits_{k}\{X_{ik}\} - X_{ij}}{\max\limits_{k}\{X_{ik}\} - \min\limits_{k}\{X_{ik}\}}$$

So, each deprivation indicator for country j named Iij (where i=1, …, k) lies between 0 and 1. An average deprivation index Ij for country j across the variables was defined as a simple (non-weighted) average of the Iij:

$$I_j = \frac{1}{m}\sum_{i=1}^{m} I_{ij}$$

The shortfall in the HDIE for country j was defined to be just this average deprivation. Thus, if Hj is HDIE for country j, we have, by definition:
Ij = 1-Hj or Hj=1- Ij.

For some purposes of interpretation it is preferable to express Hj in terms of the attainments rather than shortfall of country j. This formulation certainly seems more natural if one wishes to assess changes in HDIE over time. The attainments perspective is more relevant in assessing how well entrepreneurs are doing, whereas the shortfall perspective is more relevant in looking at the difficulty of the task still remaining. Which perspective we adopt, depends on the nature of the exercise. Let us express Hj directly in terms of the attainment levels Xij:

$$HDIE_j = 1 - \frac{1}{m}\sum_{i=1}^{m} I_{ij} \quad = \frac{1}{m}\sum_{i=1}^{m}(1 - I_{ij}) \quad = \frac{1}{m}\sum_{i=1}^{m}\left[1 - \frac{\max\limits_{k}\{X_{ik}\} - X_{ik}}{\max\limits_{k}\{X_{ik}\} - \min\limits_{k}\{X_{ik}\}}\right]$$

=

$$= \frac{1}{m}\sum_{i=1}^{m}\frac{X_{ij} - \min\limits_{k}\{X_{ik}\}}{\max\limits_{k}\{X_{ik}\} - \min\limits_{k}\{X_{ik}\}} \quad = \frac{1}{m}\sum_{i=1}^{m} H_{ij}$$

Where:

$$H_{ij} = \frac{X_{ij} - \min\limits_{k}\{X_{ik}\}}{\max\limits_{k}\{X_{ik}\} - \min\limits_{k}\{X_{ik}\}}$$

is the i-th variable's contribution to the HDIE for country j.

This normalization of each component Hij of the aggregate index Hj can not misrepresent the evaluations. For example, an improvement in the lowest-achieving country in the sample would not decrease the HDIE for country j, because the HDIE was constructed expressly as measure of relative performance across countries at a point in time. No special significance is attached to the absolute value of the index, the entire analysis being conducted in terms of the ranking of human capital in entrepreneurship of different countries relative to one another. Thus, although a higher value of mink{Xik} or maxk{Xik} would indeed decrease for Hij for country j, it would do so for all other countries l too, and in proportion to the gap (Hij-Hil) between countries j and l. This has the effect of leaving the relative ranking of countries unchanged.

As defined, the Hj for country j is invariant to positive affine transformations of the underlying variables Xi, (i=1, …, k). Thus, if one were to substitute for each i=1,…, k, Zi=aiXi+bi where ai>0, the absolute value of each Hij, and therefore also of Hj, would remain the same. In particular, if one changed the units of measurement of Xi by either scale changes (ai>0) or level changes (bi=0), the indices Hij and Hj would have the same numerical values as before.

Moreover, if we were to apply a monotonic-increasing transformation Φ to the original Xi, the ranking of countries by Hij would remain the same:

$$\frac{X_{ij} - \min\limits_{k}\{X_{ik}\}}{\max\limits_{k}\{X_{ik}\} - \min\limits_{k}\{X_{ik}\}} > \frac{X_{il} - \min\limits_{k}\{X_{ik}\}}{\max\limits_{k}\{X_{ik}\} - \min\limits_{k}\{X_{ik}\}}$$

Then:

$$\frac{\Phi(X_{ij}) - \min\limits_{k}\{\Phi(X_{ik})\}}{\max\limits_{k}\{\Phi(X_{ik})\} - \min\limits_{k}\{\Phi(X_{ik})\}} > \frac{\Phi(X_{il}) - \min\limits_{k}\{\Phi(X_{ik})\}}{\max\limits_{k}\{\Phi(X_{ik})\} - \min\limits_{k}\{\Phi(X_{ik})\}}$$

In this sense, each component Hij of Hj is an ordinal measure – and we have to analyze its distribution or relationships between the HDIE and various macroeconomic variables on the base of special statistic methods and criteria applying for ordinal scale. So it is possible to calculate the strength of relationship between the HDIE, for example, as the dependent variable, and various variables by ordinal regression (using the SPSS PLUM procedure).

The HDIE is comparable over time when it is calculated on the base of the same methodology and of comparable trend data. To avoid inter-temporal comparisons of HDIE values we must hold constant the goalposts for each variable Xj, because Hj depends on not only Xij (i = 1, …, k), but also on the time derivatives of mink{Xik} or maxk{Xik}. For example, one might construct the unique database for all the period observed (after adequate testing the possibility).

Thus, HDIE may be constructed as an aggregate including three composite components: sustainability of entrepreneurship (I1), state of health and age of enterprises (I2) and access to knowledge and schooling of entrepreneurs (I3) on the base of real and actual data.

Finally, the HDIE may be used in cross-countries analyses of human capital in entrepreneurship at a given point of time.

3. Data and Methodology

The GEM developed a unique data collection strategy aimed at several data sources for each year in each GEM country (Reynolds, P., e. a.). Compared with the World Bank Group Entrepreneurship

Survey Data, GEM data catch "the informality of entrepreneurship" as well as the additional group of potential entrepreneurs (Acs, Z., e. a.).

Entrepreneurship is according to GEM "any attempt to create a new enterprise or business, including self-employment, the creation of a new entrepreneurial structure or the expansion of a pre-existing business, undertaken by an individual, a group of individuals or an existing business structure". The GEM explores four stages of entrepreneurial activity: potential, nascent, new and established business (Reynolds, P., e. a.; Sternberg, R., and S. Wennekers; Arenius, P., and S. Ehrstedt).

The analysis, basing on GEM data for 2006-2008, deals with comparing of the entrepreneurship quality features in GEM countries taking into consideration peculiarities of human capital at the different stages of entrepreneurship activity. The GEM data are appropriate to avoid cross-countries comparisons of the human capital rankings for SME on the base of the HDIE, and to examine it on the base of actual information.

The strength of relationship between HDIE and macroeconomic situation was estimated on the base of the Spearmen's Rho. Statistical instrument of variation analysis was used to study variables distribution. Finally, a non-linear regression was applied to test the relationship between material wealth development of the nation and the entrepreneurial potential activity.

4. Results

GEM uses two most important indicators of entrepreneurial activity: a share of established business owners (EBO, %) and a share of early stage entrepreneurs (TEA, %) among adult population. As it is shown at the Table 1, these entrepreneurial cohorts form the whole entrepreneurship.

Table 1 show, moreover, that while the average TEA value remained stable at around 9%, the country-level indicators – which were only moderately varied in 2006 – demonstrated a significant level of variation in 2007 (with a variation coefficient of more than 70%), and the same figures (variation near 70%) in 2008.

In countries with high levels of necessary driven entrepreneurship, entrepreneurial activity does not yield high labor productivity or high-quality macroeconomic dynamics. To the contrary, in countries with high levels of economic development (as measured by per capita GDP) entrepreneurial activity is dominated by opportunity entrepreneurship, with higher levels of creativity and making a greater contribution to economic growth.

And yet the aggregate EBO Index in the past year saw significant changes. The reference groups by growth coefficient for the EBO Index are likewise highly heterogeneous (with variation coefficients of more than 120%), while the relative value of the gap between countries with high levels and low levels of established entrepreneurship increased by almost 2.5 times. A Spearman's-rank correlation criteria supports significant variation between key indicators in 2006 and 2007 (Table 3).

However, a more detailed analysis finds support for a statistically significant relationship between the level of entrepreneurial activity (at the different stages) and levels of material wealth of nations. Statistical analysis of data on early-stage entrepreneurial activity, when put together with per capita GDP (PPS, by the time gap of 1 year), support a non-linear relationship (the regressions parameters are significant at a confidence level of 0.95). Moreover, the statistical criteria demonstrate that highly developed countries form a tight cluster, while countries with developing or transition economies

show significant entropy. At the Fig. 1-2 there are TEA observations, Quadratique Regression Models and their evaluations.

It is evident from Fig.1 that it there are absolutely same pictures in 2007-2008 although descriptive statistics show that qualitative indicators of entrepreneurial potential and of established business vary very much (see in Table 2). This is especially unambiguous in regards to established business owners, managing already persistent firms.

Thus, the development of various categories of entrepreneurial potential is not synchronized, and the various entrepreneurial strata yielded clusters that were characterized by varying levels of socio-economic development and types state policy vis-à-vis entrepreneurship.

No support was found for the dependence of established entrepreneurship on per capita GDP as an aggregate indicator of socio-economic conditions.

It seems logical to suggest that what is important is not the aggregate indicator of early-stage entrepreneurial activity (including, beyond established businesses, nascent entrepreneurship), but rather the structure: the higher the proportion of opportunity driven entrepreneurship (new and established entrepreneurship), the higher – ceteris paribus – the likelihood of falling into the cluster with high levels of economic development. The closeness of the relationship between entrepreneurial activity and levels of economic development is also found to be higher.

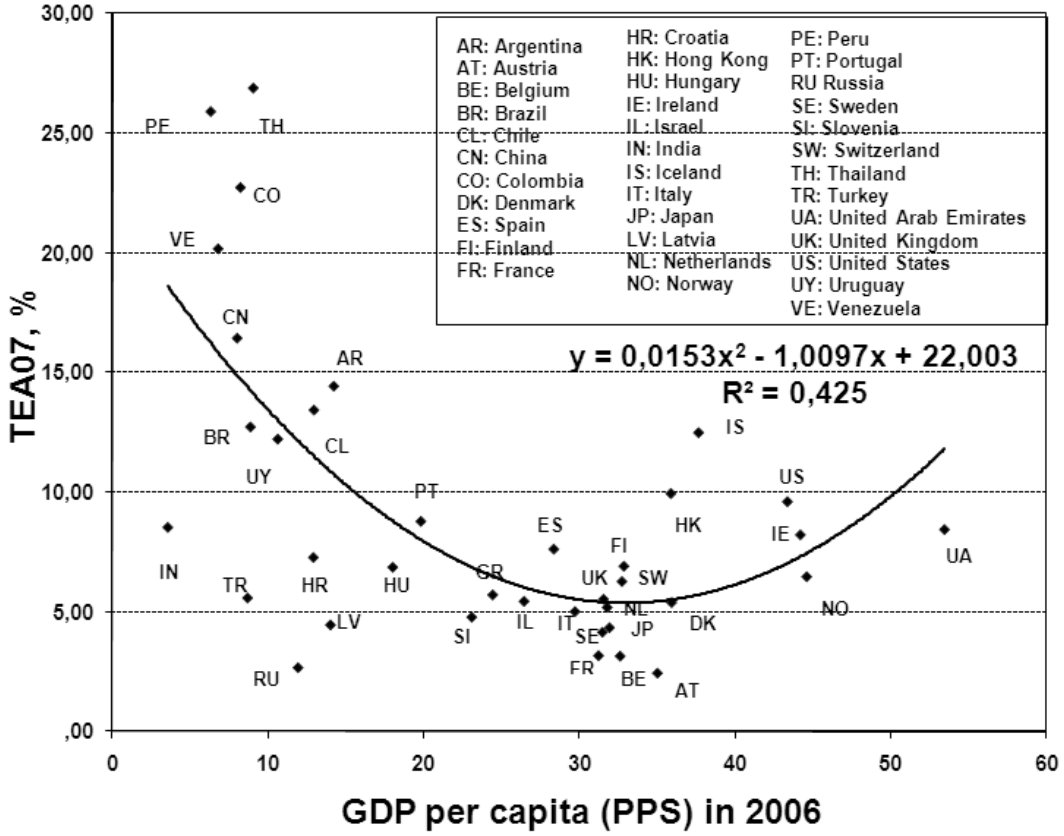
A finding of parabolic correlation between the EBO Index and per capita GDP should explain the heterogeneous composition of the clusters. However, a non-linear dependence of levels of established entrepreneurship on per capita GDP was not supported (with an R2 of 0.114, the null hypothesis was not rejected to a significance level of 5%) (Obraztsova, O. 2008a). It is possible that the issue is not only in the level, but also in the pace of development of entrepreneurial activity, given the dominance of opportunity driven entrepreneurship among the owners of established businesses (Bosma, N., e.a.).

Early-stage entrepreneurial activity includes two cohorts: nascent entrepreneurs and the owners of new businesses. For each of these categories, expected relationships were evaluated on the basis of non-parametric statistics, due to the impossibility as yet of formulating well grounded hypothesis about the form of potential causal relationships. Independent variables included per capita GDP growth rates in constant prices, consumer price indices, and GDP deflators. Dependent variables included indices of entrepreneurial activity on all indicators developed by the GEM methodology, tested consecutively.

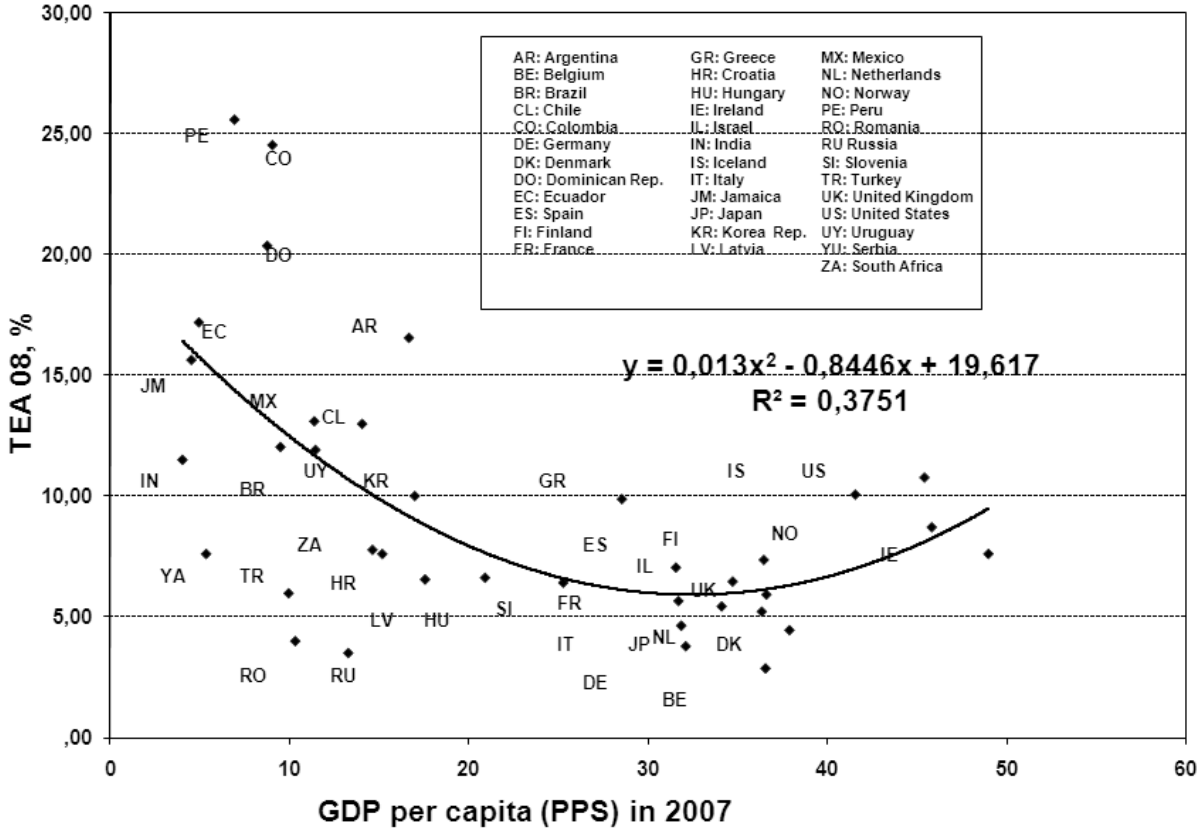
The only statistically significant positive correlation found for all categories of early-stage entrepreneurs (nascent and new, necessary and opportunity driven, male and female) was found with the GDP deflator. Moreover, the closeness of the relationship is somewhat higher for almost all entrepreneurial strata if the factor and result variables are lagged by one year (Obraztsova, O., 2008b). Thus, for early-stage entrepreneurs as a whole, the Spearman coefficient was 0.613 and 0.626, respectively, significant at 5%, while the result for early-stage non-voluntary entrepreneurs was 0.697 and 0.714, respectively, significant at 1%.

Fig. 1 (a – b). Relationship between level of economic development and early-stage economic activity in 2007 – 2008 (with short-term time gap).

a)



b)



In analyzing the qualitative characteristics of the economic structure of entrepreneurial potential, it is worth noting the factor of innovation (Table 4). A comparison on parameters of innovation is drawn for countries grouped according to similarities in economic, socio-political and historic conditions: countries of Central and Eastern Europe, including Russia, given their shared historical development. These countries, including Russia, endured first an era of planned economics, followed by a complex and socially painful transition of their socioeconomic systems. Second, there are Brazil, India and China, rapidly modernizing countries known as the so-called BRIC group (without Russia). Third group: Venezuela and the UAE are countries, benefiting merely from natural resources exploitation. Finally, two Latin American countries, Chile and Colombia, as two polar examples, either along the lines of catch-up modernization (with clearly authoritarian government) towards liberal market, or the total 'cocainization' of social structures, with economic and political dominance by criminal clans.

The motivational structure does not significantly vary among GEM countries (it has been presented in Table 5). For example, this one of Russian early-stage entrepreneurship does not in general differ greatly from that found in the countries of Central and Eastern Europe (CEE) and is significantly more favorable than in Brazil, for example, which is important from the point of view of qualitative evaluations of Russia's entrepreneurial potential.

Entrepreneurship is a pushed choice for almost 50% of early-stage entrepreneurs with secondary education and for 40% of those with professional education, as well as for 54% of respondents older than 45 years of age. Hence, higher levels of education attainment are positively correlated with voluntary motives for entrepreneurship, while the role of involuntary motivation grows after a person reaches 45 years of age. Women are more likely to be forced into entrepreneurship. Among new business owners, a bit more than a third of men and women can be characterized as opportunity driven entrepreneurs. Thus, the analyze of variables describing different dimensions if entrepreneurship development have given support to our meaning that adequate measurement of human capital development in entrepreneurship is not available without construction of an aggregate composite statistic (named HDIE), including different dimensions of economic progress.

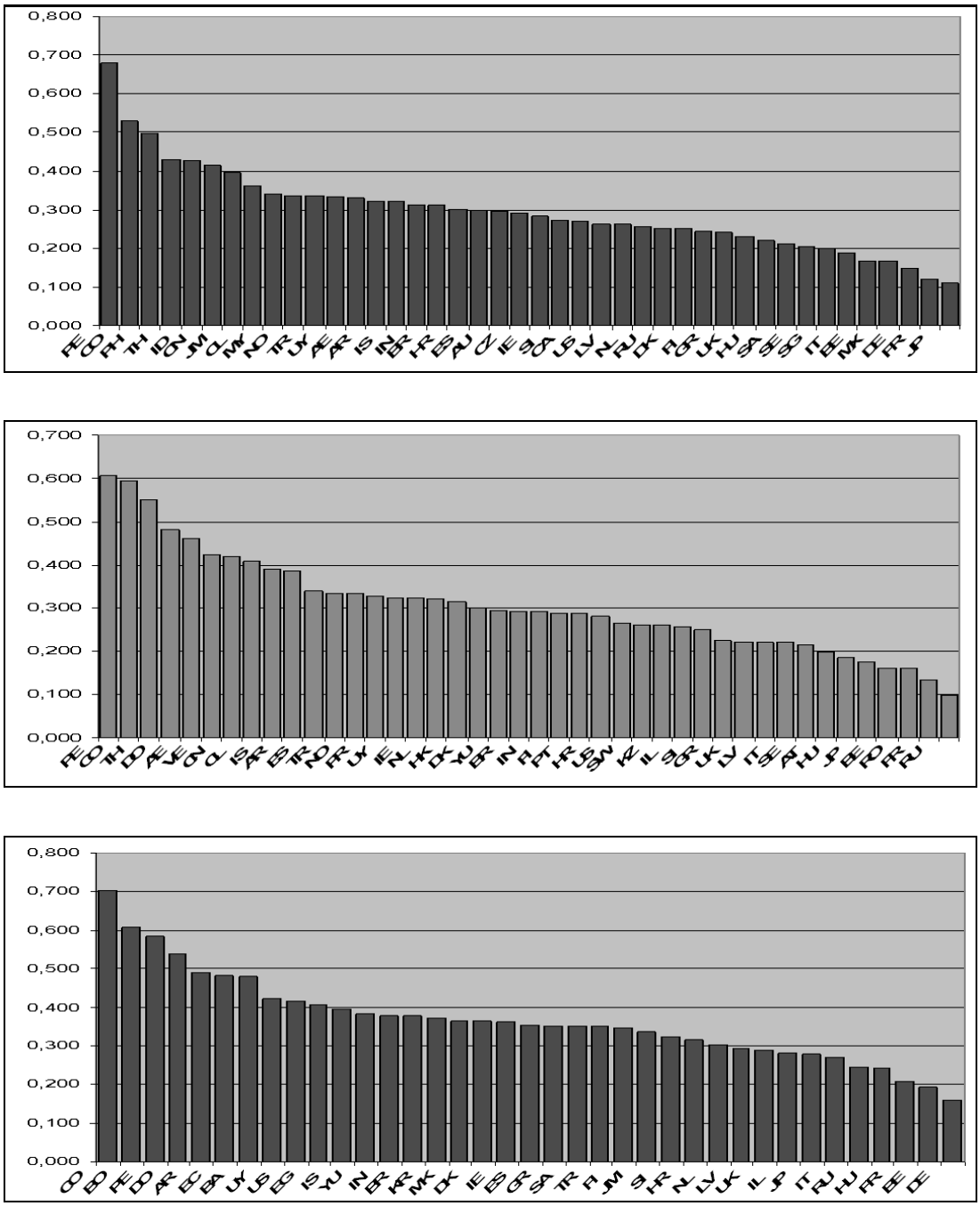
The additional outcome of the research is a well-structured system of nearly twenty entrepreneurship development indicators applicable – after suitable selection from the list of more than 180 individual dimension measures – for the future study of major changes. We have constructed a system of indicators to calculate indeed a rate of progress for each dimension of entrepreneurship development, thus hypotheses H2 - H4 have been corroborating. Variable definitions, including descriptive statistics, are presented in Table 2.

Then, the HDIE were been calculated for 2006 – 2008. Each GEM country has got a value of aggregate indicator - and a rank in the countries' distribution by human capital in entrepreneurship achievements because HDIE is a monotonic-increasing function measured in ordinary scale. Thus, the data confirm the real possibility to establish the aggregate statistic including three composite components: sustainability of entrepreneurship (I1), good health and long life of enterprises (I2) and access to knowledge and schooling of entrepreneurs (I3). The results are represented in Table 7.

The overall score of the HDIE distribution draws a total picture of the entrepreneurship and its human capital in the world. In 2006 and especially in 2007 the HDIE's variation highlights the statistically significant gaps in well-being and life chances of entrepreneurs and enterprises at the different national markets. But the dynamics of interquartile range is in the opposite tide: it has been decreasing since 2006, and all the measures of central tendency have been rather close. In 2008 the variation level

decreased a little but the gaps in entrepreneurship development continue to divide our increasingly interconnected world.

Fig. 2 – 4. Variation of HDIE in the GEM countries in 2006 - 2008

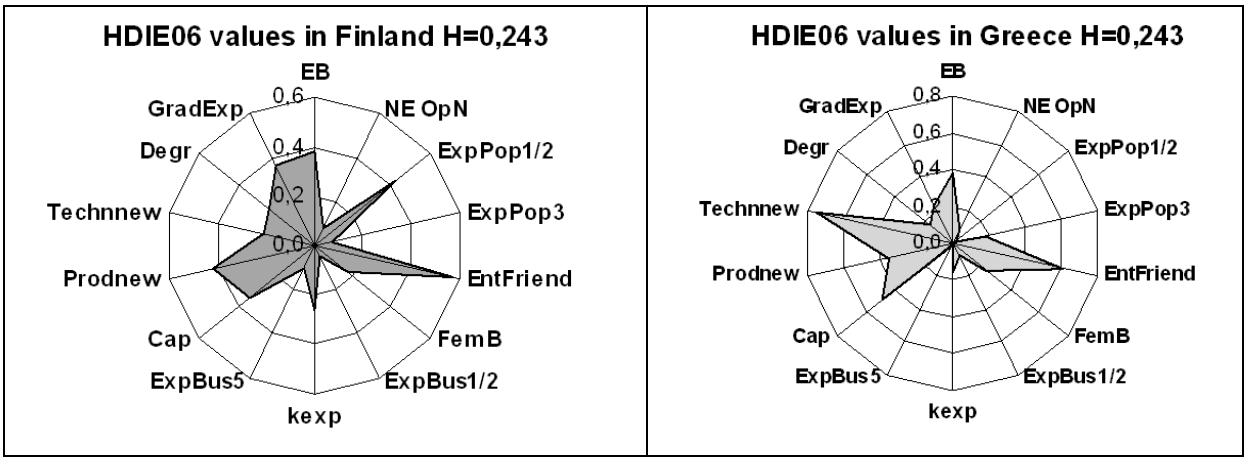


As one might see at Fig. 2 – 4, the population of countries has become more homogenous, and Spearman's Rho rank criteria supports significant correlation between HDIE in 2006 and 2007 at the 0.05 level (Table 6). Nevertheless some countries positions by HDIE have much changed (Fig. 3-5). For example, Russia had 28-th rank in 2006, but the last 42nd rank - in 2007 and 33rd rank by HDIE in 2008.

On the contrary, the US were at 25th, then at 26th position, but at 9th position by HDIE in 2008 – the entrepreneurial potential of the US society was strongly activated under global slowdown conditions.

It is necessary to add the distribution analysis to have a closer look at HDIE structure, i.e. on values of individual indicators behind the total score. For example, the overall HDIE scores of Finland and Greece were equal in 2006. However spider web below (Fig. 5) shows that rather different dimensions dominated there (compare indicators of innovation or short-terms expectations of business perspectives).

Fig. 5. HDIE06 structure in Finland and Greece compared



This illustrates that it is not only the overall score which is important, but also – and perhaps even more – the HDIE structure that allow to identify achievements and shortfalls at the separate dimensions of small and medium entrepreneurship developments. As a result, on the base of HDIE it could be estimated, what governments can do to stimulate progress in entrepreneurship indeed, or what are the real consequences of governmental policy of maintaining small and medium enterprises. Thus, the hypothesis concerning the HDIE features and its availability to analyze human capital in entrepreneurship at a given point of time is confirmed.

5. Concluding Remarks

The results of this paper show that in cases when purely material indicators are not sufficient to explain difference in entrepreneurship development, the HDIE is a good explanatory tool for assessing the development of entrepreneurship in a country.

The relationship model between GDP per capita and level of entrepreneurial activity (at different stages of entrepreneurship) is not homoscedastic one. Hence, the necessity of (another) aggregate evaluation of entrepreneurial process correlation with economic development is proved.

The statistical structure of HDIE allows its usage to measure of ‘wellbeing’ of entrepreneurs in countries with very different models of economic development. Another advantage of the HDIE is it is applicable for short-term over time cross-country and relationship analyses.

We have also shown that the HDIE, as an ordinary statistic, has its limitations in the processing of inter-temporal data. The HDIE values are comparable over time when they are calculated on the base of the same methodology and of comparable trend data when we hold constant the goalposts for each variable Xj to avoid inter-temporal comparisons of HDIE values, and the HDIE dynamic analysis should be subject of further studies.

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TABLES

Table 1

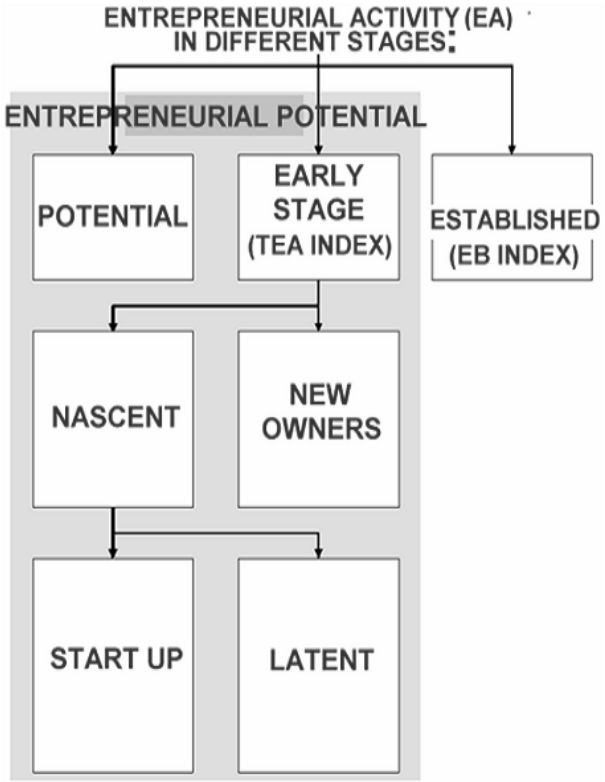


Table 2. Variable definitions and descriptive statistics

№	Variable		Brief description	Mean06	Std.Dev.06	Mean07	Std.Dev.07	Mean08	Std.Dev.08
	H_1		**A sustainable entrepreneurship**	**0,321**	**0,144**	**0,315**	**0,130**	**0,350**	**0,144**
1	X_{11}	EB	Establish business owners, %	**0,308**	**0,231**	**0,260**	**0,190**	**0,388**	**0,232**
2	X_{12}	NE $_{OpN}$	Start –ups with Opportunity motive / Start –ups with Necessity motive Ratio, %	**0,120**	**0,177**	**0,166**	**0,190**	**0,155**	**0,192**
3	X_{13}	ExpPop$^1/_2$	Good conditions to start business next 6 months in area I live / Fear of failure would prevent starting a business Ratio, %	**0,379**	**0,252**	**0,433**	**0,244**	**0,497**	**0,278**
4	X_{14}	ExpPop3	Expects to start a new business in the next 3 years, %	**0,229**	**0,204**	**0,230**	**0,227**	**0,252**	**0,240**
5	X_{15}	EntFriend	People consider starting business as good career choice and attach high status to successful entrepreneurs, %	**0,653**	**0,211**	**0,596**	**0,194**	**0,581**	**0,191**
6	X_{16}	FemB	Female Entrepreneurship, %	**0,240**	**0,208**	**0,202**	**0,210**	**0,225**	**0,209**
	H_2		**A good health and long life of enterprises**	**0,217**	**0,105**	**0,264**	**0,128**	**0,368**	**0,131**
8	X_{21}	ExpJob5	Early-stage entrepreneurs, expecting any jobs now or in 5 years, %	**0,150**	**0,168**	**0,235**	**0,237**	**0,276**	**0,253**
9	X_{22}	k_{exp}	Nascent entrepreneurs / entrepreneurs exited a business in past year (business did not continue) Ratio, %	**0,296**	**0,210**	**0,259**	**0,210**	**0,389**	**0,233**
10	X_{23}	ExpBus5	High job expectation (10+ jobs and over 50% in 5 years), %	**0,205**	**0,187**	**0,296**	**0,204**	**0,439**	**0,234**
	H_3		**An access to knowledge and schooling of entrepreneurs**	**0,350**	**0,141**	**0,342**	**0,133**	**0,387**	**0,143**
11	X_{31}	Cap	Has required knowledge, capacities and skills to start business, %	**0,499**	**0,212**	**0,528**	**0,206**	**0,584**	**0,256**
12	X_{32}	Prod^{new}	Product new to all or some customers, %	**0,387**	**0,216**	**0,390**	**0,221**	**0,354**	**0,228**
13	X_{33}	Techn^{new}	Uses very latest or new (1 to 5 years) technology, %	**0,317**	**0,221**	**0,280**	**0,174**	**0,319**	**0,226**
14	X_{34}	Degr	Some secondary degree, %	**0,250**	**0,233**	**0,222**	**0,216**	**0,295**	**0,220**
15	X_{35}	GradExp	Graduate experience, %	**0,290**	**0,190**	**0,283**	**0,206**	**0,353**	**0,212**
	H	**HDIE**	**Human Development Index of small and medium Entrepreneurship**	**0,296**	**0,110**	**0,307**	**0,116**	**0,368**	**0,115**

Table 3. Correlations (Spearman's rho)

	Indicators	TEA07*	EB07**	TEA06*	EB06**
TEA07*	Correlation Coefficient	1,000	***,658(***)***	,257	,139
	Sig. (2-tailed)	.	,000	,114	,399
	N	39	39	39	39
EB07*	Correlation Coefficient	***,658(***)***	1,000	,255	,189
	Sig. (2-tailed)	,000	.	,116	,249
	N	39	39	39	39
TEA06*	Correlation Coefficient	,257	,255	1,000	***,879(***)***
	Sig. (2-tailed)	,114	,116	.	,000
	N	39	39	39	39
EB06**	Correlation Coefficient	,139	,189	***,879(***)***	1,000
	Sig. (2-tailed)	,399	,249	,000	.
	N	39	39	39	39

* % 18-64 pop TEA involvement: setting up firm or owner of young firm (SU or BB)

** % 18-64 pop ESTABL BUS OWNER (EB): owns-manages business with income>3.5 years

*** Correlation is significant at the 0.01 level (2-tailed).

Table 4. Innovation in early-stage and established entrepreneurship

Country	Level of innovation in early-stage entre-preneurship (% of entrepreneurs)				Level of innovation in established entre-preneurship (% of entrepreneurs)			
	By product		By technology		By product		By technology	
	2006	2007	2006	2007	2006	2007	2006	2007
Russia	9,68	17,96	18,8	22,78	6,85	21,18	13,47	4,34
Hungary	3,28	0,93	12,26	10	2,01	2,25	3,91	2,26
Latvia	8,81	10,4	17,62	29,23	16,98	1,63	12,83	11,92
Serbia	-	7,81	-	34,83	-	8,87	-	29,75
Croatia	13,44	10,47	51,62	51,42	17,38	2,74	36,87	26,75
Slovenia	17,01	16,64	37,42	31,37	10,76	10,07	17,03	17,06
Romania	-	6,49	-	23,13	-	3,99	-	6,68
China	9,25	13,82	60,61	31,31	10,28	11,98	44,02	11,28
India	32,98	5,58	39,42	39,1	15,55	8,76	33,64	40,16
Brazil	13,7	3,24	21,63	18,06	14,12	0,55	10,9	10,4
Chile	29,1	23,01	42,19	22,93	18,97	18,81	22,05	9,55
Colombia	23,26	21,38	44,98	51,5	21,86	13,7	20,3	21,95
Venezuela	-	14,73	-	18,13	-	14,06	-	10,71
UAE	28,95	48,87	43,09	61,82	37,39	33,72	37,49	77,98

Table 5. Main Qualitative Indicators of Entrepreneurial Activity among Some GEM Participating Countries2

Country	*Early-stage*			*Established*			*Early-stage*		*Failed*
	Total	*Men*	*Women*	*Total*	*Men*	*Women*	*Necessary*	*Opportunitive*	
2006									
Russia	4,86	7,33	2,57	1,19	1,83	0,61	1,44	3,39	1,27
Hungary	6,04	8,09	4,05	6,72	9,03	4,48	1,33	4,64	1,13
Latvia	6,57	9,41	3,92	5,69	8,12	3,41	1,04	5,05	1,98
Serbia	-	-	-	-	-	-	-	-	-
Croatia	8,58	12,35	4,87	4,12	5,8	2,46	3,81	4,41	1,81
Slovenia	4,63	6,93	2,29	4,44	6,42	2,44	0,47	4,05	1,02
Romania	-	-	-	-	-	-	-	-	-
China	16,19	18,46	13,79	8,98	11,56	6,26	6,27	9,59	6,18
India	10,42	11,6	9,16	5,6	7,26	3,84	2,86	6,71	15,02
Brazil	11,65	13,74	9,61	12,09	14,77	9,45	5,55	5,99	4,55
Chile	9,19	11,38	7,02	6,79	9,2	4,4	2,59	6,57	3,03
Colombia	22,48	27,97	17,3	10,41	14,19	6,85	8,74	13,68	10,52
Venezuela									
UAE	3,74	5,87	0,29	1,39	2,19	0,1	0,32	2,95	4,71
2007									
Russia	2,67	3,79	1,64	1,68	1,63	1,73	0,51	1,92	1,09
Hungary	6,86	9,29	4,52	4,83	5,88	3,81	1,6	5,01	1,56
Latvia	4,46	7,7	1,41	3,41	4,9	2,02	0,67	3,67	0,74
Serbia	8,56	12,11	5,06	5,27	7,74	2,83	3,94	4,02	2,75
Croatia	7,27	9,44	5,13	4,22	5,79	2,67	2,9	4,16	2,95
Slovenia	4,78	6,84	2,68	4,59	6,84	2,31	0,46	4,24	1,56
Romania	4,02	4,95	3,09	2,51	3,34	1,7	0,56	2,68	2,52
China	16,43	19,27	13,43	8,39	9,66	7,04	6,21	9,84	10,34
India	8,53	9,51	7,49	5,53	8,69	2,18	1,67	5,51	15,13
Brazil	12,72	12,73	12,71	9,94	12,7	7,24	5,29	7,23	6,44
Chile	13,43	16,45	10,43	8,73	11,89	5,59	3,2	9,79	4,92
Colombia	22,72	26,91	18,77	11,56	15,49	7,84	9,28	12,57	8,86
Venezuela	20,16	23,5	16,81	5,39	5,87	4,9	6,46	13,33	3,77
UAE	8,55	10,62	5,27	3,42	4,76	1,32	1,47	6,69	8,44

Table 6. HDIE Correlation

Rank correlations			HDIE06	HDIE07
Spearman's rho	HDIE 06	Correlation Coefficient	1,000	,391(*)
		Sig. (2-tailed)	.	,011
		N	42	42
	HDIE 07	Correlation Coefficient	,391(*)	1,000
		Sig. (2-tailed)	,011	.
		N	42	42

* Correlation is significant at the 0.05 level (2-tailed).

[2] To meet our obligations under GEM Consortium, we can disseminate only generalized data of 2008 before GEM 2008 Global report publishing (see: http://www.gemconsortium.org/)

Table 7. HDIE EVALUATIONS IN GEM COUNTRIES IN 2006-2008

Rank	Code	Country	HDIE06	Rank	Code	Country	HDIE07	Rank	Code	Country	HDIE08
1	PE	Peru	0,679	1	PE	Peru	0,606	1	CO	Colombia	0,703
2	CO	Colombia	0,530	2	CO	Colombia	0,595	2	BO	Bolivia	0,607
3	PH	Philippines	0,499	3	TH	Thailand	0,550	3	PE	Peru	0,585
4	TH	Thailand	0,431	4	DO	Dominican Republic	0,481	4	DO	Dominican Republic	0,539
5	ID	Indonesia	0,428	5	AE	United Arab Emirates	0,462	5	AR	Argentina	0,490
6	CN	China	0,416	6	VE	Venezuela	0,422	6	EC	Ecuador	0,482
7	JM	Jamaica	0,395	7	CN	China	0,418	7	BA	Macedonia	0,480
8	CL	Chile	0,363	8	CL	Chile	0,409	8	UY	Uruguay	0,422
9	MY	Malaysia	0,341	9	IS	Iceland	0,390	9	US	United States	0,417
10	NO	Norway	0,337	10	AR	Argentina	0,387	10	EG	Egypt	0,405
11	TR	Turkey	0,335	11	ES	Spain	0,339	11	IS	Iceland	0,397
12	UY	Uruguay	0,333	12	TR	Turkey	0,335	12	YU	Serbia	0,384
13	AE	United Arab Emirates	0,329	13	NO	Norway	0,334	13	IN	India	0,379
14	AR	Argentina	0,323	14	PR	Puerto Rico	0,328	14	BR	Brazil	0,379
15	IS	Iceland	0,322	15	UY	Uruguay	0,324	15	KR	Korea Republic	0,373
16	IN	India	0,313	16	IE	Ireland	0,323	16	MK	Bosnia and Herzegovina	0,365
17	BR	Brazil	0,312	17	NL	Netherlands	0,321	17	DK	Denmark	0,364
18	HR	Croatia	0,302	18	HK	Hong Kong	0,314	18	IE	Ireland	0,361
19	ES	Spain	0,299	19	DK	Denmark	0,302	19	ES	Spain	0,355
20	AU	Australia	0,298	20	YU	Serbia	0,295	20	GR	Greece	0,352
21	CZ	Czech Republic	0,290	21	BR	Brazil	0,292	21	SA	South Africa	0,351
22	IE	Ireland	0,284	22	IN	India	0,291	22	TR	Turkey	0,351
23	SI	Slovenia	0,274	23	FI	Finland	0,289	23	FI	Finland	0,345
24	CA	Canada	0,270	24	PT	Portugal	0,287	24	JM	Jamaica	0,335

25	US	United States	0,263	25	HR	Croatia	0,281	25	SI	Slovenia	0,324
26	LV	Latvia	0,262	26	US	United States	0,266	26	HR	Croatia	0,315
27	NL	Netherlands	0,256	27	SW	Switzerland	0,261	27	NL	Netherlands	0,301
28	**RU**	**Russia**	**0,253**	28	KZ	Kazakhstan	0,261	28	LV	Latvia	0,295
29	DK	Denmark	0,251	29	IL	Israel	0,255	29	UK	United King-dom	0,290
30	FI	Finland	0,243	30	SI	Slovenia	0,250	30	IL	Israel	0,280
31	GR	Greece	0,243	31	GR	Greece	0,225	31	JP	Japan	0,278
32	UK	United Kingdom	0,230	32	UK	United Kingdom	0,221	32	IT	Italy	0,270
33	HU	Hungary	0,221	33	LV	Latvia	0,220	33	**RU**	**Russia**	**0,244**
34	SA	South Africa	0,211	34	IT	Italy	0,220	34	HU	Hungary	0,241
35	SE	Sweden	0,206	35	SE	Sweden	0,214	35	FR	France	0,208
36	SG	Singapore	0,199	36	AT	Austria	0,199	36	BE	Belgium	0,194
37	IT	Italy	0,189	37	HU	Hungary	0,185	37	DE	Germany	0,160
38	BE	Belgium	0,169	38	JP	Japan	0,177				
39	MX	Mexico	0,167	39	BE	Belgium	0,161				
40	DE	Germany	0,149	40	RO	Romania	0,160				
41	FR	France	0,122	41	FR	France	0,133				
42	JP	Japan	0,110	42	**RU**	**Russia**	**0,097**				
		min	**0,110**			**min**	**0,097**			**min**	**0,160**
		max	**0,679**			**max**	**0,606**			**max**	**0,703**
		mean	**0,296**			**mean**	**0,307**			**mean**	**0,368**
		StDv	**0,110**			**StDv**	**0,116**			**StDv**	**0,115**
		max-min=R	**0,569**			**max-min=R**	**0,509**			**max-min=R**	**0,544**
		Kvar	**0,371**			**Kvar**	**0,378**			**Kvar**	**0,312**

Predicting Founding Success and New Venture Survival: A Longitudinal Study

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Abstract

Based on a model consisting of the person, resource/environment, and founding process, this paper examines founding success (who started up a business?) and new venture success/ failure (which businesses survived?). The study analyzes a sample of nascent entrepreneurs observed over seven years. Characteristics of the person affect founding success, but not survival. Resource and environment aspects did not show an effect on founding success or survival. Aspects of the founding process serve to explain founding success and survival.

Introduction

Entrepreneurship is frequently defined in terms of new venture creation. As researchers have become aware that it is essential to look at the entire creation process (conception to adolescence; Reynolds 2000) to investigate the phenomenon properly, new data sets aside from public records as well as new methods and definitions are needed (Johnson et al. 2006). The infeasibility of using public data alone for the analysis of new venture creation is relevant in the early phases of the startup process. Many aspiring business founders do not succeed in creating new ventures which ultimately appear in public records. Therefore, studies based on public databases tend to omit interesting cases and are especially prone to 'survival bias' and 'hindsight bias' (Johnson et al. 2006). In particular, such a study approach is not able to address the success factors of business foundation (i.e., what distinguishes startup processes which lead to active ventures from those which do not?). Not surprisingly, numerous studies have analyzed the success of newly established active ventures, but only few have analyzed the founding success of nascent ventures.

The recognition of this limitation of public data has stimulated new approaches and brought about new data sets which include nascent businesses. There are two widely known data sets which concen-

trate on the phenomenon of nascent entrepreneurship: The Panel Study of Entrepreneurial Dynamics (PSED) (e.g. Reynolds 2000, 2007, Shaver et al. 2001) and the Global Entrepreneurship Monitor (GEM) (e.g. Minniti et al. 2006, Reynolds et al. 2004).

One major focus of the Vienna Entrepreneurship Studies (VES; Frank et al. 1999, Frank et al. 2007, Keßler, 2007, Korunka et al. 2003), which form the basis for this paper, is on the analysis of nascent entrepreneurship. Launched as early as 1998, the VES use a research approach which aims to cover all phases of the startup process. Whereas the GEM's data sets are cross-sectional, the PSED and VES are truly longitudinal studies. However, the VES cover a far longer observation period than the PSED. Analyzing a long time span between cause and effect may reduce the tendency to discriminate against cases that take longer to achieve eventual success, thus allowing the true effect of the explanatory variables to shine through (Davidsson 2006). The VES include a representative subsample of 290 nascent entrepreneurs observed over a time span of seven years and surveyed at three points in time (1998, 2001 and 2005). The VES' long observation period and three measurement points enable us not only to analyze factors in founding success (three years after Survey 1), but also to analyze success factors in new venture survival (seven years after Survey 1). The underlying framework allows us to cover the dimensions of person, resources, environment and founding process as predictors of founding success and new venture survival.

The goal of this paper is to test a model predicting the founding success and new venture survival of nascent businesses on the basis of characteristics of the entrepreneurial person, resource / environment characteristics, and founding process characteristics.

Theoretical Framework and Model Development

A Delimitation of 'Nascent Entrepreneurship'

In analogy to biological development, the venture creation process can be divided into four stages (conception, gestation, infancy and adolescence) with three transitions (Reynolds 2000). The first transition starts when one or more persons ('nascent entrepreneurs') who commit time and resources to found a new firm. Accordingly, a 'nascent entrepreneur' is 'someone who initiates activities that are intended to culminate in a viable business startup' (Aldrich 1999). Nascent entrepreneurship can therefore be defined as a process of a selective chain of decisions which begin with the communication of startup intentions and end – in the case of success – with the start of business (e.g., the first sales revenues) (Frank 2003).

In his review of 'nascent entrepreneurship', Davidsson (2006) distinguishes three sub-dimensions: person factors leading to nascent entrepreneur status; the discovery process and the exploitation process. Similarly, Johnson et al. (2006) distinguish two major questions underlying research on nascent entrepreneurship: Why are some people engaged in nascent entrepreneurship and others not? Why do some nascent entrepreneurs make the transition into business, while others continue working on their business ideas, or abandon them?

The VES use a definition of nascent entrepreneurship that covers a time span which begins with the initial communication of startup intentions, continues with the transition into active business as defined by the actual start of business activities (first sales revenues), and includes the ensuing survival or failure of the new venture. Thus the studies cover the subject of nascent entrepreneurship as well as

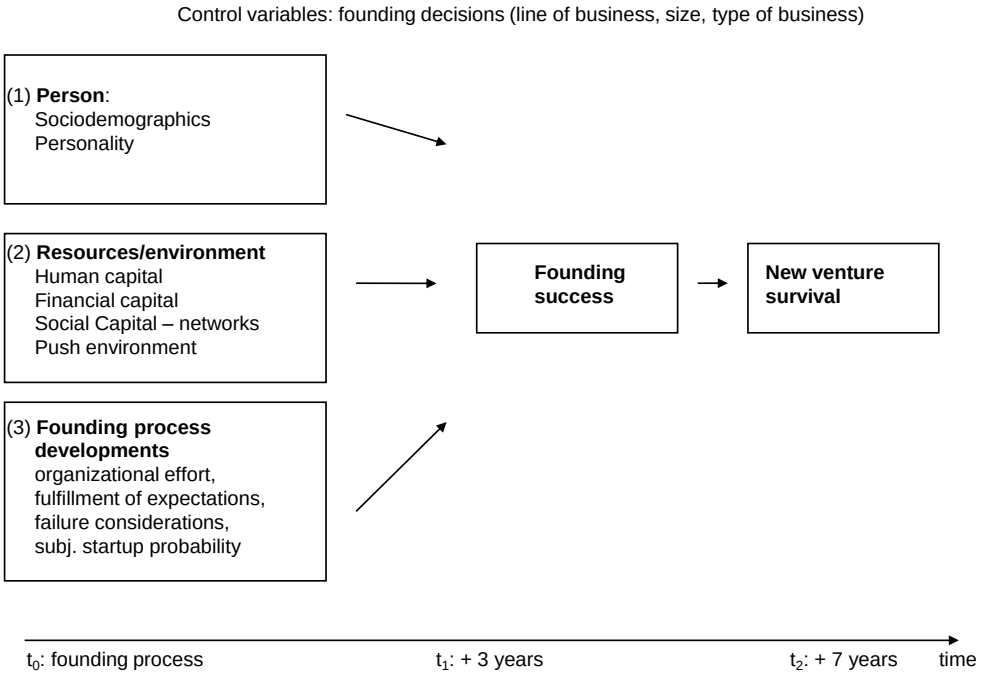
that of new venture survival/failure. The focus of this paper is the prediction of founding success, that is, the successful transition of a nascent venture into an active venture (over an observation period of three years: t_0/1998 – t_1/2001) and new venture survival (over an observation period of seven years: t_0/1998 – t_2/2005).

Another essential delimitation in the VES concerns the level of analysis. The VES define specific venture-individual(s) combinations as their focal research units.

The model for predicting founding success and new venture survival

The frame of reference for the VES is the configuration approach (Mugler 1998). This model transposes the configuration ideas of Miller (1987), onto the field of small enterprises. The model concept was transferred specifically to startups and combined with the framework developed by Gartner (1985) for the purpose of describing new venture creation. This finally led to four dimensions ('imperatives'): the (entrepreneurial) person, (founding) environment, (founding) resources and (founding) process. Figure 1 shows the conceptual study model.

Figure 1: Research Model



As already mentioned in the introduction, the paper's basic assumption is that characteristics of nascent entrepreneurship have significant explanatory power for founding success and new venture survival. This argument can be reinforced with empirical findings (Begley and Boyd 1987, Cromie 2000, Rauch and Frese 2007a): Personal traits are considered as stable and will, therefore, not change significantly when passing from conception to adolescence. In addition, empirical findings confirm that new ventures very seldom grow (Gimeno et al. 1997, Wiklund et al. 2003) and change their product-market combinations, therefore, there will be no significant changes when passing from gestation to adolescence. With regard to networks as component of the environmental dimension it can be expected that they do not change significantly (Hansen and Allen 1992), although some authors (Larson

and Starr 1993) argue that network development and organizational emergence take place in parallel. Concerning the process dimension the effects of initial organizing directly influence survival (Brush et al. 2008). In sum, the initial decisions of entrepreneurs have long lasting implications for their ventures (Bamfort et al. 2004, Boeker 1989), suggesting the attempt to explain founding success and new venture survival with one set of variables. On the basis of this integrative view we specify the model dimensions and formulate and test our underlying hypotheses.

The suggestions of Learned (1992) were included in multiple dimensions of the model: Specific personality traits (internal locus of control, need for achievement, risk-taking propensity) were inserted into the 'person' dimension together with certain sociodemographic characteristics. The relevance of personality traits to the success of the nascent entrepreneurship phase was also confirmed in a meta-analysis conducted by Rauch and Frese (2007b) who revealed that personality traits have a weak but stable influence not only founding success, but also on business survival:

H1a: Characteristics of the person founding a business affect founding success.

H1b: Characteristics of the person founding a business affect new venture survival.

Available resources in the form of financial capital (Parker and Belghitar 2006, Van Gelderen et al., 2005) and startup-relevant human capital (experiences in managing a business, Wagner 2003) are major aspects of the resource dimension. The importance of financial and human capital in startup realization has frequently been highlighted in the literature (Brüderl et al. 1996). Hansen and Allen (1992) as well as Larson and Starr (1993) focus on the significance of networks for new business startups. Davidsson and Honig (2003) show the importance of human *and* especially social capital. These examples demonstrate that resources and environment in case of nascent entrepreneurship and young ventures are closely interwowen. Social networks facilitate resource mobilisation and are critical for efficient acquisition. Networks can offer special information and non-material supports; at the same time the human capital and financial resources may develop their effects more efficiently in a supportive network-based environment (Aldrich 1999). We, therefore, aggregate the resource and environment variables into one dimension. The resource and environment dimension is completed by the aspect of a 'push' environment (i.e., launching the startup process out of motivation due to (threat of) unemployment). Empirical startup research shows that only a small portion of all startups realizes growth, especially in terms of number of employees (Brüderl et al. 1996). This means that surviving startups are rather stable concerning resources, like their networks with customers. In recognition of the importance of resources and the environment for founding success, the following hypotheses deals with these aspects:

H2a: The founder's resources and environment affect founding success.

H2b: The founder's resources and environment affect new venture survival.

The founding process dimension again refers to the work of Learned (1992) and also includes the suggestions of Bird (1992), as 'sense making' (Learned, 1992) and 'small wins' (Bird 1992) are integrated into this conception in the form of fulfillment of expectations, failure considerations and the subjective assessment of startup probability. In the approach taken by Bird (1992), the startup endeavor gains legitimacy by fulfilling certain temporal expectations. In this context, 'symbolic marker events', which are used to review adherence to the schedule, play an especially important role. Remaining on schedule leads to 'small wins', which reduce the complexity of the process. In addition, developments in the startup process are described using the organizational effort aspect, which depends on the complexity of the respective startup environment and thus has an individual specifying

effect on the process as described in the model put forth by Hansen and Allen (1992). The last two hypotheses underlying our model account for the importance of developments in the founding process:

H3a: Aspects of the founding process explain founding success.

H3b: Aspects of the founding process explain new venture survival.

The considerations taken into account thus far warrant the assumption that founding success and new venture survival can be explained with the same model: We assume that neither the person nor the resource/environment and process dimensions change substantially for most new ventures from gestation to adolescence. This suggests that ventures which are founded/not founded as well as those which survive/do not survive should be clearly discriminable, thus pointing to high expected explanatory power in the model.

Though, one could argue that high founding rates may reduce business survival rates: The easier it is for nascent entrepreneurs to start, the lower the new venture survival rate will be. Thus, creating highly conducive founding conditions may simultaneously promote the failure of new businesses. However, this conflict of objectives does not necessarily exist when founding and survival processes are analyzed on an individual venture level (Brixy and Grotz 2007). Furthermore, in a research approach focusing on individual venture level, it is useful to develop a framework which explains founding success and new venture survival. The claim of this paper is to test a unified model for founding success und new venture survival.

Method

Observation Period

Our total observation period of seven years, including an observation section of at least four years for new venture survival (t_1: 2001 – t_2: 2005), permits us to assume that most of the businesses had gone through the adolescence phase by the time of the third survey.

In order to attain the goal of the study, it was necessary to collect and analyze a large and representative sample of nascent entrepreneurs. A truly longitudinal approach had to be realized, with data collected at three points in time: (1) at a point where the nascent entrepreneurs were actively engaged in the process of founding their businesses (t_0); (2) at a point where the successful establishment of the previously planned business could be expected (t_1: about 3 years after the first survey; founding success); (3) at a point in time which indicates that the businesses have survived (t_2: about 7-8 years after the first survey and 4 years after the second survey; new venture survival).

With two longitudinal measurements taken three and seven years after the initial survey, our conception spans a sufficiently long period to allow the true effect to manifest itself and enables us to compare predictors of founding success *and* new venture survival. Using a second longitudinal measurement which goes beyond the nascent entrepreneurship phase and extends into the phases of infancy and adolescence (Reynolds 2000) allows us to test the usefulness of a nascent entrepreneurship model for the prediction of new venture survival.

Sampling strategies

In order to ensure at least partial representativeness for a sample of nascent entrepreneurs, we contacted support institutions and initiatives where one would expect to encounter people planning to start a new venture: (i) general support institutions for nascent entrepreneurs address a wide range of persons at the beginning of the startup process and in concrete realization steps leading up to the actual start of business operations. These persons were reached directly through the support organization staff. (ii) At financial support institutions, an address database including mainly new business owner-managers is available. This group was reached by means of a mail survey. (iii) At a 'business startup information day' in Vienna, mainly nascent entrepreneurs in very early stages could be expected. This group was contacted in person.

The baseline wave of data collection (t_0) took place in spring 1998 as part of a larger study on nascent entrepreneurs and young business owner-managers. A comprehensive questionnaire which measured the dimensions of the conceptual model and included a post-paid return envelope was distributed with the help of the support organizations or by mail.

The data set for this part of the study consisted of 486 complete records on persons in different stages of the business founding process (nascent entrepreneurs). Most of these persons were actively planning to open a business in the near future (n=340), while some (n=146) had temporarily abandoned the founding process at the time of the survey. 382 of the respondents voluntarily included their names and addresses on the questionnaire and agreed to be contacted in further waves of data collection. The second wave of data collection (t_1) took place in fall 2001. A telephone interview based on structured interview guidelines was used to collect information about the status and development of the previously planned businesses. We were able to conduct 290 complete telephone interviews (response rate: 76%). The third wave of data collection (t_2) took place in fall 2005. Again, the nascent entrepreneurs were contacted by telephone to collect data on the current status of their businesses. This time we were able to conduct 227 complete interviews (response rate compared to t_1: 78%; compared to t_0: 59%). The missing cases in t_1 and t_2 consisted of persons we were not able to reach, mainly because of address and/or name changes. Only a few of the business owner-managers were no longer willing to participate.

Measurements

Independent variables

The questionnaire used for data collection at t_0 consisted of items and scales measuring aspects of the person, resources/environment, the founding process and the control variables (Korunka et al. 2003). The control variables (type of business, i.e., full-time vs. sideline startups and individual vs. team startups: , business size, line of business) were measured using single items. Internal locus of control, need for achievement and risk-taking propensity were measured with scales widely used in German-speaking countries (Frese 1998, Krampen 1991, Modick 1977). Financial capital, the existence of family role models, and the push environment were measured by means of single items. For human capital and networks, scales were developed specifically for this study.

All multi-item scales were transformed to a similar range of 0-100. Table 1 provides information on the scales and their statistical characteristics. All scales show at least acceptable internal consistencies (Cronbach's Alphas between .68 and .82; see Table 1).

Dependent variables

As suggested by Reynolds and Miller (1992), founding success is measured as the realization of the planned venture using the individual variable of 'first sales' (based on a point in time) in order to have an equally valid point of reference for all startups. Other definitions discussed in the literature, such as personal commitment, outside financial support, first hire (Carter et al. 1996, Hansen 2000, Reynolds and Miller 1992), were either regarded as more difficult to measure (e.g., commitment) or flawed due to industry or size effects (e.g., outside financial support, first hire). In particular, the high proportion of very small businesses and single-person startups precluded the use of indicators which involved size effects. As our data is based on a point in time during the preparation and startup phase, we did not have access to the data required for a time period-based definition of startup realization such as the event histories discussed by Delmar and Shane (2004). The second dependent variable, new venture survival, was measured by asking the entrepreneurs directly whether their venture was in active business at the time of the third survey (t_2).

Table 1 illustrates the operationalization of the model dimensions (variables).

Results

For our statistical analyses, we used only complete data sets (t_0 / t_1 / t_2; n=227). Based on the available indices of representativeness (line of business, business size/financial capital, sex and age of the founder), the sample can be described as representative of Austrian business founders (Schwarz and Grieshuber 2003).

We tested our hypotheses using logistic regression models. The state of the business at t_1 (‘founded’/’not founded’) was used to predict founding success, while the state of the business at t_2 (‘founded and survived’/’founded and did not survive’ or ‘not founded’) was used to predict new venture survival.

The correlations between the predictor variables show an expected pattern. The correlations between the predictors and the two target variables show slight differences, indicating partly different predictor patterns for founding success and new venture survival.

The control variables were entered en bloc in the analyses, followed by a block of variables pertaining to the person (H1a/H1b), a block of resource/environment variables (H2a/H2b) and a block of founding process variables (H3a/H3b).

In total, 122 of the 227 nascent entrepreneurs (53.7%) had founded their businesses by t_1. At t_2, 96 (42.3%) of the nascent businesses had survived.

Table 1: Scales/items used for model test

Dimension	Item example / Source	Scale type	Mean (SD) / %
Control variables			
Full-time business	The business is the founder's full-time job. (yes/no)	Single item	Yes: 64.3%
Team of founders	The business was founded by a team of founders.	Single item	Yes: 25.6%
Business size (capital requirements)	Median split (under €36,000 / over €36,000)[1]	Single item	Above median: 32.2%
Line of business: Commerce	yes/no	Single item	Yes: 66.1%
Line of business: Trades	yes/no	Single item	Yes: 19.8%
Person			
Sex		Single item	Men:73.1%
Age	Age of business founder (median split: younger/older than 34 years)[1]	Single item	Above median: 41.0%
Internal locus of control	Krampen (1991)	Scale (8 items; Alpha=.68)	80.0 (9.9)
Need for achievement	Modick (1977)	Scale (7 items; Alpha=.72)	78.8 (9.8)
Risk-taking propensity	Frese (1998)	Scale (8 items; Alpha=.70)	54.2 (11.1)
Resources/Environment			
Financial capital	Above-average income and/or existing financial securities (yes/no)	Single item	Yes: 78.4%
Human capital	Experience in managing a business	Scale (5 items; Alpha=.82)	11.9 (20.6)
Social capital: Networks	Previous contacts to customers	Scale (8 items; Alpha=.75)	41.8 (24.2)
Social capital: Family role models	Successful business founder in the family (yes/no)	Single item	Yes: 24.2%
Push environment	The business was founded due to the threat of unemployment and/or the threat of a massive loss of income. (yes/no)	Single item	Yes: 37.0%
Founding process			
Organizational effort	At least two founding actions have been taken (e.g., contact to a founding support agency; yes/no; 5 items).	Single item	Yes: 70.5%
Realistic expectations	Expectations have been met/exceeded in at least one of the two areas 'founding conception/product idea' and 'financing'. (yes/no)	Single item	Yes: 70.5%
Subjective assessment of startup probability	What is the probability that you will actually start your planned business?	Single item	63.8% (33.9)
Considerations of possible failure	Plans have been made for a possible business failure (yes/no)	Single item	Yes: 53.3%
Dependent variables			
Founding success (t_1)	Did you open the previously planned business, and has it produced sales? (Telephone interview)	Single item	t_1: 57.3%
New venture survival (t_2)	Does the business still exist and carry on business activities? (Telephone interview)	Single item	t_2: 42.3%

Note: 1…The median split is based on the sample of business owner-managers in the same study.

Founding success

Table 2 shows the main results of the logistic regression analysis using the founding state at t_1 as dependent variable.

The full model explains a good part of the variance (Nagelkerke's R^2= .39). The control variables significantly affect founding success; higher founding rates are observed in commerce and for full-time businesses, while lower founding rates are found in teams of founders. The only significant predictor within the 'person' dimension is high risk-taking propensity, which increases founding success. No significant effects of resources and the environment are found. The founding process indicators also explain a substantial part. Both organizational efforts regarding the planned business and a high subjective assessment of startup probability lead to a significantly enhanced rate of founding success.

New venture survival

Table 3 shows the main results of the logistic regression analysis using the survival state at t_2 as dependent variable.

Again, a fair – and only slightly smaller – part of the variance is explained by the full model (Nagelkerke's R^2= .36).

The results show a similar pattern of explanation compared to the founding success model. The control variables significantly affect new venture survival once again; higher survival rates are observed in commerce and for full-time businesses, while lower survival rates are observed where teams of founders are involved. No significant effects are observed in factors related to the person and the resource/environment variables. This represents the only difference compared to the founding success model.

Once again, the founding process explains a considerable part of the variance. High organizational effort (i.e., founding activities) and a high subjective assessment of startup probability lead to a significantly enhanced new venture survival rate.

As a result, we can at least partially confirm our hypotheses: *H1a: Characteristics of the person founding a business affect founding success.* A high risk-taking propensity increases the person's chances of starting the business.

H1b: Characteristics of the person founding a business affect new venture survival. This hypothesis was not confirmed. This result implies that the impact of factors related to the person on success diminishes with the progression of the founding process.

Table 2: Founding success. Main results from logistic regression analysis (dependent variable: business founded as of t_1)

Model	Full model $\chi 2$ (df)	Hosmer-Lemeshow $\chi 2$	Full model Pseudo R^2 (Nagelkerke)	Additional block $\Delta \chi 2$ (df)	Significant single predictors in model block			
					Predictor	**B**	**Wald**	**Exp(B)**
Control Variables	23.83** (5)	2.16 n.s.	.13	-	Line of business: Commerce**	1.21	8.05	3.36
					Full-time business**	1.01	11.09	2.75
					Team of founders*	-.72	4.85	.49
Control variables + person	38.68** (10)	5.56 n.s.	.21	14.84* (5)	Risk-taking propensity**	.04	9.93	1.05
Control variables + person + resources/environment	40.86** (15)	3.38 n.s.	.22	2.18 (5)	-			
Control variables + person + resources/environment + + founding process	78.12** (19)	11.34 n.s.	.39	37.27** (4)	Organizational effort*	.86	5.49	2.37
					Subjective assessment of start-tup probability**	.03	18.91	1.03

*p <.05; **p <.01

Table 3: New venture survival. Main results from logistic regression analysis (dependent variable: new venture survival at t_2)

Model	Full model $\chi 2$ (df)	Hosmer-Lemeshow $\chi 2$	Full model Pseudo R^2 (Nagelkerke)	Additional block $\Delta \chi 2$ (df)	Significant single predictors in model block			
					Predictor	**B**	**Wald**	**Exp(B)**
Control Variables	24.37** (5)	4.28 n.s.	.14	-	Line of business:	1.47	9.54	4.34
					Commerce**	.67	4.62	1.95
					Full-time business*	-.92	7.02	.40
					Team of founders**			
Control variables + person	34.14** (10)	2.86 n.s.	.19	9.77 (5)	-			
Control variables + person + resources/environment	36.28** (15)	6.06 n.s.	.20	2.14 (5)	-			
Control variables + person + resources/environment + founding process	69.57** (19)	9.22 n.s.	.36	33.29** (4)	Organizational effort*	.77	4.19	2.16
					Subjective assessment of startup probability**	.03	17.61	1.03

*p <.05; **p <.01

H2a: The founder's resources and environment affect founding success.

H2b: The founder's resources and environment affect new venture survival.

These two hypotheses could not be confirmed. This result implies that – when analyzed individually – the contextual social and economic factors which were included in the model on the basis of the literature did not have a significant influence on founding success and new venture survival.

H3a: Founding process aspects explain founding success.

H3b: Founding process aspects explain new venture survival.

We were able to confirm both of these hypotheses. Both organizational effort and a high subjective assessment of startup probability lead to a significantly enhanced rate of founding success. Organizational effort (i.e., founding activities) and the subjective assessment of startup probability were also found to be significant predictors of new venture survival.

Therefore, aspects of the founding process have a strong and significant effect on both founding success and new venture survival. At least for this group of predictors, the research model meets our research assumption of a single explanatory framework for founding success and new venture survival. The special relevance of the process dimension is in line with many other theoretical (Bhave 1994, Frank 1997) and empirical (Brush et al. 2008, Carter et al. 1996, Delmar and Shane 2004) findings.

Discussion

The results show that the unified model for founding success und new venture survival is able to explain a good part of the variance. Both models are statistically significant. The configurative approach has proven adequate. However, it is important to emphasize that only aspects of the founding process influence both founding success and new venture survival, whereas factors related to the person and the resource/environment dimensions contribute only a small part. More importantly, a professionally planned and executed founding process serves to enhance not only founding success but also new venture survival. The special relevance of the process dimension combined with the relatively low importance of the person and resource/environment dimensions can be explained by the fact that the process dimension incorporates personal and resource/environment aspects indirectly. Personal and resource/environment aspects are part of the process because founders interact with the environment in order to gain support and resources.

Since the VES data was collected using a longitudinal approach, the results may be interpreted as causal effects. The target variables ‘founding success’ and ‘new venture survival’ are measured objectively and are therefore not falsified by personal perceptions. Considering these ‘objective’ target variables and the long observation period, the explained variance in the regression analyses is noticeably high. On the other hand, it is necessary to emphasize that most of the predictor variables are based on self-perceptions. Another methodological constraint results from the fact that the founding process was measured at one point in time (t_0). Considering the methodological strengths and weaknesses, we reason that the observed effects are stable and may be generalized and interpreted as causal relationships.

Our results show a striking similarity to the findings reported in Reynolds’ (2007) PSED overview: The importance of process variables for founding success represents the main parallel, as in both cases the successful transition to a new firm is closely related to the intensity of effort the nascent entrepreneur devotes to the initiative. In this context, both the PSED and our study show that the activity pur-

sued in the startup process (organizational effort) has a major impact on founding success. Liao and Gartner (2006) showed that both the founding success and (short-term) new venture survival of nascent entrepreneurs improved when the nascent entrepreneur engaged in early and careful planning activities. In the VES, we not only found similar results, we have also been able to show that careful planning activities are significant predictors of new venture survival. As a result, these specific variables need to be included in further research in this field. Our results support the assumption that there is a continuous logic of development which allows us to explain founding success, new venture survival and failure on the basis of these processes.

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The Internationalization Challenge – Enabling and Constraining Factors in the Medical-Technology Sector

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Abstract

SMEs in high-technology industries, such as life-sciences, face a fundamental challenge. On the one hand, high product development costs push companies into early internationalization to increase turnover and recover investments. On the other hand, internationalization is constrained, e.g. by financial and managerial resource limitations or the demand to follow local regulations. To date, little is known about how high-tech SMEs actually manage this challenge. This paper presents an in-depth case study of the internationalization process of a Swedish high-tech SME, to develop a better understanding of how the trade-offs related to internationalization are handled in practice. Combining insights from the process theory of internationalization with international new venture theory, our findings outline factors affecting the internationalization process specific to the medical-technology industry, the company and the founding team.

Keywords: Internationalization, Medical Technology, Born Globals, Networks, Strategic Entrepreneurship

Introduction

Small and medium-sized enterprises (SMEs) in many industries face an increasing pressure to start and/or to expand international operations (see e.g. European Commission 2003 Observatory Report). In addition, these companies are confronted with increasing international competition in their own domestic markets. Because of this increased competition as well as rapid technological developments, which have an impact on product development and marketing activities, more and more SMEs start their international operations already during their first years of operation, and a substantial share of their total sales is achieved on foreign markets. These types of firms have received different labels,

such as 'born global' firms (BGs) (Rennie, 1993) or international new ventures (INVs) (Oviatt and McDougall, 1994).[1]

The medical-technology industry is of special interest when it comes to international development. Many previous studies have focused on internationalization in high-technology industries (e.g. Burgel and Murray, 2000; Jones, 1999; Keeble et al., 1998) including those belonging to the umbrella term 'life sciences' (more specifically referring to medical-technology, pharmaceuticals or biotechnology firms). As we will discuss below, a few studies have addressed the particularities of biotechnology firms, while medical-technology companies remain largely understudied. Yet, some fundamental dimensions distinguish the life-sciences industry, and especially medical-technology, from other high-technology industries, e.g. it is based on science-based knowledge and it aims at improving quality of life (Stremersch and Van Dyck, 2009). Purchasing decisions for life-sciences products are typically not made by the end-consumers, the patients, themselves, but by medical staff, and in many cases a third party, such as an insurance company, pays for the products.

Companies in the medical-technology sector face a fundamental challenge, which is especially aggravated for many SMEs with their limited access to resources. Namely, strong forces push the companies towards a global outlook, which is facilitated by the fact that these firms rely on high-technologies that are not culture specific. The need to amortize high research and development (R&D) costs pushes especially companies from smaller home markets to quickly expand across borders. At the same time, strong forces act as barriers to international business activities of SMEs. As the life-sciences industry is highly regulated, all international business activities need to comply to local demands. Also the financing of the life-sciences industry differs across nations. For example, in Sweden the healthcare sector is financed through taxes, while in the US it is mostly financed through health insurance. These factors make an international product launch a complex endeavour, providing challenges in scaling up marketing and sales, organizing clinical trials, including difficulties in getting access to hospitals and doctors, complying to regulatory demands, as well as financing the complete R&D process (KTH, KI and KUH, 2007).

Thus, the life-sciences industry provides an interesting arena to study the internationalization of SMEs, but so far has only attracted limited academic attention. In one of the few studies in this area, Orava (2001) has investigated operational modes in the internationalization of medical-service firms. Barnes et al. (2006) studied the export-marketing activities of 112 SMEs operating in international healthcare markets and identified the finding appropriate partners a key challenge. Another recent study has investigated the initial and continued internationalization processes of eight biotechnology Born Globals, integrating knowledge-based internationalization process theory and international entrepreneurship research (Melén and Nordman, 2009). A knowledge-based view has also been employed to study why SMEs in the biotechnology industry can achieve competitive advantage at an early stage (Gassman and Keupp, 2007). While providing important insights, these studies do not investigate how SMEs manage the challenge described above. To address this gap, the aim of this paper is to contribute to the understanding of the internationalization of high-tech SMEs by analyzing in detail how a company in the medical-technology industry handles the simultaneous forces which enable and constrain early internationalization.

[1] Despite this development, many firms still follow a more incremental and slow international development (Johansson and Vahlne, 1977, 1990).

The remainder of this paper is structured as follows. In the following section, relevant literature on internationalization is reviewed. After describing the method used in this study, an in-depth case study of the internationalization process of an SME from the medical-technology industry is presented. The subsequent discussion links the case findings back to the theoretical approaches reviewed earlier in the paper. Finally conclusions, practical implications and some ideas for further research are presented.

Literature Review

Internationalization of small firms

The development of small, national firms to become multinational has been an area of great research interest. One of the most important models in this field is the Uppsala Model developed by Johanson and Vahlne (1977, 1990). The model defines internationalisation as a process of increasing experiential knowledge (see Penrose, 1959). The model focuses on company development over time, including different establishment sequences in terms of markets and entry modes. According to the model, markets with successively greater psychic distance are entered. Psychic distance is defined as the factors preventing or disturbing the flow of information between firm and market – such as differences in language, culture, political systems, level of education, or level of industrial development (Johanson and Wiedersheim-Paul, 1975). The firm's international behaviour in a single market is suggested to be a consequence of successively greater learning and commitment. As the firm learns about the market, it commits more resources and goes through different steps, from sporadic export activities, via exporting through independent representatives to exports through sales subsidiaries, before establishing full-fledged manufacturing subsidiaries (Johanson and Wiedersheim-Paul, 1975).

The Uppsala internationalisation model and other process models has been criticized for being too deterministic (Bell, 1995; Reid, 1981; Turnball, 1987). These models do not focus on discussing alternative international development strategies and factors that influence different strategic choices made by decision-makers. Later studies have shown that there are different alternatives for expanding internationally (Andersson, 2000; Bell et al., 2004) and that entrepreneurs can choose to internationalize rapidly and be global shortly after inception (e.g. Autio, 2005; Knight and Cavusgil, 1996; Oviatt and McDougall, 1994; Madsen and Servais, 1997).

Born Globals

A McKinsey study of Australia's high-value-added manufacturing exporters spotlighted the rise of numerous SMEs that successfully competed - virtually from their inception – against large, established players in the global arena (Rennie, 1993). These firms did not slowly build their way into international trade, contradicting earlier studies on firms' internationalization (Johanson and Vahlne 1977, 1990). Rather, they were 'born global'. The Australian study coined this term and has been followed by numerous studies on this phenomenon. There is growing empirical evidence showing that Born Globals are becoming more common and also becoming a more important phenomenon for the global economy (Rialp et al., 2005).

Knight and Cavusgil (1996) and Coviello (2006) outline several trends which have supported the emergence of Born Global firms: the increasing role of niche markets; advances in process and com-

munication technologies, as well as inherent advantages of small companies – such as quicker response times, flexibility, or adaptability. Born globals are typically founded by one or several strong entrepreneur(s) with extensive international experience in internationalized industries; the companies tend to be niche-oriented; with locations chosen based on the founders' and partners' previous experience (Madsen and Servais, 1997). The growth of Born Globals tends to be associated with innovation skills, including the ability to access effective R&D and distribution channels and to engage in close collaboration with international partners.

Much of the literature on Born Globals is related to newly emerging and/or high-tech industries (Crick and Jones, 2000). However, the phenomenon has also been found in "old" and mature sectors, such as arts and crafts (McAuley, 1999). A small home market can push even young ventures in those sectors into early internationalization (Madsen and Servais, 1997).

As internationalization can be defined as an entrepreneurial act, entrepreneurship theories can help to better understand internationalization processes (Andersson, 2000; Johanson and Vahlne, 2009). In the international entrepreneurship literature there are conflicting explanations of why early and rapid internationalization is possible (Keupp and Gassman, 2009). On the one hand, research based on the resource-based view of the firm portends that control of a certain resource endowment is needed for pursuing international growth (George, 2005). On the other hand, some researchers maintain that a lack of resources in the firm and on the home market can be drivers of international entrepreneurship (Matthews and Zander, 2007), leveraging social capital and networks for gaining access to knowledge and resources. Andersson and Wictor (2003) stress the role of entrepreneurs and their personal networks as most relevant factors for early internationalizing firms. This aspect will be discussed more in the following.

Importance of entrepreneurs/managers in small-firm internationalization

Different studies have identified an international orientation of the key entrepreneurs/managers as an important explanation of the international orientation of the firm (Andersson 2000; Andersson and Wictor, 2003; Madsen and Servais, 1997).

In a meta-study, Leonidou et al. (2002) identify managerial characteristics as an important factor for explaining successful exporting. Bloodgood et al. (1996) find that more international work experience among top managers is strongly associated with more internationalization of new high-potential ventures in the USA. Westhead et al. (2001) also ascertain that older founders, having more resources, denser information and contact networks, and considerable management know-how, are significantly more likely to be exporters. Industry-specific knowledge and experience were found to be of importance. Interestingly, Andersson et al. (2004) found a younger age of CEOs to be positively related to the growth of international activities. A younger generation of CEOs has been brought up in a more global world, with international networks from studies and travelling, and they can have a more positive attitude about the international environment and more easily see and take advantage of entrepreneurial opportunities in foreign markets.

Overall, different studies have indicated a positive relationship between entrepreneurs' international attitude, orientation, experience, competences and networks with a successful international development (Andersson, 2000; Kuemmerle, 2002; McDougall et al., 2003; Nummela et al., 2004;

Preece et al., 1998; Westhead et al., 2001). However, the role which individual entrepreneurs play as the internationalization process unfolds is still not very well researched.

Networks

Different studies have shown the importance of international networks, on both an individual and an organisational level, for understanding a firm's international development (e.g. Coviello, 2006; Majkgård and Sharma, 1998). Yet, most studies on networks are based on established firms and focus on processes, routines and systems at company level (e.g. Håkansson, 1982; Johanson and Vahlne, 1990). For start-ups, personal networks tend to be highly relevant, with many new relationships being created (Kock and Galkina, 2008). New firms are dependent on relationships with, for example, financiers, suppliers and customers (Oviatt and McDougall, 1995). Both, social and business aspects of networking are of importance (Johannisson and Mönsted, 1997). Knight and Cavusgil (1996) emphasize that formal and informal networks are important, and they are used in a formal and planned way (McAuley, 1999). Networks can be an important tool to acquire, create and leverage resources (Chetty and Campbell-Hunt, 2003; Coviello and Cox, 2006). Not only international networks are important for understanding a firm's international development, but also local networks play a key role (Johannisson, 1994). How these different types of networks interact and influence the internationalization process remains to date understudied.

To contextualize the in-depth case study presented in this paper, we will next introduce the specificities of the medical-technology industry.

The medical-technology industry

Generally speaking, medical-technology products can in different ways extend and improve life. Examples of medical-technology products are wheelchairs, pacemakers, insulin pens, oxygen masks, dental floss, surgical instruments, and syringes. The industry can be briefly characterized as in Table 1 below.

Medical technology industry
Relatively young industry
80% SMEs
500,000 products in 10,000 generic product groups
Innovation occurs in result of clinicians' insights
Investment recovery period can be as short as 18 months for medical devices with incremental improvements
Rather high distribution costs
Rather high training, education and service requirements
Efficacy and efficiency more difficult to prove; results obtained depend on skills and experience of the physician and quality of the hospital

Table 1: Industry characteristics of the medical technology industry.

Source: based on Eucomed (www.eucomed.org)

The strict regulatory regimes for medical devices (e.g. EU directive 93/42/EEC) force the manufacturers to carefully document their manufacturing processes and raw materials used (Sidén, 2003). Before launching a product in a European country, the product needs to be CE marked, ascertaining that the law on medical devices is followed. To enter the largest market worldwide, the USA, every medical-technology product must be approved by the Food and Drug Administration (FDA). Once the product is approved by the FDA, the chances that a product will be accepted by clinicians are higher than in Europe (SwedenBio et al., 2005). In fact, the market-acceptance process has been characterized as an industry-specific challenge, with three critical factors (SwedenBio et al., 2005):

- *clinical acceptance*; after receiving the CE marking, the product's clinical efficacy will still be evaluated in each market, before local physicians and caregivers accept the product. This poses an enormous challenge to a young company, which has not yet achieved brand recognition and built its reputation among customers.
- *reimbursement*; hospitals and clinics are hesitant to invest in medical-technology products where there is no track record of reimbursement by third parties (such as insurance companies).
- *cost efficiency*; products aimed at an aging population should not only show solutions with improved clinical effect, but should also provide cost efficiency for the care-giver.

Figure 1 below illustrates a number of specificities of the life-sciences industry. It provides an overall image of the complexity in the healthcare market, and positions the industry/producer in relation to different stakeholders. The interaction among the different actors (such as users, buyers, and end-customers) differs from other industries in that medical and other professions are involved in using, prescribing and recommending medical devices (Sidèn, 2003). Thereby, the decision to use a certain product is typically not made by the end-consumers themselves.

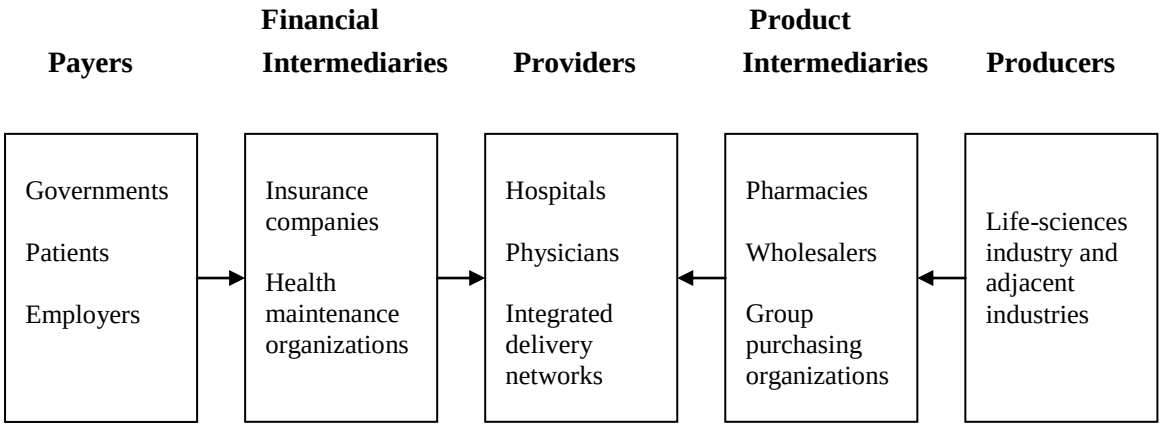


Figure 1: Relevant actors and their roles in the life sciences industry (based on Stremersch & Van Dyck, 2009)

In addition, intermediaries are often involved in the payment as well as the product-distribution sides. Payment flows from the payers (who not necessarily are the end-users themselves) via financial intermediaries to providers, while the products flow from the producers, often via product intermediaries, to the providers (who also make the purchasing decision). Different systems exist in different countries.

Not only this diversity, but also the intermediated process provides additional challenges for medical-technology SMEs when internationalizing, as we will further explore in this paper.

Method

A longitudinal, in-depth case-study approach was chosen to catch the complexity of the internationalization process in the medical-technology sector as it unfolded. We focus on a single case, which is appropriate when new aspects of a phenomenon are studied and conflicting explanations have been brought forward. Of course, we do not aim to generate statistical generalizability, but rather want to achieve analytical generalization (Yin, 1994).

We chose the case company, Redsense Medical, for two main reasons. Firstly, it was presented in media as a successful medical-technology company. The company was awarded with a Frost & Sullivan best practices award and the 2008 European Hemodialysis emerging company of the year award. Secondly, it is part of a local network in the medical-technology sector in Sweden, the Healthcare-Technology Alliance, which is situated in Halmstad as a non-profit organization. This membership allows us to study the impact of both, formal and informal, networks for SME internationalization. The aim of the alliance is to help the region to become leading in developing products and services within healthcare technology (www.halsoteknik.com). Around 50 companies, the local university, local authorities and other organizations can be found among the approximately 60 members.

The case-study is built on personal interviews, and complemented with secondary data (mainly business magazine reports, annual reports and internal documents). Several interviews have been conducted with all individuals personally involved in the decision for and implementation of the company's internationalization, lasting approximately 90 minutes each. In addition, the other employees as well as important stakeholders were interviewed. The interviews have been transcribed and checked for accuracy by the respondents. More than 36 hours of empirical data have been compiled continuously over a period of 18 months so far, longitudinally following the company's internationalization process as its unfolds as well as reconstructing the initial company development before embarking on this longitudinal research. Moreover the research team has participated in different practitioner-oriented seminars within this industry to extend and deepen the knowledge about this sector's logic. Specific themes addressed in these seminars were, for example, export possibilities and internationalization, investment possibilities, innovation possibilities for healthcare technology and finally legal issues of the medical technology directive.

A semi-structured interview guide is used, covering the company's internationalization process, the roles of different actors and networks in this process, as well as specific industry factors. Following Eisenhardt's (1989) recommendations, the analysis includes several iterations between theory and data. Based on the analysis of our empirical material, we develop in this paper a model that includes the specific characteristics of internationalization in the medical technology sector.

Redsense Medical

The background: Origin of the business idea and founding of the company

Redsense Medical (RM) was created in 2006. However, the original idea for the development of its product dates back to 2001, and a contact between the county hospital and Daniel Engvall, now Chief Technology Officer (CTO) at RM, who was then working for a another medical-technology company. The medical technicians at the hospital faced the problem that during hemodialysis the needle could

dislodge, implying a risk for the patients who could in the worst case bleed to death. Dialysis machines have to be equipped with a surveillance system for protecting the patient against blood loss in case of needle dislodgement. Today this is obtained through a built-in venous pressure alarm. However, the change in venous pressure can be too small for the alarm to react in case of blood loss, making this method unsafe.

Based on this problem formulation, Daniel Engvall initiated an exam project at Halmstad University involving two Innovation Engineering students. When it became evident that fibre-optical sensor technology might provide an appropriate solution to this problem, he contacted Anders Andersson, an expert within fibre-optic technology. In collaboration with him, a prototype sending an alarm when blood is detected was developed.

Yet, even though Daniel Engvall continued to further develop the prototype in his spare-time, nothing dramatic happened with it until around four years later, when Patrik Byhmer, now CEO of Redsense Medical, was asked one day before Christmas 2005 to investigate its market potential. The original project had belonged to a company, where Engvall worked and Byhmer was a board member. That company had decided to focus on consultancy, and as part of that re-orientation revisited old projects. Byhmer assessed the results of the original project work for a period of two weeks. He ascertained that there was a problem with needle dislodgement, but as hardly anything was written about this phenomenon, a more precise market estimation was difficult to make. Due to the possible potential, he suggested to continue the project. A company was founded and seed-money invested. Next, a prototype was developed which already 'looked like' a product. Byhmer visited hospitals in Toronto and Seattle, where he had previously established contacts, to gain a better understanding of the market. A professor at the University of Toronto confirmed the problem of needle dislodgement, especially during night-time hemodialysis.

Byhmer carried out a market study, phoning different clinics, in order to further investigate the need for this product. At the same time, Redsense carried out clinical trials with the help of Jarl Ahlmén, an Associate Professor of Nephrology and now also Chief Medical Consultant at Redsense. Thanks to the initiated clinical trials, the company could apply for CE-marking in 2007.

The next step taken was to assess how much could be charged for the product. The potential price was found to depend on market acceptance, which still needed to be developed – requiring additional funding. A first step taken for gaining that acceptance was to exhibit at a fair in the US. Though positive feedback was received, Redsense was not yet allowed to sell the product in the USA due to missing FDA clearance. This was applied for during the summer of 2007, and obtained in October 2007.

At the same time, it was realized that more competence in marketing and sales was needed, and Susanne Olauson, who had long experience with internationally-oriented tasks in the pharmaceutical industry, was employed as Sales and Marketing Director in April 2007. With the product approved in Europe and the USA, appropriate test centres needed to be found, where potential customers could try the product and evaluate it.

In March 2009, the sales of Redsense's product started with a big order from a clinic in Glasgow – approximately two years after contacts had first been established with that hospital. A patient had died there after a needle dislodgement, enhancing the interest of the clinic in the Redsense alarm. Such long lead-times turned out to be a major challenge for the company. As at many hospitals doctors and nurses are not even aware of the risk of needle dislodgment and the false security with the existing built-in venous pressure alarm, the sales process requires to first make potential customers aware of

the need to then persuade them of the advantages of Redsense's product. Before making a purchasing decision, the finance department of the potential customer then needs to approve of the budget, which can easily take another year. Thus, the process of gaining new customers is very expensive, and strategic questions for an SME in this situation are whether this should be conducted in-house or outsourced, and which markets should be tackled.

Redsense faces an interesting competitive situation. It largely has one competitor only, Fresenius. This company is the worldwide market leader for dialysis products, both for hospital and private use. Their product differs from that of Redsense in that the alarm does not specifically react to blood and that it is not a disposable product. Redsense claims that it looks upon this competitor as an opportunity, due to the market need which still has to be further developed. In addition to Fresenius, a number of other companies producing hemo-dialysis machines exist. Instead of merely focusing on developing a sales and distribution structure for its disposable product aimed at hospitals, Redsense is working on persuading one or several of these companies to integrate the alarm devise into their machines. This innovation would not only make dialysis safer, it would also free Redsense from the need to further develop their own sales and distribution structure (which has proven to be a lengthy and costly process), as they would only have to deliver to the dialysis-machine makers.

The internationalization process

The CEO of Redsense realized early that it would be difficult to reach break-even focusing on the small Swedish market only. In contrast, there are around 1.6 million dialysis patients worldwide, and about 200 million dialyses are conducted per year, taking between four to five hours each. He asked himself in which country the product could be launched in the easiest and fastest way, and the UK was selected as the first target market – as it is close to Sweden, has a high population and is densely populated. Moreover, Redsense wanted to choose a country where business could be conducted in English. In addition, the liability which hospitals have both in the UK and the USA was taken into account as an important factor for market selection: If hospitals are liable when something goes wrong with the treatment, the risk of being sued can increase the willingness to invest in an alarm that reacts immediately to blood if the needle dislodges. Thus, for Redsense an important aspect when choosing a foreign market is to analyse how the healthcare system is organized and how it functions.

In the UK, a distributor was chosen out of different companies recommended by Jarl Ahlmén, Associate Professor of Nephrology. However, Redsense changed this distributor rather quickly, as the cooperation did not work well. At that stage, Redsense had established an awareness of its product in the market, mainly through participating in different congresses. By now, it is rather common that distributors contact the company directly to show their interest in representing the Redsense product in their own country. Moreover, Redsense asks local hospitals to express their opinion about which distributor they believe might be most appropriate. This was also done before changing distributor in the UK.

The second target market was the USA, the world's largest market. Both the CEO and the Marketing Director had direct contacts with different hospitals there. Redsense wanted to identify four clinics with which they could maintain sales contacts directly, in order to gain a thorough understanding of how the health system and, correspondingly, the sales process works. By maintaining direct responsibility for a few large customers in the USA, Redsense thought to be able to establish a better negotia-

tion position, e.g. when appointing distributors at a later stage. Due to the large market size, Redsense decided to be selective rather than to try to cover the entire market at once. A potential distributor was identified, but withdrew from the negotiations, as in result of the worldwide financial crisis that company preferred to focus on its existing product portfolio.

This process underlines the strategic challenge of deciding on a distribution structure. One alternative for an internationalizing SME could be to negotiate with a global player to become part of their world-wide sales portfolio. If working well, this would lead to rapid market penetration and increased sales for the SME. However, such strategy bears two risks. Firstly, the product might not be prioritized by the sales staff, remaining a minor product. This risk is especially high when awareness-building and training is needed to sell the product. Secondly, rapidly increasing sales could overstretch the capacity of the SME to handle large orders, leading to an immediate loss of trust in the brand and product.

The choice of entry modes has been topic of extensive discussion within Redsense. For now, distributors are preferred to agents, as the company can first gain a feeling for the market and then select distributors, who tend to care about the product, as they take on a certain risk by including it into their portfolio. An in-house sales force could increase sales, but for the time being Redsense does not have enough resources to cover the high costs agents would imply, as they would have to be recruited, trained and paid for before even starting their sales activities. By now, Redsense has distributors in the Netherlands, Belgium, Austria, Finland, Norway, Denmark, and Ireland. A future option could be to establish own sales subsidiaries in the main markets.

The internationalization activities are not limited to marketing and sales. Redsense has even established a manufacturing plant in Malaysia. Despite searching for eight months for a subcontractor that could manufacture their product, Redsense could not find a company which had experience with fibre optics used in disposable products. To manufacture the product turned out to be more challenging than anticipated, as when making disposable products, it is crucial to keep production costs down. Through building a greenfield factory, a positive aspect was seen in gaining know-how of in-house production and a former colleague of Redsense's CEO was willing to run the factory, reducing the perceived risks.

For further internationalization, Redsense has now even chosen to experiment with a different mode for finding partners. For entering the large and important markets of Germany and France, Redsense collaborates with the Swedish Trade Agency in the "business opportunity project", where the company and the agency jointly cover the costs, and the agency supports Redsense in identifying suitable partners.

The internationalization process described so far demonstrates that Redsense does not perceive going international as something threatening *per se*. The Marketing Director explains: "...we have been out there, and we know that it is nothing dangerous". The key people responsible for internationalization brought with them extensive international experiences and contacts, especially the CEO. Within Redsense it is believed that without this experience internationalization would have been slower and more step-wise. Regarding the speed of internationalization, Redsense appears to be in favour of opening up as many markets as possible. The limit for this is "as much as you can manage", as the Marketing Director states, as it takes time to support and inspire the different distributors. Still, it is a continuous strategic question whether to enter many markets at once or to focus on a limited number of distributors to later broaden the scope, for example once positive cash flow is reached. As lead-times

in this industry are very long, both to get clearance from the healthcare authorities but also to establish customer contacts, this is a crucial issue.

The role of networks for Redsense's business development

A number of different networks have been important for the development of Redsense and its product, as well as its internationalization process. Informal, personal networks on a local level were important for the formation of the original business idea, through contacts between the county hospital and Daniel Engvall. The internationalization process was facilitated by informal contacts in the medical industry which helped establishing international contacts for example in Canada, the UK and the USA.

Participation in fairs and congresses, mainly in the US and in Europe, are considered as an important means for becoming known to the specific target group of decision-makers in the medical sector – a crucial step for achieving sales. Such brand-building activities have helped the company create many contacts, which have led to many inquiries from interested persons and companies. In addition, Redsense has cooperated with an external consultant with experience of working internationally with public relations. The aim was to place articles and press releases in journals and other media, e.g. aimed at patient organizations, to enhance awareness of the product and its need.

The Redsense management team believes also that it is important to be part of different associations, as long as they provide some kind of benefit to the company, e.g. by providing further access to a well-defined target group (such as nurses or nephrologists).

The formal network of the Healthcare Technology Alliance has played a crucial role at start-up, as it helped to match the business idea and key actors in the project. However, for internationalization it has played a minor role. Being a successful player in a small network in the region of Halland has created positive media attention for Redsense. The local network was especially important for financing matters, as it helped in the process of finding local funding. Still, securing continued financing is currently proving to be a major challenge, due to the world-economic crisis.

Discussion

To a certain extent, the internationalization pattern of Redsense resembles that proposed by the Uppsala model, namely to first enter those countries perceived to have low psychic distance for the top management of the company. Due to personal experiences of the team mainly from living and working in the UK and the US, these countries were considered natural choices as business there could be done in English. In line with Johanson and Vahlne (2009) it seems that the relevant analytical level regarding psychic distance has moved from the national to the individual level. Also, the structure of the healthcare industry was crucial for deciding which markets to enter. Thus, in addition to the company-internal factors of cultural and language knowledge, the external factor of industry conditions was decisive for the choice of markets. However, it was not the similarity with the home market that was important – rather the hospitals' "risk of being sued" makes a market attractive.

The decision to set up a manufacturing plant in Malaysia illustrates one shortcoming of the Uppsala model, which assumes that foreign direct investment (FDI) takes place after substantial learning from activities in that market augmented in a step-wise approach. Due to their personal international expe-

riences, Redsense was not scared to enter an Asian market through FDI at an early stage of company development. Thereby, they could generate an ownership advantage by developing production competences in-house, which is relevant for being able to offer the product at a reasonable price (cf. Dunning, 1988). Malaysia's low labor costs contribute to a localization advantage, and an internalization advantage was realized as no adequate subcontractor was identified, leading to lower transaction costs when producing in-house. This example shows that the management team's international experience not only influences the firms outward activities (e.g. sales), but also other strategic activities such as sourcing and production (cf. Holmlund et al., 2007).

Johanson and Vahlne (1977, 1990) argue that experience-based knowledge is critical for conducting activities on foreign markets, as well as for identifying new business opportunities. Before deciding on how to enter the USA as the largest market world-wide, four influential clinics there were targeted in order to develop a thorough market understanding. Only then, the company started to search for suitable distributors, committing further to this market. The Redsense management team could also draw on experience-based knowledge and managerial capability by quickly learning from the internationalization journey, adjusting the subsequent entry modes to context specificities and experimenting with new solutions. While specific market knowledge might not be directly transferable across markets, learning from potential challenges and how to solve them could be: For example, the process of selecting distributors was improved based on experiences made, but the strategy of working with distributors was largely maintained, as these provide important access points to relevant networks, and especially contacts to dialysis clinics.

The Redsense top management team acts highly entrepreneurial and Redsense appears almost a prototypical example of the international entrepreneurship of a born global firm (Autio, 2005; Oviatt and McDougall 1994; Madsen and Servais, 1997): Internationalization was started soon after inception, production as well as sales take place outside the home market, and individual experience and entrepreneurial vision drive international commitment decisions. Strong entrepreneurs have extensive international experience from relevant industries (cf. Andersson and Wictor, 2003). Additional entrepreneurial know-how is brought into the company by the chairman of the board who has experience of starting around 20 companies. Through the complementary skills of the top management team, Redsense manages to create a marketing and sales focus for its technological innovation (cf. Andersson, 2000). Redsense follows a proactive strategy, characterized by supply push combined with creating market demand.

As pointed out in the literature review, different types of network linkages had been proposed to be relevant for SME internationalization. For Redsense, the local healthcare technology alliance played a decisive role for its start-up, as it helped to team up the county hospital and the initial project team. Even for financial matters, local network linkages were crucial for receiving financing in the local vicinity, confirming the importance of the local network for the development of new products and financing (Johannisson, 2009) and how networks can be for acquiring, mobilizing and developing resources (Chetty and Campbell-Hunt, 2003; Coviello and Cox, 2006). However, the role of the healthcare technology alliance has *not* played a specific role for internationalizing. Instead, the international experience and contact networks of the top management team were important, and helped to avoid a typical challenge of SMEs in the life-sciences industry – namely the difficulty to get access to hospitals and doctors. Fruitful contacts were established with key actors in different clinics who had expe-

rienced needle dislodgment as a problem during hemodialysis and who were therefore willing to provide access to their own contact networks, mainly in the US and Canada.

Conclusions, Practical Implications, and Ideas for Further Research

We find Redsense's internationalization process to be driven by an entrepreneurial team using social capital and networks as important tools for gaining access to knowledge and resources (cf. Sarasvathy, 2001) The chairman summarizes the approach to entering new international markets as follows: "The easiest way is to start with what you know and where you have a network, and to try to reuse it in different ways. Sometimes it will work and sometimes it will not. If you do not have that, then there are more open channels, such as the Trade Council and similar organizations which can help to find collaboration partners and to build networks. Or you simply have to use companies that exist on this market and see if they can help. You have to use all available means and all available methods. If nothing else works, then you have to take the plane and go there, and go around and knock on the doors. It is not more difficult than that".

This highly entrepreneurial approach to internationalization appears to be key when trying to resolve the major challenge of balancing the need for early internationalization with reducing its hinders, outlined at the beginning of the paper. Just like a typical born global company, Redsense is built on providing one niche product (see Madsen and Servais, 1997). The small home-market pushed the company towards internationalization at an early stage in order to facilitate reaching break-even. However, the actual 'going international' did not turn out to be a major issue, as the top management team relied on its relevant industry and international experiences. Therefore, internationalization was never interpreted as a threat. A much bigger challenge for Redsense is to build demand for its product, since many people working with dialysis are not aware of the risk of needle dislodgement during hemodialyses and the false security of the existing built-in venous pressure alarm. Creating a market need in a foreign country requires a thorough understanding of the market and its key actors, which is a tedious, lengthy process. Regulations and healthcare systems are very different across countries, and an intimate knowledge of the specificities is crucial, when trying to enter the market directly. Entering many international markets at the same time made the company financially vulnerable. The solution to this part of the challenge is to try to overcome financial constraints by searching for different kinds of deals which could reduce the financial risk and burden carried (e.g., by working with distributors rather than agents, by signing a deal with the Swedish Trade Council, by producing in a low-cost country, and by attempting to integrate the product as a component into dialysis machines), and they draw extensively on their personal networks to leverage their limited managerial capacity (Chetty and Campbell-Hunt, 2003). Access to the healthcare systems – especially hospitals and doctors – is secured via personal networking linkages. External aspects of the challenge are mainly regulatory affairs and clinical trials, which further increase the lead-times to customer orders. Here, the company attempts to proactively work with government and other relevant agencies upfront to facilitate the process.

To summarize, this paper has drawn on the case of a born global SME from the medical-technology sector to explore how the company manages the internationalization challenge and the factors enabling and constraining internationalization. A number of key success factors for its internationalization process were identified.

Theoretical implications

An important discourse in theories about firm internationalization is the creative tension (Autio, 2005) between the Process Theory of Internationalization (PTI) (Johanson and Vahlne 1977, 1990, 2009) and International New Venture Theory (INV) (Oviatt and McDougall, 1994). This study aims at contributing to that discourse by arguing for complementing the PTI perspective with a further development of the INV perspective. Important differences between the two perspectives are that INV focuses more on the entrepreneurs, the very early internationalization process (including individual experience before start-up) and enabling factors, while the PTI perspective focuses on organisations, does not explicitly discuss international start-up and is focusing on constraining factors (Autio, 2005; Johanson and Vahlne, 2009). To understand the early internationalization of a small firm in the medical-technology sector, a more fine-grained analysis is possible drawing on concepts and models from the INV tradition. Johansson and Vahlne (2009) maintain that their model is suitable also to explain the development of international new ventures. This shows an important difference in the scope of the two perspectives. The PTI is a model on an aggregate level, broadly covering the development in firms – aiming to be a 'theory of the firm'. In contrast, the INV tradition has a more narrow scope, focusing on the development of early internationalizing firms. In line with earlier research, we see a demand for different models explaining different types of international development in firms (Bell et al., 2004). Earlier research has pointed out that that there is a need for different models to understand internationalization in different industries (Andersson, 2004; Manolova et al., 2002). Following earlier research and our empirical study we have developed a model that combines the two traditions to fit the aim of this study, focusing on the medical technology industry.

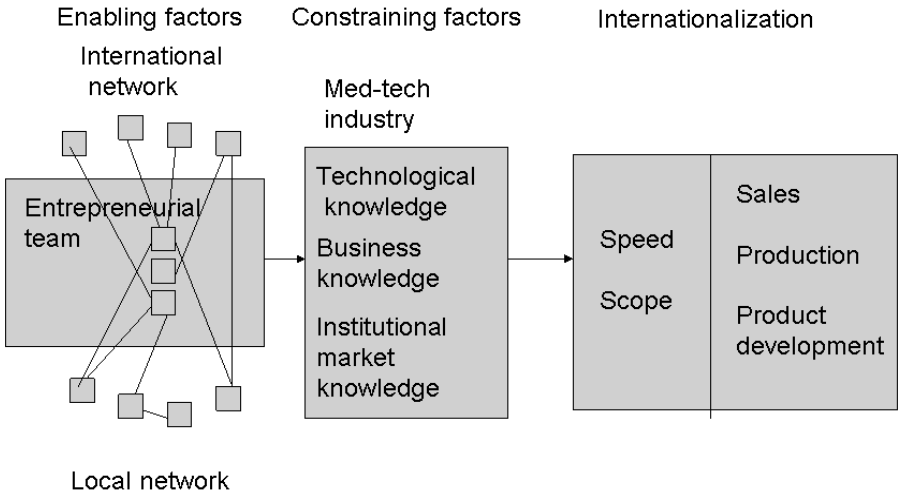


Figure 2. Internationalization in the med-tech industry

The starting point in the internationalization in the med-tech industry model (figure 2) is the entrepreneurial team and their personal network. These factors are enabling factors for succeeding with the international expansion (cf. to the INV view and Sarasvathy, 2001). In the industry, nation-specific constraining factors exist which can be overcome through learning (inspired by the PTI view). Important knowledge areas are technology knowledge, business knowledge and institutional market knowledge (Eriksson et al., 1997). Based on our empirical study, we view all these knowledge types as in-

dustry-specific. These factors influence the speed and scope of the internationalization process. In our model, we explicitly include product development and production, while earlier models implicitly or explicitly have focused on international sales.

Practical implications

A number of factors are relevant to point out for other SMEs from life-sciences industries to keep in mind when internationalizing. Firstly, this study has demonstrated the importance of continuous openness to choose different market-entry strategies for different markets, of leveraging existing network linkages, as well as of financial and managerial capacities. As regulatory burdens and long lead-times cannot be avoided, it can be fruitful to proactively lobby with relevant actors involved in the buying and payment processes, in order to smoothen the sales process. Acquiring and developing an extensive knowledge-base about international business activities might facilitate the process – for example by hiring people with relevant international experience and knowledge about different markets and their specificities, by attempting to learn from all international business activities, both in terms of success factors and failures, and by attending relevant fairs to develop a market understanding and building networks. Specific to the life-sciences industry is the role played by different voluntary and other industry-specific organizations, which might influence how and which decisions are taken. For Redsense, different nephrological associations have played an important role for disseminating information about the need for their product.
Another, more general, practical implication of this study is that managers considering to internationalize their firms might want to consider making more proactive use of their networks, leveraging these contacts for gaining relevant information and access points.

Further research

The current paper is limited to one case, which aimed at exploring in detail the internationalization process of an SME from the medical-technology industry, and the challenges this process poses. As different factors relevant for the internationalization appeared to be clearly industry-specific, it would be highly interesting to study more cases from this specific industry, as well as to broaden the study to life-sciences more generally.
Furthermore, the role of local and global networks deserves more investigation. For example, the internationalization of SMEs which belong to different local networks could be compared to that of SMEs not belonging to such networks. The roles of different types of networks in the internationalization processes also needs more detailed study. While in our case the local network did not directly influence the internationalization process, it was still crucial for the business formation and its development – the business idea would otherwise not have been put into practice.

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Innovation in Viennese SMEs and Potential Consequences for Public Policy

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Introduction

Small and medium-sized companies are important players in Austria and the city of Vienna with regard to economic growth and labour markets. Not only do they constitute the vast majority of companies as such and provide the lion's share of jobs but they also have a pronounced ability to transfer scientific-technological progress into marketable products and services. Many SMEs can be characterised as being exceptionally open to new technologies – both as a general openness and a strategic orientation – not only in so-called high technologies but also in sectors of the so-called medium and even low technologies.

Against this background, the paper at hand analyses the attitudes of Viennese SMEs towards innovation, whether or not they are actually innovative (and to what extent), and the rationales and motivations behind their innovative behaviour. Furthermore, the innovative performance will be discussed with regard to cooperation patterns, obstacles for innovations, and the demand for public support of innovation (and the usage of the support already available).

One of the main foci of the underlying research project was the consideration of those SMEs that usually are not – or not fully – covered by surveys related to innovation issues, e.g. companies with less than 10 employees and SMEs in traditional sectors, which normally are not among those labelled "innovative". Therefore, an innovation definition has been applied that allows covering innovations beyond the rather conventional technological innovations in new products/services (based on the so-called Oslo-Manual). Such innovations refer to new designs, marketing methodologies and organisational/management innovations. Moreover, the study distinguishes the development and the adoption/implementation of innovations but queries both in order to be able to cover innovation processes triggered e.g. by the purchasing of innovative equipment.

The analyses are based on the results of an online survey among 21.000 Viennese SMEs with a response rate of approx. 5% or 945 completed questionnaires. The information has been weighted according to the distribution of size ranges and economic sectors in the corporate population of all Viennese companies to assure representativeness of the results.

Results

When analysing the innovative behaviour in less innovative sectors and among very small enterprises (including companies with no employees apart from the entrepreneur) one cannot assume that innovation is something of interest and therefore, something that entrepreneurs and companies keep in mind. Therefore, a first step into the analysis of innovative behaviour is the question about the more general attitudes towards innovation, the question if innovation is something that only regards "the

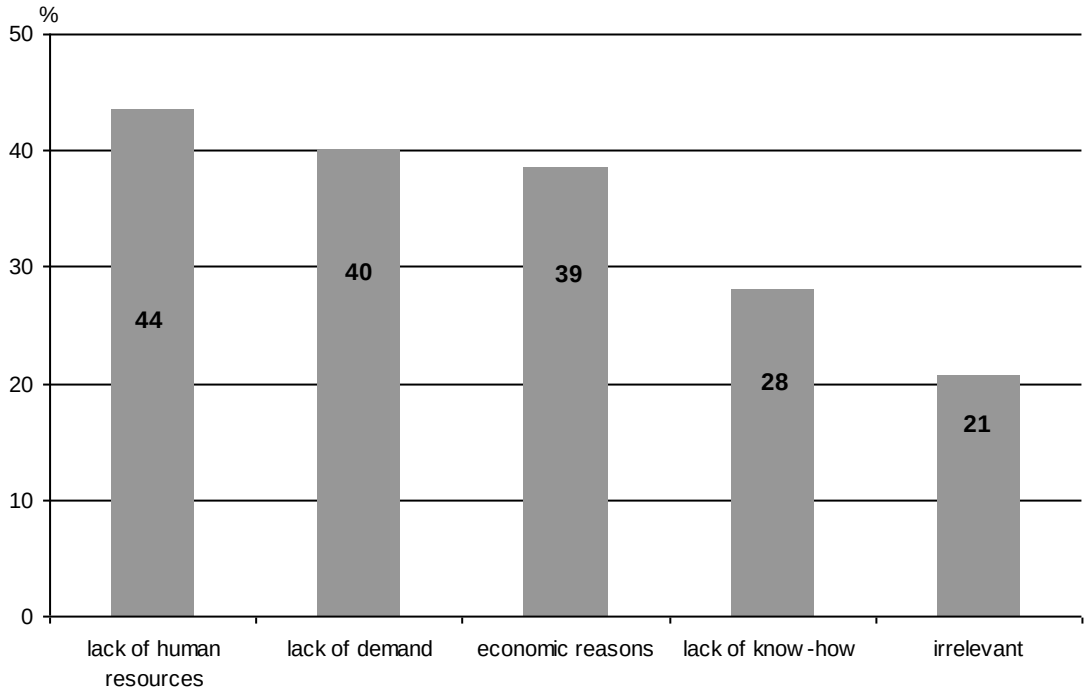
others". In general, Viennese SMEs show a positive attitude towards innovation. They acknowledge the importance of being (permanently) innovative and using state-of-the-art technologies for the sake of their own competitiveness at large. However, this positive attitude somewhat weakens the more concrete it is related to the actual and individual opportunities to innovate, i.e. the readiness to be innovative is less pronounced. In addition, a small yet significantly large share (approx. one third) of Viennese SMEs considers innovations as relevant to only some parts of the economy and more than 70 % even think of innovations as being overrated in principle. However, many of the companies that agree to such statements are innovative, which could indicate e.g. a general exhaustion regarding the issue of innovation and the weight that is attached to it in public debates (qualitative statements collected during the research suggest that in some cases). Beyond that, the companies are very aware of innovations outside the more narrow definition such as product or process innovation. A majority agrees to the statement that innovations in design, organisation, pricing or marketing are of special relevance for small and medium-sized businesses. Attitudes towards innovation in general and for the company itself improve with growing size of the companies both in number of employees and annual turnover.

Altogether, 60 % of Viennese SMEs innovated in the period 2006-2008 in the wider sense used for the study at hand (i.e. including innovations in design, marketing, organisation etc.) or implemented such an innovation (e.g. by purchasing it). The share of innovative companies increases with an increasing size of companies both in number of employees and turn-over with the larger leap from very small enterprises to companies with 10-49 employees. This is also reflected by the distribution of innovative companies among the different sectors, which are not only characterised by differing degrees of innovativeness (predominantly due to their "proximity" to innovative technologies) but also by varying average company sizes. More then one third of these innovative enterprises is permanently involved in innovation processes while another 50 % innovate (or implement innovations) regularly. The frequency of innovation processes is also increasing the larger the companies are.

The main reasons for not being innovative – even according to the wider definition of innovation applied here – lie in a mixture of internal and external factors that are predominantly linked to limited resources, a missing demand for innovative products/services on the customers' side or a missing innovation "push" from suppliers. Only 21 % of the non-innovative companies consider innovations as being generally irrelevant (see figure 1).

The development and implementation/purchase of innovations is triggered and driven by a set of different motivations that are directed both inwards and outwards. While developing innovations is rather linked to outward motivations such as market shares, competitors and competition in general, implementing or purchasing innovations is slightly stronger directed inwards in terms of e.g. the relevance of innovations for the improvement of products and services offered ranking higher among the latter. However, innovations' effects on competitiveness and turn-over are the most important motivations for all companies.

Figure 1 - Motives for not being innovative



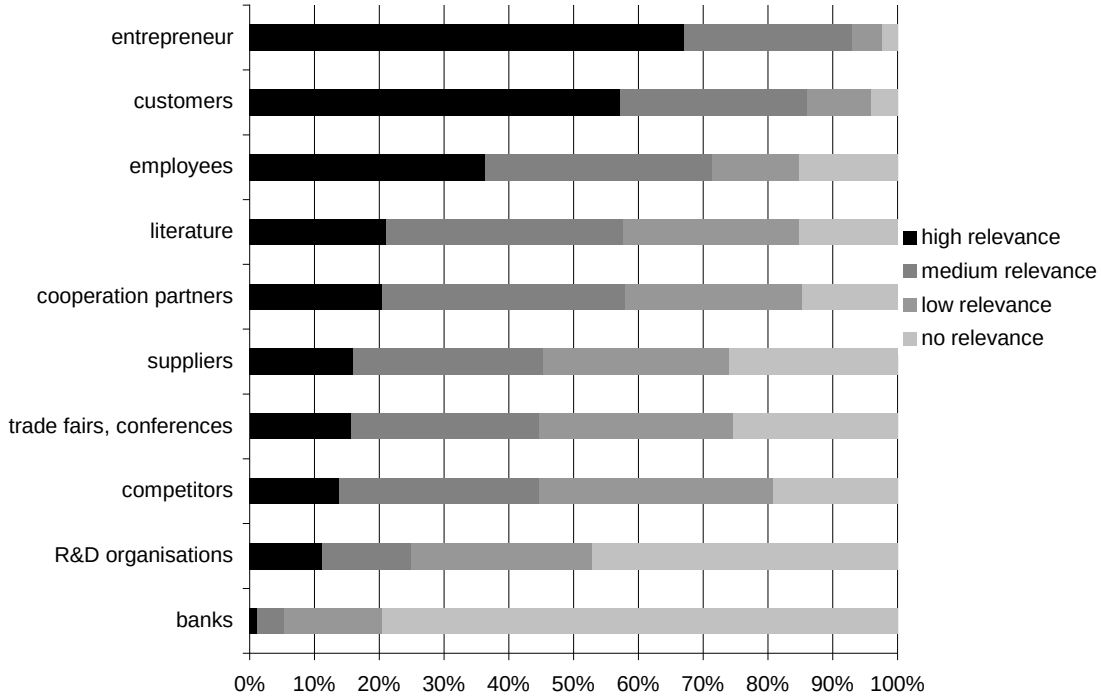
Source: Austrian Institute for SME Research, 2010.

As for the impulse that needs to be generated to implement innovation processes the analyses proved that there is a mixture of external and internal sources equally important. However, the person (and hence, the personality) of the entrepreneur is standing out, especially for companies with less than 10 employees. Other important impulse generating sources are customers and employees of the company. For the group of companies investigated, which also include a significant share of companies from more traditional and less innovative sectors, it is not a surprising result but put into the context of the general idea of how important universities or research organisations are for generating ideas and therefore, impulses for innovation processes the result that they have only a minor impact if at all is nevertheless interesting (see figure 2). All the more, since suppliers – that have been identified by scientific research as potentially important factors in innovations processes – also do not have real impact on this kind of companies.

With regard to the issue of which kind of innovations are predominantly developed by Viennese SMEs the "classic" product and service innovations rank first, followed by innovations in design, in marketing and in organisation. Process innovations are by far the least relevant. It becomes evident that companies in general develop innovations of all types much more frequently then implementing or purchasing them. Furthermore, only a very small percentage of Viennese SMEs is concentrating their innovation activities on one type of innovation. As a general rule, product, service and process innovations on the one hand and design, marketing and organisational innovations on the other are developed complementary by the same companies. One interesting finding is that a decreasing frequency of developing product, service or process innovations goes along with a decreasing relevance of implementation/purchase for such innovations while a contrary effect can be found for organisation, design and marketing innovations where the results indicate that purchasing of innovations developed by others could serve as a compensatory strategy for the development. A possible explanation for that

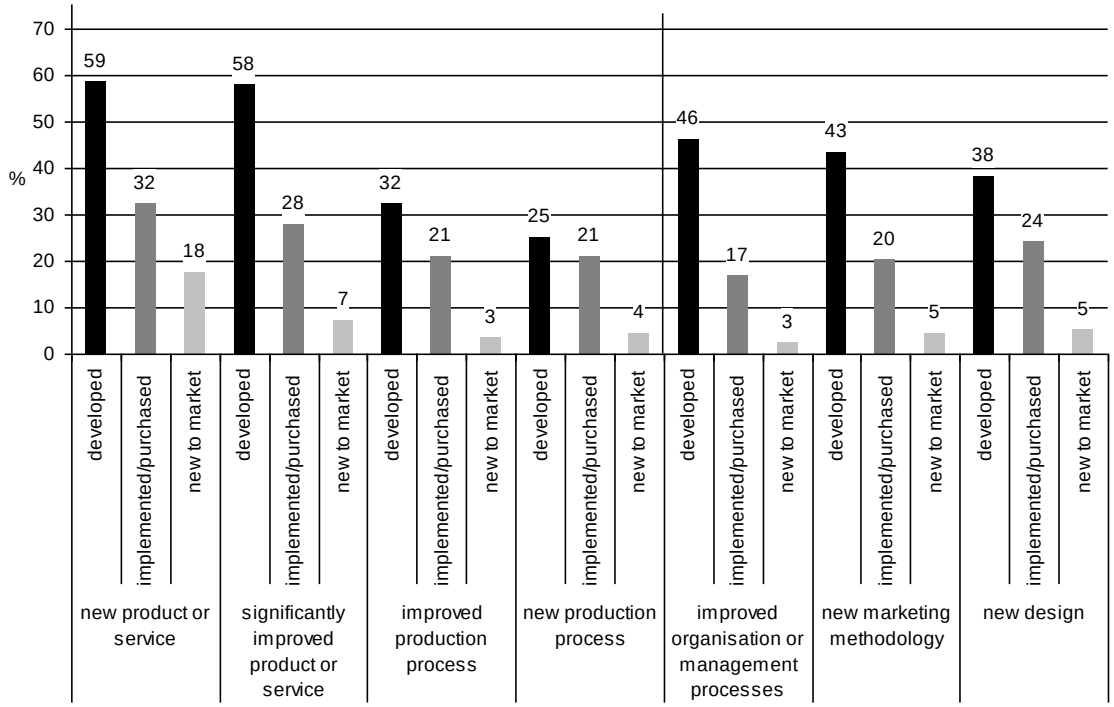
could be that the latter generally are more universally applicable. There is also a clear effect of company size; the larger the companies the larger the share of companies that develop product or service innovations (compared to implementation).

Figure 2 - Sources of innovation impulses



Source: Austrian Institute for SME Research, 2010.

Figure 3 - Types of innovations developed and implemented/purchased



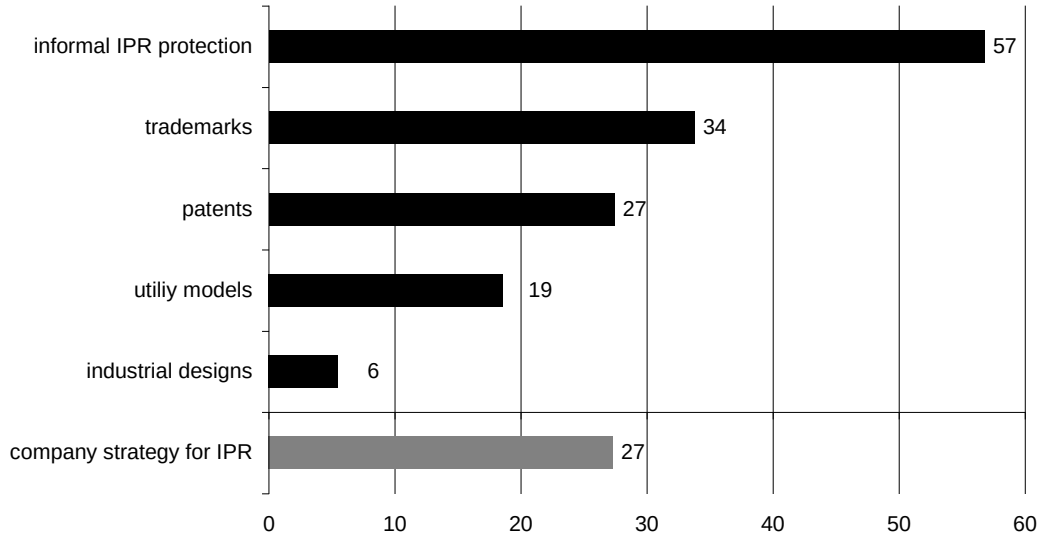
Source: Austrian Institute for SME Research, 2010.

With regard to the degree of innovativeness of the Viennese SMEs it can be stated that an overwhelming majority does not develop new-to-market products, services, etc., which is an expected result (see figure 3). However, the share of companies that consider their innovations as being new to the market should not be overlooked even though this classification is based on a self-assessment and therefore, does not substitute a case-by-case analysis based on e.g. patent data. A similar size effect as it has been identified for the analysis of the type of innovation can be observed for the issue of whether or not such an innovation is an actual new product or service etc. for the market: larger SMEs are more likely to develop innovations new to the market..

Innovations, irregardless of the question if they were developed or implemented/ purchased, have a positive effect on turnover and employment; innovative Viennese SMEs are more dynamic in that regard than non-innovative companies. Furthermore, the frequency of innovations processes is strengthening this effect, i.e. the higher the frequency the larger the share of SMEs with a positive development of employment and turnover. On average, innovative companies show a more positive development as non-innovative ones and among the former those that innovate permanently outperform those that do so only infrequently.

The corporate protection of intellectual property rights and the protection of innovations are highly relevant for Viennese SMEs in general and as a part of already existing corporate strategies. Approximately half of the small and medium-sized companies in Vienna used different instruments for protecting their intellectual property rights in the period 2006-2008 (see figure 4). However, most of these instruments remain on a purely informal level; patents and trademarks have been much less frequently applied. This does not only refer to small and medium-sized companies experiencing a set of difficulties with regard to IPR (such as the comparably high costs and information needs) but beyond that it also refers to a lack of awareness.

Figure 4 - Relevance of IPR protection

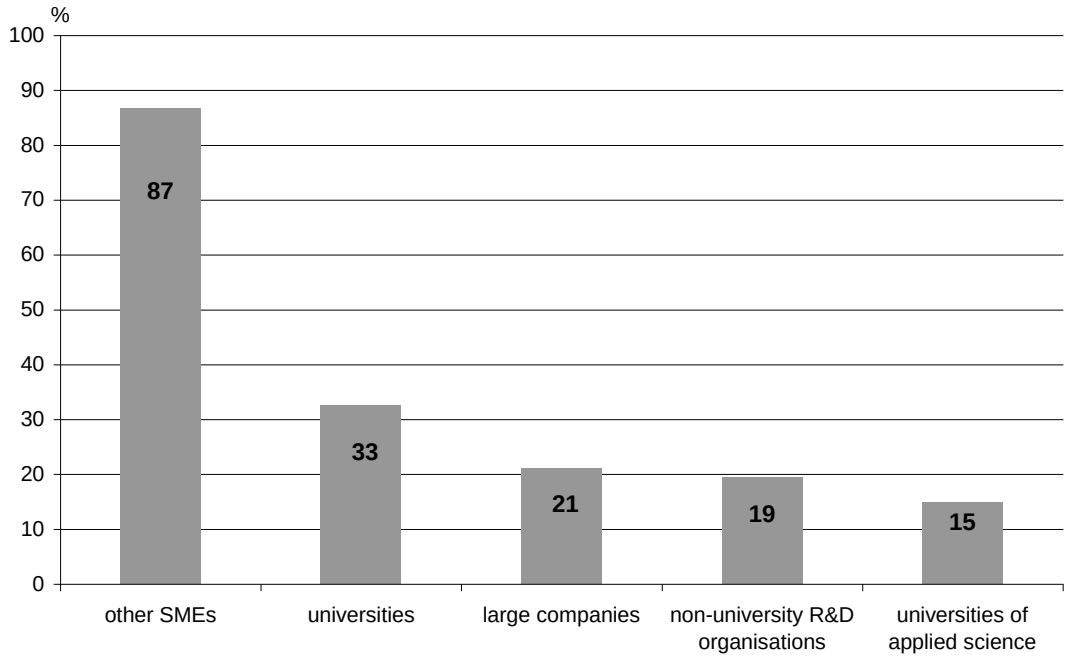


Source: Austrian Institute for SME Research, 2010.

Many innovative Viennese SMEs provide qualification and training measures for their employees frequently or even regularly. However, the results of this study indicate that the trainings are not necessarily provided as part of a corporate innovation strategy but rather as reactions to changes in the day-to-day business.

As SMEs face several obstacles with regard to innovation and being innovative due to their limited resources, innovation cooperation with other organisations becomes crucial for three main reasons: to generate knowledge and ideas leading to innovation, to minimise the technological and economic risk by sharing it and to create critical mass of personal, knowledge and time resources to perform innovation projects. Against this backdrop, it is somewhat surprising that only 50 % of the innovative SMEs in Vienna access cooperation for their innovative activities. While the most important cooperation partners are other SMEs, the cooperation with universities of applied science (Fachhochschulen) and non-university research organisations is very rare among Viennese small and medium-sized enterprises (see figure 5). This cooperation pattern bears a certain risk since innovations and their sometimes disruptive nature often require external and "fresh" perspectives. Predominantly cooperating with other companies does not only prevent access to knowledge that could be of interest but it also tends to innovation processes becoming some sort of "closed shop". However, it also has to be mentioned that a surprisingly large share (one third of the companies) are cooperating with universities. While seen for itself this result is positive it sheds an even more pessimistic light on the role of universities of applied science, which are supposed to cooperate especially with SMEs because universities are often seen as less accessible for SMEs.

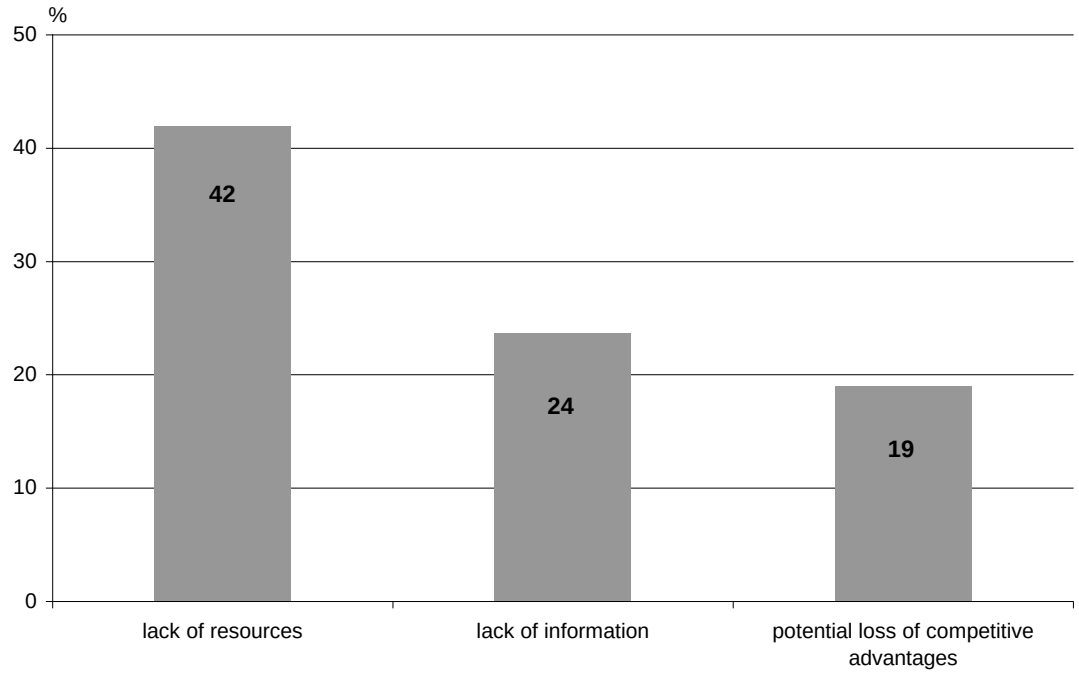
Figure 5 - Cooperation partners



Source: Austrian Institute for SME Research, 2010.

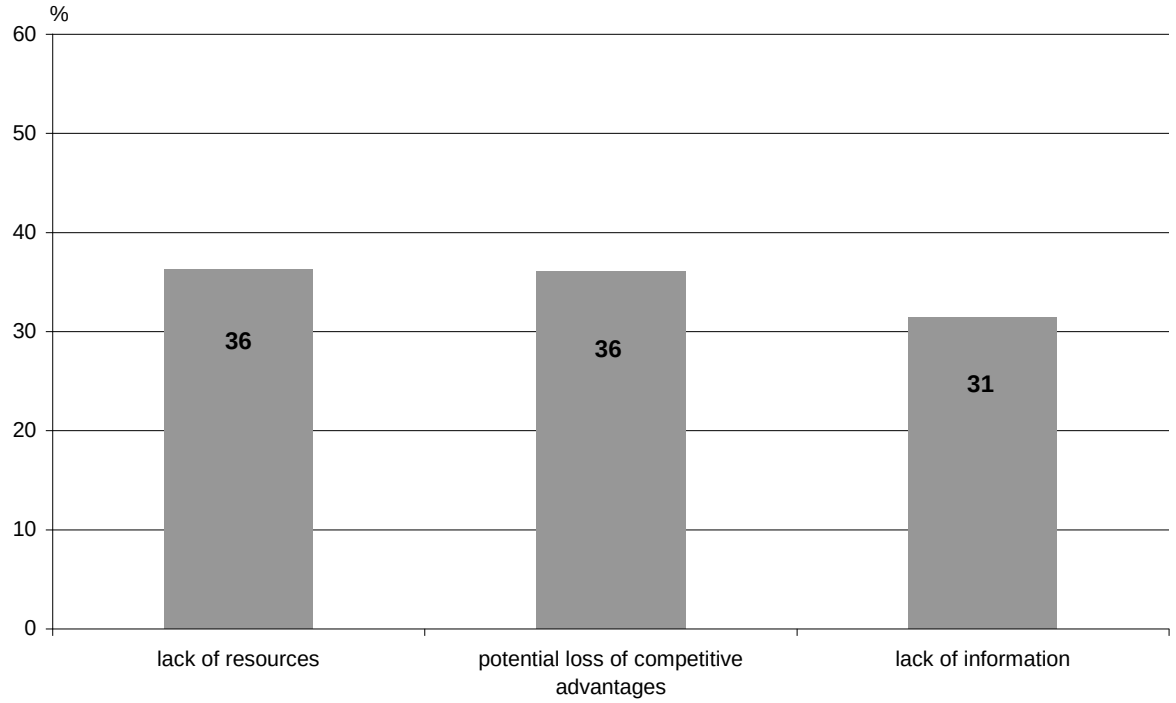
The companies' own lack of resources and information needed for cooperation create the biggest problem or obstacle for innovative SMEs and their innovation cooperation. Another issue that should not be underestimated is the threat of losing competitive (See figure 6) advantages due to disclosure of technologies, innovations etc. that comes with cooperation, which is especially problematic for companies with medium to low experience in innovation cooperation. The differentiation between innovative SMEs that cooperate and those which do not shows a slightly different ranking (see figures 6 and 7). In sum, the results indicate that although both groups share more or less the same problems, non-cooperative SMEs tend to slightly overrate the individual effects of each potential problem, which ultimately leads to the conclusion that apart from decreasing the companies' potential cooperation tradeoffs they possibly just need to be encouraged and supported in actively pursuing cooperation, therefore improving the SMEs assessment of innovation cooperation by increased experience. However, it is seems surprising that companies that are actually cooperating in innovation projects assess the issue of resources as even more critical than those companies that do not cooperate.

Figure 6 - Cooperation problems of cooperating innovative SMEs



Source: Austrian Institute for SME Research, 2010.

Figure 7 - Cooperation obstacles for non-cooperative innovative SMEs

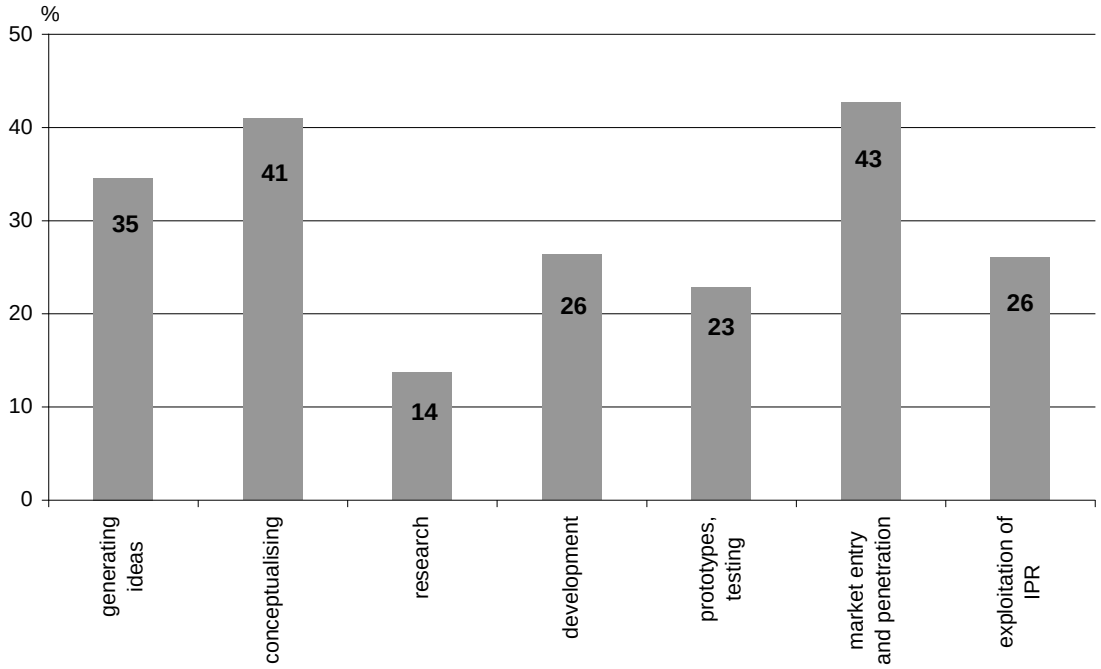


Source: Austrian Institute for SME Research, 2010.

The most important obstacle for innovation activities is risk in general and financial or economic risk especially; technological risk is not, indicating that small and medium enterprises can very well handle the risks inherent in innovation but can fail (and actually fear to fail) due to the insufficient financial and economic security. Non-innovative companies however, do not only ascribe different hampering factors a higher importance on average but emphasise especially their lack of the technological information and knowledge that prepares the ground for innovative activities. The latter indicates a strong leverage that could be achieved by intensifying and multiplying cooperation, especially outside the "usual suspects".

Due to the aforementioned issues and the general lack of resources to innovate (compared with larger companies) SMEs do partially rely on public support for their innovation activities. For Viennese small and medium-sized enterprises this demand is most pronounced in the beginning and the end of the innovation process, i.e. the development of ideas, conceptualising and planning of innovation projects on the one hand and the marketing of innovation on the other. This is somewhat surprising since SMEs that conduct *research* rather emphasise their need for support in the core stages of the innovation process. However, this could be linked to the fact that the latter are more experienced in handling support measures and know what they can expect support for.

Figure 8 - Need for public support in different phases of innovation processes



Source: Austrian Institute for SME Research, 2010.

The aforementioned results also reveal a typical dilemma of perceived mismatches between the private need for support and the public offer; while due to legal restraints the latter have to concentrate on pre-competitive research and innovation the companies would like to see more support in the competitive stages of their innovation processes, which in most cases is simply impossible at least with regard to direct funding. The emphasis on the ideas generating and conceptualising parts points out to another crucial issue for a company's decision whether or not to become innovative; many companies simply do not know what they could do to be innovative. With regard to the results discussed before that the entrepreneur or other SMEs are most relevant sources for innovation impulses it intensifies the impression that external and new insights are missing to a large extent. In addition, this result becomes even more alarming since there is a respective weakness of public support systems for they usually concentrate on research conducting companies that are already part of strong network needed to generate ideas.

This points out to a potential demand for a different support approach for innovative SMEs as compared to research SMEs. It is also striking that although there is clear demand for public support both the knowledge about and the actual usage of already existing support measures is common only among a very small minority of Viennese SMEs. The instrument of indirect funding for R&D and innovation, the tax credit system active in Austria is only used by 5 % of the respective companies. Even considering that there is only a minority of SMEs whose activities are eligible for tax credits the share seems unexpectedly small.

Conclusions

Small and medium-sized Viennese SMEs are innovative to a somewhat surprisingly large extent, which holds true for all different sectors and sizes. A majority of these companies (60 %) are developing and implementing innovations not only in a more technological sense (product, service or process innovations) but also with regard to new and innovative organisation structures, product designs or marketing instruments. Despite the expectation that the latter, the so called "soft" innovations would be – among other things – a compensatory strategy for those that either are active in sectors with a comparably low level of technology usage or lack the competence and capacities to develop technological innovations, the results show that they are two sides of the same coin and only a very small percentage of SMEs is concentrating on only one of them. Innovations developed by Viennese SMEs are mostly not new to the market.

The central motivations behind innovative behaviour are hardly differing among different sectors or sizes and are predominantly based in aiming for an increasing competitiveness, a growing turn-over etc. Companies that do not innovate do so because they lack the necessary resources (time, personnel, and finances) and knowledge. In addition, the lacking demand for innovative solutions on the customers' side is another main reason for SMEs not to innovate.

The entrepreneur as well as the customers and employees are the most important sources for innovative impulses accounting for a lack of external insights, inputs and knowledge, which is also reflected by the low level of innovation cooperation as such as well as by the cooperation patterns. The regional innovation system seems to suffer from a potentially threatening dysfunctionality; universities of applied science as higher education institutions with supposedly very strong and close links to the regional economy are almost non-existent as cooperation partners for SMEs. The comparison between cooperative and non-cooperative innovative SMEs in Vienna revealed that although the issues (costs, disclosure of competitive advantages etc.) that are perceived as obstacles to such cooperation are more or less similar the latter seem to overrate their impact.

Innovative Viennese SMEs show a different demand profile with regard to their need for public support. The results indicate that those already innovative can handle the actual innovation process rather well while missing support for generating ideas and bringing their innovations to the market. For different reasons the public support system is not able (or in fact not allowed) to deliver this kind of support. In general, the relevance of the existing support measures is very low, which refers to its alignment to research rather than innovation in the broader sense and an overwhelming lack of knowledge and information on the company side. In conclusion, public support for innovation activities is needed but needs to address different issues in a different way compared to research organisations or research conducting companies. First and foremost, awareness has to be generated for the positive effects of innovation and the possibilities to be supported in being innovative. Secondly, cooperation has to be addressed even stronger than it is already, including activating "inactive" cooperation partners such as universities of applied science. Thirdly, the public support system should widen its definition of innovation to a broader one including "soft" innovations and the potential effects of implementing innovations developed by others on a company's future readiness to become an innovator itself.

Open Competition and The Entrepreneurial Process

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Abstract

Opening up markets provides both opportunities and challenges to the small- and medium-sized enterprise (SME) sector. It provides opportunities for new and existing firms, encourages entrepreneurship, allows more efficient enterprises to succeed on their own merits, and removes inefficient operators. On the other hand, open competition is often assumed to lead to a situation where large firms "drive out" their smaller competitors, and as a result, some advocates suggest that SMEs should be protected from the rigours of fully open and contestable markets.

This paper seeks to address this issue, using evidence largely drawn from the Australian context and experience. It begins by outlining some of the key arguments for and against open markets, and suggests that, on balance, open competition ultimately helps SMEs. It examines some of the evidence which indicates that competition can often help grow the size of the small business sector, and summarises some recent studies which indicate that most owner-managers are supportive of free and fair competition. However, it also acknowledges that SMEs face some particular challenges in being able to compete effectively, and examines some of the regulatory tools adopted to help SMEs deal with these issues.

Keywords: Antitrust, competition, trade practices, free markets, small business, Australia

Introduction

Competition is an essential ingredient in the entrepreneurial process. Businesses seek to generate income, win sales and gain customers, but there is only a finite amount of these. As a result, all business ventures must engage in a contest for the limited resources (and pockets) of consumers.

Firms engage in a constant process of contestability, differentiation and rivalry as they seek to win customers and generate profits. In the process, those that are more efficient, more attuned to consumer demands, and managed more effectively, will generally succeed.

But competition also comes at a cost. Implicit in the notion of contestability is the fact that there will be both winners and losers. Some firms will succeed, and their owners will be enriched, whilst others emerge second best – which, at the worst point, will mean the business ceases to exist and investment capital is lost.

Competition thus offers both advantages and disadvantages to the small business community. On the one hand, fully competitive markets – free and fair trading environments – provide ample opportunity for entrepreneurs to launch new business ventures, offer innovations, and to carve out successful

niches. On the other hand, however, there is also a perception amongst many existing SMEs that fully open competition allows larger firms to gain greater market share and to squeeze out small-scale enterprises.

As a result, researchers, industry associations and advocates representing the SME community can often present a confusing argument: some argue for deregulation, market liberalisation and freeing up on economic structures and markets; whilst others advocate special laws, regulations and economic frameworks to protect existing small businesses.

Is one choice preferable, or are there other ways in which the needs of SMEs can be addressed whilst still maintaining the integrity of open markets?

This paper examines this issue, using evidence largely drawn from the Australian context and experience. It begins by outlining some of the key arguments for and against open markets, and suggests that, on balance, open markets ultimately help SMEs. It examines some of the evidence which indicates that competition can often help grow the size of the small business sector, and data which indicates that most owner-managers are supportive of free and fair competition. However, it also acknowledges that SMEs face some particular challenges in being able to compete effectively, and examines some of the regulatory tools adopted to help SMEs deal with these issues.

The Benefits of Competition for SMEs and Entrepreneurs

Competitive markets can assist small firms and entrepreneurs in a number of different ways. Environments where markets are open to all, fully contestable, and where each firm has the chance to compete on its own merits, give rise to a number of opportunities, including:

- *Product and service diversity:* A range of different goods can be offered to consumers, who may chose (or not) to purchase such items as they see fit;
- *Product/service innovation:* Fully contestable markets create a constant pressure on firms to seek out and introduce viable new innovations that satisfy consumer needs, and which allow them to stand out from their competitors;
- *The development of niche offerings:* The existence of numerous different product offerings can in turn allow small firms to carve out successful markets offering small and highly differentiated goods and services;
- *Efficiency improvements:* Competition also drives businesses to improve their performance by deliberately seeking out better and more effective ways of doing things, which often involves investment in new services, processes and technologies;
- *Launch of new business ventures:* Where entrepreneurs can identify an opportunity to do something new, different or better, then they are more inclined to launch a new firm. High levels of competition, then, should encourage greater rates of new venture formation; and
- *Rewards agile firms:* New and small firms are often seen to be more flexible, nimble and able to respond to change than large organisations. Smaller, flatter management layers and informal, timely decision-making structures should allow SMEs to respond more quickly to market changes and opportunities than their bigger competitors.

In total, these market dynamics tend to foster entrepreneurship – since the ability to adapt and change, be flexible, and embrace innovation remain at the heart of the notion of entrepreneurial activ-

ity, and lay at the centre of Schumpeter's (1934) notion of "creative destruction" and entrepreneurial renewal.

Competition is not, though, an end in itself, or a desirable goal per se. Instead, open competition is desirable because of the broader community benefit which it creates. It provides benefits to consumers, by giving them greater choice and better products. It helps ensure that prices are often lower, and product quality is higher, than would otherwise be the case. By pushing firms towards greater efficiency, the competitive process can translate into higher levels of economic growth, increased employment, greater levels of entrepreneurial activity, and help achieve a higher standard of living for a nation's citizens.

Arguments Against

Not all, however, agree that open markets work to the benefit of SMEs. There is, in fact, a view amongst some small business owners and their representatives that competition can be dangerous to small firms.

In part, this argument springs from the recognition that not all firms have the ability to compete on an equal capacity. For example, as Table 1 below indicates, small firms typically have fewer financial resources, a smaller product range, restricted products and market ranges, and limited access to skilled external advice, which can make it hard for them to effectively challenge bigger competitors. This is turn gives rise to the following criticisms of open markets:

- *Power imbalances between large firms and small firms:* Large-scale corporations have an inherent advantage over small firms, due to the existing financial, human, physical and other resources that they already possess. Large firms, it is suggested, already possess significant market share, high levels of consumer recognition, and have the capacity to therefore edge out (or, in some cases, eliminate) smaller rivals.
- *Inability to compete effectively:* A variation of the above argument is the contention that SMEs are too resource-poor to be able to compete against larger firms.
- *Increased rates of business failure and exit:* Vigorous competition implies that there will be both winners and losers. Those who fail to succeed are often forced to exit the market, with a loss of employment, invested capital and other resources.
- *Market failure.* Not all markets can be contested on an equal basis; sometimes the dynamics or structure of a particular market can mitigate against the competitive process, and result in a monopoly or market with limited players.

Small Business Perceptions of Competition

What, however, do the majority of SME owner-managers think of competition – do they support or oppose it? Whilst only a limited amount of research has been conducted in this arena, the results to date are somewhat surprising.

Table 1: Common Differences In Competitive Capacity Between Small and Large Firms

	SMEs	*Large Firms*
Number of business establishments	Single	Multiple
Geographical distribution	Limited	Limited or wide
Product/service range	Limited	Limited or wide
Market share	Limited	Significant
Customer base	Small	Numerous
Likelihood of business failure/exit	High	Low
Compliance cost burden	Proportionately high	Proportionately low
Knowledge of, and to access to, regulatory information	Limited; ad-hoc	Sophisticated; extensive
Knowledge of, and to access to, marketplace information	Limited; ad-hoc	Sophisticated; extensive
Ability to access established supply sources	Difficult	Easy
Level of financial resources	Typically small and limited	Substantial
Use of external legal and economic advisers	Limited; ad-hoc	Systematic; structured

Source: Schaper (2010)

The Australian Bureau of Statistics (2008a, 2008b, 2009) has examined a number of aspects of small business and their competitive environment. It found that SMEs were more likely than large firms to be concentrated in small, local markets (over 80% relied principally on their local area as their key geographic market); moreover, they were also far more likely to rely on a limited group of clients for their income-generating activities (more than half reported relying on a small number of customers, compared to about a quarter of all large firms). When asked about the intensity of competition that they faced, most stated that they believed themselves to be exposed to a "moderate" or "high" level of competition (although one-third claimed that they faced "minimal" or "no effective" competition). Interestingly, whilst they reported that some 45% of their competitors tended to be larger in size, a further 49% were actually of the same size. In other words, the competitive challenge posed by other small businesses appeared to be just as significant as that presented by larger corporations (ABS 2009).

Perhaps the most detailed examination of SME perceptions of, and support for, the notion of open competition has been conducted by the United Kingdom's Office of Fair Trading (2005), which has published a number of reports on this issue. For example, an April 2005 study of 2,000 SMEs found that only half were aware of the existence of the *Competition Act*, the principal legislative framework governing competition laws and open markets in the UK (OFT 2005a).

Another OFT study in May 2005, which involved 500 owners and managers in small- and medium-sized firms (but no micro-enterprises), indicated that almost a quarter of all owner-managers believed they were liable to be adversely affected by anti-competitive behaviour such as price fixing and collusion in tender bidding. One third reported an awareness of anti-competitive practices in their industry,

and approximately 20% believed that they had been the victim of anti-competitive activity (OFT 2005b).

Such data would suggest that SME perceive themselves to be victims of occasional anti-competitive practices. Despite this, however, most owner-managers stated that they would be unwilling to report such behaviour to the competition regulator. This discrepancy between perception and action is noted by Storey, who comments (OFT 2005b):

'What is interesting is that even when they experience anti-competitive practices, the reaction of the small firm owner is to soldier on without turning to the authorities. But using their rights under competition laws they can level the playing field to give them a better chance to beat the competition.'

Nevertheless, whilst many SMEs appear to be the victims of one or another types of anti-competitive practices, few owner-managers appear to advocate a retreat from competition to a more closed economy. The same study reports that 75 per cent of SMEs agree with the argument that competition is a driver for innovation and growth, and over 60% support the contention that a competitive environment is a key to winning and maintaining customer loyalty (OFT 2005b). This was also supported by the findings of another OFT study on the perception of competition by SMEs, which in February 2005 found that more than two-thirds of all small firms, and eighty percent of large firms, agreed with the proposition that the "marketplace is sufficiently regulated in relation to fair/open competition" (Synovate 2005).

Opening Up Markets: An Example

Whilst the pro- and anti-open markets perspective can be quite strongly held by some of their respective proponents, there is surprisingly little evidence which examines the practical impact on SMEs of opening up markets. The US Small Business Administration has recently noted (US SBA 2008, p.i) that even though a "…significant body of literature exists on the economic importance of antitrust [competition] laws and enforcement for firms…less is known about [their] impact on small businesses…"

One of the few studies that has examined this issue is the 1995 changes to Australian competition law (Productivity Commission 2005). This is one of the limited instances where there has been a substantial widespread deregulation accompanied by a relatively robust count of SMEs. Up until that year, only companies had been included within the Australian national framework of competition laws; unincorporated sole traders and partnerships, which represented the bulk of all trading SMEs, had been excluded. However, in 1995 a series of national reforms resulted in such firms being incorporated into the national competition framework for the first time. Self-employed professionals such as doctors, for example, were now required to operate and compete with each other; so too were tradespeople and unincorporated micro-enterprises.

In its review of these changes, the national independent economic reform analysis agency, the Productivity Commission (2005), indicated that the changes had actually appeared to encourage the growth of the small business sector. SME numbers continued to grow substantially after the introduction of more competition, and within ten years had more than doubled. At the commencement of these reforms, there had been some 930,000 SMEs in the country; by 2005 there were almost 2 million. Moreover, the proportion of micro-businesses actually rose, from approximately 80% of all firms to

84% (Australian Bureau of Statistics 2007). This suggests that SMEs are not threatened by increased levels of competition and market openness. They can and often do grow rapidly in such conditions.

Setting the Appropriate Competition Framework

A key issue in the overall competition context is the legal and regulatory framework within which business occurs. What sort of structure is needed, and to what extent should SMEs receive special consideration within the competition laws?

All countries have a legal framework which is designed to facilitate competition within their borders (these are referred to as trade practices, fair trading, antitrust or competition law). In general, these laws and regulations seek to set out the "rules of the game" – that is to say, how business can (and cannot) conduct itself in a competitive context. This can includes prohibitions on various forms of anti-competitive behaviour (including cartels, market-sharing, and price-fixing), regulations governing monopolies, a framework for assessing inter-firm mergers that could potentially create a substantial lessening of competition, and rules designed to protect consumers (including bans on misleading and deceptive conduct) (Corones 2007).

In Australia, for example, the legal framework is primarily contained within the *Trade Practices Act*[1] (1974). This law deals with a wide range of issues, including restrictive trade practices, consumer protection, mergers and acquisitions, and the regulation of some specific industries and markets (such as shipping, telecommunications, water, and energy). The Act and its provisions are overseen and enforced by an independent statutory agency, the Australian Competition and Consumer Commission (ACCC).

The ACCC's role is to ensure that individuals and businesses comply with the Act and associated laws. The Commission has capacity to investigate potential breaches of the law, initiate legal action to enforce the Act, undertake an informational and educative role, and to authorise certain potentially anti-competitive behaviour in particular circumstances (ACCC 2008).

The Australian system includes a number of specific provisions designed to take the needs and concerns of SMEs into account. These include:

- *A designated Commissioner responsible for SMEs.* The ACCC has traditionally had at least one full-time Commissioner with a special interest in small business matters and, in 2007, the Act was amended to mandate a Deputy Chair of the Commission "…who has knowledge of, or experience in, small business matters." This appointment helps guarantee a high level of SME knowledge, and an SME perspective, at the most senior levels of decision-making within the Commission.
- *Mandatory industry codes.* This provision in the Act allows for the development and implementation of industry-wide codes of conduct, and has been used to set up legal frameworks in a number of industries. For example, in 1998 a national Franchising Code of Conduct was introduced, which has made Australia one of the few OECD nations to introduce specific regulations in this sector. Key features of this Code include a requirement on franchisors to provide background information to prospective franchisees, introduce a "cooling off" period before a franchise agreement becomes effective, and provides a mediation service to help settle franchisor-franchisee disputes.

[1] As from January 2011, this will be renamed the *Competition and Consumer Act*.

- *Collective bargaining.* These measures allows small firms and unincorporated individuals to seek authorisation to undertake joint (group) negotiations with a larger firm over matters such as access to supply, contracts, and other commercial matters. It provides participants with legal protection from any potential breaches of the competition laws, although it does not compel the target to enter into negotiations – both parties must ultimately be willing to do so in a voluntary capacity. Chicken farmers, truck drivers, newsagents and a variety of other small-scale business operators have all applied for collective bargaining authorisations in recent years.
- *Prohibition on unconscionable conduct.* The Act also prohibits so-called "unconscionability" – that is, harsh, unjust or unfair behaviour which goes so far beyond the bounds of acceptable commercial behaviour that it cannot be tolerated. Whilst such behaviour can assume many different forms, the prohibition is in part directed towards ensuring that small firms are not treated unconscionably by larger enterprises.
- *Industry consultation and outreach.* The ACCC has a specific staff unit dedicated to SME liaison, which disseminates information, provides speakers to industry groups, and encourages greater levels of business understanding of the law, and of the rights and benefits available under it. The Commission also has a Small Business Consultative Committee and a Franchising Consultative Committee, both composed of representatives from the small business sector, that meet on a regular basis.

Overall, then, the approach has not been to protect small businesses from competition *per se*. Instead, the Act makes some limited specific provisions designed to help address particular SME issues, whilst at the same time maintaining an overall framework that promotes the maintenance of competitive processes. As the Commission has frequently noted, open markets work best when the process of competition is protected and preserved – individual competitors should not be protected, but rather succeed or exit on the basis of their own ability and capacity. The approach has been endorsed by the findings of a federal Senate inquiry into the protection of SMEs in the competition process (2004), which likewise recommended that:

"… the Act can best protect competition by maintaining a range of competitors, who should rise and fall in accordance with the results of competitive rather than anticompetitive conduct. This means that the Act should protect businesses (large or small) against anticompetitive conduct, and it should not be amended to protect competitors against competitive conduct." (Senate Economics References Committee 2004, p.xi)

Conclusion

Competition poses challenges for all businesses. It removes certainty and replaces it with constant challenges, changes and the need for ongoing responsiveness. However, these same conditions can provide the environment in which entrepreneurs and small firms can flourish, if they have the willingness and capacity to respond pro-actively to such challenges.

As the limited evidence to date appears to suggest, competitive environments can help grow the size of the SME sector, and most proprietors of small-scale business ventures are not opposed to competition. Nevertheless, SMEs do face some challenges in dealing effectively with an open market.

In reality, the choice is not about simply choosing "open" versus "closed" markets. There is a third option - open markets alongside a set of robust laws that take into account the special needs of SMEs.

This is the approach favoured in Australia, where legislation provides SMEs with tools such as collective bargaining, protection from unconscionable conduct and authorisation to help "even up" the competitive playing field, whilst still ensuring that markets are both free and fair.

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Measuring the Competitiveness of Small Businesses

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Keywords: Competitiveness, SME, configuration theory, weakest link, best shot

Abstract

This paper presents a unique methodology to calculate the competitiveness of small businesses. The seven pillar conceptual model of competitiveness put an emphasis to the system approach in the sense of Miller's configuration theory. We present three possible ways to combine the seven pillars of competitiveness: (1) the sum of the seven pillars, (2) the best shot and (3) the weakest link. While the elasticities of the substitutions amongst the seven pillars of competitiveness are basically unknown, we applied a natural logarithmic function that implies a moderate substitution effect. We test our findings on a sample of 695 Hungarian small businesses, identifying strong arguments supporting that the weakest link postulate provides the best view about the interrelation of the pillars. However, the shortcomings call for further research.

1. Introduction

Competitiveness is one of the most critical topics for researchers as well as from public and industrial policy makers. Following the establishment of the US Competitiveness Policy Council, the European Union also revived a similar institution the European Council of Competitiveness in the 1990s. The Lisbon strategy established competitiveness improvement as the most important goal of the EU in the 2000s. Many other countries followed suit, establishing a forum or institution for competitiveness in the 2000s, including Belgium, Egypt, Hungary, Ireland, Japan, and the United Kingdom (Kitson et al 2004).

Despite the growing scientific research interest toward competitiveness, our knowledge is still limited about the exact meaning, content and factors of competitiveness (Krugman 1996, Man et al 2002). Over the last decade, the competitiveness fight has gone on at least four, sometimes interrelated battlefields: (1) definition of competitiveness (2) level of competitiveness, (3) factors and the measure of competitiveness, and (4) effectiveness of competitiveness policy.

[1] László Szerb appreciates the financial support of OTKA Research Foundation, theme number NK 69283.

(1) Definition Competitiveness is a multidimensional, fuzzy concept (Budd and Hirmis 2004, Porter and Ketels 2003). Competitiveness can be viewed in terms of the level of investigation: Macro-, meso- and microeconomic approaches all define competitiveness differently (Buzzigoli and Viviani 2009). On the country level, competitiveness, the ability of a country to increase the wealth of its citizens, is different from comparative advantage, the relative advantage of a country to another country due to differences in relative production costs (Porter 1990, 1992, Kitson et al 2004). While regional competitiveness can be similarly defined by changing the "country" term to "region," it should also be considered that regional competitiveness is neither a scaled down version of countries nor an aggregation of the firms. As a consequence, the content and meaning of competitiveness is also changing (Cellini and Soci 2002). Viewing competitiveness on a firm level, some definitions refer to the lower cost production principle (Buzzigoli and Viviani 2009). In contrast, Porter (1992) considers competitiveness as "...a function of dynamic progressiveness, innovation, and an ability to change and improve." (p. 40, also cited by Kitson et al 2004). While Porter and Krugman are frequently in opposing positions, they agree that the core principle of competitiveness is efficiency (Martin 2005).

(2) The level of competitiveness In addition to the macro approach, competitiveness research has become more sophisticated opening to regional, industry (cluster) and firm level investigation. Of these approaches, the concept of regional competitiveness is the most debated: Do countries, smaller and larger regions, urban areas, cities or clusters compete (Krugman 1996, Turok 2004)? Besides the territorial boundaries quarrel, many regional researchers focus on the regional externalities and agglomeration factors that influences the efficiency and productivity of the firms in that particular region (Fujita and Thisse 1996, Porter 1996).

(3) The factors of competitiveness There are numerous measures of competitiveness from simple indicators to complex indexes, all sensitive to the availability of proper data (Buzzigoli and Viviani 2009). While most economists consider the institutional structures to be the key element of competitiveness (Camagni 2002, Kitson et al 2004), Porter (1998) emphasizes the importance of firms in competitiveness as opposed to countries, or regions. An elegant way of regional competitiveness examination is provided by Lengyel (2004). The pyramid model factors identifies the influential factors of economic output, profitability, labor productivity and employment taking into account the social, economic, environmental and cultural processes. In contrast, the resource based view (RBV) of firms maintains that the competitive market position of the firms is mainly determined by the internal rather than the external conditions (Barney 1994, Grant 1991 Foss and Knudsen 1996). The firm that possesses more valuable, rare, non-reproductive and non-substitutive resources is considered to be more competitive than those businesses that do not have these resources (Peteraf 1993).

(4) The effectiveness of public policy Besides the advocates of active public policy support and institutional development of competitiveness, there are some opponents. According to Porter (1990, 1998), the government can play an important role by effective industry and antitrust policies, stimulating demand and specialized factor creation. At the same time, recent Nobel laureate Paul Krugman claims that competitiveness is empirically unfounded, the concept of international competition is wrong and consequently national economic policy focusing on competitiveness can be harmful (Krugman 1994).

Despite the rich literature in competitiveness there are some disregarded areas. Viewing firm level competitiveness, there is a lack of those studies that aim to analyze the competitiveness of smaller sized businesses (see. Clark et al 2004 and Man et al 2002, as exceptions). Most researchers focus on

large, many times multinational firms or clusters (Lengyel 2001, Porter 1990, 1998, Rugman and Verbeke 2001). A likely explanation of this neglect is due to Porter (1998) who claims that competitiveness should only be examined in those sectors where a country has certain competitive advantage. However, the importance of the small businesses should not be ignored. For example, in the EU, the small and medium-sized business sector (SME) constitute around 99.8% of all the businesses, have a 58 % of value added, and employ more than two-third of the private labor force (Audretsch et al 2009).

A relatively new direction in the competitiveness research is index construction. The two most well-know competitiveness indices are the Porter's Global Competitiveness Index reported by World Economic Forum (Porter and Schwab 2009) and the IMD World Competitiveness Yearbook (2010). Both indices are complex measures and serve to evaluate and compare country level competitiveness. Several other indices aim to quantify regional competitiveness (e.g. Huggins 2003, Huovari et al 2002, Lengyel and Lukovics 2006). According to our knowledge, there has been only one attempt to measure firm level competitiveness by constructing one index number. Using a sample of 217 Hungarian companies, Chikán (2006) calculated the company level competitiveness as the function of operability, the ability to change, and performance.

The basic aim of this paper is to develop a conceptual model capable to determine and examine the competitiveness of small businesses. The calculation of the competitiveness points of the firms in an individual basis is a distinctive approach in the competitiveness research. While most competitiveness researches try to focus on identifying the key factors of competitiveness, we view competitiveness from a system perspective. In this respect, the combination of the different elements is more important than a single factor. We focus on showing how the different elements of competitiveness can be recognized and combined together by applying a unique methodology that considers the interrelation of the seven pillars. We present three versions, assuming that competitiveness depends on (1) the overall sum of the pillars, (2) the best shot, and (3) the weakest link.. A small research survey in the Hungarian SME sector serves to present the empirical applicability of the conceptual model and the methodology.

The paper is structured as follows. Section 2 provides the theoretical basis and section 3 presents a conceptual model that is adjusted to fit to the small business framework. The conceptual model mainly builds on the resource-based theory and consists of seven pillars. This section also discusses about the practical application of the theory. Section 4 deals with the issue of combination of the seven pillars into an individual competitiveness point. Three potential solutions are presented: When competitiveness is determined by (1) sum of the seven pillars (2) the best performing pillar value and (3) the worst performing pillar value. The application of this methodology, originated in the public choice theory, is unique in the competitiveness and strategic management literature. The recently created penalty for bottleneck (PFB) method enables us to address the configuration of the factors of competitiveness. Section 5 includes the description of the dataset and of the empirical methodology. Section 6 contains a short discussion about the selection amongst the three possible measures of competitiveness. Finally, section 7 summarizes and concludes. While there are some strong arguments supporting the weakest link postulate, limitations call for further research.

2. Literature survey and theoretical setup

Since our basic aim is to derive a model and an index for small business competitiveness, we rely on firm level rather than national or regional approaches. In line with Porter's benchmarking contribution, there is agreement amongst scholars that firms- not nations and regions- compete (Budd and Hirmis 2004, Porter 1990). However, Porter and his followers claim that firm competitive behavior should be examined within the framework of national or local environment (Nelson, 1992). This approach assumes that the macroeconomic or industry specific characteristics, institutions, and policies affect the performance of the firms in a given geographical entity, industry, cluster region or nation.

Contrary to the frequently applied Porter models that emphasize the role of *industry specific* factors and cluster forces, we rely on the RBV theory (Wernerfelt 1984). RBV theory brings to light to firm specific characteristics that explain differences amongst firms even *within the same industry* (Grant 1991, Molina et al 2004). Barney (1991) identifies four characteristics of these unique resources and capabilities that lead to sustainability: (1) valuable basically means that the resource should be effective and efficient, (2) rarity takes into account the specificity of the resource, (3) imperfect in-imitable refers to the difficulty to reproduce the resource, and (4) substitutability involves the availability of alternative resource. A resource, that can be interpreted as asset, competency, organizational processes, information, knowledge or capability is considered to be unique if it is valuable, rare, difficult to imitate and has no close substitute (Peteraf 1993). Moreover, distinctive resources lead to sustained competitiveness and superior returns (Rugman and Verbeke 2002).

A further problem of competitiveness is measurement. Since competitiveness is a complex phenomenon multiple measures should be applied. Buckley et al (1988) view competitiveness as the dynamic relationship amongst competitive performance, competitive potential and competitive (management) processes. A recent reformulation of this concept is provided by Ambastha and Momaya (2004) who differentiated the three measurements as assets, processes and performances. The early version of the World Competitiveness Report by World Economic Forum considered competitiveness as the dynamic function of competitive assets and processes (Man et al 2002). Turning to the operationalization or the practical use of competitiveness measures, McFetridge (1995) suggested that profitability, cost, productivity and market share are all should be used to measure firm level competitiveness. An integrated way of performance measurement is provided by the balance scorecard method that incorporates four perspectives, the financial, customer, internal business processes, and learning and growth (Kaplan and Norton 1992). It is also not rare to view the elements of competitiveness as the success factors (Arora and Gambardella 1997). Examining 96 articles in leading management journals Hult et al (2008) found that only seven used multiple performance measures of financial, operational and overall effectiveness. In a similar vein, Andersen et al (2006) suggest a holistic view to determine the performance of the business.

Besides measuring the overall or total competitiveness the identification of the factors of competitiveness is also vital. Several authors list numerous, mostly overlapping aspects of competitiveness. Slevin and Covin (1995) identified the most important factors in 12 dimensions.[2] Examining the competitiveness of subcontracts Lu et al (2008) find 35 variables to be critical in firms' competitiveness.

[2] These dimensions are the followings: Strategy/Direction, Human Resource Policies, Intra-Business Unit Communications, Total Quality Management, Product/Service Development and Improvement, Marketing and Sales, Vendor Relationships, Process Improvements, Participative Management, Organization Structure, Business Unit Culture, and International Competition.

To decrease the number of variables to a more fashionable size they grouped them into eight clusters. [3] Besides the general features, the recognition of industry sector specific factors of competitiveness is also present in the literature (Ross et al 1998, Chen and Hambrick 1995). The importance of the intangible assets such as patents, R&D, trademarks, software, a well trained labor force, unique processes, and customer relationships, are provided by Lev (2004). Looking for the single most important determining factors of competitiveness, Molina et al (2004) points out to the role of competent management. From the RBV perspective, Grant (1996) purports that knowledge is the single most important asset of the firm. Entrepreneurship, corporate entrepreneurship or intrapreneurship are also frequently linked to superior performance and competitiveness (Kirzner 1973, Lumpkin and Dess 1996, Covin and Miles 1999).

Another important issue of firm level competitiveness is the formulation of the strategy. Corresponding to our previous discussion, we view two broad types of strategy making: (1) Porter's Five Forces model emphasizes the role of the environment; and (2) the RBV view of strategy that highlights the importance of the firm level individual factors.

The Porter's Five Forces model describes the firm competitiveness strategy in terms of the industry characteristics: The degree of existing firm rivalry, the threat of substitutes, the power of buyers, the power of suppliers, and the threats of entry. By understanding the industry trends, leading managers can formulate efficient strategy to gain competitive advantage over other businesses (Porter 2008).

While the Porter model indentifies the most important factors of competitiveness, it does not explain the individual firm level differences in competitiveness within the same industry. Moreover, Porter mostly disregards the individual characteristics of the firms, that is the core element of the RBV theory (Grant 1991). A straightforward application of the RBV to strategy formulation is to increase competitiveness by developing valuable, rare, hardly reproductive, and inelastic resources and capabilities (Barney 1991, Peteraf 1993). Later developers of the RBV recognized that resource and capability development is a necessary but not a sufficient condition for long term competitiveness. According to Ray et al (2004), RBV should be applied to measure not the performance and the competitiveness of the whole business but only the business processes. Teece et al (1997) introduces the concept of dynamic capability as the application of the combination of resources and capabilities under changing environmental conditions.

Another important component of firm level strategy making is the focus of the strategy or the combination of the elements and/or the processes. For example, Porter identifies four concepts of (diversified) corporate strategy such as practice-portfolio management, restructuring, transferring skills, and sharing activities (Porter 1980). Even Porter emphasized the importance of the balance and the interrelation of the concepts. Others discuss about the importance of fit and mutually reinforcing elements (Miller and Whitney 1999). The balance scorecard provides not only multiple measures of corporate performance but also a way to derive a set of multiple linked objectives and measures that are consistent and mutually reinforcing. By incorporating the cause and effect relationships, the business unit strategy can be executed (Kaplan and Norton 1996).

The popular configuration theory provides another way to view the elements from a system perspective. It argues that the elements of a system cannot fully be understood in isolation (Dess et al 1993). Consequently the investigation of the system as a whole is inevitable (Miller 1986). While it is

[3] These were: Management skills, organization structure, resources, competitive strategy, relationships, bidding, marketing, and technology.

easy to copy a single element, the competitive advantage lies "…in the power of the orchestrating theme and the degree of complementarity it engenders among the elements" (Miller and Whitney 1999, p. 13.). Miller (1996) describes three potential applications of the configuration such as concepts, typologies/taxonomies and organizations. From our perspective, the third approach is the most relevant when configuration is interpreted as a quality or property that varies among organizations. In this case configuration is the "degree to which an organization's elements are orchestrated and connected by a single theme" (Miller, 1996). Higher degree organization mean better configuration. Unlike Miller whose focus was strategy, our single theme is competitiveness. While the configuration theory is very useful to view the firm from a system perspective, it provides little help to apply it practically to an index construction.

In summary, while the Five Forces Model of Porter is a frequently applied tool to examine competitiveness from the industry perspective, the RBV theory is more proper to us to derive a firm level individual competitiveness index. In order to do that we need to (1) identify the factors/element of competitiveness, (2) measure competitiveness and (3) combine the elements of competitiveness.

3. The Conceptual Model

Before we should continue the elaboration of the three points from the previous part of the paper, we should define firm level competitiveness. Following Chikán (2006) and Chikán and Czakó (2009), we define firm level competitiveness as the ability of the firm to serve the customers with valuable product and services under the conditions of maintaining the social and ethical norms. The offered products and services should be profitable to the firm and more attractive to the customers than that of the competitors. The firm ought to perceive changes both within the firm and the market environment and respond to these changes more effectively than its competitors. For our practical use, we distinguish between competitiveness and competencies. Following the literature, we identify five types of competencies: physical and human resources/capabilities, networking, innovational, and administrative routine processes. These competencies allow a firm to compete effectively with other firms and serve customers with valued goods/services. The competitiveness measures of the firm can be determined by profit, and growth measures. Inside resources, capabilities, and processes together form the basic competencies of the businesses that should fit to the costumers' need (demand conditions) and to the competitive pressure of the firms within the industry as well as the treat of substitutes (supply conditions). This conceptualization has its roots in the RBV theory (Grant 1991, Lengnick 1992, Man et al 2002, McGahan1999, Peteraf 1993, Ray et al 2004). Although, the external institutional factors of competition can be important, we focus on the internal factors.

While pure theoretical models are not constrained by data and variable availability this is not valid in the cases of empirical investigations. Therefore, the suggested conceptual model in Figure 1 that is based on the definition of competitiveness and the elements reflects to the limitations of the data set.

As depicted in Figure 1, five of the seven pillars constitute the core competencies of the businesses, physical and human resources or capabilities on the one hand; and innovation, networking and administrative routine processes on the other hand. Core competencies provide the possibility to be competitive; however, competencies should be adjusted to the other two pillars: customers (demand conditions) and competitors (supply conditions).

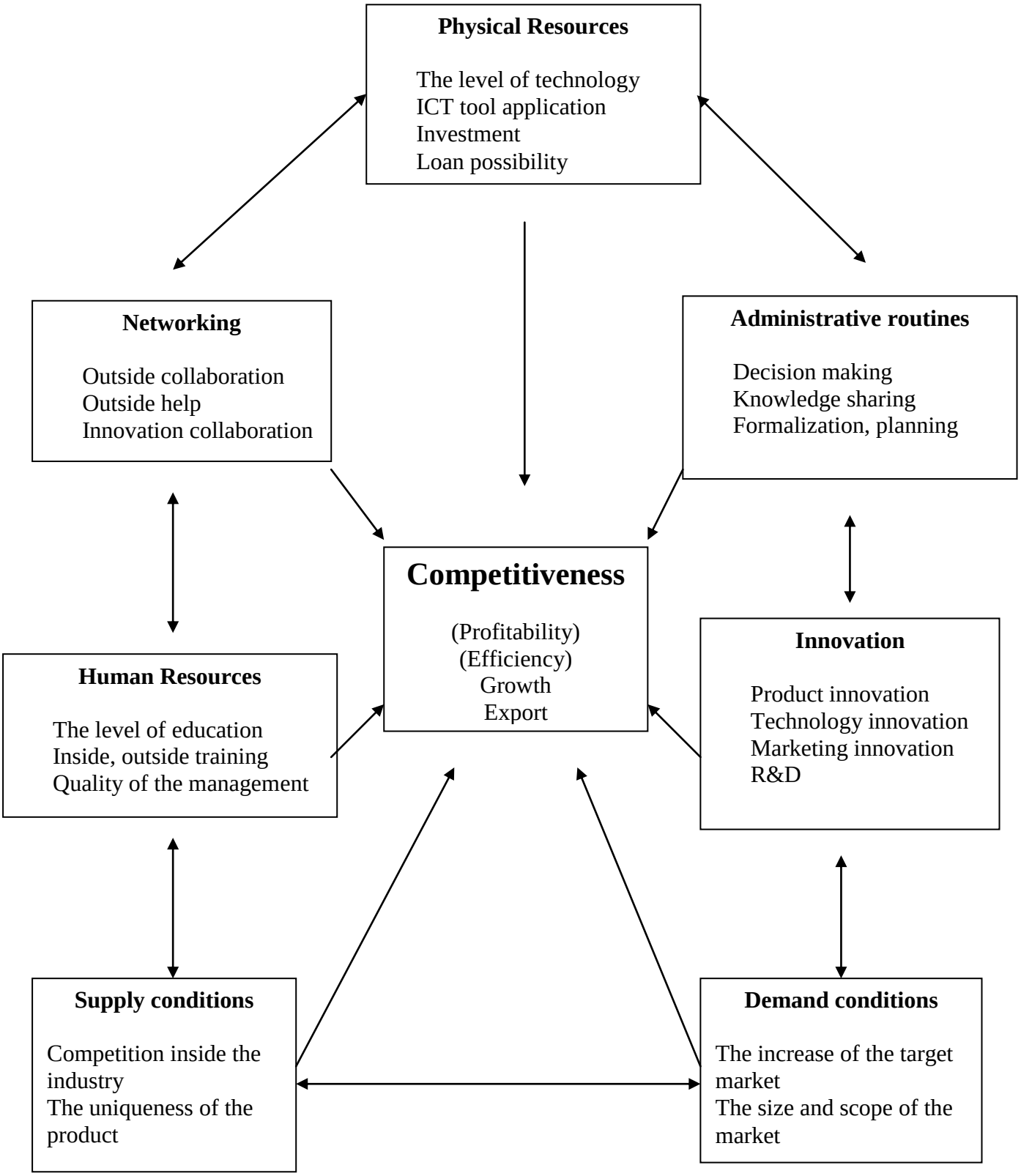
Next, we provide a practical application of the conceptual model using a sample of 695 Hungarian SMEs. The conceptual model also reflects to the availability of the particular variables. However, an important limitation of the data set is the unreliability of the performance measures profit or efficiency data (bracketed terms). Therefore, we use the relative growth of sales and employment to calculate the performance of the business.[4]. The full description of the variables can be found in Appendix 1.

While the previous part of the paper we have focused on firm level competitiveness, here we provide an application of these theories to a small business context. Any small business competitiveness measures and conceptual models should reflect that small businesses are not scaled down version of large firms but they differ in organizations, style of management and the way of competition (Dean et al 1998, Man et al 2002, Malecki and Tootle 1996). For example, of Porter's three strategic choices of cost leadership, differentiation and focus, only the last is appropriate to most small business (Porter, 1998). Despite increasing globalization, small firms compete mainly in the local, domestic markets or market niches. Analyzing the internet offered new opportunities Tetteh and Burn (2001) claim that small firms have to apply entirely different strategies and management techniques than do large firms. Leadership and management differences in the small firm-large firm setup are reinforced by Gray and Mabey (2005). Innovation is also a frequently mentioned factor where small businesses behave differently (Malecki and Tootle 1996, Verhees et al 2004, Utterback and Suárez 1993). SMEs frequently face the lack of proper inside resources that is particularly vital in terms of the human resources and innovation (Bridge et al 2003, Storey 1994). As a consequence, networking, outside collaboration, cooperation as well as efficient inside knowledge-sharing methodologies are the core of effective competition of the SMEs (Dyer and Singh, 1998, Eisenhardt and Schoonhoven 1996, Hakansson and Snehota 1989, Perry 1999).

The above described small business context principles are also reflected in the creation of the seven pillar variables. First, the benchmarking values are determined according to smaller firm sizes. For example, the maximum points in Research and Development can be reached by spending over 1 million HUF (around 4,000 Euro) for R&D or through R&D collaboration with other business or institutions. Second, we give a relatively large weight to the networking, collaboration type of variables. In all five competency pillar variables, the potential use of outside resources, the collaboration with others or the inclusion of outside help, is also involved. However, the filtering of the size effects has not been fully successful. For example, the administrative routines pillar elements, especially the knowledge sharing and the formalization mainly does not really apply to micro-sized businesses.

[4] Clark et al (2004) also used sales data to measure the performance of European SMEs.

Figure 1: The conceptual model of SME competitiveness



4. The Combination of the Seven Pillars

In the previous part we built a multidimensional model claiming that there are seven main, interrelated pillars of competitiveness. However, we have not discussed the practical combination of the seven pillars and the way of a single competitiveness index calculation.

Here, our starting point is the configuration theory that considers the complimentarily of the pillars of competitiveness (Miller 1996). The interaction and the fit of the seven pillars are vital. In the sense of Miller, the combined effect of these factors is key to the overall level of competitiveness. For the practical combination of the factors there are several possibilities from factor analysis, via cluster analysis to simple methodologies such as addition and just calculating the average values. A disadvantage of these mathematical-statistical methods is the lack of theoretical foundation. Without identifying the crucial elements of competitiveness there is no reliable, single measure of competitiveness. Moreover, firms do not really know what the best way of competitiveness improvement is.

Therefore, a new theory based methodology should be developed. The main question is which factors or pillars is the most important playing the determining role in the competitive performance of an individual firm? For answering this question we rely on a theory about the private provision of public goods. According to Hirschleifer (1983) there are three potential solutions: the total amount, the best shot, and the weakest link rule. In the first case the total amount, in the second case the maximum amount, and in the third case the minimum amount determines the provision of public good. The same principle can be applied to define the determinant factors of competitiveness with three potential solutions follows as:

1. The competitiveness points can be calculated by summing the seven pillars.
2. The competitiveness points depend on the best pillar value.
3. The competitiveness points depend on the worst pillar value.

1. In our case, the sum of the seven pillars is equivalent to the averages of the pillar values. Most index calculations rely on this principle. Deriving the firm level competitiveness points, Chikán (2006) calculated the (weighted) average values of the variables. The World Economic Forum Global Competitiveness Index (GCI), that measures the competitiveness point of a country, is also calculated as the weighted average of the twelve pillars (Porter and Schwab 2009, Schwab 2009). While the average value calculation is probably the most frequently used summary measure of different variables with the same scale, it has certain limitation when we turn to policy recommendation. The most important question an individual business raises: How should I increase competitiveness? In this situation, it does not really matter which of the variables or pillars are improved since the effect to the overall competitiveness points will be the same. In the case of the GCI, the advantageous or disadvantageous position of a particular indicator depends on its relative position to the overall rank: if a variable is ranked higher than the country's own rank, then it is considered to be an advantage. A variable ranked equal to or lower than the country's overall rank is considered to be a disadvantage. A useful strategy implication of the sum way of calculation is to improve the below the average value factors.

2. A widely hold view is that the key element of competitiveness is the concept of core competence. According to this vision, firm should focus on their most important strengths, so-called core competencies and outsource all the others (Prahalad and Hamel 1990, Quinn and Hilmer 1994). Of

course, outsourcing of the less important activities has important consequences in narrowing the strategy repertoire. Miller and Chen (1996) warn about the negative consequences: Simplification can decrease certain capabilities and hurt long run competitiveness of the business especially vital under uncertain environmental conditions. The notion of balance of the different element of strategy is provided by the balanced scorecard that shows the formulation of a single strategy of a specific business unit and not for the whole business (Kaplan and Norton 1996). While outsourcing a strategic repertoire of the large firms, networking can be alternative solution for smaller businesses to focus on their strengths (Hakansson and Snehota 1989).

If the firm's competitive position is determined by the strongest pillar value, then the increase of the competitiveness depends on improving the best performing pillar.

3. Unlike the two previous cases that are relatively well-known concepts, the weakest link postulate is not really analyzed in the competitiveness context. Here, we rely on two concepts: The theory of the weakest link (TWL) and the theory of constraints (TOC). A central tenet both of these theories is that the performance of the system depends on the worst performing element in the structure. The TOC claims that the improvement of the system can only be achieved if the constraint, the weakest element is removed or improved (Goldratt 1994). The notion of TWL is frequent in the fields of engineering, production and operation management. For example, the popular Six Sigma management theory holds that the production process can be improved by removing the causes of mistakes, i.e. the weakest link in the system (Nave 2002, Stamatis 2004).

According to the TWL and TOC theories, the most determinant factor of competitiveness is the weakest pillar of the business. The imbalance of the seven pillars, i.e. the differences in the performances causes a loss in the performance of the whole system. The competitiveness of the business depends on the weakest pillar and the magnitude of the loss depends on the size of the weakest link. The increase of the competitiveness can be achieved by improving the weakest link in the system.

A common feature in all of the three cases is the assumption of the independence of the pillars. However, this assumption contradicts the main principle of the configuration theory, i.e. the interdependence of the pillars. This interdependence depends on the degree of substitutability amongst the elements of the system. When the competitiveness points are calculated as the sum or the average of the seven pillars then the substitutability is zero. As a consequence, this methodology is improper to examine the performance of a complex system when the elements are connected to each other.

According to the TWL, there is not a perfect but only a partial substitution among the elements of the system (Tol and Yohe 2006). Thus the weakest pillar has a negative effect on all the other elements in the system. The degree of substitution is vital in terms of the performance of the whole system, presently in the values of the overall competitiveness points. Higher substitutability implies a strong effect of the weakest link on the other elements, lower substitutability means that the elements of the system do not really depend on each other.

The issue of substitutability is present in our other case when the performance depends on the best pillar value. High substitution entails that the performance of the system depends mainly on the best pillar, so a low level in other pillar values can be easily compensated by good performance in the best pillar. On the contrary, low substitution means that the elements of the system are mainly independent, so a good performance of a particular pillar has only a negligible effect on the other pillars in the system.

Now, the main question is: How to calculate the substitution effect? The practical calculation is based on the methodology of the Penalty for Bottleneck (PFB) developed by Acs and Szerb (2009) for an entrepreneurship index calculation. The PFB is capable to address the weakest link postulate. Technically, the bottleneck is achieved for each pillar by adding one plus the natural logarithm of the difference between that pillar's firm score and the score for the weakest pillar for that firm to the score for the weakest pillar for that firm is described in equation 1:

$$x_{i,j} = \min y_i(j) + \ln(1 + y_{i,j} - \min y_i(j)) \quad (1)$$

where $x_{i,j}$ is the modified, after penalty value of the competitiveness pillar *j* of firm *i*
$y_{i,j}$ is the normalized value of the original competitiveness pillar *j* of firm *i*
$\min y_i(j)$ is the minimum value of all of the competitiveness pillars of firm *i*
i = 1, 2,……m, (the number of firms)
j= 1, 2,……7 (the number of competitiveness pillars)

Thus improving the score of the weakest pillar will have a greater effect on the competitiveness than improving the score of stronger pillar. For example, assume the normalized score of a particular pillar in a firm is 0.60, and the lowest value of the pillar is 0.40. The difference is 0.20. The natural logarithm of 1.2 is equal to 0.18. Therefore the final adjusted value of the pillar is 0.40 + 0.18 = 0.58. Larger differences between the pillar values implies higher penalty.[5]

According to the logic of the PFB, it is easy to construct another function that rewards for the good performance of a pillar. Let's call it as the Benefit for Good Performance (BFG). Applying a similar logarithmic reward function equation 1 modifies to equation 2 as the following:

$$x_{i,j} = \max y_i(j) - \ln(1 + \max y_i(j) - y_{i,j}) \quad (2)$$

where $x_{i,j}$ is the modified, after benefit value of the competitiveness pillar *j* of firm *i*
$y_{i,j}$ is the normalized value of the original competitiveness pillar *j* of firm *i*
$\max y_i(j)$ is the maximum value of all of the competitiveness pillars of firm *i*
i = 1, 2,……m, (the number of firms)
j= 1, 2,……7 (the number of competitiveness pillars)

The implication of the BFG to increase competitiveness is to improve the best pillar. For example, assume that the normalized score of a particular pillar is 0.40, and the maximum value of a pillar is 0.80. the difference is 0.40. The natural logarithm of 1.4 is 0.34. the final adjusted value is 0.8 – 0.34 = 0.46. The best pillar has an elevator effect on all of the other weaker pillars in the system. If the best pillar has the maximum value then the best way to increase competitiveness is to increase the second best pillar.

The logarithmic function provides a moderate substitution effect. Other penalty functions such as square root or linear adjustments can also be applied. Unfortunately, we do not have any theoretical basis about the size of the penalty; therefore the suggested moderate penalty function is somehow ad hoc. Another problem is the potential of the different elasticities of substitution amongst the seven pillars. Future research should clarify the magnitude of substitution.

[5] While generally speaking it could happen that the increase in one pillar can cause a decrease of another pillar, it is not the case here because the different pillars of competitiveness are positively correlated to each other (see later).

5. Data Description and Results

In this section we describe the data set of 695 Hungarian SMEs that serve to show the calculation of the competitiveness points. According to the previous part, three ways of calculations are presented: Competitiveness points are calculated (1) as the simple sum of the seven pillars (2) according to the best performing pillar (BFG) and (3) according to the weakest pillar (PFB).

The aim of the data collection was to examine the basic factors of establishment and growth in the Hungarian SME sector. The survey included nine blocks and 53 question groups covering all major functional fields of the business from strategy through innovation, knowledge management, HRM, finance, risk management, and marketing. While the survey was conducted in April-June 2008, the questioned time period was 2004-2007. Based on the conceptual model, we used 24 question groups including 109 questions to analyze the competitiveness of the businesses. While the survey included several types of questions, we applied mainly those that had only two alternatives (yes or no). Since we wished to measure real and conscious commitments the "do not know" answers were considered "no". In the cases of question groups, 4-6 point Likert scale variables were created. Since the original questionnaire did not aim to examine the different question groups together, we did not pay attention to uniform the scaling, unfortunately. In many cases, the application of a more sophisticated scale (5-7) was limited by the shortage of the strategic choices of he smaller sized businesses. The number of created variables, reflecting to Figure 1 is 23, altogether.

The survey was conducted in April-June 2008 by a professional vendor company Szociográf Market and Survey Research Co. After an initial telephone call for approval, a face-to-face interview was carried out with one of the SME owners who were part of the top management in the case when the firm had with less than 20 employees, and one of the top executives – not necessary having ownership in the business - in the case of larger firms.

The initial sample is based on OPTEN company database that includes all the present and former businesses registered in the Business Registry[6]. The aim was to collect a total sample size of 700. Firms were randomly selected but stratification was applied to make sure to have enough businesses in each size category, region and industry sector. The size distribution of the sample as compared to the total number of businesses reported by the Hungarian Statistical Office (HSO) is presented in Table 1. Stratification caused a smaller sample in the 2-9 employee sized category and a larger sized sample in all the other three categories than implied by the representativeness principle. We also show the response rates in different categories.

[6] More information can be found on the OPTEN website: http://www.opten.hu/ismerteto/cegtar-translation-en.html

Table 1: The distribution of the sample based on the number of employees in 2007 as compared to the total number of the same size businesses in 2006

Business size (Number of employees 2007)	Total number/ percent of businesses in 2006*		Initial Sample		Final Sample		Response rate (%)
	Frequency	Percent	Frequency	Percent	Frequency	Percent	
2-9	193,092	84.5	963	58.3	373	53.7	38.6
10-49	29,388	12.9	538	32.6	230	33.1	42.9
50-249	5,010	2.2	127	7.7	75	10.8	59.1
Over 250	924	0.4	25	1.5	17	2.4	38
Total	228,490	100.0	1628	100	695	100.0	41.4

* Based on the HSO report (2008)

Since the initial response rate of below 40% was lower than expected, we increased the number of firms ending at asking for survey participation 1628 firms. A total 702 businesses, each with at least two employees, participated and completed the questionnaire in the survey. After cancelling the inappropriate businesses due to missing data or inconsistent answers, the sample size for further analysis was reduced to 678 small businesses and 17 large firms with a 42% response rate.

We present the practical calculation of the individual competitiveness points, applying a four step method:

1. Normalization In order to have the same scale for each of the variables, we normalized to a 0-1 scale each of the 21 variables.

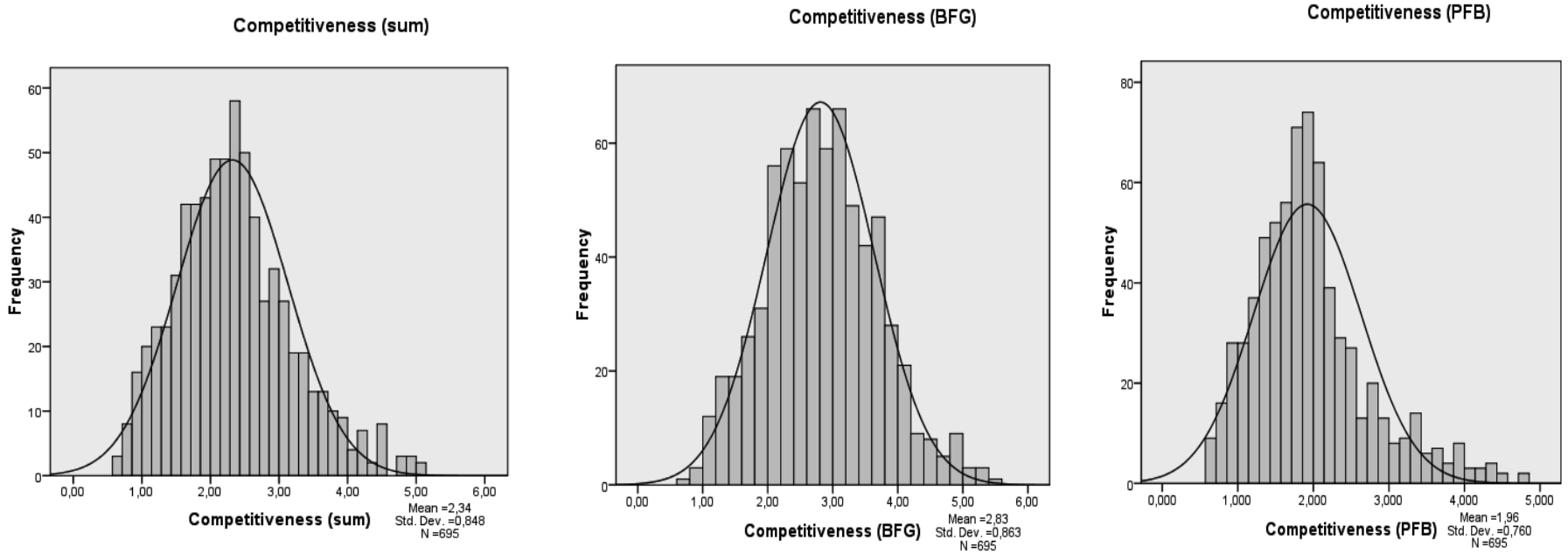
2. The calculation of the pillar values The particular pillar value was calculated as the arithmetic averages of the constituting variables.

3. The calculation of the reward for good performance (BFG) or the penalty for bottleneck (PFB) points from the seven pillars The calculation is based on equations 1 and 2 respectively. The PBF methodology is consistent with the Miller configuration theory emphasizing the combined interplay of the pillars. No adjustment is taking place when competitiveness is calculated as the simple sum of the seven pillars.

4. The calculation of the overall competitiveness point of the individual firms The overall competitiveness point of an individual firm is simply the sum of the seven adjusted pillar values.

The histograms of the calculated competitiveness points of the three cases can be seen in Figure 2. In all cases the distribution of the competitiveness points are close to the normal curve, tilted to left, a little bit. The three means differ a lot. When competitiveness is calculated as the sum of the seven pillars (Competitiveness (sum)), the mean score is 2.34. When the reference is the best pillar (Competitiveness (BFG)) then a mean is the highest, 2.83. In the third case, when the weakest link determines the competitiveness then the mean (Competitiveness (PFB)) is the lowest, 1.96. It is also interesting to see how the competitiveness points relate to the maximum reachable seven points. Competitiveness (sum) is exactly one-third, while Competitiveness (BFG) mean is 40%, Competitiveness (PFB) is no more than 28% of the maximum. Standard deviation shows the direction and rank: It is the highest in the BFG, and the lowest in the PFB case. At the same time, the correlations amongst the three competitiveness points are very high, between 0.92 (between BFG and PBF) and 0.98 (between sum and PFB).

Figure 2: The histograms of the competitiveness points of the three cases



6. Discussion: Which Version is the Best?

In the previous sections we presented a novel methodology of calculating the firm level competitiveness of small business. However, it is still questionable as which one of the three versions is the best fit. While the three competitiveness points show a high correlation to one another, the policy or the strategy implications are considerably different as discussed in section 3. Here we provide some pros and coins about the application of the different versions. There are two types of analysis we are conducting. First, we analyze the three competitiveness points in terms of the growth of sales and employment. Second, we examine the three competitiveness points in terms of the relative competitive advantages of the businesses. The relative competitive advantages are based on the subjective view of the business owners/managers.

While we have some data on actual growth rates the correlation between the actual sales and employment growth is extremely low: between 0.00 and 0.10. At the same times, planned future growth rates are much higher, being between 0.37 and 0.44 (Table 2). The highest correlations between the growth rates and the competitiveness points can be found in the best shot case (BFG). The sum and the PFV versions provide about the same correlation values. This finding does not necessary mean that the BFG methodology is the best but it probably means that small business owners and managers tend to view future growth based on their strongest point.

Table 2: The correlation coefficients between competitiveness points and growth

	Competitiveness (sum)	Competitiveness (BFG)	Competitiveness (PFB)
Growth of net sales in real terms 2004-2008	-0.01	0.00	0.01
Growth of employment 2004-2008	0.08*	0.09*	0.10**
Planned growth of sales in 5 years	0.41**	0.44**	0.40**
Planned growth of employment in 5 years	0.38**	0.41**	0.37**

**: Significant at P=0.01 level; *: Significant at P=0.05 level

We have asked the business owners/managers about their subjective view of their relative strengths in various fields as it is being not, partially or fully their competitive strength. We have also calculated a competitiveness point as the average of the 13 variables. This subjective competitiveness points and the three measures of competitiveness show a moderately strong and significant correlations ranging from 0.47 (PFB) via 0.48 (BFG) to 0.48 (sum). The correlation coefficients of all the subjective elements and the competitiveness points can be seen in Table 3. The differences of the correlation coefficients amongst the various sources of competitiveness and the competitiveness points are marginal. The correlations are better in the cases of the harder, less subjective measures like unique products, advanced technology or innovation, as compared to the more biased factors as quick response to customers demand or outstanding location. The potential reason for the low correlation between the low cost production and the competitiveness points is that our calculated competitiveness points do not

contain production cost factors. Another likely reason is that low cost production is not really the source of competitiveness of a smaller sized business.

Table 3: The correlation coefficients between the subjective competitiveness measures and competitiveness points

	Competitiveness (subjective)	Competitiveness (sum)	Competitiveness (BFG)	Competitiveness (PFB)
Unique products	0.57**	0.43**	0.42**	0.43**
Advanced technology	0.69**	0.43**	0.42**	0.42**
Advanced ICT tool	0.64**	0.33**	0.33**	0.32**
Continuous innovation	0.67**	0.39**	0.39**	0.36**
Low cost product	0.50**	0.13**	0.11**	0.13**
Unique marketing	0.58**	0.26**	0.25**	0.24**
Quick response to costumers demand	0.60**	0.27**	0.25**	0.26**
Outstanding product management	0.64**	0.37**	0.37**	0.35**
Outstanding leadership	0.74**	0.31**	0.32**	0.29**
Outstanding HR	0.68**	0.28**	0.28**	0.27**
Outstanding location	0.62**	0.21**	0.20**	0.21**
Strategic partners	0.65**	0.30**	0.30**	0.29**
Outstanding subcontractors	0.61**	0.32**	0.31**	0.32**

Altogether, it seems that neither the examination of the growth nor the subjective measures of competitiveness have provided decisive proofs or evidences to be able to select amongst the three versions of competitiveness calculation. The three competitiveness points strongly correlate, and the differences in terms of the explanatory power of growth or the subjective measures of competitiveness are not significant. Therefore, further research is required to present more convincing proofs about the best competitiveness points.

7. Summary and Conclusion

While competitiveness has become a very popular topic over the last two decades, extant research mainly focuses on country level and regional investigations, and relatively less has been written about the firm level competitiveness. Even less is known about the competitiveness of the small businesses. While there are several competitiveness indexes on the country and on the regional levels, there has been only one notable example of Chikán (2006) in creating a firm level competitiveness index.

In this paper we presented a unique methodology to calculate the competitiveness of the small businesses. The RBV and Miller's configuration theory served as a basis to construct the seven pillar model of competitiveness emphasizing the gestalt, system approach of competitiveness. The newly created conceptual model and the assignment of the benchmark values make it possible to examine small business as compared to other models that focus on large multinational firms. The conceptual model contains 21 individual variables and seven pillars.

We presented three possible ways to combine the seven pillars of competitiveness. The sum of the seven pillars is the most frequent way of competitiveness index calculation. However, there has not been any reasonable theoretical argument supporting this methodology. The most important weakness of this methodology is the lack of the connection amongst the pillars of competitiveness. The strategy

implication of this model is also not straightforward. The Benefit for Good Performance (BFG) emphasizes the role of the best performing pillar. The theoretical background of the application of this methodology is provided by the core competency argument: The firm should specialize on their strengths and outsource the others. For small businesses networking connections provide a potential way to have an access to the missing competencies. The Penalty for Bottleneck (PFB) argues that the performance depends on the weakest link in the system. The PFB argument is based on the theories of constraint and weakest link. Bottlenecks are defined as the lowest value factor out of the seven pillars of competitiveness. Each pillar value is related to the weakest pillar, and penalized for differences. The strategy implication of the PFB is exactly the opposite of the BFG: The firm should remove the bottleneck by improving the weakest pillar.

While both the BFG and the PFB are consistent with the system approach and the configuration theory, we believe that the PFB argument is the most appropriate for competitiveness point calculation. BFG is probably superior to select amongst the different business units in the case of a large, diversified firm. However, we are examining small businesses that are not diversified, so the business unit analytical tools probably fit better. The business unit strategists emphasize the balance of the different elements. A typical example is Kaplan and Norton (1996) discussing about the role of strategy in balancing the financial and nonfinancial performance of the business. Moreover, our conceptual model contains those pillars that can be considered as the general sources of competitiveness. All business needs physical and human resources, must posses administrative routines, should innovate and collaborate with other businesses and fit these pillars to supply and demand. However, the optimal combination of the seven pillars is definitely different over various industries.

Acs and Szerb (2009) also relied on the weakest link postulate in the calculation of the entrepreneurship index. However, the Global Entrepreneurship Index containing both aggregated individual and institutional variables is different from the present model. A final argument comes from Lazear (2004) who examined the optimal combination of the entrepreneurial traits. Lazear claims that entrepreneurs ought to be a generalist a "jack-of-all-trades". The same principle could be applied to competitiveness measurement: A small business should balance all the pillars to be effective rather than specializing to one particular factor.

A stratified representative sample of 695 Hungarian businesses served as a basis to present the viability of practical application of the methodology and to be able select amongst the different measures. The three different measures of competitiveness are highly correlated to one another. The comparison of the three competitiveness points in terms of planned growth and the subjective view of competitiveness, based on the owners, did not provide any conclusive to be able to select the best method out of the three versions.

Summing up, we strongly believe that our unique methodology is a superior tool to calculate the competitiveness of businesses. Moreover, the model is proper for small business application. However, a crucial point is to select between the best shot-weakest link principles. While there are some arguments supporting the weakest link hypothesis and the application of the PFB over the BFG methodology, the proofs are not convincing. An additional shortcoming of the methodology is the unknown magnitude of the substitution effect. This was the reason of the application of the natural logarithm penalty function that implies a moderate substitution influence. These weaknesses call for further theoretical and empirical researches.

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Appendix 1

Applied variables: Description

Pillars/variables	**Description**
Supply conditions	
Competition inside the industry	The intensity of the competition in a 3 point Likert scale 1: many competitors, 2: a few competitors, 3: no competitors
The increase of the target market	The future increase of the market in a 4 point Likert scale: from 1: considerable shrink to 4: considerable increase
Demand conditions	
The uniqueness of the product	The number of the customers considering the main product of the business new in a 3 point Likert scale, 1: nobody, 2: a part, 3: everybody
The size of the market	The geographical extent of the selling area in Hungary in a 6 point scale from: 1: one place one plant to 6: country-wide
The scope of the market	The type of the plant location in a 5 point scale from 1: place with number of inhabitants below 2000 to 6: Budapest
Physical resources	
The level of technology	The level of the applied technology in a 6 point scale from 1: well below industry average to 6: world new tech
ICT tool application	The intensity of the info-communication tool application in a 5 point scale 1: applies 1-2 ICT tool to 5: applies 9-10 ICT tool
Investment	The size of the investment in 2004-2007 in 5 categories from 1: 0HUF to 5: over 100 million HUF
Loan possibility	The willingness of the business to rely on outside resources in a 4 point scale from 1: no outside finance, 2: short term loan, 2: long term loan, 4: long term loan + outside capital
Human resources	
The level of education	The importance of the human resource: a combination of the share and the number of the employees having tertiary education degree
Inside, outside training	The share of employees participating in inside or outside training in 2004-2007 a 5 point scale from 1: nobody to 5: over 75% of the employees
Quality of the management	A combined measure of the management capabilities of the main decision maker in a 5 point scale
Innovation	
Product innovation	Product innovation in 2004-2007 in 4 categories 1: no innovation 2: renewed product, 3: new product at the firm level 4: new in the country
Technology innovation	Technology innovation in 2004-2007 in 4 categories

	1: no innovation 2: renewed tech, 3: new tech at the firm level 4: new in the country
Marketing innovation	The magnitude of the marketing innovation in 2004-2007
Research and Development (R&D)	Intensity of R&D money and collaboration in 5 point scale in 2004-2007: 1: no R&D to 5: R&D with more than 1 million HUF or R&D collaboration with other
Networking	
Outside collaboration	Intensity of the outside collaboration in 2004-2007 in a 4 point scale from 1: no collaboration to 4: over 4 types of collaborations
Outside help	The average of the outside help evaluated in 10 categories in a 5 point Likert scale
Innovation collaboration	The intensity of outside innovation collaboration in 2004-2007 in a 4 pint scale from 1: no collaboration to 4: regular collaboration
Administrative routines	
Decision making	The type of decision making in he firm in a 5 point scale from 1: one-man-show to 5: collective decision making with outside help
Knowledge sharing	The intensity of knowledge sharing in the business in 4 point scale from 1: no knowledge sharing to 4: regular meeting/various tools
Formalization, planning	The formalization of the administrative routines in 4 point scale in describing working duties, organizational description, business planning, strategy planning

Building a Family Firm Image: How Family Firms can Capitalize on their Family Ties

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Abstract

In this study, we apply organizational identity theory to examine factors that lead family firms to create a family firm image and investigate how a family firm image impacts firm performance. We find that family firm pride, community social ties, and long-term orientation are positively associated with the likelihood that a firm portrays itself as a family business to consumers and stakeholders. In turn, we find that a family firm image benefits firm performance. Thus, our study demonstrates that by building a family firm image the unique family influences on the firm can be leveraged to create a competitive advantage for family firms.

Introduction

In an effort to stand out in today's crowded marketplace, firm leaders attempt to build a distinct organizational image. Organizational image captures a firm's most central, enduring and distinctive features as intentionally projected to external stakeholders by firm leaders (Dyer & Whetten, 2006; Whetten & Mackey, 2002). Through advertising, communication, symbolism and behavior, a firm reveals its organizational image to the public (Muzellec, 2006). The underlying assumption in building and nurturing a distinct organizational image is that it will lead to increased sales and heighten performance (Karreman & Rylander, 2008). Recent research on family firms suggests that a family-based organizational image contributes to a family firm's ability to attract customers and increase sales (Craig, Dibbrell, & Davis, 2008).

Recent theory that considers the dynamics of the overlapping family and business systems proposes that organizational identity may be a key source of competitive advantage for family firms since their "family identity is unique and therefore impossible to completely copy" (Sundaramurthy & Kreiner, 2008: 416). Complementing organizational image, "organizational identity has been conceptualized as the shared answers to the question, 'Who are we as an organization?'" (Dyer & Whetten, 2006: 788). However, while organizational identity and image are closely linked, little empirical research has examined how organizational identity contributes to organizational image or its effect on performance (Dhalla, 2007; Dyer & Whetten, 2006; Scott & Lane, 2000). Specifically, "there is little information

on how organizations strategically construct organizational identity and what factors lead to the construction of organizational identity" (Dhalla, 2007: 248). Indeed, Dyer and Whetten (2006) suggest that future research investigate the connection between organizational identity and family firm image in understanding firm performance. Given that it is intuitively appealing that a family firm image may differentiate family firms in a crowded marketplace, it is surprising that so little research investigates how promoting a business as a 'family firm' enhances firm performance.

The purpose of this paper is to address these calls for research by developing a model of family firm image rooted in organizational identity theory. We define family firm image as the intentional projection of a family business identity to external audiences. While research suggests that family members' concern for their firm's reputation (Anderson & Reeb, 2003) and brand identity (Craig et al., 2008) influence family firm success, the processes through which a firm emphasizes its family firm image and how that impacts firm performance are not clear. Drawing from research on organizational identity theory and family firm distinctiveness, we argue that family firm pride, long-term orientation, and community social ties foster the development and deployment of a family firm image. Briefly, family firm pride was chosen to reflect family members' self-esteem and organizational identification. Long-term orientation was selected to reflect the stable nature of organizational identity and because it is a core value among family firms that strive to sustain the firm for future generations. Lastly, since the role of external stakeholders is critical in forming organizational identity and image (Bartel, 2001; Gioia, Schultz, & Corley, 2000), and family firms are believed to possess rich social capital in their communities (Pearson, Carr, & Shaw, 2008; Sharma, 2008), we include community social ties in our model. We then argue that family firm image explains why family firm pride, long-term orientation and community social ties influence family firm performance, acting as a mediator of these relationships.

This paper makes at least three important contributions to the literature. First, it contributes to the family firm literature by delineating how the family and the business systems of a family firm interact to create a competitive advantage. Specifically, we examine the degree to which a family firm image contributes to firm performance. Such an investigation is important since family firms are often assumed to be concerned with their reputations (Dyer & Whetten, 2006; Steier, 2001) and to be favorably viewed by consumers (Cooper, Upton, & Seaman, 2005; Craig et al., 2008; Sundaramurthy & Kreiner, 2008; Orth & Green, 2009); yet no known study has examined the antecedents and consequences of a family firm image. Second, this paper contributes to research on organizational identity theory by proposing and testing a theory that translates how organizational image (i.e. the reflection of organizational identity to outsiders) impacts firm performance. By applying organizational identity to the family firm realm, we are able to examine a construct of organizational image that can be broadly utilized by any family firm, and yet allows for distinctiveness given each family's unique identity and heritage. Lastly, by drawing from organizational identity theory and the family firm literature that espouses the possible advantages accrued to family businesses due to family involvement, we extend earlier research on the creation of family firm specific resources (Habbershon & Williams, 1999; Habbershon, Williams, & MacMillan, 2003; Pearson et al., 2008). Indeed, we believe that organizational identity theory is uniquely positioned to capture how the family can garner trust, respect and a positive reputation in the marketplace – namely, through family firm image.

Organizational Identity Theory

Organizational identity encompasses the core values and beliefs of an organization that its members deem to be the most central, distinctive and enduring (Albert & Whetten, 1985). Through communication, behavior and symbolism an organization reveals its identity to stakeholders (Leuthesser & Kohli, 1997; Van Riel & Balmer, 1997). Organizational identity reflects members' consensual view of "who we are as an organization" and "what we do as a collective" (Nag, Corley, & Gioia, 2007). In this way, it serves both sensemaking and sensegiving functions, providing meaning to members' organizational experiences while also providing a guide for how organizational members should behave and how other organizations should relate to them (King, Felin, & Whetten, 2009/forthcoming; Ravasi & Schultz, 2006). The continuity and coherence of organizational identity enables organizational members "to satisfy their inherent needs to be the same yesterday, today and tomorrow and to be unique actors or entities" (Whetten & Mackey, 2002: 396).

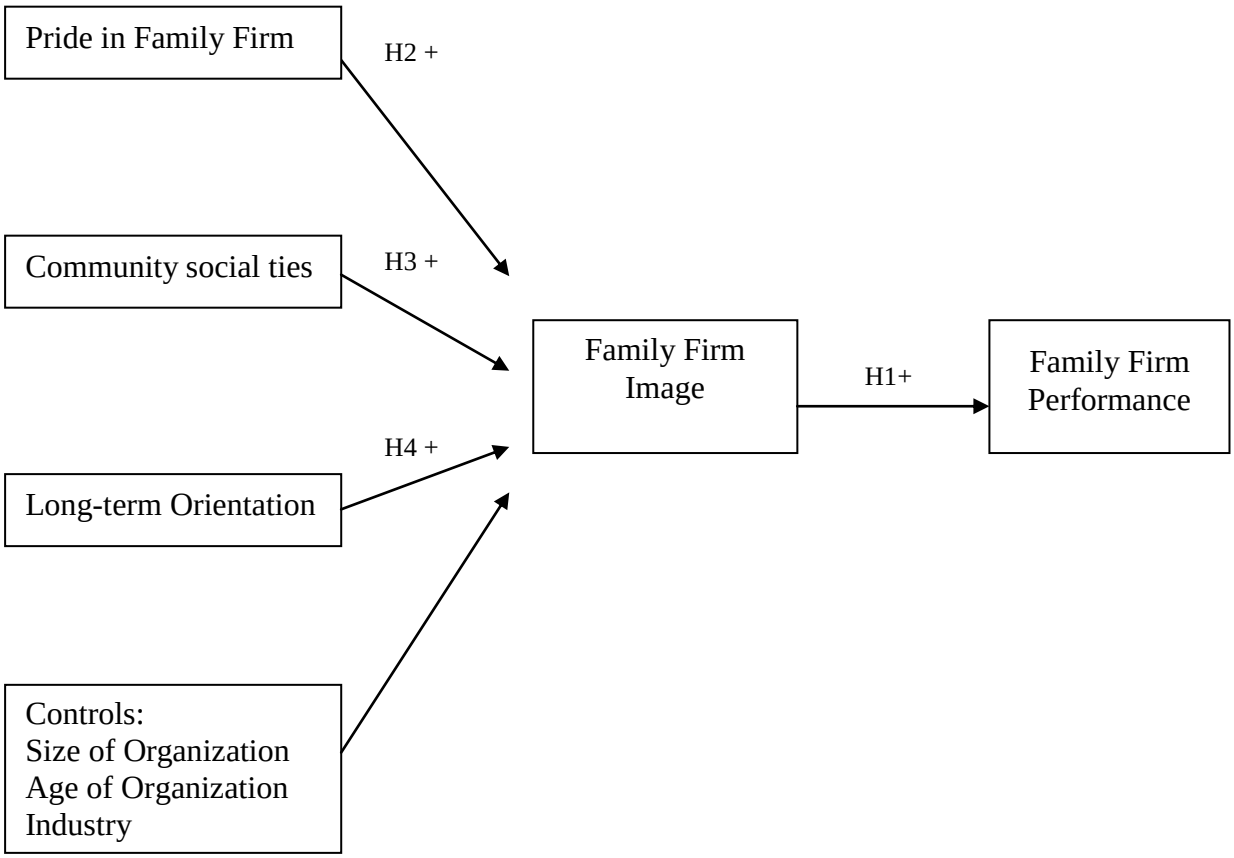
The construction of organizational identity lies in the hands of firm leaders (Karreman & Rylander, 2008). By pursuing a unique set of goals, practices and values, firm leaders are able to create an organizational identity that differentiates their firm from others in the eyes of internal and external stakeholders. It is important that firm leaders create an attractive organizational identity so as to foster organizational identification among organizational members. When organizational members see an overlap between themselves and their organization's image, and see themselves as similar to their organization, they will work to "reaffirm positive aspects of the organization in the interest of their own needs for self consistency and self-esteem" (Scott & Lane, 2000: 48). In addition, organizational identity influences external audiences' interpretation of the firm's image and branding practices (Karreman & Rylander, 2008) thereby affecting the public's perception of the firm's products, strategies and employees (Fombrun & Shanley, 1990). As such, organizational identity provides the context within which internal and external stakeholders interpret and assign meaning to firm behavior (Ravasi & Schultz, 2006).

Given that organizational identity differentiates one organization from others in the eyes of organizational members and external audiences (King et al., 2009/forthcoming; Scott & Lane, 2000), family businesses may be particularly proficient at creating unique identities since they are able to integrate elements from both the family and business domain (Sundaramurthy & Kreiner, 2008). Integrating the family component into the identity of a family firm may provide the firm with an important and non-imitable source of competitive advantage (Sundaramurthy & Kreiner, 2008). A shared family name, common history and kinship can promote a strong, shared identity in family firms encouraging organizational members to uphold firm values and pursue firm goals (Sundaramurthy & Kreiner, 2008). Further, being known as a "family firm" may be perceived as a positive and distinct attribute in the minds of consumers thus contributing to firm performance. Therefore, organizational identity theory appears to be an appropriate perspective for investigating how a family firm is able to capitalize on its unique family specific advantages.

Accordingly, we first argue that organizational image influences firm performance, focusing specifically on family firm image. Then, we draw from organizational identity theory to explain how a family firm builds a family firm image. Because organizational identity captures "Who we are as an organization," highlighting the central and distinctive elements of a business (Albert & Whetten, 1985; Whetten & Mackey, 2002), we first consider family firm pride. Our view of family firm pride is in line

with research on organizational identity theory that emphasizes the importance of self-esteem in promoting organizational identification (Ashforth & Mael, 1989; Scott & Lane, 2000). Since organizational identity is seen as enduring (Albert & Whetten, 1985), reflecting core beliefs and values that extend over time (Gioia et al., 2000), we include long-term orientation in our examination. A long-term orientation is thought to be a common characteristic among successful family firms (i.e., Corbetta & Salvato, 2004; Dyer & Whetten, 2006; Miller, Le Breton-Miller, & Scholnick, 2008) and appears to be associated with a family's concern for its image in the public's eye (Dyer & Whetten, 2006). Lastly, because organizational identity is constructed via internal/external interaction (Gioia, 1998; Gioia et al., 2000) and recent research on organizational identity has stressed the importance of an organization's orientation toward independence or interdependence with external stakeholders in forming an organizational identity (Brickson, 2005; 2007), we investigate the influence of community social ties on family firm image and performance. Social ties, which are unique in family firms since they can originate from the family or firm domain, are believed to be a key resource for family firm success (Arregle, Hitt, Sirmon, & Very, 2007; Sirmon & Hitt, 2003). Thus, we chose variables that are in accordance with organizational identity theory, but also may be distinct sources of competitive advantage for family firms. Figure 1 summarizes our hypothesized relationships. We expect that the effects between family firm pride, long-term orientation, community social ties, and family firm performance are mediated by family firm image. Our hypotheses are presented below.

Figure 1: Antecedents of Family Firm Image and Performance



Family Firm Image

Organizational image is "what organizational agents want their external stakeholders to understand is most central, enduring and distinctive about their organization" (Whetten & Mackey, 2002: 401).[1] It provides firm leaders with the opportunity to build organizational identity by creating a sense of meaning and portraying symbols of the organization that can be recognized by stakeholders (Karreman & Rylander, 2008; Scott & Lane, 2000). An organization's image is intentionally projected to external audiences and is often tied to an organization's goals and strategies (Dyer & Whetten, 2006; Fombrun & Shanley, 1990; Gilpin, 2008; Hudson, 2008). In constructing their organization's image, firm leaders hope to differentiate their organization from others. According to the institutional approach to organizational identity, firm leaders share their views of what an organization is and represents within the organization by providing organizational members with consistent narratives that allow members to construct a collective sense of self and provide meaning to their organizational experience (Gilpin, 2008; Ravasi & Schultz, 2006). As such, an image creating activity is an integral part of organization identity construction "since it serves the dual purpose of making public what is special, unique or distinctive about organizations" to stakeholder "while simultaneously providing the mechanisms through which managers explore what an organization is about – that is, what its core values and its central beliefs are" (Scott & Lane, 2000: 45).

Family firms may be particularly motivated to create a favorable image in the minds of external stakeholders. Drawing from organizational identity theory, Dyer & Whetten (2006) argued that because family firm members are likely to view their businesses as extensions of themselves and their family, they will go to great lengths to maintain a positive organizational image. Family members know that they cannot switch families if their family firm's image is damaged; they have a strong desire to view themselves and their family positively understanding that their individual identity is inextricably intertwined with their organization's identity (Dyer & Whetten, 2006; Short, Payne, Brigham, Lumpkin, & Broberg, 2009). Capitalizing on a firm's family status may even be away to build a distinct corporate brand.

Corporate branding allows organizations to create a cognitive image of the organization (Einwiller & Will, 2002; Smidts, Pruyn, & Van Riel, 2001) fostering a connection between the organization's identity and the products and services it sells. Recently it has been demonstrated that developing a family–based brand identity positively contributes to firm growth and profitability through its influence on customer-centered values (Craig et al., 2008). Businesses that promote a family firm image may be able to capitalize on customers' positive perception of family firms since these firms are seen as trustworthy (Tagiuri & Davis, 1996; Ward & Aronoff, 1995; Orth & Green, 2009), customer-focused and quality driven (Cooper et al., 2005; Sundaramurthy & Kreiner, 2008). Research also suggests that family firms are less likely to participate in questionable or irresponsible social practices

[1] We need to stress that our paper focuses on organizational image and that this construct is distinct, albeit related to reputation. While organizational image focuses on the portrayal of a firm to external stakeholders (Hudson, 2008), organizational reputation is "a particular type of feedback, received by organizations from their stakeholders, concerning the credibility of the organization's identity claims" (Whetten & Mackey, 2002: 401). Economic models of reputation view marketing efforts as imaging cues designed to influence the perceptions of external audiences (Fombrun & Shanley, 1990). A positive organizational reputation can also be a source of competitive advantage that allows a firm to charge premium prices (e.g., Klein & Leffler, 1981), attract new clients (Fombrun, 1996), enhance access to capital markets (Beatty & Ritter, 1986) and sustain market share during industry downturns (Fombrun, 1996). In an effort to increase sales, firms compete for reputational status (Fombrun & Shanley, 1990) and work to create an organizational image that will build a reputation that is seen as favorable, strong and unique in the minds of customers (Karreman & Rylander, 2008; King & Whetten, 2008).

(Dyer & Whetten, 2006). Therefore, a strong family firm image may be a source of competitive advantage for family firms.

However, not all family firms choose to portray a family image or even see themselves as family firms (Westhead & Howorth, 2007). Recent research applying organizational identity theory has acknowledged that family firms have two relevant identities – the family and the business – that can be segmented or integrated to different degrees (Sundaramurthy & Kreiner, 2008). Businesses like SC Johnson that portray their firm as "A Family Company" can be seen as having a highly integrated identity, where the family and business identities are intermingled. In contrast, some family businesses choose to ignore or downplay their family firm status, resembling non-family firms. Perhaps the (mis)perception that family firms are resistant to change and stagnant (Eddleston, Kellermanns, & Sarathy, 2008; Miller et al., 2008) causes these firms to avoid building an image as a family firm. Yet, because an organizational identity can be an important and nonimitable source of competitive advantage, and a family's identity is unique and thus impossible to completely copy (Sundaramurthy & Kreiner, 2008), we argue that a strong family firm image will be associated with greater firm performance. Therefore:

Hypothesis 1: Family firm image is positively related to family firm performance.

Family Pride

Family firm pride captures the esteem and respect family members possess toward their family firm. Although it can be seen as similar to the concepts of organizational commitment and psychological ownership, it is distinct in that organizational commitment seeks to answer the question: "Should I maintain membership in this organization and why?," psychological ownership answers the question: "What do I feel is mine?," (Pierce, Kostova, & Dirks, 2001) while pride addresses the question: "How do I feel about others knowing that I am member of this organization?" Pride is unique in that it reflects concern for outward appearances and acceptance, alerting others that one deserves greater status and approval (Tracy, 2004). Given pride's apparent regard for others' opinions, we believe that family firm pride may influence a family firm's decision to create a strong family firm image. In simple terms, when family members believe their firm, its history or even their family are impressive, they may be more inclined to construct a family firm image. In contrast, when family members are embarrassed of their family firm's past or family affiliation, they may be more likely to hide their family firm status. Drawing from organizational identity theory, below we explain how pride may affect family firm image and performance.

Identity theory purports that pride is an important consequence of heightened identification with an organization or group (Ashforth & Mael, 1989). Cable and Turban (2003) note that people derive pride from organizational membership and that employers are an important part of employees' self-concept (Brown & Marshall, 2001; Dutton, Dukerich, & Harquail, 1994). Theory and research suggest that organizational members' individual identity is closely linked to their organization's identity (e.g., Ashforth & Mael, 1989; Dutton et al., 1994; Scott & Lane, 2000). In particular, people who perceive their organizations as attractive and are highly connected and visible members of their firms, are most likely to strongly identify with their organizations (Ashforth & Mael, 1989; Dutton et al., 1994). The need for self-consistency, self-esteem and pride leads firm leaders to construct an organizational image that they believe will enhance goal attainment and is in line with their sense of self (Scott & Lane,

2000). Indeed, Scott and Lane (2000) suggest that the most effective firm leaders are driven to build a positive organizational image because their personal pride overlaps with their organization's identity.

Pride is an important element to family firms and unique since the successes, accomplishments and triumphs of one family member can become a shared identity and history for the entire family (Ward & Aronoff, 1995). Further, family firm pride may be particularly enduring and strong given the family element. For example, Ashforth discusses how identities are most strongly formed and endured when they are enacted in a "local, tribal context" (1998: 279) and Fiske (1991) acknowledges the strength and enactment among close kin. It has been suggested that because their self-esteem is tied to their identification with their family and firm, it is only natural that family firm leaders would make a concerted effort to build a positive organizational image (Miller et al., 2008). Unlike non-family firms, family firms are conscious of the fact that a bad public image could "soil the good name of the family" (Dyer & Whetten, 2006: 791). Thus, family firm pride should be positively associated with a family firm image.

It is also argued that family firm pride will positively affect firm performance. Family ties create an emotional bond and sense of commitment that encourage family members to pursue a common set of goals (Sundaramurthy & Kreiner, 2008). "Fulfilling family obligations can be a source of pride, serve as an important nonmonetary incentive, and provide a common rallying ground for members of the family firm" (Sundaramurthy & Kreiner, 2008: 425). Research on organizational identity theory suggests that individuals who strongly identify with their organizations feel an increased sense of responsibility for the organization (Dipboye, 1977) and provide helpful and supportive behaviors to their firms (Dutton et al., 1994). Similarly, employee morale encourages organizational members to exert extra effort to achieve firm goals (Gunter & Furnham, 1996) and organizational pride has been found to be an important component of job satisfaction which thereby contributes to firm performance (Smithey-Fulmer, Gerhardt, & Scott, 2003). Further, Sundaramurthy and Kreiner (2008) suggest that strong family firm pride causes family members to police one another's behavior, contributing to firm performance. Since organizational pride has been suggested to be associated with organizational prestige (Smidts et al., 2001), families that are prominent and prestigious may have an advantage at raising money and attracting and retaining customers (Steier, 2001). Family firm pride may also encourage family members to invest in the family business, fostering growth and prosperity. As such, family firm pride is expected to have a positive influence on firm performance.

Taken together, our arguments suggest that the effect of family firm pride on performance occurs primarily through the benefits of a family firm image. That is, the esteem and respect family members possess toward their firm is expected to translate into high firm performance through the reflections of a family firm image to stakeholders. Hence, we expect family firm image to mediate the relationship between family firm pride and firm performance.

Hypothesis 2: The relationship between family firm pride and performance is mediated by family firm image.

Community Social Ties

Organizational identity is believed to be affected by external stakeholders (i.e., Gioia, 1998; Gioia et al., 2000; Smidts et al., 2001) whereby organizational members develop and refine their organizational identity based on information gathered from external parties (Hatch & Schultz, 2002). This view

of organizational identity "builds on the idea that identity is a relational construct formed in interaction with others" (Hatch & Schultz, 2002: 992). Because individuals aim to accentuate their organization's distinctiveness, social comparisons with other firms are an important means through which organizational members build their organizational identity (Bartel, 2001). Social interactions with external stakeholders assist in making an individual's organizational identity more salient (Bartel, 2001). Through these social interactions with external parties, organizational members come to learn about the public's expectations and perceptions of the organization (Dutton et al., 1994). In turn, the perception of how external stakeholders view the organization is expected to influence an organization's image (Dhalla, 2007; Gioia & Thomas, 1996). Accordingly, social ties in one's community may act as a mirror for organizations – showing firm leaders how the public views the firm as well as how the firm is distinct from other firms in the community. As such, social ties may assist in the development of a distinct organizational identity and the creation of a unique organizational image.

Firms often align themselves in a community with like-minded organizations, and in the case of family firms – often other family firms (Lester & Cannella, 2006). Through linkages to other firms, family firms develop shared language, norms and core values, learning how family firms are expected to behave (Lester & Cannella, 2006). Frequent interactions allow parties to know one another, share important information and to create a common point of view (Tsai & Ghoshal, 1998; Walter, Lechner, & Kellermanns, 2007). As they interact with other firms in their community, they may then come to appreciate their unique family heritage and the importance of family within their organizational identity. Because social comparisons promote sensemaking and information gathering (Bartel, 2001), community social ties may help family firms to understand the socially desirable features the public often associates with family firms. Consequently, this knowledge of how the community views the firm is expected to strengthen family firm image.

Specifically, family firms often work to build strong social ties in their communities so that the next generation can benefit from the accrued trust, cooperation and social capital. A firm's support for a community tends to be reciprocated over time through the loyalty of customers, employees, suppliers, and stakeholders (Niehm, Swinney, & Miller, 2008). Such firms understand the importance of goodwill and social capital derived from their communities and therefore these firms make a concerted effort to build a positive family firm image (Miller et al., 2008). Furthermore, due to their personal involvement in the family firm, family leaders are able to develop more consistent, durable and credible relationships with community leaders, banks and other local organizations (Arregle et al., 2007; Carney, 2005; Lounsbury & Glynn, 2001; Sirmon & Hitt, 2003). Community ties are seen as an important mechanism through which family leaders protect and nurture their businesses (Lester & Cannella, 2006), helping them to build a positive organizational image. Social capital research suggests that community involvement is an investment in a firm's reputation and image (Spence, Schmidpeter, & Habisch, 2003). Indeed, membership in a community network has been argued to enhance a family firm's image (Lester & Cannella, 2006; Salvato & Melin, 2008; Sharma, 2008).

Building on research on the importance of social capital to family firms, we argue that community social ties will positively affect family firm performance through the creation of a family firm image (i.e., Pearson et al., 2008; Sharma, 2008; Sirmon & Hitt, 2003). Social capital refers to the "sum of the actual and potential resources embedded within, available through, and derived from" social ties within a network (Nahapiet & Ghoshal, 1998: 243). Within the family business literature, it has been proposed that family firms are often capable of deriving rich social capital since it is naturally embedded

within the idiosyncratic family unit and the ties the family has with external stakeholders (Arregle et al., 2007; Pearson et al., 2008).

Through a diverse set of social ties, an organization may gain access to other organization's resources and knowledge (Powell, Koput, & Smith-Doerr, 1996; Tsai & Ghoshal, 1998) as well as customer and supplier referrals, business advice and capital, and access to opportunities that can lower risk and increase capabilities (Chang, Memili, Chrisman, Kellermanns, & Chua, 2009; Jack, Dodd, & Anderson, 2004; Peredo & Chrisman, 2006). Family firms with strong social ties in their communities are more easily able to communicate the value of their goods and services to potential customers and to garner strategic resources (Sirmon & Hitt, 2003). Given that relational exchanges and trust are built over time, the complex networks and enduring relationships that family firms build within their communities can be a primary source of competitive advantage (Miller et al., 2008; Sirmon & Hitt, 2003; Sorenson, Folker, & Brigham, 2008; Steier, 2001). Indeed, family firms that have strong social ties are expected to compete more effectively than those that lack social ties (James, 1999; Sharma, 2008; Sirmon & Hitt, 2003). Additionally, the personal responsibility that well-connected family business leaders often feel for their communities can push them to grow their businesses so as to benefit their local area and townspeople (Stavrou, 1998).

Therefore, we propose that family firm image helps to explain why community social ties contribute to family firm performance. In accordance with a meditational linkage (see Baron & Kenny, 1986), we expect the relationship between community social ties and performance to diminish in the presence of family firm image.

Hypothesis 3: The relationship between community social ties and performance is mediated by family firm image.

Long-term Orientation

A long-term orientation refers to an organizational culture that favors patient investments in long-term and sometimes risky activities (Hitt, Hoskisson, Johnson, & Moesel, 1996; Zahra, Hayton, & Salvato, 2004). A long-term orientation is thought to be prevalent in family firms and many family firms can be characterized as displaying longer-term planning horizons (e.g., Burkart, Pannunzi, & Shleifer, 2003; James, 1999; Miller & Le Breton-Miller, 2006; Miller et al., 2008; Sirmon & Hitt, 2003; Zellweger, 2007). In particular, maintaining the business for future generations is often an important goal for family firms (e.g., Gómez-Mejía, Hynes, Núñez-Nickel, & Moyano-Fuentes, 2007; Kets de Vries, 1993; Ward, 1997). Family firm leaders dream of passing on a legacy to their posterity as well as a sustainable income stream for future generations (Dyer & Whetten, 2006). A long-term orientation is complementary to the long time spans advocated by successful family businesses (Corbetta & Salvato, 2004) and has been depicted as a unique resource for family firms (Sirmon & Hitt, 2003). This depiction of long-term orientation as a distinct core value of many family firms is in line with recent research on organizational identity theory that demonstrates how organizational identity not only creates meaning for work practices, but also guides organizational behavior and decision-making (Nag et al., 2007). Accordingly, below we draw from organizational identity theory to argue that a long-term orientation will influence a family firm's image and performance.

Core features of organizational identity are presumed to be resistant to "faddish attempts to alteration because of their ties to the organization's history" (Gioia et al., 2000: 64). Although it is possible

for an organizational identity to be reframed or re-interpreted, the core beliefs and values that comprise an organizational identity extend over time and context (Gioia et al., 2000). Organizational identity reflects an organization's unique features and how it reveals its values through communication and behaviors (Muzellec, 2006). As such, organizational identity builds upon a firm's heritage while also setting a course for the firm's future. It is about behavior as much as it is about appearance (Muzellec, 2006). With this in mind, a long-term orientation may reflect an enduring value of family firms that contributes to their success.

Specifically, in working to create a long lasting successful firm, family firm leaders often build companies that are resistant to faddish trends (Craig et al., 2008), instead choosing to promote the longstanding nature of the family firm with continuous family involvement and steadfast investment strategies. Because the firm can be seen as a vehicle to nurture the family's future through jobs, security and income for the next generation, the long-term orientation of family firms is believed to push them to invest in the business for continued prosperity and growth (Gómez-Mejía et al., 2007; Miller et al., 2008). Long-term orientation fosters enduring relationships with key stakeholders, particularly customers (Aronoff & Ward, 1995; Dick & Basu, 1994; Habbershon & Williams, 1999; Lyman, 1991). Accordingly, the concern for the long haul encourages family firm leaders to focus on building customer loyalty (Miller et al., 2008) and an image that stresses quality and customer-service (Sundaramurthy & Kreiner, 2008). Furthermore, a long-term orientation appears to cause family firms to protect their family name and image of their firm in the public's eye (Dyer & Whetten, 2006). Building a family firm image may help family firms to leverage their patient investments and long-term strategies by demonstrating to customers that they are here for the long haul and committed to serving their long-term needs. When family firms make advertising statements like "Our family serving yours for the last three generations," organizational identity theory would suggest that they are proclaiming their enduring family involvement and their longstanding commitment to serving customers – in the past, present and future. Therefore, we argue that a long-term orientation is positively related to a family firm image.

Furthermore, because fast-growth, high performing family firms have been found to develop long-term goals and strategies (Upton, Teal, & Felan, 2001) and advocate long-term financial performance (McCann, Leon-Guerrero, & Haley, 2001), a long-term orientation may contribute to family firm success. Zahra and colleagues (2004: 363) note that a long-term orientation allows family firms to "dedicate resources required for innovation and risk taking, thereby fostering entrepreneurship." Because these firms are not subjected to short-term performance pressures, they are able to create investment portfolios that have higher performance potential in the long run (Miller & Le Breton-Miller, 2005; Zellweger, 2007). In long-term oriented firms, family members may be more apt to put aside the pursuit of short-term personal gains for the well-being of the family firm. Indeed, long-term investments and long-term planning appear to promote the success of family firms across generations (Zahra et al., 2004). A long-term orientation may also lead family firms to focus on building enduring customer relationships that contribute to performance. For example, when firms establish long-term relationships with customers, customers tend to purchase more, spend less time in the purchasing process, be less price sensitive, and influence other potential customers to purchase (Reichheld, 1996).

In accordance with this set of arguments, we propose that the effect of a long-term orientation on performance occurs primarily through a family firm image. That is, a family firm image explains why

a long-term orientation contributes to family firm performance. We therefore hypothesize that family firm image will mediate the relationship between long-term orientation and family firm performance.

Hypothesis 4: The relationship between long-term orientation and performance is mediated by family firm image.

Method

We used mail-surveys to collect our data, which is consistent with prior research on family firms (e.g., Eddleston et al., 2008; Schulze, Lubatkin, & Dino, 2003). We obtained a mailing list of 1250 privately held family businesses from a family business center at a major Swiss university. These businesses defined themselves as family firms through their affiliation with the family business center. Additionally, for all firms in the study ownership lied within the family and at least two family members were employed by the business. After one follow-up mailing, 219 questionnaires from 179 firms were returned, resulting in a 14.3% response rate, which is satisfactory for privately held firms (e.g., Chrisman, Chua, Chang, & Kellermanns, 2007; Eddleston & Kellermanns, 2007).

In order to ensure a high level of response quality, we relied on key informants (Kumar, Stern, & Anderson, 1993; Seidler, 1974). Rather than choosing respondents randomly, we focused on the family CEO with an ownership stake in the firm to gain in-depth knowledge about organizational image, performance, and associated antecedents. Note that we collected data from two respondents for a subset of the sample (39 pairs) to validate our key-informant approach. For all variables in the study, the r_{wgs} were acceptable ($r_{wg\ –\ Family\ Firm\ Pride}$ = .91, $r_{wg\ –\ Community\ social\ ties}$ = .92, $r_{wg\ –\ Long\text{-}term\ Orientation}$ = .90, $r_{wg\ –\ Family\ Firm\ Image}$= .89, $r_{wg\ –\ Performance}$ = .92), indicating that focusing on a key respondent was justified.

Additionally, we performed a confirmatory factor analysis (CFA). Values that exceed .90 for the incremental fit index (IFI) and comparative fit index (CFI) are seen as indicating acceptable fit (Hu & Bentler, 1999; Hu & Bentler, 1995; Mulaik, James, Alstine, Bennett, Ling, & Stilwell, 1989). Our analysis resulted in an IFI=.904, CFI=.9029, χ^2 = 373.636 and χ^2/DF ratio of 1.762. χ^2/DF ratios below 5 indicate very good fit (Bollen & Long, 1993). Further, the root mean square error of approximation (RMSEA) for the model was .059, which is below the .08 threshold for indicating good fit (Hu & Bentler, 1999; Hu & Bentler, 1995; Mulaik et al., 1989). These analyses suggest that the constructs exhibit discriminant validity.

Although we found only moderate levels of correlation between our variables, we centered the variables (Cronbach, 1987), calculated variance inflation factors (all < 2.164) and condition indices (all < 29.214) to check for multicollinearity. All indices were below the suggested warning level (Hair, Anderson, Tatham, & Black, 1998). We then tested for common method bias as suggested by Podsakoff and Organ (1986). We entered the items of the independent and mediator variables into a factor analysis and extracted five factors with Eigenvalues > 1.0, which accounted for 63.74% of the variance. The first factor accounted for 17.18% of the variance, while the remaining factors accounted for 46.53% of the variance. Therefore, common method bias does not appear to be a problem in our study.

As further described below in the results section, we entered all independent variables as a block and then tested for mediation. To further verify the robustness of our results, we also tested each mediation effect individually. The results and significance levels for the individually tested effects were identical to the results reported in this paper.

Lastly, we need to address the potential for endogeneity in our study. It is possible that our family firm image variable is not exogenous and that the estimation of performance could be biased. To attend to this issue we utilized two instrumental variables which assessed family firm harmony and locally-based customer loyalty. These variables were chosen because the image the firm wishes to project is likely influenced by the ability of the family to work together and the perception that local townspeople endorse and support the family firm (Arregle et al., 2007; Craig et al., 2008; Sirmon & Hitt, 2003). Using Stata 11.0 and the programs IVENDOG and IVREG (e.g., Baum, Schaffer, & Stillman, 2002), we ran a two-stage least-squares regression (Hamilton & Nickerson, 2003) and estimated the Wu-Hausman F-test and the Durbin-Wu-Hausman test. Non-significant *F*-tests and non-significant chi-square tests as part of the Durbin-Wu-Hausman analysis suggested that the independent variable in question is exogenous, and that the estimates are unbiased and can thus be reported (Davidson & Mackinnon, 1983). In sum, our findings suggest that endogeneity is not a significant concern in our study (F = .06467; p = .80; and χ^2 = .06965; p = .79).

Measures

All constructs were measured using Likert-type scales with a 7-point response format ranging from "strongly disagree" to "strongly agree." Our items assessing the respondent's *family firm pride* were adapted from Smithey-Fulmer et al. (2003). To measure *community social ties*, we followed Tsai and Ghoshal (1998) and measured social resources embedded not only in interfirm relationships but also in close relationships with community leaders and social organizations. Our measure of *long-term orientation* was adapted from Zellweger (2007) and based on the impact of an increased time horizon on strategic opportunities of firms. Our measure of *family firm image* was inspired by the work of Craig, Dibrell and Davis (2008) and Dyer and Whetten (2006). For the individual items and the alphas of the associated constructs, please refer to Appendix A.

For *performance*, we utilized six performance-related questions regarding the firm's financial profit, growth, and return on equity capital. Multiple performance indicators were warranted due to the underlying multidimensionality of the performance construct (e.g., Cameron, 1978). We stress that subjective performance measures are often utilized due to the lack of objective data for companies that are not publicly traded (Love, Priem, & Lumpkin, 2002). Prior research has shown that such subjective measures of performance are correlated with objective performance data in family firms (Ling & Kellermans, 2010). Individual performance measures were added to calculate overall performance, with higher values indicating better performance (e.g., Dess & Robinson, 1984). The alpha was .80.

We utilized eight different *control variables* in our study. First, we controlled for *industry* level effects with five dummy codes because family firm image may be more important in certain industries than others (Capon, Farley, & Hoenig, 1990). Second, we controlled for *family firm age* to address any liability of newness concerns (Stichcombe, 1965) that may negatively affect the ability to build and leverage a firm's image. Third, we controlled for *firm size*, as larger firms may have more resources to invest in image related activities.

Results

The means, standard deviations, and zero-order correlations are shown in Table 1. We tested the hypotheses via multiple regression analysis. The results are shown in Table 2.

We tested for mediation in five models. In Model 1, performance was regressed on the control variables. In the second model, performance was regressed on our independent variables. All independent variables showed a significant relationship to performance. Pride in the family firm ($\beta = 0.159$, $p < .05$), community social ties ($\beta = 0.143$, $p < .05$), and long-term orientation ($\beta = 0.260$, $p < .001$) positively affected family firm performance. In a third model, we regressed performance on family firm image ($\beta = 0.321$, $p < .001$). Since the mediator was significant as well, the initial preconditions for meditation were fulfilled. In the next step (model 4), we tested the independent variables' significance in relation to the mediator. Pride in the family firm ($\beta = 0.490$, $p < .001$), community social ties ($\beta = 0.166$, $p < .01$), and long-term orientation ($\beta = 0.154$, $p < .01$) were significant predictors of family firm image. In the final step (model 5), to test for full or partial mediation, we regressed performance on all variables. The mediator remained significant ($\beta = 0.184$, $p < .05$), suggesting that family firm image fully mediates the effects of family firm pride and community social ties on family firm performance and partially mediates the relationship between long-term orientation and family firm performance.

Discussion and Implications

Based on organizational identity theory, our study set out to investigate the impact of family firm image on firm performance. Recent research has proposed that family members' concern for the public's perception of the business may serve as motivation that thereby leads them to outperform their non-family firm counterparts (Anderson & Reeb, 2003; Craig et al., 2008). With little empirical research to draw upon, our study indeed shows that family firm image is positively related to firm performance. Hence, nurturing the public's perception of a business as a family firm allows the business to create a positive cognitive image of the organization (Einwiller & Will, 2002; Smidts et al., 2001), fostering a connection between the organization's identity and its products and services. As such, our study extends the research by Craig and colleagues (2008) by showing that the promotion of a business as a family firm generates excess returns, for example through the perception that they are trustworthy (Tagiuri & Davis, 1996; Orth & Green, 2009; Ward & Aronoff, 1995), customer-focused and quality driven (Cooper et al., 2005; Sundaramurthy & Kreiner, 2008). Accordingly, family firm image can be seen as a unique competitive advantage for family firms.

Additionally, by applying organizational identity to the family firm realm, we have been able to examine a construct of organizational image that can be broadly utilized by any family firm, and yet allows for distinctiveness given each family's unique identity and heritage. By discussing three main factors with a positive impact on family firm image, we are able to provide a nuanced picture regarding how to optimize the intricate synergy between family and business. More specifically, we find that family firm pride has a positive impact on family firm image and in turn performance. We therefore conclude that when family members believe in their firm and its history, they are more inclined to construct a strong family firm image that can be exploited through the promotion of the business as a family firm in the market place.

Table 1: Descriptive Statistics and Correlations

Variables	Mean	SD	1.	2.	3.	4	5.	6.	7.	8.	9.	10.	11.
1. Construction-Related Industries	.27	.44											
2. Wood Processing-Related Industries	.07	.26	-.17*										
3. Engineering-Related Industries	.10	.29	-.20**	-.09									
4. Service-Related Industries	.30	.45	-39***	-.18*	-.21**								
5. Manufacturing-Related Industries	.13	.32	-.23**	-.11	-.12	-.24***							
6. Family Firm Age	69.08	38.08	.18*	-.08	-.05	-.31**	.12						
7. Family Firm Size (Employees)	340.97	1907.52	-.06	-.03	-.05	-.07	.26***	.03					
8. Family Firm Pride	5.82	.90	.10	-.16*	-.06	-.05	.10	.19*	.09				
9. Community social ties	5.46	.97	.09	-.17*	.08	-.04	-.06	.13†	.05	.25***			
10. Long-term Orientation	4.30	1.10	-.15*	.00	.03	.05	.03	.02	.09	.12	.09		
11. Family Firm Image	4.99	1.19	.27***	-.05	-.03	-.21**	.03	.30***	.09	.58***	.32***	.20**	
12. Family Firm Performance	4.29	1.12	-.21**	-.15*	.03	.09	.19*	-.02	.13†	.23**	.20**	.32***	.23**

N =179, † p <.10: * p <.05; ** p <.01: *** p <.001

Table 2: OLS Regression

	Performance	Performance	Performance	Family Firm Image	Performance
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Control:					
Construction	-.198†	-.165†	-.273	.229**	-.207*
Wood Processing-	-.166†	-.114	-.171	.112†	-.134†
Engineering	-.003	-.003	-.012	.041	-.010
Service	.012	.020	.022	-.027	.025
Manufacturing	.107	.123	.096	.026	.118
Family Firm Age	-.012	-.063	-.088	.141*	-.089
Family Firm Size (Employees)	.085	.042	.057	.029	.037
Independent Variables					
Family Firm Pride		.159*		.490***	.069
Community social ties		.143*		.166**	.112
Long-term Orientation		.260***		.154**	.231***
Mediator					
Family Firm Image			.321***		.184*
R^2	.097	.231	.185	.475	.249
Adjusted R^2	.060	.185	.147	.444	.199
F	2.636*	5.051***	4.831***	15.224***	5.030***

N = 179, † p <.10: * p <.05; ** p <.01: *** p <.001

Second, our study shows that community social ties have a positive impact on performance through family firm image. In line with recent suggestions that identities are socially constructed (Nag et al., 2007) and that they emerge from interactions with internal and external stakeholders (Scott & Lane, 2000), strong community social ties were found to nurture a family firm image, which in turn strengthened performance. This result adds to the wider literature that explores the relationship between social ties and performance. While social ties can influence firm performance in a variety of ways (Arregle et al., 2007), our study suggests that one way family firms can benefit from strong social ties is through the development of a family firm image. Given our findings, more research is needed that explores how strong community social ties encourage family firms to build a family firm image, and how this, in turn, benefits their performance within the community.

Lastly, we show that family firm image partially mediates the relationship between long-term orientation and performance. Although research shows that an organizational identity can be partly mutable and reinterpreted over time (Gioia et al., 2000), because an organizational identity builds upon a firm's heritage and history, it is resistant to attempts of alteration. Family firms with a long-term orientation may be particularly proficient at creating a coherent and enduring image for their businesses. Family firms that are patient and prefer long-term investment strategies may decide to build a family firm image so as to communicate their stable family heritage and traditional values. Perhaps this is a reason why family firms are often seen as trust-worthy. Additionally, our results indicate that long-term orientation directly affects family firm performance, after taking into account family firm image. Given the pivotal role of a long-term orientation for family firms (Gómez-Mejía et al., 2007), future research is certainly needed.

Limitations and Implications

We need to mention a few limitations of our study. We developed several new measures. Therefore, future researchers should refine and further validate these measures. We also need to mention that our data collection is cross-sectional and that it therefore poses the threat of common method bias. However, results from the single factor test (Podsakoff & Organ, 1986) should diminish these concerns. Research suggests that while common method bias may be present, it does not significantly affect results or conclusions (e.g., Doty & Glick, 1998). Still, future research would benefit from a longitudinal design.

Our performance indicator was self-reported. While we encourage future research to utilize objective performance data, these objective measures were not available for the firms in our study since they are not publicly traded. However, prior research has shown that self-reported and actual performance measures in family firms are correlated (Ling & Kellermans, 2010). Lastly, although we focused on CEOs' perceptions in our study, concerns over single respondent bias should be mitigated since our measures were assessed similarly in a sub-group of our sample where multiple respondents were available.

Despite these limitations, our study provides several avenues for future research. While we focus on the benefits of a family firm image, it would be interesting to explore if a family firm image could harm a family firm in certain scenarios. Driven by the need to maintain a consistent identity, family firms might be particularly challenged when faced with a changing environment or identity threat (Elsbach & Kramer, 1996). Identity has often been depicted as a relatively enduring organizational feature that impedes strategic change, mainly because members are viewed as avoiding learning to preserve existing conceptions of themselves and their organizations (Brown & Starkey, 2000). Studies on organizational identity and strategic change have highlighted the problems organizations face in changing their identities when faced with new imperatives (Bartunek, 1984; Gioia & Thomas, 1996; Nag et al., 2007). Indeed, it has been argued that a family firm image may have a dark side when it comes to adaptation and overcoming identity threats (Sundaramurthy & Kreiner, 2008). For example, while a family firm is often seen as trustworthy, customer-focused and quality driven, what perception arises when these firms are viewed as "mom and pop shops"? Are there certain industries, particularly dynamic and innovative industries, where it could be harmful to utilize a family firm image?

Aside from the antecedents of family firm image we have investigated in our study, other antecedents of family firm image can be studied. For instance, harmony and conflicts between family members (Kellermanns & Eddleston, 2004) and forms of commitment in family firms (e.g., Sharma & Irving, 2005) may affect family firm image. In addition, other organizational outcomes of family firm image such as marketing strategy (e.g., Knight, 2000) or non-financial performance/goals could be investigated (e.g., Zellweger & Astrachan, 2008).

Our study has several implications for theory. First of all, we add to the growing literature that explores how family involvement in business activity affects performance. Other scholars have applied the resource based view (e.g., Habbershon & Williams, 1999; Sirmon & Hitt, 2003), stewardship theory (e.g., Eddleston & Kellermanns, 2007) or agency theory (e.g., Schulze et al., 2003). However, we provide one of the first empirical investigations of the performance of family firms using organizational identity theory. We also contribute to organizational identity theory by introducing three drivers of a specific organizational image. Beyond assertions that stakeholders have an impact on organizational identity (Scott & Lane, 2000), earlier organizational identity studies have not provided much insight into the drivers of a firm's image. Literature has conceptually stressed the impact of strategic issues and threats on image and identity (Dutton et al., 1994; Ravasi & Schultz, 2006), the relative stability of the identity and image concept (Gioia et al., 2000), how organizational identities impact resources (Nag et al., 2007), and how management of identity boundaries can contribute to governance in family firms (Sundaramurthy & Kreiner, 2008).

Conclusion

Based on organization identity theory, we present the first empirical study to directly test the impact of family firm image on family firm performance. We show that family pride, community social ties and long-term orientation are important antecedents to family firm image. As such, our study adds to organizational identity theory in general and to our understanding of family firms in particular. We hope that our study will trigger additional family firm research that will utilize this promising theoretical lens.

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Appendix A:
Scale Items and Reliabilities

Construct	Items	α
Independent Variables		
Long-term Orientation	Our family firm pursues multiple investment projects and then waits to see how they evolve over time.	.72
	Our family firm is able to invest in projects that take a longer time to see financial returns.	
	Our family firm is able to invest in projects that are less profitable than those pursued by its competitors.	
	Our family firm pursues investment projects that are riskier than the ones of its competitors.	
Pride in Family Firm	I want everyone to know that I work for a family firm.	.77
	I am proud to work for this family firm.	
	I really care about the fate of this organization.	
	The family members are proud to work for this firm.	
Community social ties	The family firm is well connected to community leaders.	.67
	The family firm has good banking relationships.	
	The family firm is active in business networks (e.g. trade associations) or social organizations (Lions, Rotary, Kiwanis).	
	The family firm is well connected to other firms.	
Mediator		
Family Firm Image	The family firm name is recognized in the community.	.76
	The family name is used as brand.	
	In our advertisement, we mention that we are a family business.	
	Most of our customers know that we are a family business.	
	The fact that we are a family business is a great marketing tool.	
Dependent Variable		
Family Firm Performance	I feel that our firm makes a good financial profit.	.80
	We have strong growth opportunities in our firm.	
	We have a good return on the invested equity capital.	
	The shareholders have good dividends from the firm.	
	The family members derive good perks from the firm.	
	The family has financial freedom thanks to the firm's financial outcomes.	

Swiss Research Institute of Small Business
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University of St.Gallen

Schweizerisches Institut
für Klein- und Mittelunternehmen
Universität St.Gallen

Rencontres de St-Gall 2010

Wednesday Afternoon, Sept. 8, 2010

Topic D

Entrepreneurial Behaviour

Papers:

- Casas i Klett, Hilb
- Fauchart, Gruber
- Kilenthong, Hills, Hultman, Sclove
- Lukes
- Petheo, Szabo
- Schulte
- Tan
- Volery, Mueller, von Siemens

The Living-Dead Trap: Non-rationally Sustained Ventures as Keystone to Elucidate Entrepreneurial Decision-Making

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Introduction

"*If at first you don't succeed, try, try, again. Then quit.*
No use being a damn fool about it."[2] W. C. Fields (1880 - 1946)

Quitting is the obvious normative action for founders of non-performing ventures. Bhidé (1999a: 71) writes "It's best to walk away" from venture that are "'unprofitable and cannot grow satisfactorily" as turnaround hopes related to radical action or an unexpected bonanza seldom materialise. Despite such advice this paper purports that in entrepreneurship 'poor or moderately performing' firms (Mason, Harrison, 1999: 6), including those projects that venture capitalists refer to as 'sideways deals' (Bagley, Dauchy, 1999a: 277), constitute not only a distinct category, they are essential to understand entrepreneurship, entrepreneurs and the nature of their decision-making. Near-success is not success - it is a trap. Theorists of old such as Knight ([1921] 2002: 366) noticed the phenomena: "Man may possibly be timid and critical on first embarking in new venture, but once committed, it seems unquestionable that the general rule is to hold on to the last ditch (…)." The paper provides a modern theoretical foundation of why in entrepreneurship entry is often easier than exit.

This paper's goal is to elucidate a specific decision-making phenomenon and at the same time contribute to a deeper understanding of entrepreneurship in general. The paper's structure is composed of four parts. It starts (I) by proposing an entrepreneur typology based on the concept of living-dead[3] founders as a discrete category in entrepreneurship. The pervasiveness of the living-dead phenomenon is then (II) inferred from a general review of failure rates and nor- or underperformance in entrepreneurship. This leads (III) the paper's main thesis where the decision to sustain a venture is often made on the basis on non-rational, non-utility maximizing behavioral criteria, which places the founder in a situation akin to a trap. This theoretical discourse is supported with hypotheses based on specific behavioral decision-making processes which bring about the living-dead trap. These hypotheses ought to facilitate the empirical verification of the entrepreneur typology, eventually linking theory to practice

[1] The authors thank Prof. Thierry Volery's for his support and encouragement during the witting and research process of this paper draft

[2] Bazerman, 2002: 75. Italics in original.

[3] The term 'living-dead' is taken from the quote; "The great majority of start-ups fold or drag along in what one entrepreneur calls the land of the living dead." Bhidé, 1999c: 121.

with derived normative aspects. Consequently (IV) the paper aims at drawing relevant conclusions and suggests avenues for future research.

1 Entrepreneur Typology (Definitions)

Typologies of an object follow its definition. We narrow and delimit the entrepreneurship phenomena from fives directions (Casas, 2005). By doing so, we subscribe to a narrow, discriminating view of what constitutes entrepreneurship in contrast to broader all-is-entrepreneurship view. The Harvard/Babson view of entrepreneurship supplies the first explicit delimitation, i.e., **wealth creation** beyond "resources currently controlled" (Timmons 1990: 5 cited in Gartner, Shane, 1995: 297.) The second is **risk-exposure** a consequence of 'uncertainty-undertaking.' In 1755 the first theorist on the subject, Cantillon, described entrepreneurs as the self-employed who 'adjust themselves to risk' where the return is uncertain (Palich, Bagby, 1995: 426). It is the third characteristic, creation of a firm and its **ownership**, which exposes the founder to risk. An associate of risk-exposure is the fourth property we introduce: **high-growth potential**. Bygrave (1989b: 9) cites Liles (1974) calling mega-ventures 'high-potentials' and micro-ventures 'mom-and-pops. He goes on to take this fundamental position with his own taxonomy: the subjects corresponding to a narrow definition are 'macro-entrepreneurs' as their activities have greater social and economic impact than those of 'micro-entrepreneurs' (Bygrave, 1989 in Cheah, 1990: 341). The fifth and last element is the rather well-known **innovation** notion of Schumpeter (1934), Baumol (1993) and many others. The basic notion behind the innovation construct is that the founder introduces something unprecedented, new or seldom tried before. This bet is the source of uncertainty and has as its upside high-growth.

This narrow definition above leads to "what the entrepreneur is not." The consequence of our boundary setting is obvious from the Global Entrepreneurship Monitors (GEM) 37 country survey, where a broad definition of entrepreneurship sees a world with over 460 million practicing entrepreneurs (2002: 5). This massive number counts business founders who are well outside our narrow definition's boundaries, such as those who are (a) self-employed, (b) entrepreneurs of last resort (or necessity, such as immigrants or people with difficulties in gaining access to the job market), (c) professionals, or (d) family business owners. This paper's definition also excludes the related phenomena of (e) intrapreneurship and most (f) small businesses. Surely, many of those in these categories like the self-employed can experience ownership and degrees of risk exposure and wealth creation potential and may switch growth trajectories deciding to attempt innovation. At such an inflection point they would enter the narrow definition of entrepreneurship.

The higher the uncertainty, the innovativeness, the high-growth potential of a start-up (i.e., the narrower the form of entrepreneurship), the higher the exposure to **indeterminacy** will be. That is, the stronger the likelihood of encountering outcome-less situations where neither success (evidenced by reasonable profits, sufficient exit compensation, high sales growth) nor failure (excessive indebtedness, cash-flow issues, forced closure) have imposed their logic on the firm. When indeterminacy is a characteristic of entrepreneurial performance over a certain time period we can speak of a 'near-success curse'. When indeterminacy lasts for too long a period or yields the way to non-performance survival (i.e., returns on capital are negative or below the industry or the economy's average), entrepreneurs who decide to sustain their venture are likely to be or become prisoners of the 'living-dead trap.' Under such a circumstance founders will fail to optimize their material utility (salary, non-wage

compensation) and even their psychology utility (as stress, mental health challenges, isolation, operational frustrations, tiredness, etc. overshadow the satisfaction of ownership such as being one's own boss, etc.).

Should living-dead founders be established as a discrete category of entrepreneurship, the living-dead trap might well be the most deficient (and a most prevalent) situation in entrepreneurship. A situation far more dramatic than failure itself. Accepting that surviving start-ups are owner-managed by living-dead founders, and taking the phenomena as the central unit of analysis, yields a comprehensive typology of the entrepreneurship universe (below):

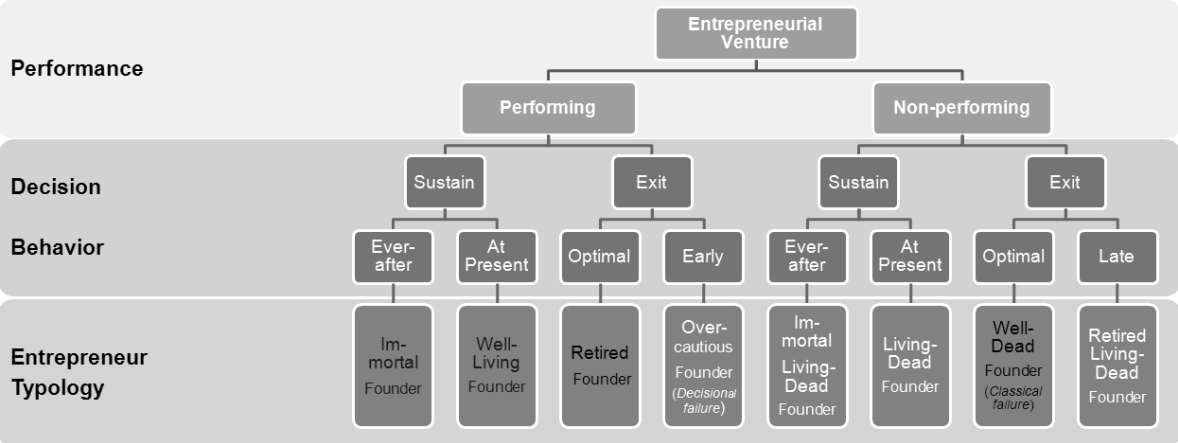


Exhibit 1: Entrepreneur typology framed by living-dead construct (performance and behavior)

Analyzing **entrepreneurship** in terms of venture outcomes (success/non success) and founder behavior (maintain/exit choices and an associated temporal dimension) brings forth a framework containing eight entrepreneur types grounded by the living-dead construct. **Living-dead founders** are entrepreneurs who sustain their venture for a *significant* period despite lack of present and future performance and value creation expectations. As a result these survivors derive lower utility (both material and psychological) from venturing than they would from alternatives (such as employment or other income generating pursuits). From a classical economics, utility maximization, rational choice theory perspective, living-dead entrepreneurs are unexplainable as they make a discrete type of non-rational decision by choosing to sustain their ventures.

The binary performance criteria of venture outcomes and founder behavior sees four founder types associated with successful venture outcomes; the **'well-living',** the '**immortal',** the **'overcautious'** and the **'retired founder'**. We can easily understand their particularities if we match them with their four opposite correspondent types related to non-success in the eight-fold entrepreneur typology.

The **'immortal living-dead'** are those living-dead who never quit and continue their sub-optimal entrepreneurial quest until retirement. They may have lost the train of employment or otherwise fallen too deep into the trap to get out of it. The '**retired living-dead**' are those failed entrepreneurs who escaped from the trap and quit their living-dead status. Their (ad)venture is over but while it lasted the start-up was a cause of personal economic disutility. The **'well-dead founders'** on the other hand, exist in antagonism to the living dead; also being failed entrepreneurs they nonetheless avoided falling into the trap by making a timely decision to quit. As soon as it became clear that their venture's prospects differed negatively from the initial start-up expectations to the degree that closing down was the rational course of action, they actually exited, sunk costs being sunk costs, as classical economics

would have it. This optimal exit is the mainstream understanding of entrepreneurial failure. If most failed entrepreneurs belong to this category the living-dead are marginal and irrelevant.

2 Failure and Non-performance in Entrepreneurship (Phenomenological Review)

As a step prior to develop theoretical explanations for the living-dead we ought to try to establish the nature of entrepreneurship in terms of failure likelihoods and non-performance. Establishing failure likelihoods for start-ups and assessing the significance of non-performance in entrepreneurship will provide insights into the latent pervasiveness of living-dead founders and the kind of decision-making that results in this putative phenomenon. We do so through a literature review.

The literature seems to agree with the thesis that *"most firms fail"* as there "appears to be a consensus among entrepreneurship scholars and practitioners alike, even when they disagree on the actual proportions (Aldrich and Martinez 2001; Fichman and Levinthal 1991; Hannan and Freeman 1984; Low and MacMillan 1988; Stinchcombe 1965)." (Sarasvathy, 2006: 3). Empirical studies are pressed to find evidence of survival base rates greater than 50% after the first 5 years of incorporation. For instance, with remarkable consistency across the 1977 to 2001 period, the five-year survival rate for new firms was on average 48-49% (Strangler, 2009). Knaup and Piazza (2007) business longevity study sees 44% survival rates through the fourth year, and a further decrease to 31% through the seventh year. Similarly Bruno, *et al*., 1987: 51 indicate that within the first five years 54.5% of new businesses fail; by the end of the tenth year the figure was 81%. More optimistically Audretsch, *et al*., (1997) record survival rates of 69% after four years and 44% after 10 years. Moreover, survival does not indicate success as the living-dead construct purports and as Cooper, *et al*., (1994: 372) summarize: "The failure rate of new firms is high (Shapero, Giglierano, 1982) and many survivors achieve only marginal performance (Reynolds, 1987)." Depending on the pervasiveness of marginally surviving, non-performing living-dead founders, and the length of time these spend in their trap, start-up *true* success base rates could be dramatically adjusted downwards.

Another perspective on the phenomenon may come from the practice of finance, from venture capital (VC) firms who derive their right of existence from their ability to distinguishing winning from losing ventures. VC firms focus on a high-growth potential sample of entrepreneurs with perhaps one in 10,000 founders receiving VC funding (GEM, 2002: 32). Hence the VCs sample of founders is also an elite one and represents narrow entrepreneurship within the definition's boundaries.[4] Mason and Harrison (1999) while pointing out that VCs jealously guard performance data, cite Bygrave and Timmons (1992: 153) where actual average returns are in the teens, even as seasonal variance could see spikes with annual returns over 30%. Against this homogeneity of portfolio returns punctuated only by seasonality, we unsurprisingly find heterogeneity in the returns of individual firms within VC portfolios. Bhidé (1999b: 226) cites a study by Venture Economics, Inc. where 7% of start-ups result in 60% of profits, while one-third lead to losses. The often quoted (e.g., Sarasvathy, 2006) 'one in ten' survival rate benchmark provided by the National Venture Capitalists Association carries much weight. Gompers et al. (2006) find overall VC success rates for first time ventures to be 25.3%, with

[4] There is the risk of a tautological error based on the choice of the narrow entrepreneurial definition. High-growth firm-founding (like those funded by VCs) could involve significantly greater risk exposure and hence a larger prevalence of failures when compared to low-growth new firms. Such tautology falls outside the research question, as living-dead founder research concerns non-performing *surviving* entrepreneurs. Failure constitutes a forensic lead for a living-dead founder, even though not all failed ventures are anteceded by living-dead periods neither are all failed founders well-dead.

serial entrepreneurs showing above-average success rates of 36.9%. As refers to our subject, VCs may be better at preventing (or pre-empting) living-dead if they possess lesser tolerance for living-dead founders (than living-deal founders have for themselves). On such assumptions it has been hypothesized (Casas, 2005) that VCs perform a specific 'living-dead eradication' agency as part of their overall agency.

Further to the rather low probabilities of firm surviving entrepreneurship we can now examine whether survival equals success for the entrepreneur. We ought to do so by referring to studies using the salary variable and compare average incomes of entrepreneurs with the 'safer' career option: employment. As per our entrepreneur typology this comparison would be an important clue to ascertain whether active entrepreneurs are well-living or living-dead founders. Moreover, since literature on salary compensation is usually skewed towards the broad definition of entrepreneurship (including lifestyle, professional or Small and Medium Enterprise businesses), traces of living-dead in the broad definition of entrepreneurship (low-growth, low-risk exposure venturing) would be a significant indication of the pervasiveness of the living-dead trap.

Hamilton (2000: 606) finds that after a decade in business, median entrepreneurial earnings are 35% lower than predicted alternative wages. Adding nonwage compensation, such as employer-provided health insurance, makes the comparison worse for firm founders who as a group are not necessarily the less talented nor are they lower-ability workers (Hamilton, 2000: 625, 626, 627). In addition, opportunity costs exist as some authors assess the difficulty of ex-entrepreneurs to re-enter corporate life at levels equivalent to the ones their career tracks would have provided them had they not ventured (Worcester, 2001). In short, even narrow, low-growth entrepreneurship seems to be spanning living-dead founders.

The two reviewed findings of entrepreneurship (a) large failure base rates and (b) significant numbers of non-performing founders point to the existence of a living-dead class of founders who act non-rationally when they *sustain* their venture. Determining high failure base rates and non-performance in survival does not solve the 'living-dead vs. well-dead' question, but it is a keystone that allows for the construction of a behaviourist theory of the living-dead. The empirical findings might also suggest that even *starting* a venture is a non-rational decision (high failure base rates at entry) for the entrepreneur (although not for the VC who manages a diversified portfolio of entrepreneurs). Regardless, the start-up decision is distinct form the sustain decision at a venture that is non-performing as the original plans and vision can be compared with present outcomes and cash-flows. Had we discovered that entrepreneurship yields relatively low failure rates we would argue that living-dead periods of sub-optimally sustaining a new venture need not imply non-rationality since sustain decisions could be justified by future expectations informed by positive net present values associated with high success base rates. As it stands, overall large failure likelihoods make the success probability recalibration and other cognitive processes that support the decision to sustain the venture all the more suspect from a rational utility-maximization standpoint.

As a venture progresses, and in light of updated operational and financial data, entrepreneurs choose to sustain or not the venture; short of quitting they implicitly or explicitly have decided to invest further cash, sweat equity, etc. In short, unless one assumes that all failures correspond to the well-dead founder category, then *par force* some entrepreneurs sustain non-performing ventures during prolonged periods on the basis of subjective assessments divorced from success base rates for entrepreneurship, rational expectations for future venture value and income maximization.

Living-dead Trap Base Hypothesis:	Decisions to sustain non-performing ventures with expected negative present values see firm founders fall into the living-dead trap, a common entrepreneurial situation yielding measurable levels of economic disutility.

We frame the living-dead in terms of a non-rational decision to sustain a venture. Such a step would draw support from, and be a continuation of, existing streams of entrepreneurship research. For instance, of findings which do not see 'industry factors' but rather 'firm-specific characteristics' as the greatest long-run influence on firm survival likelihoods; "Heterogeneity of survival rates across firms is apparently more attributable to firm-specific characteristics than to industry-specific characteristics." (Audretsch, et al., 1997: 8). In the context of living-dead theory of entrepreneurship we would posit that survival rates are determined not by firm-specific characteristics but rather by firm-specific characteristics *resulting* from specific behavioural factors present in decision-making by entrepreneurs.

The next step is to leverage the theoretical body that assumes and purports to explain non-rational decision-making. Behavioural economics is no stranger to entrepreneurship and this body of knowledge has been applied to entrepreneurship and business studies for some time now. For instance, research shows that the bias of "overconfidence leads to excessive business entry." (Camerer, Lovallo, 2000: 415). Similar behavioural inconsistencies see only 5% of sample respondents perceiving their own success chances as poorer than those for others in the *same* business; 27% see their chances as 'exactly the same as others' while 68% assess their success odds as 'better than others' (Cooper, *et al*., 1988: 103, 104). More specifically, Palich and Bagby (1995) develop models of firm founding based on biases such as excessive optimism (of entrepreneurs) or pessimism (of non-entrepreneurs) resulting in non-optimized decision-making. Literature even includes 'entrepreneurial heuristics' (Manimala, 1992). Behaviourist and related cognitive theory, assumptions and analytical approaches are thus are a methodological choice grounded in previous entrepreneurship research which we now deploy to elucidate the living-dead trap.

3 The Living-Dead Trap of Entrepreneurship: Behavioral Hypotheses (Theory-making)

We postulate that the 'living-dead trap' (affecting presently living-dead such as the immortal living-dead as well as retired living-dead founders) can be explained by applying a combination of constructs from behavioral theory. We select key constructs related to (non-rational) decision-making, such as gamble in the domain of losses, endowment effect, non-rational escalation of commitment or outcome reinterpretation, and operationalize these as falsifiable conjectures, as living-dead hypotheses.

Sustaining Entrepreneurship as Gamble in the Domain of Losses

Fiegenbaum and Thomas (1988: 86) point to research showing that troubled companies, like troubled individuals, take greater risks in the face of tribulation. MacCrimmon and Wehrung (1988: 177) note that the willingness of managers to take risks is higher "once in a risky situation" than before entering that situation. What Krueger and Dickson (1994: 392) call 'desperate' risk seeking tran-

scends the domain of gambling as is part of finance and strategic decisions. We posit that the desperate bet that further traps the gambler is not alien to entrepreneurship.

Kahneman and Tversky's prospect theory (1979: 287) suggests that those who have not come to terms with their losses are likely to accept gambles that would otherwise be unacceptable, building on McGlotklin (1956) who observed the tendency to bet on long shots increases in the course of the betting day. Entrepreneurs when maintaining, rather than quitting, a non-performing firm might be taking long shot gambles. Sustaining entrepreneurship could be construed as an attempt to straighten one's waning fortunes, a desperate escape forward that as such is probabilistically more often than not doomed-to-fail.

Living-dead Hypothesis 01:	Sustaining a non-performing venture is a gamble in the domain of losses.

Trapped by Endowments and the Status Quo

Anecdotal evidence from entrepreneurs asked to take regular employment points that a "mild form of hara-kiri" would be preferred to a *status quo* change (Ronstadt, 1986: 324). While a range of motivational aspects could explain such responses, we posit that the status quo bias, as described by Kahneman *et al*. (2000: 163), where individuals resist change as they perceive disadvantages to loom larger than advantages, is relevant in the firm founding context. That is akin to the endowment effect where valuation of an object is higher for subjects possessing such object (Lowenstein, 1996). Its trap-like quality results from owners being unaware of this effect (Lowenstein, *et al*., 2000: 5). In other words, the entrepreneur's subjective valuation of his firm's equity (expected future value) would be higher than that assigned by the market, the entrepreneur being unaware of his biased assessment. The ensnaring nature of the status quo bias is further noted by Loewenstein and Adler (2000: 734) as people in general are "unwittingly trapped by their choices; they make choices with an unrealistic sense of their reversibility."

Living-Dead Hypothesis 02:	The trap-like aspects of the living-dead are mediated by endowment effects and the status quo bias.

Commitment to the Venture by Non-rational Escalation

Baron (1998: 287) summarizes various factors on escalation of commitment research (e.g., Staw, Ross 1987; Bobocel, Meyer 1994): "(1) feelings of responsibility for the initial decision – once individuals make a decision, they feel responsible for it, and view reversing the decision as backing away from such responsibility; (2) the effort involved in making a decision – decisions require hard cognitive work, and most people are reluctant to begin the process all over again; (3) concerns about the loss of face and image that may result from admitting that one made a mistake; and (4) strong desires to justify one's initial choice to oneself (…)". Further to the first point, Granovetter (1985: 507) observed that small firms often persist because the dense network of social relations that overlays their business relations. Bazerman (2002: 75, 76) notes that individuals are prone to escalate commitment to the initial decision when approaching decisions serially. Baron (1998: 287) suggests that the underlying factors leading to escalation of commitment are relevant to decision-making by entrepreneurs.

Living-dead hypothesis 03:	The decision to sustain a non-performing venture by the entrepreneur is supported by a non-rational escalation of commitment mechanism that is psychologically and socially constructed.

Start-up Perseverance by Reinterpreting Outcomes

A series of studies conducted by Klaaren, Hodges and Wilson (1994) provide what may be the most direct evidence that people with positive expectations put a favorable spin on outcomes they receive, even when these outcomes might reasonably be considered disappointing (Armor, Taylor, 2002: 34). Cooper and Artz (1995: 440) showed that those entrepreneurs "who had a positive view of their initial prospects later viewed the experience of business ownership more favorably, regardless of subsequent performance." Cognitive dissonance theory, the psychological immune system and ex post rationalization of decisions describe rich process by which outcomes are reinterpreted.

Living-dead hypothesis 04:	Entrepreneurs persevere with non-performing ventures by ex post rationalization and tendencies to reinterpret actual outcomes positively.

Entrepreneurship is an ambiguous situation where reinterpretation of outcomes as well as other behavioral phenomena we have linked to the decision to sustain ventures, could occur as a matter of course. What we call the "entrepreneurial trap" may thus be as predictable as it is widespread. This section has hypothesized a series of hypothetical causes for the putative living-dead phenomenon based on various constructs within a specific and coherent theoretical framework. Consistent with multivariable explanations of human behavior the four causal hypotheses are by no means exhaustive; other behavioral factors of non-rational decision making would be expected to also play roles in leading entrepreneurs to sustain their ventures in the face of non-performance and low likelihoods of meeting original performance objectives.

These four hypothesis either jointly, as a combination, or as a combination with new living-dead trap hypotheses (principally based on constructs from behavioral theory), attempt to explain the living-dead trap by referencing the entrepreneur's behavioral (non-rational) decision-making process. Through an understanding the living-dead trap phenomenon we not only recognize and explore a category of entrepreneurs; we also develop a keystone to elucidate the broader entrepreneurship subject and its associated decision-making mechanisms.

4 Implications and Avenues for Further Research (Conclusions)

This paper concludes with practical implications and suggests questions for further research. Implications will include the development of normative insights to assist in the reduction of the specific living-dead decisional error which the authors of this paper view as one of the gravest and most taxing in entrepreneurship.

Theoretical implications

The following research avenues will help falsify, reformulate or refine the living-dead trap and the living-dead hypotheses of entrepreneurship. Beyond the sparse set of existing empirical research in the topic, there is room for further studies.

Research avenue 01: Further empirical identification of the success, survival and failure base rates for entrepreneurship. That is, for both the narrow and broad definitions, across industries, geographical settings etc in which success, survival and failure are defined both by objective monetary and by subjective psychological utility standards by means of direct surveys and meta-studies.

Research avenue 02: Design of "*living-dead performance indicators*" (LDPI). That is descriptive and measurable benchmarks of entrepreneurial non-performance. These indicators would constitute decision-criteria for empirically resolving the living-dead vs. well-dead question, and would enable the description of living-dead founders in measurable terms. Prior to hypothesising their relevance, these indicators would need to be theoretically constructed. For instance, a living-dead founder would be qualified by the number of months and the earnings differential size of founder income relative to wages related to relevant available labour market career choices. Another LDPI would suggest certain levels of returns on investment over certain periods of time to constitute entrepreneurial non-performance. Statistically relevant accounting losses and debt levels (both hidden and explicit) would be established to support the normative decision to terminate the venture. Once established, these performance metrics would provide an empirically grounded description allowing an indexed description and measurement of the living-dead trap and its multiple facets.

Research avenue 03: Analysis of qualitative and quantitative "*VC start-up termination indicators*" employed by different VCs. The idea is to identify specific performance indicators VCs employ to close down or refrain from further supporting investee companies (i.e., cash levels, sales growth percentages, deviation deltas from original goals, milestone types missed, etc). Such indicators would be contrasted with and inform LDPIs.

Research avenue 04: Theoretical and empirical grounding of the skill vs. randomness discussion of success in entrepreneurship. Schumpeter (1944) or Gompers et al. (2006) emphasize skill as the best explanation for success and failure in new ventures, whereas Kihlstrom and Laffont (1979) or Casas (2005) see luck (i.e., the normal distribution). The larger the extent of the randomness explanation the more likely that behavioral non-rational decision-making can be associated with firm founding and maintenance and hence the higher the prevalence and significance of the living-dead.

Research avenue 05: Survey of founders to track performance over time as associated with the present rationale employed to sustain (or to discontinue) the venture. Part of the regularly administered questionnaire would assess the evolution over time of subjective success probabilities as well as other expectations about the venture. The 'length of time' living-dead founders actually spend in their trap would be a critical side-question. Moreover, the questions would aim at identifying behavioural decision-making criteria (including non-rational criteria such as biases or heuristics). Such a survey could test the four hypotheses of this paper as well as any other behavioural phenomena which the authors would wish to add as potentially relevant choices related to the living-dead trap.

Research avenue 06: Verification of the living-dead centred entrepreneurial typology based on performance and behaviour criteria (Exhibit 1). The existence of each of the eight founder types is to be empirically confirmed after each has been theoretically grounded. Mutual exclusiveness and overlap-

ping between the eight types is to be assessed. Lastly, metaphors would be develop to link this typology to practice (i.e., *Gallipoli entrepreneurs* being those overcautious founders who quit too early unknowing that victory is but a few bullets away).

Research avenue 07: Case studies of active entrepreneurs to achieve thick descriptions of living-dead and their decision-making processes. Basic survey questions would focus on achievement/non-achievement of original start-up objectives (timely/un-timely fashion). The founder's initial objectives would be as identified with as much specificity as possible (ideally with LDPIs, or in the absence of these with financial indicators such as profits, payback time, IRRs). Other relevant objective performance indicators could include (the more sensitive) income brackets (comparing the case study subject levels with levels at a comparative sample of individuals pursuing regular careers). Such designs would ascertain the number of 'well living' in the sample. For those founders having not yet achieved 'success', further questions on expectations and specific goals would be made to examine the nature and 'depth' of the living-dead trap. Related and more directly to the decision to sustain a venture hypothetical questions would inquire on what circumstances would force founders to exit the 'investment mode' or, rather, the '*prolonged* investment mode' (that is, a metaphor on unrecoverable opportunity costs and non-utility maximization situations - metaphors to achieve respondents' bias reduction ought be part of such studies). Ideally such case studies would be longitudinal, following a sample of entrepreneurs over time.

Practical Implications: Normative aspects of the living-dead trap

Falling into the living-dead trap can be a personal tragedy as well as a significant macro-economic inefficiency resulting in a tremendous misallocation of resources, i.e. human and financial capital. On the other hand, the differentiation between a situation where an entrepreneur is in the living-dead trap or where he or she is just in a situation where he or she is temporary non-performing due to the uncertain nature of any new business in the start-up phase is blurred at best.

Nevertheless, there is empirical evidence and theoretical reasons to suspect that entrepreneurship turns into a deadly trap when founders are faced with indeterminacy or actual non-performance. To avoid falling, or at the least sinking deeper into this trap, preventive methods ought to be theoretically developed and verified by practice. That is all the more true since any attempt to close non-performing ventures invariably generates certain Type II errors where firms that would succeed (if not denied the extra million needed) are terminated.

Methodologies to detect, avoid and defuse the living-dead trap are the obvious practical consequences of a 'living-dead theory of entrepreneurship.' Past suggestions in this regard include the 'bounded luck' agency (Casas, 2005) where behaviourist competence is pursued to leverage emotions and non-rational decision-making tendencies for purposes of utility maximization, legal control and action advisory packages (not unlike those implemented by VCs as part of their mandates). More sophisticated and grounded living-dead trap eradication include, for instance, moving the founder away from personal initial commitment and reducing the perceived value of his endowment. Applying Bazerman's suggestion (2002: 76, 77) entrepreneurs would be made cognizant that time and expenses already invested are but 'sunk costs.' Such living-dead ad hoc bias reduction actions would aim at forcing entrepreneurs to make a second decision (Ibid: 83). That is, venture maintenance decisions premised as new problems which have to be examined objectively.

A second important practical implication is that awareness for the issue needs to be increased in order to make entrepreneurs, investors (such as VCs, business angles, family and friends or banks) as well as society in general (governments, unions, education establishments) sensitive to the implications of the living-dead trap. The more entrepreneurship is recognized as creating wealth for society as a whole, the more pressing it becomes on financial and ethical grounds to deal with the living-dead trap. The research agenda outlined above may play a part in achieving awareness.

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Darwinians, Communitarians and Missionaries: Exploring the Role of Founder Identity in Entrepreneurship

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Abstract

Drawing on social identity theory, we explore the identities, behaviors and actions of 49 firm founders in the sports-related equipment industry. Our analysis suggests the existence of three pure types of founder identities and shows how these identities systematically shape key decisions in the creation of new firms, thereby imprinting them with the founders' distinct self-concepts. We synthesize our findings in a typology that sheds light on the heterogeneity of motives and meanings that founders associate with new firm creation.

Introduction

One of the most remarkable characteristics of entrepreneurship is that it provides individuals with the freedom to pursue their own motivations, dreams and desires when they create new firms. Since the fundamental motives that a founder expresses in new firm creation shape the entrepreneurial process and its outcomes (Kimberly, 1979), one would expect a large body of work to have provided insights on what drives founders in their entrepreneurial endeavours. However, extant work is surprisingly limited because most studies have focused on the prospects of personal monetary gain as the driving force of entrepreneurial activity (Murnieks & Mosakowski, 2007). This emphasis has been encouraged by classical entrepreneurship theory, which proposes that people start new ventures primarily because they want to increase their private wealth by creating and appropriating economic rents (e.g., Schumpeter, 1942).

In the present research we build on a small but growing literature that takes into account the fact that entrepreneurial activities are infused with meaning as they are an expression of an individual's identity or concept of self (Kimberly, 1979; Murnieks & Mosakowski, 2007; Cardon, Wincent, Singh, & Drnovsek, 2009; Hoang & Gimeno, 2010). For instance, Cardon et al. (2009) recently invoked the identity concept to explain the role of passion that founders have for different activities in the entre-

preneurial process, while Murnieks and Mosakowski (2007) explored the features of entrepreneurial and the managerial role identities.

Yet, despite the pioneering insights that these studies provide on founder identity and its effects, the potential insights that an identity perspective could yield for entrepreneurship research remain largely unexploited. In particular, we still lack a strong theoretical framework that could improve our understanding of the heterogeneity of motives and meanings that founders associate with their entrepreneurial activities. Furthermore, while suggesting that the newly created firm can be seen as an extension of the founder's self-concept (Kimberly, 1979; Whetten & Mackey, 2002), extant research does not provide systematic insights on the effects that the founder's identity has on the emerging organization.

In the present study we propose that the theory of social identity, which forms part of the literature on social cognition (Tajfel, 1972; Tajfel & Turner, 1979), can serve as a valuable lens through which we can improve our understanding of heterogeneity in founder motives and meanings, as well as the effects of such heterogeneity on firm creation processes and outcomes. Notably, social identity theory allows to obtain a rich assessment of an individual's being, since social identity is critical to one's beliefs, feelings, values and actions in all social contexts, including new firms (cf. Hogg & Terry, 2000). Social identity theory also seems to be a particularly powerful lens to increase our understanding as to why there are stark differences in firm creation processes and outcomes, as it provides a theoretical link that explains how social identification leads individuals to behave and act in ways that reinforce and confirm their identities (Tajfel & Turner, 1979; Hogg & Terry, 2000).

Hence, by drawing on social identity theory, our research seeks to accomplish two main goals: First, we seek to establish a typology detailing the primary types of social identities of firm founders that will allow us to better understand the heterogeneity of motives and meanings founders associate with entrepreneurship. Second, we build on these insights to determine how the founder's identity affects new firm creation, particularly in terms of three initial strategic decisions that are widely considered to define the core of firms and to have important imprinting effects on the emerging organization (Abell, 1980): the market segment(s) served, the customer needs addressed, and the resources and capabilities deployed to produce the offering.[1]

To accomplish these goals, we conducted an in-depth exploratory study of 49 firm founders who recently created a business in the sports-related equipment industry. Data collected through interviews and secondary sources were analyzed using an inductive methodological approach (Miles & Huberman, 1994; Strauss & Corbin, 1998; Glaser & Strauss, 2006).

Based on the distinct motives and meanings that individuals in our sample attached to their self-concepts as firm founders, the founders we interviewed could usually be classified as belonging to one of three "pure" types of founder identities – Darwinian, Communitarian, and Missionary identities – or to a group of founders with a "hybrid" identity that combines elements of the pure types. Founders with a Darwinian identity are characterized by a self-concept that stresses competition with other

[1] Although founders make a number of strategic decisions during the early stages of new firm creation, we focus on this set of initial decisions because they strategically define the business (Abell, 1980). These decisions are antecedents to many subsequent decisions (such as the choice of distribution channel) and tend to take on an air of permanence because they cannot be reversed easily.

firms and private wealth creation, while founders with Communitarian and Missionary identities deviate in fundamental ways from that standard because they view their firms as social objects (Communitarians) or political objects (Missionaries), rather than as objects through which to attain financial wealth. We also find that these important individual-level differences in founders' social identities are reflected on the firm level since founders behave and act in ways that are consistent with their identities and thereby imprint their self-concepts on key dimensions of their emerging firms. These findings have a number of fundamental implications for how we think about firm-creation processes (including the early stage of opportunity identification), firm-creation outcomes, and firm founders as enterprising individuals.

Research Method

To answer our research questions, we chose an exploratory, qualitative research design, which is recommended for investigating phenomena that are subtle and/or poorly understood (Strauss & Corbin, 1998; Yin, 2003).

Data Sources

Multiple sources of data are critical to qualitative research because they facilitate triangulation and validation of theoretical constructs. Data from several sources informed this research.

Interviews

In total, 56 interviews were conducted with the founders of 49 firms. If firms were founded by more than one individual, we conducted additional interviews with the co-founders in as many cases as possible in order to understand their identities and to obtain additional insights on the firm-creation process. We do not count interviews with non-founders in our interview statistics, but we did use information provided by a number of non-founders to augment founder-reported data. Firms were identified through the use of three complementary strategies.

(a) Introduction from the Academy of Sports Science & Technology: We began our study by conducting five interviews with founders introduced to us by the Academy of Sports Science & Technology in Lausanne, Switzerland, an organization that has links to many entrepreneurs in the sports-related equipment industry.

(b) Identification through Conferences, Sport-Related Magazines and Websites: We searched through a variety of public sources (such as the lists of firms presenting at the International Society for Sports Engineering (ISEA) Conference and the International Sports Trade Fair (ISPO)), the advertiser indices of several sport-related magazines (e.g., TransWorld Snowboarding, Ski Magazine, Skiing Magazine, Bicycling Magazine), and several sport-related websites (e.g., www.snowboarding.com). We also searched the online directory of Swiss firms (www.zefix.ch) with keywords such as sport, equipment, and the names of sports.

(c) Snowball Sampling: We also identified firm founders through the technique of "snowball sampling," which identifies interviewees based on the recommendations of past interviewees (Denzin & Lincoln, 2000). For instance, in order to increase variation in our data, we triggered recommendations by asking "Whom do you know who sees things differently?" (Miles & Huberman, 1994: 29).
All interviewees were asked a series of open-ended questions, which were augmented by follow-up questions that allowed deep-probing of the interviewees' answers as well as questions that served to clarify answers (Spradley, 1979).

Interviews were generally conducted by telephone and were recorded to facilitate data analysis. Interviews ranged in length from 45 minutes to 2.5 hours (70 minutes was the average). Because our interviewees spoke French and German as their mother tongues, interviews were conducted in these languages, transcribed, and then translated into English (the language common to the authors).

Website & Archival Data

Whenever possible, we analyzed public materials related to the firms whose founders we interviewed (e.g., websites, magazine articles); these materials helped us gain general background information prior to the interview, better understand (and visualize) the range of product offerings of the firm, acquire information on the firm's history, and augment and validate the (basic) data supplied by the founders.

Findings

An identity provides an individual with a cognitive frame of reference with which to interpret both the social situation and (potential) behaviors and actions. We begin our analysis by describing the variance of meanings that individuals associate with being a firm founder and, based on this assessment, discuss the three pure identity types and the hybrid types (which combine elements of the pure types) that we identified. We then analyze the link between founder identity and the founder's decisions in terms of (i) market segment(s) served, (ii) customer needs addressed, and (iii) resources/capabilities deployed as they are considered to strategically define the new firm (Abell, 1980).

Founder Identities & Meanings

Following the data analysis procedure outlined above, we explored three primary dimensions of meaning that are fundamental in defining an individual's self-concept as a firm founder (cf. Table 1): her basic social motivation as a founder, her basis of self-evaluation in the founder role, and her frame of reference as a founder (Brewer & Gardner, 1996):

The individual's basic social motivation as a founder. As Table 1 indicates, considerable variance exists along this dimension. For some individuals, being a founder means (i) making money and building their own financial wealth; for other founders it means (ii) that they can advance the community with their innovative equipment and benefit from the support of the community in return, or (iii)

that they can pursue their political vision and to advance a particular cause (such as social or environmental mission).

The individual's basis of self-evaluation as a founder. We observe high variance in this dimension as well, because some founders evaluate themselves in terms of (i) their ability to act professionally and apply solid business competences, whereas others see (ii) their authenticity (e.g., in terms of bringing a truly useful product to fellow community members) or (iii) their socially responsible behavior as critical for their self-evaluation.

The individual's frame of reference (i.e., the relevant others) as a founder. Individuals also possess starkly different frames of reference as firm founders, as some view (i) the competition as the relevant comparison group in the social space, whereas others view (ii) a particular community (i.e., the sports community), or (iii) society as a whole as the relevant reference in the social space. Specifically, we note an important difference between the second and third group, as a community orientation is based on interpersonal relationships while a societal orientation is associated with impersonal collectives.

Table 1: Identity Dimensions

Identity dimensions	**Variance in Meanings**		
Basic social motivation (as firm founder)	**Self interest** Firm creation enables the individual to pursue his self interest (making money, creating personal wealth, building a business that will be inherited by the next generation)	**Support & be supported by a community** Firm creation is indiscernible from the individual's involvement in a community of practice (firm both supports and is supported by the community due to mutually beneficial relationships)	**Advancing a cause** Firm creation supports the political vision of the individual and the ambition to advance a particular cause (social, environmental, etc.)
Basis of self-evaluation (as firm founder)	**Professionalism** Business-related competences as the basis for self evaluation: being professional is perceived as critical	**Authenticity** Authenticity as the basis for self evaluation: bringing something truly useful to the community is perceived as critical (based on intimate knowledge of and care for the needs of fellow practitioners)	**Responsible behavior** Responsibility as the basis for self evaluation: contributing to a better world is perceived as critical (truly responsible people do act)
Frame of reference / Relevant others (as firm founder)	**Competitors** - Competing firms as the primary frame of reference - Being distinct from other firms seen as core to the entrepreneurial process	**Community benefiting from product** - Social group constituted around the practice as the primary frame of reference - Offering products (services) that support the community seen as core to the entrepreneurial process	**Society** - Society as the primary frame of reference - Demonstrating that other social practices are feasible & leading by example seen as core to the entrepreneurial process

Our interviews revealed that most founders in the sample could be classified as having one of three pure identities, each of which differs systematically along the three dimensions of identity meanings just described. As described in the methods section, we labeled these three *pure* identities the "Darwinian identity" (cf. left column of Table 2), the "Communitarian identity" (middle column), and the

"Missionary identity" (right column). Several founders possess what we call a "hybrid" identity that combines elements of the primary types.

The Influence of the Founder's Identity on New Firm Creation

To reiterate, social identity theory argues that, when an identity is salient, it predicts the behaviors that will be adopted by an individual. Thus, in the context of the present study, we would expect that, for example, a founder with a Communitarian identity would act in ways that match the particular meanings she associates with being a firm founder (Table 2). Consistent with this fundamental prediction from social identity theory, our findings suggest that founders with different identities differ systematically across the set of key entrepreneurial decisions that are explored in the present study. Our findings are summarized in Table 2.

Table 2: Founder Identity Types & Strategic Decisions in New Firm Creation

		Darwinians	**Communitarians**	**Missionaries**
Core strategic decisions in new firm creation	**Market segment(s) served**	- produce for the average consumer or for quickly growing segments (the criteria of likelihood and value drive the choice of market served) - tend to serve additional segments over time / extend applications to new segments in order to achieve firm growth	- "our customers are like us" (the criterion of similarity drives the choice of market served) - stick to initial segment addressed because it is the only place perceived as legitimate	- produce for those consumers where they expect the greatest social impact; ultimately society is their audience - may serve additional segments, if this allows the firm to leverage its socio-political mission
	Customer needs addressed	- tend to address known dimensions of merit (e.g., safety, ease-of-use) - derived from market analysis	- tend to address novel kinds of customer needs - derived from own needs	- tend to address new social practices (new modes of consumption or production) - derived from what the founder would like the world to become
	Capabilities and resources deployed	- focus on cost-effective and mass-production methods (which are necessary to reach profitability) - international sourcing of production capabilities (if needed) - value IP protection / help in achieving business goals	- tend to use highly individualized and artisanal production methods (products considered works of art) - reliance on personal capabilities - reluctance to use IP protection within community / would run counter to sharing values	- focus on socially responsible production methods - sourcing from suppliers that match strict criteria (according to mission) - demonstration of firm capabilities in order to diffuse the exemplary model

Discussion

We began this study by noting that classical entrepreneurship theory sees the prospect of monetary gain as the motive for creating a new firm. Our findings critically extend this conception, as founders in our sample could frequently be classified as belonging to one of three pure social identity types, with each of these types pursuing distinct motives for creating new firms and associating distinct meanings: Darwinians, who have a type of identity that we would expect to dominate in industry settings, given the norm for what it means to be a successful firm founder in a competitive market system; Communitarians, who deviate in fundamental ways from the Darwinian norm by viewing their firms as social objects; and Missionaries, who also deviate from the Darwinian model by seeing their firms as political objects.

Beyond documenting the existence of these pure types of founder identities and describing their features, our study provides evidence of how these identities are reflected in distinct entrepreneurial behaviors, actions and outcomes. In particular, our analysis provides detailed examples that indicate stark differences along several core strategic dimensions of new firm creation, thereby illustrating how founders seek to behave and act in ways that are consistent with their self-concepts.

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Available upon request.

Entrepreneurial Marketing Practice: Systematic Relationships with Firm Age, Firm Size, and Operator's Status

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Abstract

This study quantitatively examines systematic relationships between firms' characteristics and entrepreneurial marketing. Level of firms' entrepreneurial marketing practice is hypothesized to be influenced by firm's age, size, and operator's status. Results from multigroup confirmatory factor analyses show that the level entrepreneurial marketing practice has a systematic relationship with firm's age, but not with the status of firm's operator. The impact of firm size on entrepreneurial marketing practice is evident when firm's age is also taken into account. This study concludes that relationships between firm's characteristics and entrepreneurial marketing practice are complicated than anticipated and that researchers need a good measure in determining the level of firm's entrepreneurial marketing.

1 Introduction

Firms today operate in a rapidly changing environment. With fierce competition and increasingly demanding customers, firms have a limited ability to forecast and define their market boundaries (Day and Montgomery, 1999). Traditional marketing may not be adequate for firms to compete in this highly dynamic business environment. Recent studies propose firms to be more entrepreneurial in their marketing when dealing with market uncertainty and ambiguity (Read et al., 2009; Santos and Eisenhardt, 2009). Evidences of entrepreneurial marketing practices are documented in both real business practice, and in academic research. Researchers frequently find that entrepreneurial marketing is practiced by entrepreneurial firms such as small firms and young firms. Nonetheless, previous research did not ask if there is a systematic relationship between such characteristics and entrepreneurial marketing practice.

This research quantitatively examines entrepreneurial marketing practice in order to determine if a systematic relationship exists between firms' characteristics (i.e. age, size, and operator's status) and

entrepreneurial marketing behaviors. The objective is to answer the question of "Do firms systematically practice entrepreneurial marketing?" This research question seeks evidences of entrepreneurial marketing practice; to see whether firms systematically (not randomly) practice entrepreneurial marketing.

This study contributes to the field of entrepreneurial marketing in that it investigates relationships between firms' characteristics and entrepreneurial marketing behaviors in a large surveyed data set. Knowledge regarding entrepreneurial marketing is generally generated from existing literature that use case studies to report marketing practices. Results from this study will help to determine a robustness of results generated by previous studies. In addition, this study uses confirmatory factor analysis which allows us to conduct an examination of entrepreneurial marketing practice through latent factors, instead of observed variables as in previous studies. The analysis, therefore, may help to find new knowledge regarding firms' entrepreneurial marketing practice that were not reported by prior research.
The paper proceeds as follows. The next section elaborates six dimensions of entrepreneurial marketing. Then the relationships between firm's characteristics and entrepreneurial marketing behaviors are introduced. Three hypotheses are developed for our analysis. We then explain the research method and present the results and its implication in the last section.

2 Entrepreneurial Marketing

Hills and Hultman (2006) summarize several characteristics of entrepreneurial marketing behaviors that are frequently found in prior studies. This study categorizes those behaviors into six entrepreneurial marketing behaviors, including value creation through relationships and alliances, two-way contacts with customer, growth-orientation, opportunity-orientation, informal marketing, and market immersion. Each behavior will be elaborated as follows.

2.1 Value Creation through Relationships and Alliances

Marketing through networks is an important concept in entrepreneurial marketing. Networks provide not only information about the markets, but also an access to potential customers. Entrepreneurial firms' networks are not limited to suppliers and customers, but also competitors. Firms resort to their network to obtain the information that can be used to identify the untapped sources of customers' value. Resources from networks can also help firms manage their risks and allocate their resource more efficiently. This is especially true for small firms and new firms whose marketing activities are constrained by their lack of resources.

2.2 Two-way Contacts with Customers

Entrepreneurial firms establish dyadic relationships with their customers. Entrepreneurial marketers treat customers as an active participant of firms' marketing decision process. Therefore, customers' preferences play a major role in defining firms' product, price, distribution, and communication approaches. To keep up with changes in customer' preferences, firms use flexibility and customization approach to the market. Firms quickly adjust their products or services in order to provide superior

customization of products and services. Instead of being constrained by their plans, firms are willing to make new promises to customers, modify their product designs, and change their prices.

2.3 Growth-orientation

Entrepreneurial marketing is the marketing of small firms growing through entrepreneurship (Bjerke and Hultman, 2002). Entrepreneurial firms' marketing decisions are linked to long-term performance. Entrepreneurs' ambition to grow their firms are usually captured by firms' business model which will later define firms' competitive strategy and resource management. According to Morris et al. (2005), entrepreneurs who aim to grow will choose to make "a significant initial investment and also a substantial reinvestment in an attempt to grow the value of the firms to the level that generate a major capital gain for investors" (p.731). In order to grow, firms can adopt several means to expand their business including word-of-mouth, referrals, and increasing repeat business. Entrepreneurs can also expand their customer base by creating communities of customers who are dedicated and loyal to the products (Hill and Rifkin, 2000).

2.4 Opportunity-orientation

Entrepreneurial marketing emphasizes on pursuing opportunity, regardless of available resources. Firms response to emerging opportunities by continually improvise and redeploy their resources. Although opportunity can arise randomly, entrepreneurial marketers are known for proactively searching for new opportunities. Being forward looking and having the will to become pioneers makes entrepreneurial firms able to serve unsatisfied needs and capture emerging opportunities before their competitors can. Innovation and creativity are crucial tools that help entrepreneurial firms to turn opportunities into realities. Firms focus on creating a new category of products and seek to lead their customers by discontinuous innovation. Firm's innovation is not limited to products or services but can be also their marketing processes or strategies.

2.5 Informal Marketing

Marketing decisions under entrepreneurial marketing do not always rely on formal planning process. Researchers found that entrepreneurial firms tend not to have formal business plan or formal market planning (Lumpkin et al., 1998; Coviello et al., 2000). Firms' marketing strategies are emergent and adjusted at the time of implementation. Informal marketing decisions in entrepreneurial firms are based on intuition. Entrepreneurs are strongly intuitive in their marketing decision-making and they consider intuitive judgment to be an extremely important part of judging market potentials. Entrepreneurs gain intuitive and rich understanding of the markets through constant direct contacts with their customers. They are able to identify viable market opportunities by paying close attention to customers' opinions.

2.6 Market Immersion

Entrepreneurial marketers immerse in the market and behave as if they live in the customer' world. They always have customers' preferences present in their minds and constantly think of how to improve customer value. Market immersion makes entrepreneurs thoroughly understand the problems that their customers encounter and be able to respond better to customer demand. Entrepreneurs have their own ways in developing new products or services to their customers. Some entrepreneurs rely on their experience in making marketing decisions. They believe that the experience helps them to make effective and competent marketing decisions. Some entrepreneurs rely on their networks. Through alliances, such as suppliers and trade partners, entrepreneurs are able to stay close to the market and keep up with changes in customers preferences.

3 Entrepreneurial Marketing as Marketing by Entrepreneurs

This study proposes that entrepreneurs influence firm's entrepreneurial marketing behaviors. Following the behavioral perspective, this study defines entrepreneurs as individuals who found, own and operate new firms. Since entrepreneurship's primary domain is applied to small business, entrepreneurs in this study are also individuals who operate small firms. The following subsections will elaborate on relationships between entrepreneurial marketing and firm size, firm age, and operator's status.

3.1 Entrepreneurial Marketing in Young Firms

Entrepreneurial firms are often defined as new or young firms. New firms are at the beginning of their development stages, and are more likely to face uncertainty, ambiguity, and turbulent environment than old firms. Entrepreneurs in new firms sometimes lack of understanding in the nature of markets. Therefore, it is not unexpected for new firms to face diffculty in implementing their marketing strategy. Researchers report that new firms find it diffcult to develop distribution channel, choose the right products mix, create awareness of their products and services, and commercialize their products (Ram and Forbes, 1990; Sarathy et al., 1993). Due to these diffculties, this study expects to find that marketing activities in new firms are conducted differently than in older firms. To be more precise, this study suggests that new firms implement entrepreneurial marketing more than older firms.

Numerous studies find that marketing practices in new firms are different from marketing practices in established firms. According to Weinrauch et al. (1990), younger firms use different marketing techniques than older firms. Entrepreneurial marketing behaviors are found to be more evident in young firms (Gruber, 2004). In addition, new firms' networking activities evolve as firms age and younger firms are found to use less of formal market research than older firms. Therefore, we hypothesize as follows.

H1: *Younger firms are more* likely *to practice entrepreneurial marketing than older firms.*

3.2 Entrepreneurial Marketing in Small Firms

Researchers recognize that marketing in small firms is distinct from marketing in large firms (Bjerke and Hultman, 2002; Coviello et al., 2000). Overall, small firms are considered more entrepreneurial than large firms because of several characteristics. First, small firms have restricted resources and capabilities. Compared to large firms, small firms have less financial and human resource. As a result, they cannot perform the same kind of marketing activities that large firms can. Second, small firms do not have formal organization structures or formal systems of communication. Their marketing planning is intuitive, loose and unconstructed. Third, small firms have a simple and ad hoc marketing decision-making process. Small firms can develop an irregular change in their decision-making pattern during their business engagement. Fourth, small firms have fewer dominating decision makers than larger firms. Marketing decisions in small firms can be linked directly to specific personal goals of owners / managers. Lastly, small firms can quickly response to their customers because they have atter organization structure than large firms. They are closer to customers and can access customer information better than large firm.

These above characteristics are the evidence suggesting that entrepreneurial marketing behaviors should be more prevalent in small firms than in large firms. In other words, firm size seems to have a direct impact on entrepreneurial marketing behaviors.

H2: *Smaller firms are more* likely *to practice entrepreneurial marketing than largerfirms.*

3.3 Entrepreneurial Marketing in Founder-operated Firms

Entrepreneurial firms are influenced by individuals who operate them. More than often that firms' business strategy is guided by the management's goals. If the management are entrepreneurs, it is likely that firms' business strategy are also entrepreneurial. Although there is no agreement on a definition of entrepreneur, researchers seems to agree on who entrepreneurs are. Based on Gartner (1988)'s idea that entrepreneurship is a process of new venture creation, researchers seems to agree that entrepreneurs are founders of new business.

Prior studies also find that behaviors of entrepreneurs are different from those of nonentrepreneurs. Founders have higher need for achievement (Begley and Boyd, 1987), higher risk-taking propensity and tolerance of ambiguity, and higher self-efficacy than non-founders Chen et al. (1998). In addition, Busenitz and Barney (1997) also find that entrepreneurs and managers in behave differently and the differences are substantial. The difference in founders and non-founders' behaviors are expected to influence firms' level of entrepreneurialness and ultimately, firms' level of entrepreneurial marketing practice.

This study hypothesizes that firms that are operated by "entrepreneurs" (founders) are more likely to practice entrepreneurial marketing than firms that are not operated by "entrepreneurs" (founders).

H3: *Firms that are* operated *by founders are more likely to practice entrepreneurial marketing than firms that are operated by non-founders.*

4 Method

4.1 Data Source

This study uses an archival dataset called the National Small Business Poll 2006. The data set was collected for the National Federation of Independent Business (NFIB) Research Foundation by the executive interviewing group of The Gallup Organization. The interviews were conducted between November 14, 2006 and December 15, 2006 on a sample of 752 small business owners. Small business owner was defined as a business owner who employ at least one individual in addition to the owner(s) and no more than 249. The NFIB Research Foundation draws a sampling frame for the survey from the files of the Dun and Bradstreet Corporation. A random stratified sample was used to compensate for the highly skewed distribution of small business owners by employee size of firm. Using a list-wise missing data deletion, 673 observations remain for the analysis. Key characteristics of the sample are shown in Table 1.

4.2 Measures

Entrepreneurial marketing behaviors are dependent variables in this study. They are measured by 20 variables. Five-point Likert scales anchored by "Strongly disagree"(1) and "Strongly agree"(5) were used for these variables. Each question was framed as follows: "Please tell me if you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with the following statements about marketing as it is done in your business." The variables are categorized according to entrepreneurial marketing behaviors that they measure. Growth-oriented behavior, market immersion, value creation through relationships and alliance, and informal marketing are each measured by 3 variables, while opportunity-orientation and two-way contacts with customers are each measured by 4 variables. A complete list of variables measuring each entrepreneurial marketing behavior is shown in the Appendix.

Table 1: Key Characteristics of the Sample [a]

Characteristics		**Percentage**
a. Size	1–15 employees	67.5
	16–200 employees	32.5
b. Age	<= 7 years	27.2
	> 7 years	72.1
c. Operator status	Founder	66.1
	Non-founder	33.6
d. Growth Rate	Decreased	11.9
(change in sales over 3 years)	1–10% growth	63.7
	> 10% growth	18.9
e. Sector	Commodity/Construction/Transportation	17.1
	Manufacturing	9.4
	Wholesale/Retail	17.8
	Financial services	8.5
	Professional services	20.7
	Other services	26.3

[a] Note: The number may not sum up to 100 due to missing value.

4.3 Analysis

To test if a group of firms is more likely to practice entrepreneurial marketing than another group, this study tests and see if the latent means of factor underlying entrepreneurial marketing in one group of firms are higher than the latent means of entrepreneurial marketing in another group. This study uses Multigroup Confirmatory Factor Analysis to compare the latent means. There are three steps in conducting the analysis. The initial step is to test for invariance by fixing the number of factors and the factor-loading pattern to be the same across groups, with no other equality constraints imposed on any of the parameters. The model in this step is called a configural model. The fit from the configural model is used as a baseline value with which all subsequent invariance models are compared.

The second step is to test for measurement invariance. In this step, parameters in the measurement and structural components of the model are constrained to be equal across groups. The model in this step is called a "measurement modell", in which the factor loadings are constrained to be equal. An evidence of noninvariance across groups is based on difference between the chi-square value of this model and the chi-square value of the configural model obtained from the initial step. This difference value is distributed as chi-square with degrees of freedom equal to the difference in degrees of freedom. If the chi-square difference value is statistically significant, there is an evidence of noninvariance across groups. Some researchers have argued that the chi-square difference test may be too stringent for invariance testing. Byrne (2010) refers to Cheung and Rensvold (2002)'s suggestion that it is reasonable to base invariance decisions on a difference in Comparative Fit Index (CFI) rather than on chi-square values. A difference in CFI values of less than 0.01 is suggested to be an evidence of invariance.

The third step is to test for latent mean differences. In this step, both the factor loadings and the observed variable intercepts are constrained to be equal. In the testing process, the latent factor means in one of the groups is freely estimated while the latent means of the other group is constrained equal to some fixed amount. This study fixes the latent factor means of one group to be equal to zero, while the latent means of the reference groups are freely estimated. Of interest in this model are the latent mean estimates and the goodness-of-fit between the hypothesized model and the multigroup data. Critical ratios associated with estimated parameters for the reference groups will reveal if the estimated parameters are statistically significant.

5 Results

5.1 Firm Age

A two-group confirmatory factor analysis was conducted to compare the latent means of factors underlying entrepreneurial marketing dimensions between younger firms (firms that are seven years old or younger) and older firms (firms that are older than seven years). Our analysis gives mixed results. Younger firms are found to have higher latent means of factor underlying entrepreneurial marketing dimensions than older firms in some dimensions, while having lower latent means in other dimensions.

Table 2: Multigroup CFA Fit Statistics

Models	**Goodness-of-fit index**					
	χ^2	***df***	**NFI**	**TLI**	**CFI**	**RMSEA**
Age_Models Compared						
Configural	525.13	320	0.68	0.80	0.83	0.031
Measurement weight	555.69	334	0.66	0.80	0.82	0.032
Measurement intercept (mean)	580.37	348	0.64	0.80	0.81	0.032
Nested model comparison (mean)	32.802	6				
Size_Models Compared						
Configural	597.53	320	0.65	0.75	0.79	0.036
Measurement weight	627.04	334	0.63	0.75	0.78	0.036
Measurement intercept (mean)	658.28	348	0.61	0.74	0.76	0.036
Nested model comparison (mean)	18.931	6				
Founder_Models Compared						
Configural	543.73	314	0.67	0.78	0.82	0.033
Measurement weight	558.14	328	0.66	0.79	0.82	0.032
Measurement intercept (mean)	571.14	342	0.65	0.80	0.82	0.032
Nested model comparison (mean)	4.156	6				

Results from the top part of Table 2 show that the difference between the CFI index of the configural and the measurement models for firm age was 0.01. This information identifies that that the latent factors underlying entrepreneurial marketing have the same meaning for younger firms as for older firms and it is meaningful to compare their means.

Additionally, the chi-square value for the model comparing latent factor means between the two groups was significant (χ^2 = 32:802 with *df* = 6), suggesting that younger firms and older firms do not have the same factor means.

Results of latent means comparison in Table 3 show that younger firms have higher factor means than older firms in three dimensions, including growth-orientation, value creation through alliances, and two-way contact with customers. On average, a group of younger firms have 0.22 units higher mean of growth-orientation, 0.1 units higher mean of value creation through relationships and alliances, and 0.09 units higher mean of two-way contact with customers, than a group of firms that are older than seven years of age. Based on these results, we can conclude that marketing in younger firms aims more toward expanding their businesses and relies more on knowledge from firms's networks to deliver value to their customers than marketing in older firms. In addition, the results also support previous research suggesting that younger firms are more flexible toward their customers and are more willing to use inputs from their customers to adjust their products and strategies in order to meet with customers' demand (Shaw, 1999).

In contrast to our expectation, results also show that a group of younger firms has 0.19 units lower mean of market immersion than a group of older firms. Since market immersion dimension is measured by variables measuring if firms use their suppliers, customer demand, and experience in introduc-

ing their products, lower factor means in this result may imply that younger firms do not use information from their suppliers, customers, and experience as much as older firms when they introduce their products. Since firms that are technology-driven usually create and introduce their products in advance of customers knowledge, this may imply that products development in younger firms is more technology-based rather than customer-based than the products development in older firms.

Table 3: Differences in latent means of Entrepreneurial Marketing factors by firm age, using a group of younger firms (established 7 years or less) as reference [a]

EM dimension	**Younger firms**	
	Mean difference	C.R.
Growth Oriented	0.22	3.79 ***
Opportunity Oriented	0.08	1.23
Market Immersion	-0.19	-2.17 **
Two-way contact with customers	0.09	1.68 *
Value creation through Alliances	0.10	1.82 *
Informal Marketing	-0.07	-1.0

[a] Note: *** = p < 0:01; ** = p < 0:05; * = p < 0:10.

5.2 Firm Size

A two-group confirmatory factor analysis was conducted to compare the latent means of factors underlying entrepreneurial marketing dimensions across firms with different size. Smaller firms are firms that have 15 employees or fewer, while larger firms are firms that have 16 employees or more. Our results did not show that smaller firms practice entrepreneurial marketing more than larger firms. Results from the middle part of Table 2 show that the difference between the CFI index of the configural and the measurement models for firm size was 0.01. This information leads us to conclude that that the latent factors underlying entrepreneurial marketing dimensions have the same meaning for smaller firms as for larger firms. Therefore, it is meaningful to compare their means. Additionally, the chi-square value for the model comparing latent factor means between the two groups was significant (χ^2 = 18:931 with *df* = 6), suggesting that smaller firms and larger firms do not have the same factor means.

Although we expect to find that smaller firms have higher factor means of entrepreneurial marketing than larger firms in all dimensions, our analysis did not support our expectation.

Table 4: Differences in latent means of Entrepreneurial Marketing factors by firm size, using a group of smaller firms (15 or fewer employees) as reference [a]

EM dimension	**Smaller firms**	
	Mean difference	C.R.
Growth Oriented	-0.15	-2.88 ***
Opportunity Oriented	-0.08	-1.25
Market Immersion	-0.13	-2.17 **
Two-way contact with customers	0.03	0.49
Value creation through Alliances	-0.08	-1.47
Informal Marketing	0.06	0.96

[a] Note: *** = p < 0:01; ** = p < 0:05; * = p < 0:10.

Results in Table 4 show that smaller firms have statistically significant lower means of growth-orientation and market immersion than larger firms. On average, a group of smaller firms have 0.15 units lower mean of growth-orientation than a group of larger firms. This result, even though not what we expect, is not totally surprising. Entrepreneurial firms are known to be influenced by owners/managers' personal preferences when it comes to expanding their businesses. Some owners/managers may prefer to expand their firms, while some do not want to handle a complication that will come with having larger company (e.g. dealing with more employees.) Therefore, the results may imply that smaller firms are small because they prefer to stay small.

In addition to growth-orientation dimension, smaller firms are also found to have 0.13 units lower mean of market immersion dimension than larger firms. Since market immersion is measured by items asking if the firms use their suppliers, customer demand, and experience in introducing their products, lower means of market immersion in smaller firms may imply that smaller firms use these channels less than larger firms when they introduce their products. This result may have the same implication as the case of younger firms versus older firms. That is, smaller firms may introduce their products based on their technology rather than on market demand.

5.3 Status of Firm's Operator

A two-group confirmatory factor analysis was conducted to compare the latent means of factors underlying entrepreneurial marketing dimensions across firms with different operator's status. Our analysis show that firms that are operated by founders do not significantly have higher means of entrepreneurial marketing dimensions than firms that are operated by non-founders.

Results from the lower part of Table 2 show that the CFI index of the configural and the measurement models are not different. This leads us to conclude that that the latent factors underlying entrepreneurial marketing dimensions have the same meaning for founder-operated firms as for non-founder operated firms. Therefore, it is meaningful to compare their means.

The chi-square statistics for the measurement intercept model comparing latent factor means between the two groups, however, was not significant (χ^2 = 4:156 with *df* = 6). Based on this information, we cannot reject the hypothesis that founder-operated firms and non-founder operated firms have the same factor means. In other words, we accept that firms that are operated by founders do not practice more entrepreneurial marketing than firms that are operated by non-founders.

A detail investigation of our results in Table 5 show that none of the differences in the means of factor underlying entrepreneurial marketing in both types of firms was statistically significant. We find that a group of firms that are operated by founders and non-founders practice entrepreneurial marketing at the same level. Therefore, the status of firms' operator may not be a good proxy to identify firms' entrepreneurial marketing practice.

5.4 Firm Size: A Further Investigation

We can see that results from our hypothesis testing did not confirm all of the hypotheses. To our surprise, smaller firms are not shown to practice more entrepreneurial marketing than larger firms in all dimensions, while younger firms are found to practice less of entrepreneurial marketing than older firms in some dimensions. Therefore, we think that further detailed investigation is needed in order to clarify the impact of size and age on the practice of entrepreneurial marketing. We suggest that impact of firm age and size are taken into account at the same time. The higher means of growth-orientation in larger firms than in smaller firms firms may imply that larger firms grow big because they want to grow, while smaller firm are not big because they want to stay small. Therefore, a further investigation was conducted to find an evidence that supports this claim.

Table 5: Differences in latent means of Entrepreneurial Marketing factors by operator's status, using a group of founder-operated firms (currently operated by founder) as reference [a]

EM dimension	**Founder-operated firms**	
	Mean difference	C.R.
Growth Oriented	-0.05	-0.97
Opportunity Oriented	0.00	-0.05
Market Immersion	-0.02	-0.26
Two-way contact with customers	0.04	0.71
Value creation through Alliances	-0.08	-1.38
Informal Marketing	0.03	0.38

[a] Note: *** = p < 0:01; ** = p < 0:05; * = p < 0:10.

A two-group confirmatory factor analysis was conducted to compare latent means of factors underlying entrepreneurial marketing dimensions in younger small firms and older small firms. Younger small firms are firms that have 15 employees or fewer and have been in business for 7 years or less, while older small firms are firms that have 15 employees or fewer and have been established for more than 7 years. Results are shown in Table 6.

We can see that the relationship between firm size and growth-oriented marketing changes its direction when firm age is also taken into account. On average, a group of younger small firms has 0.26 unit higher mean of growth-orientation than a group of older small firms. This finding, therefore, supports the argument that older small firms stay small because they do not aim to grow. In addition, our results also show that younger small firms are more opportunity-oriented in their marketing, are more likely to have two-way contacts with their customers, and utilize more of their networks to deliver customer values than older small firms. These results were not statistically significant when firm's age was not taken into account. From the above results, we conclude that relationships between firms'

characteristics and firms' practice of entrepreneurial marketing are more complicated than originally anticipated.

Table 6: Differences in latent means of Entrepreneurial Marketing factors in smaller firms, using a group of younger small firms as reference [a]

EM dimension	**Younger Small firms**	
	Mean difference	C.R.
Growth Oriented	0.26	3.88 ***
Opportunity Oriented	0.14	1.71 *
Market Immersion	-0.17	-1.6
Two-way contact with customers	0.08	1.86 *
Value creation through Alliances	0.16	2.54 **
Informal Marketing	0.05	0.48

[a] Note: *** = p < 0:01; ** = p < 0:05; * = p < 0:10.

6 Conclusions and Discussion

This study investigates the practice of entrepreneurial marketing in firms with different characteristics using multigroup confirmatory factor analyses. The objective was to find systematic relationship between entrepreneurial marketing practice and those characteristics, including firms age, firm size, and status of firms' operator.

Results partially support the argument that there is a systematic relationship between firm age and entrepreneurial marketing practice. Younger firms are found to use growth-orientation, value creation through alliances, and two-way contact with customers dimensions of entrepreneurial marketing more than older firms. The results imply that, compared to marketing in older firms, marketing in younger firms aims more toward expanding customer base and using information from firms' networks. The results also imply that younger firms are more flexible when dealing with their customers in that they are more likely to adjust and adapt their marketing strategies according to changes in customers' preference. This emphasizes the difference between young and well-established firms regarding the flexibility that the well-established firms do not have. Whether the flexibility helps younger firms to overcome liability of newness or not, the link between firms' entrepreneurial marketing practice and firms' survival has to be investigated in future research.

Our initial investigation did not show a systematic relationship between firm size and the practice of entrepreneurial marketing. Smaller firms did not use entrepreneurial marketing more than larger firms. When a further investigation is conducted, taking into account both the impact of firm age and firm size together, results support an argument that larger firms grow larger because they are more growth oriented, while smaller firms are small because they are less growth-oriented. The result has an important implication for future research. That is, the impact of firm size on entrepreneurial marketing practice may not be as simple as previously anticipated. Impact of firm size on any marketing variables may be burial by other factors that are not taken into account simultaneously. In this study, that factor is firm age. Therefore, when investigating the impact of firm size on firms' marketing practice, interaction variables may be always needed.

This study also investigates a relationship between operator's status and firms' entrepreneurial marketing practice but did not find a systematic relationship between the two variables. Founder-operated firms did not have higher level of entrepreneurial marketing practice than non-founder operated firms. This study chooses to use founders as representatives of entrepreneurs, who supposedly have high level of entrepreneurialness, and hypothesizes that level of entrepreneurialness of the individuals will affect the practice of entrepreneurial marketing. The insignificant results from our analysis, therefore, suggest that firms' characteristic alone may not be a good proxy identifying level of firms' entrepreneurial marketing practice. Researchers may need to use a measure that can measure the level of firm's entrepreneurialness better, such as entrepreneurial orientation, when investigating what determines the level of firm's entrepreneurial marketing practice.

This study is not without a limitation. The impact of firm age, firm size, and operator's status on entrepreneurial marketing practice, although statistically significant, are not drastically large. Since the latent means of the factor underlying entrepreneurial marketing are based on a 5-point Likert scale, the biggest impact of being innovative on growth-orientation dimension of 0.42 unit may still be considered small.

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Table 7: Measures for Entrepreneurial Marketing Dimensions

Behaviors	Measures
Growth-Orientation	(1) Long-term growth is more important than immediate profit.
	(2) Our primary objective is to grow the business.
	(3) We aggressively try to expand our present customer base.
Opportunity-Orientation	(1) We consistently look for new business opportunities.
	(2) Our marketing efforts try to lead customers, rather than respond to them.
	(3) Adding innovative products or services is important to our success.
	(4) Creativity stimulates good marketing decisions.
Two-way contacts with Customers	(1) Most of our marketing decisions are based on what we learn from day-to-day customer contact.
	(2) Our customers require us to be very exible and adapt to their special requirements.
	(3) Everyone in this firm makes customers a top priority.
	(4) We quickly adjust to meet changing customer expectations.
Value creation through alliance	(1) We learn from our competitors.
	(2) We use our key industry friends and partners extensively to help us develop and market our products and services.
	(3) Most of our marketing decisions are based on exchanging information with those in our personal and professional network.
Informal Marketing	(1) Introducing new products or services usually involves little formal market research and analysis.
	(2) Our marketing decisions are based more on informal customer feedback than on formal market research.
	(3) It is important to rely on gut feeling when making marketing decisions.
Market Immersion	(1) Customer demand is usually the reason we introduce a new product and/or service.
	(2) We usually introduce new products and services based on the recommendations of our suppliers.
	(3) We rely heavily on experience when making marketing decisions.

Are Entrepreneurs Distinct Innovators? A Detailed Look at Entrepreneurs' Innovative Behaviour in Four Countries

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Abstract

Since Schumpeter, entrepreneurs and innovative activities belong together. Innovativeness as a personality trait was also found to be related to entrepreneurial status and business success. However, not much is known about the specific facets of entrepreneur's innovative behaviour. This study aims at better understanding of how entrepreneurs differ from managers in the different areas of their innovative behaviour at work, and, secondly, how this behaviour differs for entrepreneurs who have and do not have employees. Representative samples of working population from Germany, the Czech Republic, Italy and Switzerland (N=3498) were interviewed with the use of Innovative Behaviour Inventory. Individuals involved in independent entrepreneurial activities were creating new ideas and trying to overcome obstacles during implementation more than employed individuals. People who managed others communicated new ideas and tried to engage other individuals in the new idea implementation more than the ones without subordinates. Finally, what differentiated entrepreneurs from all the other groups was their higher involvement in implementation starting activities. Overall, these differences led to the leading position of entrepreneurs in achieving the innovation outputs.

Introduction[*]

Since Schumpeter (1934), entrepreneurs are considered to be catalysts of change, creative destructors and innovators in general. Management books (e.g., Drucker 1985), empirical studies (Mueller, and Thomas 2000), and meta-analyses (Rauch, and Frese 2007) identified innovativeness and related openness to experiences (Zhao, and Seibert 2006) as the defining features of entrepreneurial personality. However, innovativeness is typically analysed as a trait and is closely related to the interest of an entrepreneur in innovations. It is usually conceptualized broadly, often as a unidimensional factor (e.g., Jackson 1994) without understanding the various facets of innovative behaviour in a rather complex innovation process.

On the other hand, innovation management literature deals with the topics of what the innovation process is (e.g., Farr, Sin, and Tesluk 2003) and how to manage it effectively (Bernstein, and Singh 2006). Such knowledge can be applied in corporate settings, but does not tell us much about the activi-

[*] This study was supported by the European Commission; project CID – Culture and Innovation Dynamics: Explaining the Uneven Distribution of Human Knowledge (FP6 – 043345).

ties independent entrepreneurs do. It also focuses on the system and less on the activities of an innovating individual.

Therefore, there is a value in better understanding of what entrepreneurs do when they innovate and how they differ in their innovative behaviour when compared with other individuals, and especially with their managerial counterparts. Such knowledge can be utilized by entrepreneurship teachers and consultants who support entrepreneurs in their innovative efforts. Moreover, not all entrepreneurs innovate to the same extent (e.g., Miner 2000) and we can expect substantial differences, for example, between the owner of a quickly growing IT company and a self-employed webpage programmer.

The study's goal is, firstly, to understand better how entrepreneurs differ from managers and other employees in the different areas of innovative behaviour at work, and, secondly, to differentiate between entrepreneurs themselves and to find differences and similarities in their innovative behaviour.

Entrepreneurs and Innovative Behaviour

Generating or recognizing novel and useful ideas that have the potential to be developed into new goods or services appealing to some identifiable market belongs between key challenges of entrepreneurs. Having identified those opportunities, entrepreneurs must figure out how to bring the project to fruition (Ward 2004).

Drucker (1985) considered innovation as the specific tool of entrepreneurs by which they exploit opportunities. Research so far focused mainly on innovativeness as a personal trait (e.g., Rauch, and Frese 2007; Mueller, and Thomas 2000) or, on the other hand, on innovativeness on a firm-level (e.g., Covin, and Slevin 1989; Rauch, Wiklund, Lumpkin, and Frese 2009).

Innovativeness can be described as a person's willingness and interest to look for novel ways of action. This conceptualization does not imply the introduction of innovative products, rather, more a preference to engage in creativity and experimentation (Rauch 2010). Innovativeness helps entrepreneurs to recognize valuable opportunities and to search for new ways of completing tasks (Ward 2004).

Research shows that entrepreneurs tend to be more innovative than other population. For example, Carland and Carland (1991) found that both U.S. male and female entrepreneurs have significantly higher levels of preference for innovation than managers. Similarly, entrepreneurs scored higher on Kirton's adaption-innovation scale (Kirton 1976) than general managers of large organizations in the study of Buttner and Gryskiewicz (1993). Finally, Shane, Kolvereid, and Westhead (1991) reported that the desire to be innovative and at the forefront of new technology was frequently given as a reason for starting a business in all three countries involved in their study.

Recent meta-analysis shows that entrepreneurs are more innovative than other people and innovativeness is positively related to the decision to start a business and is also positively and directly correlated with business success (Rauch, and Frese 2007). Interestingly, entrepreneurs' innovativeness produces higher relationships with business success as compared to the relationship between firm level innovations (introduction of new products, services, processes and markets) and success (Rauch 2010; Rosenbusch, Brinckmann, and Bausch 2010).

On the firm-level, innovativeness can be defined as the predisposition to engage in creativity and experimentation through the introduction of new products and services as well as technological leader-

ship via R&D in new processes (Rauch et al. 2009). In their meta-analysis, Rauch et al. confirmed the positive correlation between entrepreneurial orientation (based on Covin and Slevin's scale) and performance. Innovativeness was the individual component of the entrepreneurial orientation construct that correlated with the firm performance the most (corrected $r = 0.195$).

Rauch (2010) claims, it would be interesting to discover whether or not firm level innovativeness is dependent on the owners' innovativeness and how. To reformulate this claim a little bit, there is a gap between the innovativeness as a trait and a firm-level innovation. This gap can be closed by the better understanding of the innovative behaviour of an entrepreneur that is a mediator between a personal trait and the firm-level innovativeness. We can expect that the personality of an entrepreneur influences his/her behaviour and this behaviour has a direct influence on what happens in the firm and has consequences for the business success. Therefore, it is interesting to focus more on this missing link.

Measuring the Innovative Behaviour

Based on the process oriented definition of workplace innovation (West, and Farr 1990), we define innovation as the process of new idea creation or adoption and a subsequent effort to develop it into a new product, service, process or business model with an expected added value for a potential user.

Such definition allows us to focus on the acting individual in the different phases of the innovation process, and enables to involve different innovation types, not only radical innovations, but also the substantially more frequent incremental ones. In the innovation process as a whole, we identify six distinct activities of innovating individuals. The innovation process at work can be started either by an independent creation of a new idea (e.g., Unsworth 2001; Amabile et al. 1996) or by a search for new ideas (e.g., Kelley, Peters, and O'Connor 2009). Then, there is a need to communicate potentially interesting idea to others (e.g., Binnewies, Ohly, and Sonnentag 2007). It may be employees or business partners in the case of entrepreneurs, or colleagues and managers in the case of employed individuals. If the idea shows its viability and is approved, first implementation activities can start (e.g., Baer, and Frese 2003). The innovation champion usually involves other people and overcomes obstacles during implementation until finally delivers results of previous innovative activities (Howell et al. 2005). It must be stressed that the process is not linear, it includes many feedback loops and the phases are often co-existing. For example, latter implementation phases also include the aspect of idea generation when a new ways of implementation or resource acquisition must be found out.

The issue is how to measure innovation in line with this conceptualization. Existing person-related innovation measures can be largely grouped into three categories:

1. measures of innovativeness as a personality trait,
2. general measures of employee innovative behaviour, and
3. measures of innovation champion behaviour.

The first and frequently used measure of general innovativeness is Kirton's Adaption – Innovation Inventory (Kirton 1976) that differentiates innovators form adaptors on three scales – originality, efficiency and group conforming. The second measure is then the innovativeness scale from Jackson Personality Inventory (Jackson 1994). However, none of these scales is focused on innovative behaviour at work.

Concerning general innovative behaviour of an employee in the work context, well established are innovative behaviour measures from Scott and Bruce (1994) and Janssen (2003), and creativity scale by Baer and Oldham (2006). Nevertheless, these scales measure just a general innovative behaviour at work by one general factor and do not allowed a more detailed look on innovation.

The third group of existing measures focused solely on the behaviour of an innovation champion. Shane, Venkataraman and MacMillan (1995) suggested a measure of three championing factors (autonomy, cross-functional appeal, locus of support). In a newer study, Howell, Shea and Higgins (2005) developed and validated champion behaviour measure capturing three different facets (expressing enthusiasm and confidence about innovation success, persisting under adversity, getting the right people involved). Both these measures, however, did not focus on the initiation phases of the innovation process and focused on R&D personnel.

As there was no measure that would cover the specific innovative behaviours in all the different phases of the innovation process and in the same time enabled to include general population, a new measure of innovative behaviour at work Innovative Behaviour Inventory was established that helps to understand both the initiation (idea creation, idea search, idea communication) and implementation (implementation starting activities, involving others, overcoming obstacles) phases of the innovation process (Lukes, Stephan, and Cernikova 2009). With this measure, a study on general adult population can be conducted that allows comparisons of entrepreneurs with other groups. Furthermore, such an instrument allows us to build more refined models and hypotheses regarding innovative behaviour.

Based on previous innovativeness studies (Carland, and Carland 1991; Buttner, and Gryskiewicz 1993), meta-analysis (Rauch, and Frese 2007), and described conceptualization, we formulate the first hypothesis:

H1: entrepreneurs behave at work more innovatively than employees and also more than managers, that is, they are more engaged in creating new ideas, searching for them, communicating them to others, in starting their implementation, involving others and overcoming obstacles in the implementation and they also achieve more innovation results.

Entrepreneurs and Self-Employed

However, entrepreneurs are not innovative to the same extent. Tuunanen and Hyrsky (1997) found that both Finnish and American entrepreneurs who report their primary objectives to be profit and growth scored higher on Jackson's innovativeness scale than did those reporting family income as their primary goal. Similarly, Carland, Carland, Hoy, and Boulton (1988) found that entrepreneurs who establish and manage a business for the principal purposes of profit and growth have a higher preference for innovation than other small business owners.

In his typology of entrepreneurs, Miner (2000) distinguished between personal achievers, real managers, expert idea generators and empathetic supersalesmen. It can be clearly expected that expert idea generators would show more innovative behaviour when compared with other three types.

Finally, scholars have different approaches to who the entrepreneur actually is. Global Entrepreneurship Monitor project, for example, focuses on entrepreneurial activity regardless the size of business, that is, any individual engaged in any kind of (independent) entrepreneurial activity counts as entrepreneur (reference). The other approach focuses on individuals who pursue entrepreneurial op-

portunities without regard to resources currently controlled (Stevenson, and Jarillo 1990). Implicitly, there is more ambition involved, that is, to pursue the opportunity, to take the risk, to hire employees, to grow. In line with past research of business owners (e.g., Utsch et al. 1999), we distinguish between self-employed freelancers who have no employees, and business owners – entrepreneurs, who have at least one employee. A difference in innovative behaviour between these groups can be expected, not only because of presumable differences in motivation and ways of business management, but especially because of the differing options to engage other people in the development of their new ideas. It is substantially easier for entrepreneurs with employees at hand; therefore we expect these differences to be significant.

In this study, we define a person owning and managing his/her own company who employs other individuals as "entrepreneur with employees", a person engaged in entrepreneurial activities on his/her own, without employees, working for him-/herself not for an employer as "self-employed without employees" and a person employed in a company owned by somebody else who has at least one subordinate employee as "employed manager". Other working individuals are referred to as "employees".

In line with the previous text, we formulate the second hypothesis:

H2: self-employed will show less innovative behaviour at work than entrepreneurs with employees in the areas involving interpersonal communication; especially, they will be less engaged in communicating new ideas and in involving others in the idea implementation.

Methods

Innovative Behaviour Inventory covers areas of work-related innovative behaviour consisting of seven subscales named Idea creation, Idea search, Communicating ideas, Implementation starting activities, Involving others, Overcoming obstacles and Innovations outputs. The first six subscales constitute a second-order factor Innovative behaviour at work that is positively and significantly related with the subscale of Innovation outputs. The inventory is reliable and shows satisfactory factorial, criterion, convergent, and discriminant validity (Lukes, Stephan, and Cernikova 2009). It was also found to be measurement invariant in seven countries (Lukes, Stephan, Novy, and Lorencova 2010).

The examples of items are for Idea creation 'When something does not function well at work, I try to find new solution'; for Idea search 'I try to get new ideas from colleagues or business partners'; for Communicating ideas 'I try to show my colleagues positive sides of new ideas'; for Implementation starting activities 'I develop suitable plans and schedules for the implementation of new ideas'; for Involving others 'When I have a new idea, I look for people who are able to push it through'; for Overcoming obstacles 'I usually do not finish until I accomplish the goal'; and finally for Innovation outputs 'I was often successful at work in implementing my ideas and putting them in practice.' The full inventory including all 23 items (answered on 1 to 5 Likert-type scale) and scale reliabilities are described in Lukes, Stephan, and Cernikova (2009).

Sample

In order to avoid a potential cultural bias, the data gathering was conducted on representative samples of population in economically active age (18 - 64 years) in four countries - the Czech Republic,

Germany, Switzerland, and Italy. The sample representativeness was ensured by mutually tied quotas (gender, age, education level, region and the size of place of residence) based on sociodemographic data published for each country by central statistical authority (e.g., Czech Statistical Office). Our sample consisted of 4795 adults from the Czech Republic (N=1004), Germany (N=1285), Italy (N=1256), and Switzerland (N=1250). The samples were representative for each country. The representativeness of the samples was checked by using χ^2 tests of a good fit with theoretical frequencies.

The data were gathered between May and July 2008 by CATI (Computer Assisted Telephone Interviewing) technique. The average duration of the interview was approximately 10 minutes. Selection procedure was done by the method of dialling randomly generated phone numbers, and quota limits control. Concerning particular countries, the response rate (measured as accepted interviews divided by accepted plus rejected interviews) was 58% in the Czech Republic, 65% in Germany, 34% in Italy, and 60% in Switzerland.

In this study, we are using just the sample of actively working population, that is, people currently employed or self-employed, excluding students, unemployed, housewives, and pensioners). It leads to the reduced sample size of N=3498 individuals (N=219 entrepreneurs, N=340 self-employed, N=974 managers and N=1965 employees).

Results

There are highly significant differences between the groups (entrepreneurs, self-employed, managers, and employees) in all the scales that have been used (see Table 1). Entrepreneurs with employees are characterized by the lowest means that indicate the most innovative behaviour in all the seven scales and employees without subordinates are in general the group showing the least innovative behaviour. The only exception is the scale "Involving others" where self-employed individuals have the least innovative result.

Moreover, overall significant differences do not change when the analysis is done for individual countries separately; that is, the same significant differences between the groups exist in the Czech Republic, as well as in Switzerland and in Italy. The same is true for five scales in German sample. The exception are remaining two scales - Idea search and Involving others, that show no significant differences between the four groups in German sample.

The pair comparisons revealed significant differences between the individual groups in all seven subscales (see Table 2). Firstly, entrepreneurs and self-employed come up with new ideas more than managers and employees, and managers come up with new ideas more than employees. Secondly, employees search for new ideas less than entrepreneurs, self-employed and managers. Thirdly, entrepreneurs and managers communicate new ideas more than self-employed and employees. Fourthly, entrepreneurs are the ones most involved in starting implementation of new ideas. Self-employed and managers start implementation of new ideas less than entrepreneurs but more than employees. Fifthly, entrepreneurs and managers involve others in new idea implementation more than self-employed and employees do. Sixthly, entrepreneurs and self-employed overcome obstacles the best. Managers overcome obstacles better than employees, but not so good as the remaining two groups. Finally, concerning the innovation outputs, entrepreneurs are on the first place, followed by self-employed who go second, managers on the third place and employees at the end.

Table 1

Overall innovative behaviour differences between entrepreneurs, self-employed, managers, and employees

	Entrepreneurs with employees			**Self-employed without employees**			**Employed managers**			**Employees without subordinates**			***F (df=3)***	***p***	***Eta*^{2}**
	N	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*			
Idea creation	219	**1.71**	.54	340	1.80	.76	974	1.96	.74	1965	*2.15*	.83	36.42	.000	.030
Idea search	217	**1.89**	.81	324	1.97	.85	970	1.97	.75	1939	*2.16*	.82	15.46	.000	.013
Communicating ideas	153	**1.88**	.90	233	2.14	1.01	967	1.89	.80	1926	*2.19*	.87	29.52	.000	.026
Implementation starting activities	213	**2.20**	1.09	321	2.52	1.28	948	2.63	1.21	1889	*3.15*	1.29	58.00	.000	.049
Involving others	202	**2.06**	.92	302	*2.34*	1.08	972	2.10	.86	1937	2.29	.96	14.52	.000	.013
Overcoming obstacles	218	**1.71**	.65	339	1.93	.85	973	2.18	.82	1953	*2.38*	.86	52.10	.000	.043
Innovation outputs	229	**1.85**	.65	292	2.03	.83	968	2.32	.86	1911	*2.71*	.93	119.88	.000	.096

1 = the most innovative, 5 = the least innovative; the most innovative results marked bold, the least innovative marked italics

Controlled for education, branch, gender and culture (education level taken as a covariate, for branch, gender and culture dummy variables created). Sample sizes differ due to the missing data.

Table 2

Intergroup comparisons of innovative behaviour differences

	ENTR vs. *F(df=1)*	**EMPL** ETA^2	**MANA vs.** *F(df=1)*	**EMPL** ETA^2	**SELF vs.** *F(df=1)*	**EMPL** ETA^2	**ENTR vs.** *F(df=1)*	**MANA** ETA^2	**ENTR vs.** *F(df=1)*	**SELF** ETA^2	**SELF vs.** *F(df=1)*	**MANA** ETA^2
Idea creation	49.51***	.022	27.41***	.009	60.79***	.026	12.09***	.010	n.s.		16.78***	.013
Idea search	16.86***	.008	30.58***	.010	12.98***	.006	n.s.		n.s.		n.s.	
Communicating ideas	19.34***	.009	78.76***	.027	n.s.		n.s.		9.03**	.024	18.15***(-)	.015
Implementation starting activities	100.75***	.046	86.35***	.030	51.01***	.023	15.29***	.013	10.17**	.019	n.s.	
Involving others	12.20***	.006	29.23***	.010	n.s.		n.s.		13.36***	.026	25.67***(-)	.020
Overcoming obstacles	92.68***	.041	24.21***	.008	71.62***	.031	40.82***	.033	n.s.		20.23***	.016
Innovation outputs	194.09***	.084	138.38***	.046	142.21***	.061	47.43***	.038	5.97*	.012	16.08***	.013

$p < .001$ ***, $p < .005$ **, $p < .05$ *; (-) means significant in the opposite direction; ENTR – entrepreneurs, MANA – managers, SELF – self-employed, EMPL - employees

Controlled for education, branch, gender and culture (education level taken as a covariate, for branch, gender and culture dummy variables created).

Discussion

This study explored the differences in innovative behaviour between entrepreneurs on the one side and employees and managers on the other side. It also differentiated between entrepreneurs with employees and self-employed individuals without them. In contrast to prior research it focused in more detail on the different facets of innovative behaviour at work. The better understanding of these facets and the differences between the groups can be used for entrepreneurship training, and when consulting entrepreneurs.

The first hypothesis focused on the expected differences between entrepreneurs (more innovative behaviour expected) and employees and managers (less innovative behaviour expected). The findings confirmed the leading position of entrepreneurs (who have employees) in innovative behaviour. When compared to employees, entrepreneurs were characterized by the higher levels of innovative behaviour in all the phases of the innovation process. When compared to managers, they exhibited higher levels of idea generation, implementation starting activities, overcoming obstacles, and achieving innovation outputs. On the other hand, significant differences have not been found in the idea search, communicating ideas and involving others.

Entrepreneurs' stronger position in idea generation might be given due to their higher creativity and innovativeness as a personal trait (Rauch, and Frese 2007), possibility to generate ideas as a daily activity (no requirements from a superior to do something else) or the higher internal motivation to do so (Shane, Kolvereid, and Westhead 1991). In implementation starting activities and overcoming obstacles, there may be a strong influence of proactive personality that is typical for entrepreneurs. Personal initiative is characterized as the behavior that is self-starting, pro-active and overcoming barriers (Frese, and Fay 2001). Also, in some cases, managers will not be allowed to pursue the opportunity; entrepreneur has more freedom in such a decision. Finally, better innovation outputs of entrepreneurs are in line with previous findings relating entrepreneurs' innovativeness with business success (Rauch, and Frese 2007) as well as with the higher influence the entrepreneur has, when compared with employed managers, on his/her organization.

On the other hand, entrepreneurs and managers do not significantly differ in the area of idea search. It may be that managers compensate their, in comparison with entrepreneurs, lower creativity by searching for ideas in their environment. Also, the inspiration in existing successes may help them to argue for the suggested idea and increase the chance of approval from their superior. Entrepreneurs and managers also do not differ in the areas including interpersonal communication, that is, in communicating ideas and involving others. These activities seem to be a necessary part of the manager's job. Communication, as well as giving tasks, is the core activity that a manager does at work.

The second hypothesis was that entrepreneurs with employees will be more engaged in the phases of the innovation process that involve interpersonal communication than self-employed individuals. As predicted, entrepreneurs were significantly higher in the communication of new ideas to the others and in involving other people in the implementation than self-employed. They were also higher in innovation outputs and in implementation starting activities that include planning, resource acquisition and looking for new ways of implementation. This may be related again to the concept of proactive personality (Frese, and Fay 2001) as well as to the planning styles of the entrepreneurs. Past research showed the connection of elaborate and opportunistic planning to business success, and on the other

hand, relation of reactive planning to lower success (Frese, et al. 2007), in this case having or not having an employee can be considered as a rough proxy for business success.

To summarize the main conclusions, individuals involved in independent entrepreneurial activities (with or without employees) create more ideas and more try to overcome obstacles during implementation than employed individuals. People who manage others (regardless whether they own the company) communicate new ideas and try to engage others in new idea implementation more than individuals who have no subordinates. Finally, what differentiates entrepreneurs with employees from all the other groups is higher involvement in implementation starting activities. Overall, these differences lead to the leading position of entrepreneurs in achieving the innovation outputs.

Limitations

The presented study has also several limitations. Firstly, the self-reported measure of innovative behaviour was used that constitutes a potential mono-method bias as well. However, objective data for establishing the criterion validity of the Innovative Behaviour Inventory were used in a previous study (Lukes, Stephan, and Cernikova 2009). Secondly, one item in Communicating ideas scale is more fitting to corporate environment as can be illustrated by more missing values in the samples of entrepreneurs and self-employed. Therefore, it should be reformulated in future studies on entrepreneurs.

Thirdly, our approach does not make assumptions about the relative value of incremental versus radical innovations, that is, people coming up with radical innovations would probably score comparably with the ones coming up with smaller new ideas. Nevertheless, the radical innovations are scarce and it is hard to measure "radicalism" as well. Fully different research design would have to be used involving face-to-face interviews with specific samples of R&D specialists and entrepreneurs famous for their innovation. Fourthly, the generalizability of the findings is limited, because the study was done only in four European countries. In less developed economies, entrepreneurs may face specific challenges that can lead either to more innovative (as the only way how to find ways to survive in business) or to less innovative behaviour at work (for example, if it is forbidden to employ other people by a country regime as was the case in communistic Czechoslovakia in the eighties). Future studies should include various countries outside Europe as well. Finally, the cross-sectional research design limits the ability to determine causation. Future studies might include longitudinal designs and objective measures of innovative activity results.

Practical implications

Entrepreneurs might focus on the phase of implementation starting activities that differentiates them from the other groups. It is connected to previous findings from Frese and his colleagues that personal initiative and elaborate planning influence positively business success (Frese, and Fay 2001; Frese et al. 2007). Both personal initiative and planning approach can be learned and improved. For managers who want to get more engaged in innovative and/or entrepreneurial activities, the same focus may be recommended. Also, to overcome somewhat lower idea creation capability, it may be recommended to use special creativity encouraging techniques as brainstorming or facilitated idea gen-

eration sessions, or alternatively, to get oneself into the work role that offers more space for idea creation.

Finally, for self-employed individuals who have no employees, the study identified potential pitfalls stemming from the fact of insufficient amount of people who are at hand. Engagement in both formal and informal networks as well as the use of external advisors can help to eliminate this disadvantage. All these recommendations can be also used in entrepreneurship education as well as in courses focused on unemployed individuals who think about starting an independent entrepreneurial activity.

Conclusion

The study confirmed Schumpeterian view of entrepreneurs as innovators in four countries and helped to understand better what the facets of their innovative behaviour are due to the use of Innovative Behaviour Inventory. It also helped to differentiate entrepreneurs with employees from self-employed freelancers with regard to their innovative behaviour. Entrepreneurs are the leading group in innovative behaviour at work even when compared with managers. Independent entrepreneurs (with or without employees) are more engaged in idea creation and overcoming obstacles when compared to employed individuals. People who manage others (regardless whether they own the company) communicate new ideas more and also try to engage others in new idea implementation. It can be difficult for self-employed. Understanding the differences in innovative behaviour may be used in entrepreneurship related trainings in order to highlight some areas of innovation process that might be otherwise neglected.

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Entrepreneurial Behavior on the Edge: Key Strategic Factors that can Save You From Crises

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Abstract

The global crisis brought a rare opportunity to test our traditional management thinking on the edge. We took this challenge and asked 305 SME managers' opinion about entrepreneurial success in their industry. Besides the global crisis the emerging market context made our research extreme, we conducted our research in a vulnerable economy. We found that proactive strategic behavior (eg.: choosing the right competitive environment) is more crucial than any other factors that can lead to superior performance. Executing the right strategy needs proper value proposition and resources (especially financial and social).

Introduction

This paper is not about the crisis, but we would like to make the best of this opportunity and cross the borders of the frameworks of traditional management theories, in accordance with Pettigrew (1985, 1987) who pointed out, that higher level strategic and organisational changes are related to economic recession.

Entrepreneurship involves identifying and exploiting entrepreneurial opportunities. However, to create the most value entrepreneurial firms also need to act strategically. This calls for an integration of entrepreneurial and strategic thinking. The fields of strategic management and entrepreneurship both focuses on how firms adapt to environmental change and exploit opportunities created by uncertainties and discontinuities in the creation of wealth (Hitt and Ireland, 2000).

For the purposes of the research we use the definition of Zahra and Dess (2001) that entrepreneurship refers to the identification and exploitation of previously unexploited opportunities. As such, entrepreneurial actions entail creating new resources or combining existing resources in new ways to develop and commercialize new products, move into new markets, and/or service new customers (Hitt et al., 2001). Outside sources of knowledge are critical to the innovation process in general and in particular in the context of changing knowledge environments. Hence, firms confronted with volatile and hectic environments where existing knowledge related to products or markets become obsolete quickly, should aim at reconfiguring their existing knowledge (Van den Bosch et al., 1999). The process of knowledge reconfiguration is already an innovation, since it provides a platform for producing new product-market combinations.

The ones emphasising the role of the external environment think that the other researchers pay too much attention on the individual characteristics, personality of the entrepreneurs and they don't put enough emphasis on the external structural opportunities and pressures. Byers et al. (1997) for example criticized the studies about entrepreneurship because their authors often praised highly the founders and top managers, if the business proved to be successful. Several studies dealing with the establishment and early stage of the innovative organisations showed tight connection with the environmental conditions and the evolvement of the new organisation (cf. Kimberly, 1979).

Despite of the long debate in the literature, the relationship between entrepreneurial success and the role of internal and external factors are still disputed, moreover, we have little empirical evidence about how entrepreneurs perceive and react to global crises. If a firm wants to succeed in such an uncertain situation:

- What is more valuable: to have general knowledge/resources or industry specific knowledge / resources?
- Is it better to run a small or a large corporation?
- Which industries are affected most?
- Does strategy and strategic planning matters?
- What are the key success/failure factors?

Theoretical Foundation

Internal Factors of Entrepreneurial Success

Academic researchers have spent considerable time on the quest to predict who will succeed as an entrepreneur and who will fail (Gartner et al, 2006). These diverse writings emphasize certain traits seem to be associated with entrepreneurs; as such are necessary for effective entrepreneurial behavior (Hortoványi 2010). Collins and Moore (1970) studied 150 entrepreneurs and concluded that they are tough, pragmatic people driven by needs of independence and achievement. They seldom are willing to submit to authority. Based on the study of 2994 entrepreneurs Timmons (1994) for example in analyzing more than 50 studies found a consensus around six general characteristics of entrepreneurs: (1) commitment and determination; (2) leadership; (3) opportunity obsession; (4) tolerance of risk, ambiguity and uncertainty; (5) creativity, self-reliance and ability to adapt; and (6) motivation to excel.
A related stream of research examines how individual demographic and cultural backgrounds affect the chances that a person will become an entrepreneur and be successful at the task. A great deal of research on the socio-cultural backgrounds of successful entrepreneurs was conducted in the 1980s and 1990s (Byers et al, 1997). Such trait-based theories of entrepreneurship – when taken as a whole – are inconclusive and often in conflict (Stevenson, 2006), hence their validity is increasingly being called into question. There is no real evidence supporting one generally applicable entrepreneurial personality; and personality testing does not provide a good indicator who will, or will not, be a successful entrepreneur.

Gartner in 1988 had critiqued the „long-held and tenacious viewpoint in the entrepreneurship field" and set the research focus toward a new direction: „what the entrepreneur does, not who the entrepreneur is" (Sharma and Chrisman, 1999:26). The research question shifted from areas such as the determination of the psychological characteristics of entrepreneurs toward an assessment of the cognitive

and behavioral aspects of the entrepreneur with an increased emphasis on context and on the entrepreneurial process (Cornelius et al. 2006).

Entrepreneurs as they engage in entrepreneurial activity must assess the perquisites for success. The question "How do entrepreneurs perceive their chances of success?" was a turning point from typologies of entrepreneurs toward the study of psychological traits. Cognitive psychology provides new and profound insights into the thinking of entrepreneurs and how they engage with the entrepreneurial process. The research about entrepreneurs' cognitions (perception, memory, experience, intuition, and judgment) has focused on thinking about the future (e.g., intentions and vision) and decision making. Entrepreneurs seem to be prone to insights, brainstorms, deceptions, and ingeniousness (Bird, 1992; Shaver and Scott, 1991; Hornsby et al, 2002). In addition, entrepreneurs exhibit extreme optimism in their decision-making processes and are prone to overconfidence (Busenitz and Barney, 1997; Hatch and Dyer, 2004; Shepherd and DeTienne, 2005).

In summary, researchers note that first, entrepreneurs hold intense mental visions of desirable futures to maintain their long term goals through surprises, shortages and barriers, and second, they utilize heuristics to cope with the uncertainty and urgency they face. These processes produce fast, perhaps biased, decision making (Hortoványi, 2010).

Regarding the performance of start-up and promising small firms the issue is their survivals. Timmons (1994) reviewed the works of over two dozen authors and noted several ingredients of successful venture creation, such as the importance of a lead entrepreneur, building a team with complementary skills, a triggering idea for a product or service, a well developed business plan, a network of people and resources and appropriate financing. In entrepreneurship, however, uncertainty and risk are always present, and entrepreneurs are always faced with the possibility of failure. No matter how carefully is the new venture is developed ultimate decision is brought by the market in the form of sufficient demand.

Even though their contribution is so strong, the majority of family businesses do not survive beyond the third generation (Upton and Heck, 1997). One explanation for the high mortality rate of family businesses may be a decrease in the entrepreneurial orientation displayed by successive generations of owner-managers.

Failure forms a fundamental component of entrepreneurship (McGrath, 1999). While many scholars strive to understand and thereby avoid failure (e.g. Romanelli, 1989), others argue that failure provides an important learning opportunity for continued entrepreneurship (McGrath and Cardon, 1997), and acts as a catalyst for further economic and business development (McGrath, 1999). Yet failure is not a simple notion (Wickham, 2003). It implies the absence of success, and like success, it can only be understood in relation to people's goals and expectations. Failure happens when expectations are not met; the question is the degree of failure (e.g.: 'the business fails to perform as planned, hence additional financial support is needed' more severe issue than 'the business fails to achieve strategic objectives').

The perception of and/or tolerance for failure may significantly impact whether would-be or nascent entrepreneurs pursue opportunities of which they are aware, despite the high risk and effort involved in starting a new business. These cultural perceptions may also impact the attributions individual entrepreneurs make for setbacks they experience, and how they change their behaviors accordingly in decisions to continue to develop the business despite hardship or to cut their losses and close the

business immediately (Cardon and McGrath, 1999). More broadly, cultural perceptions of failure may profoundly influence the allocation of resources towards risky ventures.

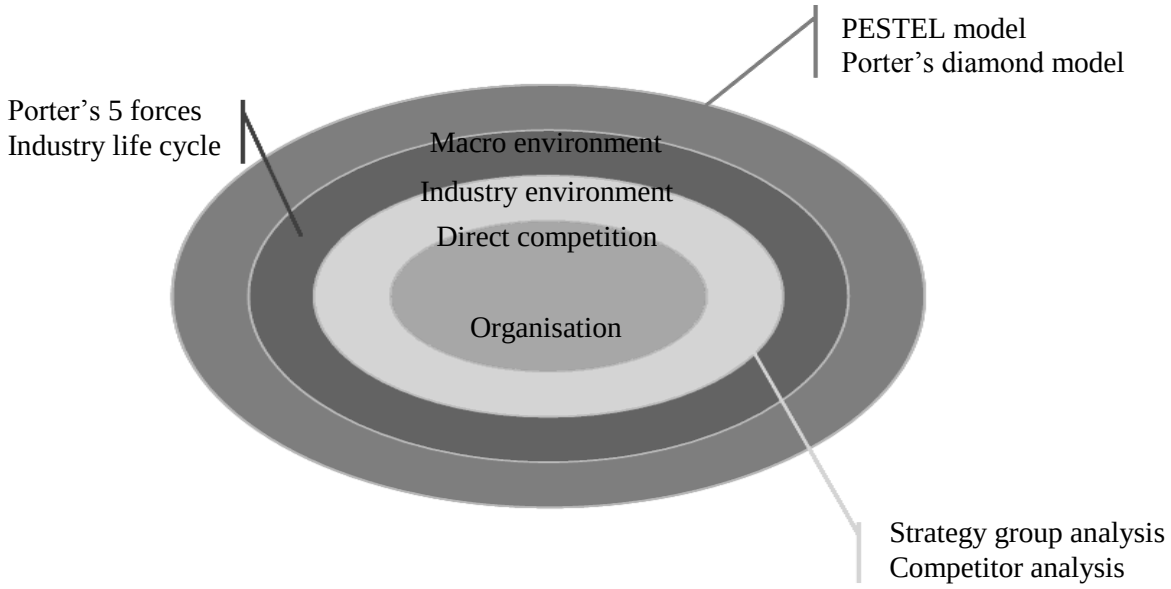
Failures might be caused by circumstances the entrepreneur could not control, such as a poor economy. This is in contrast with mistakes, which are seemingly due to avoidable errors, or the inability of entrepreneurs to properly steer their ventures. Most of the young and small firms spend efforts to stabilize their activity, for example engaging in strategic planning is no longer the privilege of bigger ones (Papp, 2006; Szabó, 2005; Nagy, 1996).

External Factors of Entrepreneurial Success

Strategic management examines the external environment on three levels: macro environment, industrial environment and direct competition environment. The internal environment is determined by the resources and abilities. There are existing analyzing methods for each level which are demonstrated on Figure 1.

The more proactive an enterprise is, the better it can cut itself adrift from the external environment. However a global crisis affects almost everything and generates a significant change in the structure of the industry as well. In the middle of the 1970's the global economy showed the sign of the large corporate structure not being the primary factor in facilitating development. Cornelius et al. (2006) suppose that two consecutive oil crises caused the increase of the role of the small enterprises.

FIGURE 1: The levels of the external environment and related strategic tools



Source: Balaton et al. (2007)

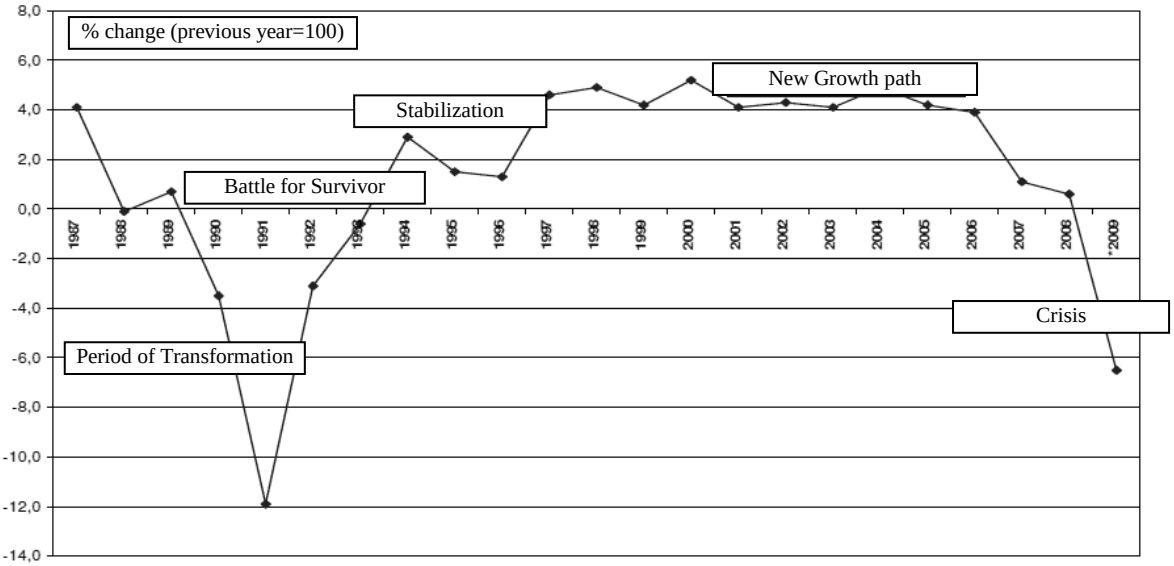
Several large enterprises were strike by serious economic difficulties and unemployment became one of the main problems of the western societies. Besides that, the large corporations seemed to be more inflexible and slower during the adaptation to the new market conditions and in exploiting breakthrough innovations.

Carlsson (1992) found two major explanations why the researchers turned their attention towards smaller enterprises: on the one hand the change of the global economy (in connection with the strengthening of the global competition, the increase of uncertainty and the fragmentation of the markets), on the other hand the change of the characteristics of the technological processes. The global financial crisis that burst out in 2008 and the demand crisis following that drew the attention again to the macro environment and environmental adaptation in the significant industries.

As Szabó and Zetkó (2005) have found the Hungarian economy follows the economic cycles of the USA with a delay from of half to one year. In spite of the fact that the Hungarian enterprises had time to prepare for the economic crisis, they performed extremely poor in minimizing the harmful effects of the crisis. The global crisis didn't avoid Hungary either, moreover it even stroke Hungary harder because of its defencelessness (MKT, 2009). The effect of the crisis on the GDP is shown on Figure 2.

While privately owned micro and small businesses did exist even in the planned economy socialist regime, the development of the Hungarian SME sector started in the late 1980s, after the start of the transition to the market economy. The Company Act of 1988 as well as the Law about Sole Proprietorship provided basically everybody the freedom to set up an own business. In the first part of the 1990s, a large number of new firms were established. As a result the number of businesses tripled ending up to have over a million registered business unit in 1995 (Szerb and Ulbert 2002). This activity was fueled by necessity motives because of massive downsizing in the state owned large business sector as well as by opportunity motives to supplement the market and ease the shortages (Tyson et al 1994).

FIGURE 2: The change of Hungarian GDP between 1987 and 2009



Source: data of the national accounts (KSH) (MKT, 2009)

The following eight years in the 1996-2004 time period of the SME development was characterized by both positive and negative changes. While the numbers of newly established businesses first stabilized then begin to decline the quality of the start-ups increased and a small proportion of existing businesses started to grow. However, as the competitive pressure of mainly large, foreign owned multinationals increased, especially in the retail and construction sectors, the weaknesses of the Hungarian SMEs become prevalent (Kállay and Lengyel 2007).

The contradictory development of the Hungarian SME sector has continued after the 2004 EU accession. Increased openness to foreign competition and now worldwide recession are the current challenges Hungarian small businesses face. Hungarian economy was strongly affected by the financial crisis. There are several reasons for that:

- Besides under-financing, inadequate innovation, insufficient managerial skill and weak cultural embeddings have hampered the competitiveness of smaller firms. In addition the macroeconomic climate had also negatively hit the further development of the SME sector. Political cycles repeatedly caused imbalances in the government budget that was followed by cyclical adjustment. Not only overregulation, high social security and income taxes but frequently changing regulation also contributed to the increasing uncertainties of starting and running a small business in Hungary (Papanek et al 2007). The long waited EU funds not seem to be arrived, and the disappearance of foreign resources forced Hungarian government to sign agreement with IMF. The new economic policy focusing on budget deficit could not slow down the 6,5% recession in 2009.
- The Hungarian economy is extremely open, the value of export and import compare to GDP is over 100%. In year 2009 decreasing export forced several companies to lower production, lay off people and even close down plants.
- The third reason is the structural weakness. Still far too much state bureaucracy, social security, oversized local governments, health and educational system reform is still on their way.

Methodology

Annual Research Program Results

At Small Business Development Center of Corvinus University of Budapest we ask 300 students yearly, to interview an entrepreneur and ask about his/her motivation and find out what are those characteristics, which made them successful as an entrepreneur.

The gained results are quite robust, the importance of factors changes very slowly over time. There are for main motivations to become entrepreneur: (1) Realization of an idea, personal fulfilment (2) Autonomy (3) Financial gains (4) Loosing their job, no other possibility to make their own living.
Entrepreneurial performance depends on experience, knowledge and motivation:

- Practical experience or previous performance is a good indicator, much better than school results. Learning by doing means, that entrepreneurs collect most of there skills and abilities by experiment, which empower them to run and renew their businesses.
- Technical or industrial knowledge makes business less risky. Collecting industrial knowledge as an employee helps entrepreneurs to recognise business opportunity, value risk, evaluate different options.
- Business and managerial skills helps team building, building-up controlling functions, system development and growth. Gaining business and managerial knowledge at schools (University/MBA) is not enough, experiential learning proved to be essential.
- Entrepreneurial skills can be gained in several forms, like in family business, previous job, or own previous company. Independence, responsibility and creativity are such influencing factor, which hardly can compete with a paid job.

Research in Crisis

The aim of the research was to examine the first reaction of the Hungarian SMEs to the crisis. To answer our research question about entrepreneurial success in crises we used semi-structured questions where we gave the opportunity to entrepreneurs to tell with their own words, what were the decisive factors at that time, and what would be in 1-2 years from that time in order to succeed in their industry. We used the data derived from a complex survey where besides the basic company information, the survey included five blocks and 44 questions covering all major functional fields of the business from strategy through innovation, knowledge management, HRM, finance, risk management, and marketing. The examined time period is 2007-2009.

The survey was conducted in November-December 2009. After an initial telephone call for approval a face-to-face interview was carried out with one of the owners who were part of the top management. The initial sample is based on HBI Company Data database that includes 51 600 companies, with all important data. The aim was to collect a total sample size of 300, out of 600 pre-selected firms. Since the response rate was higher than expected we stopped calling at 378 and ended up, with 305 interviews.

Most of the entrepreneurs, who denied the interview, were afraid of sharing their financial data, and even those who filled out the questioner asked for guaranty of full anonymity. (Entrepreneurs became very suspicious during the crisis.) Firms were randomly selected but we paid attention to regional, size and industry representativeness. Since we aim to examine only SMEs, we limited according to number of employees and kept the size distribution of the sample as compared to the total number of businesses reported by the Hungarian Statistical Office (KSH).

As a result we received a sample with mainly micro enterprises where 90% has less than 2 million EUR turnover. As we were interested on the reaction, we focused on established companies, with more operational experience.

Table 1. The distribution of the sample based on the overall turnover (N=251)

	2007		**2008**		**2009**	
millió HUF	**frequency**	**%**	**frequency**	**%**	**frequency**	**%**
0-4	17	7,05	22	8,76	28	11,29
5-9	13	5,39	13	5,18	14	5,65
10-19	19	7,88	16	6,37	24	9,67
20-29	18	7,48	25	9,96	14	5,65
30-49	24	9,96	21	8,37	22	8,87
50-99	47	19,50	49	19,52	49	19,76
100-499	77	31,95	75	29,88	73	29,44
500-999	17	7,06	21	8,37	16	6,45
Over 1000	9	3,73	9	3,59	8	3,22
Total:	241	100,00	251	100,00	248	100,00

Table 2. Operational experience in years (N=286)

	Frequency	Valid percent (%)	Cumulative percent (%)
0-1	6	2,1	2,1
1-3	24	8,4	10,5
3-5	15	5,2	15,7
5-10	58	20,3	36,0
Over 10 years	183	64,0	100,0
Total	286	100,0	

Results

Perception of the Crisis (winner or loser)

Table 3. Perception of the crisis

	Frequency	Valid percent (%)
Loser	214	78,4
Winner	59	21,6
Total	**273**	**100,0**

It was a shocking result that 4 out of 5 firms felt their self a loser of the crisis. Only every fifth company said that they are winner of the crisis (Table 3). We tested the association between the 'winner or loser' variable with firm size, firm age, industry experience and corporate strategy. Firm age, industry experience has no significant relationship with winner or loser status. There is significant correlation between size and the winning (Pearson Chi-square 15,086, sig. 0,001), because medium size firms are more likely to be winner of the crisis (Table 4).

Table 4. Perception of the crisis by firm size

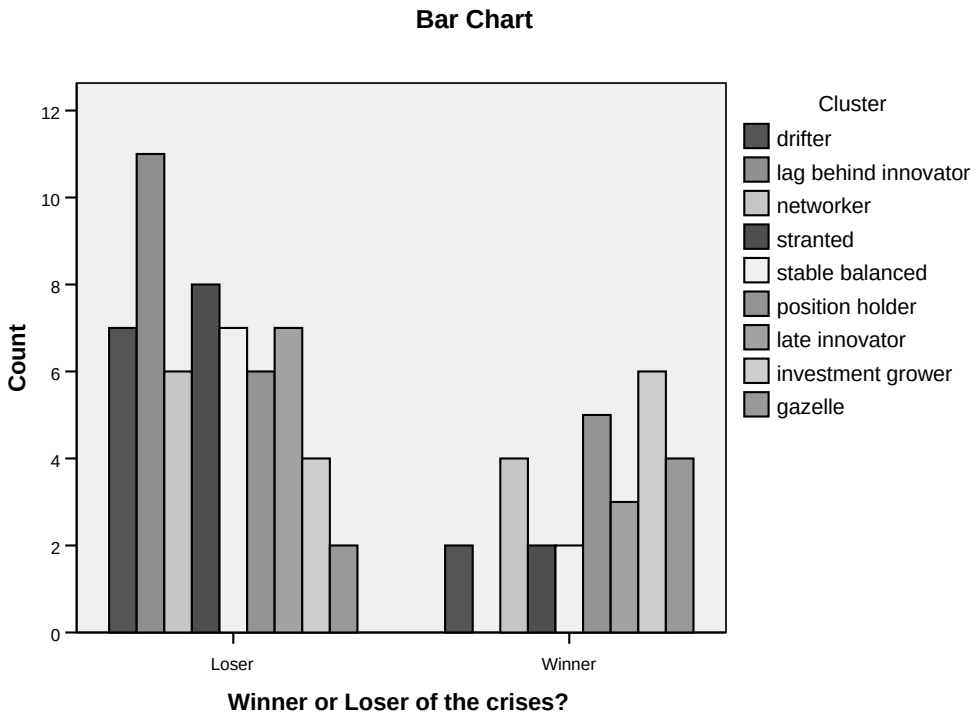
		Number of employees by EU definition		
		Micro (0-9)	Small (10-49)	Medium (50-249)
Loser	Count	139	62	11
	Expected Count	135,3	58,5	18,2
Winner	Count	32	12	12
	Expected Count	35,7	15,5	4,8
Total	Count	171	74	23
	Expected Count	171,0	74,0	23,0

We got very interesting result, when we tested whether all industry has the equal share of winners and losers. We made deeper analyzes, where we included other variables, and also qualitative data. We got four different groups, according to the level of crisis effects (Table 5).

Table 5. The impact of the crisis on different industries

Absolute winners	**Losers, but with good chance for fast recovery**
Info-communication (ICT) firms	Printing industry
Niche market players (e.g.: billboard production)	Financial service brokers
Business support services (tax advisor, accountant, liquidator)	Services connected to construction businesses (architects, alpine-techniques, experts)
	Tourist industry (Wellness hotels)
Untouched by the crisis, stable firms	**Losers, who need long period for recovery**
Agriculture, farm producers	Car dealers
Business support services (maintenance and repair, utility providers, market research, trainers)	Catering industry (restaurants and bars)
Textile, Food producers	Manufacturing
Wholesale and small retailers	Building industry

We also analyzed the relationship between the corporate strategy and the winner-loser variable. 100 out of 300 companies we selected from our previous research database (3000 firms), where we had many other information about the firms, and where we made cluster analysis according to Miller's configuration theory (Miller 1986, 1996), which is a proper tool for studying the different strategy configurations. According to these 100 firms we knew which cluster they belong to.
Gazelles and investment growers are more likely to be a winner than a loser. Position holders are equally distributed, and drifters and lag behind innovators are absolute loser of the crisis (Figure 3).



Key Factors of Entrepreneurial Success

We asked the entrepreneur what the key factors of entrepreneurial success were in the crisis. We divided the period of the crisis into two periods: 2009 and 2010/2011 and asked the question for both. The questions were open ended, but we could identify several categories shown in Table 6.

Table 6. Success factors in the crisis

What were the key factors of entrepreneurial success and failure in the first year of the crisis? (N=243)	**What will be the key factors of entrepreneurial success and failure in the next 1-2 years? (N=260)**
1. External environment (58) 2. Quick and conscious strategic adaptation (52) 3. High working capital and low debt (51) 4. Keeping costumers (34) 5. Social capital and networks (14) 6. Price/quality ratio and cost effectiveness (13) 7. Innovation (12) 8. Other factors (eg: luck and firm size) (9)	1. Price/quality ratio and cost effectiveness (52) 2. High working capital and low debt (51) 3. Keeping and access to new costumers (41) 4. Finding new opportunities and innovation (31) 5. Quick and conscious strategic adaptation (29) 6. Social capital and networks (24) 7. External environment (23) 8. Larger firm size (9)

Typical responses in the categories:

1. External environment:
    a. There were no winners, all the industry suffers
    b. Political turbulence and unforeseeable taxation system
    c. Some industry collapsed while others benefited from the crisis.
2. Quick and conscious strategic adaptation
    a. Those who could react to the changes on time became winners.
    b. Sudden cost cut, but not forgiving long term growth options.
    c. You have to think before the market.
    d. It is not enough to find the right strategy but it has to be executed efficiently.
    e. Efficient supply chain is the key from which cost advantage can be drawn
    f. We failed, because we were focusing on only one industry segment, we had to diversify ourselves
3. High working capital and low debt
    a. Small firms, with no slack resources were extremely vulnerable to the crisis
    b. Huge changes in the cost of debt financing run the business into bankruptcy
    c. There is poor access to financing in the market. Those who have good connections to financial institutes could acquire businesses.
4. Keeping costumers, and get access to new ones
    a. The Nr. 1 issue in the crisis was to keep costumers
    b. Many costumers went into bankruptcy, it's a key issue to find new ones
    c. Some of the competitors closed their doors that gave us new access to costumers
    d. The most important task is to keep profitable costumers
    e. The winners could stabilize their markets
    f. International markets can save the low performance of the local markets
5. Social capital and networks
    a. The winners could get closer to their partners (costumers, suppliers etc.)
    b. Access to capital is a key factor!
    c. Lobby and political connections determines the viability of a company
6. Price/quality ratio and cost effectiveness
    a. Competitive pricing is more important than ever
    b. The winning strategy is not to offer the lowest prices, but to raise quality and keep profitability
    c. Lower your operating costs, raise (cheaper) capital
7. Finding new opportunities and innovation
    a. As the crisis became deeper, new opportunities were born
    b. You can gain costumers from bankrupt companies
    c. Winners should always look for new opportunities
    d. It is not enough to give better quality, but to serve costumers needs
8. Firm size
    a. Larger firms had more chances, because they had more resources
    b. More capital means more possibilities to maneuver
    c. Larger firms can have larger influence on the industry and the government
    d. A larger firm could loose more, but also keep more

Besides the time period comparison, we also looked for the difference between the perception of the loser and the winner firms, but we have not found a significant difference.

Implications

Advancing Timmons' Model

Regarding the performance of start-up and promising small firms the issue is their survivals. Timmons (1994) reviewed the works of over two dozen authors and noted several ingredients of successful venture creation, such as the importance of a lead entrepreneur, building a team with complementary skills, a triggering idea for a product or service, a well developed business plan, a network of people and resources and appropriate financing. In entrepreneurship, however, uncertainty and risk are always present, and entrepreneurs are always faced with the possibility of failure. No matter how carefully is the new venture is developed ultimate decision is brought by the market in the form of sufficient demand.

The starting point is the model suggested by Timmons (1994), which proposed that the entrepreneurial process is opportunity-driven, led by a team, and characterized by parsimonious [less is better] resources. Taking Timmons' original model one step further, Hortoványi (2010) proposed that entrepreneurial managers are firmly committed to the exploitation of a given opportunity, to do so they need to overcome severe resource gaps (as opposed to "parsimonius"), and finally, they also need to move beyond their close, initial core team if they are to overcome the encountered resource gaps.

Based on the above mentioned results, we suggest that in crises not the opportunity driven commitment is necessary, but quick and causious strategic adaptation is more important. Moreover, we agree that parsimonious resources and resource gaps are caracteristics of the SMEs, and only those will succeed in the crisis that can handle financial and demand market insuffiencies. To overcome these barriers a closer connection through social capital and networks to the partners are required. The proposed model is shown in Table 7.

Table 7. Advancing Timmons' model

Timmons' model	Hortoványi's model	Proposed model
Opportunity-driven	Commitment	Quick and causious strategic adaptation
Parsimonious resources	Resource gaps	Access to finance and offer for the market need
Entrepreneurial team	Social capital	Social capital and Networks

Strategic Adaptation

Steady changes characterize the environment of the organisations, and the pace of these changes is more and more accelerated. Organisations, members of the organisation in an industry have to accommodate themselves to the steadily moving, uncertain environment, which means bigger and bigger challenge and difficulty. Child (1972) changed the reactive picture about the environmental adaptation. He pointed out that not only the environment can have influence on the firm, but the enterprise can also influence its environment. The top managers of the firm, who has influence on the strategy and structure (dominant coalition) of the enterprise, have a chance to choose, and if the environmental

conditions are soft enough even to maintain the strategy and structure that is advantageous for them. In the dynamic world the international, macro, industrial and micro level changes bring continuously an effect on the enterprises. The firms can give answers for these challenges in different ways (Child, 1972, Hortoványi and Szabó, 2006):

- Isolation: The enterprise doesn't follow the environmental changes, it recognizes these late, and doesn't react on them consciously.
- Legging behind: The enterprise tries to recognize the major environmental changes, but often gives inadequate answers for these challenges.
- Late follower (reactive adaptation): The enterprise often recognizes the major environmental changes and follows typically a reactive strategy that responds to the environmental challenges afterwards
- Fast follower (preactive adaptation): The enterprise is usually able to forecast the major environmental changes, and follows a preceding, preparing on time behaviour.
- Trend setter (proactive influence): The enterprise is able to forecast the major environmental changes, prepares itself for those in time and adapts itself to them with proper responses, it even endeavours consciously to influence the environmental conditions.

The organisational inertia (the ambition of the organisations not to change their accepted behaviour without external constraint) is the characteristic of almost all organisations (Bakacsi, 1996). The endeavour to stability and security rise from the depth of the life of man. Because of the constraint from the changing environment only those dynamic organisations will be viable, which are able to prove their maintenance through steady adaptation.

At the time of crises the most successful companies were those who could proactively or preactively adapt to their environment. The crisis had different impact on different industries, those who could trade their industry specific resources to liquid resources (eg.: cash) could proactively influence their competitive environment. Isolation does not seemed to be a winning strategy, because all the industries were more or less impacted and led to loss of potential gains.

Firm Size Matters

Early studies (cf. Audretsch, 1991) indicate that not only is the likelihood of a new entrant surviving quite low but also that the likelihood of survival is positively related to firm size an age. Audretsch and Ács (1990) found for example, that the majority of start-ups are very small – in most cases too small to survive within the industry. According to the authors, the reason for the survival of these firms can be found in their learning strategy. Even if companies tend to be below optimum size they can survive and grow by continuous learning and adaptation. Many of the new firms will of course fail, but the results indicate that industry dynamics is positively related with the success of new entrants.

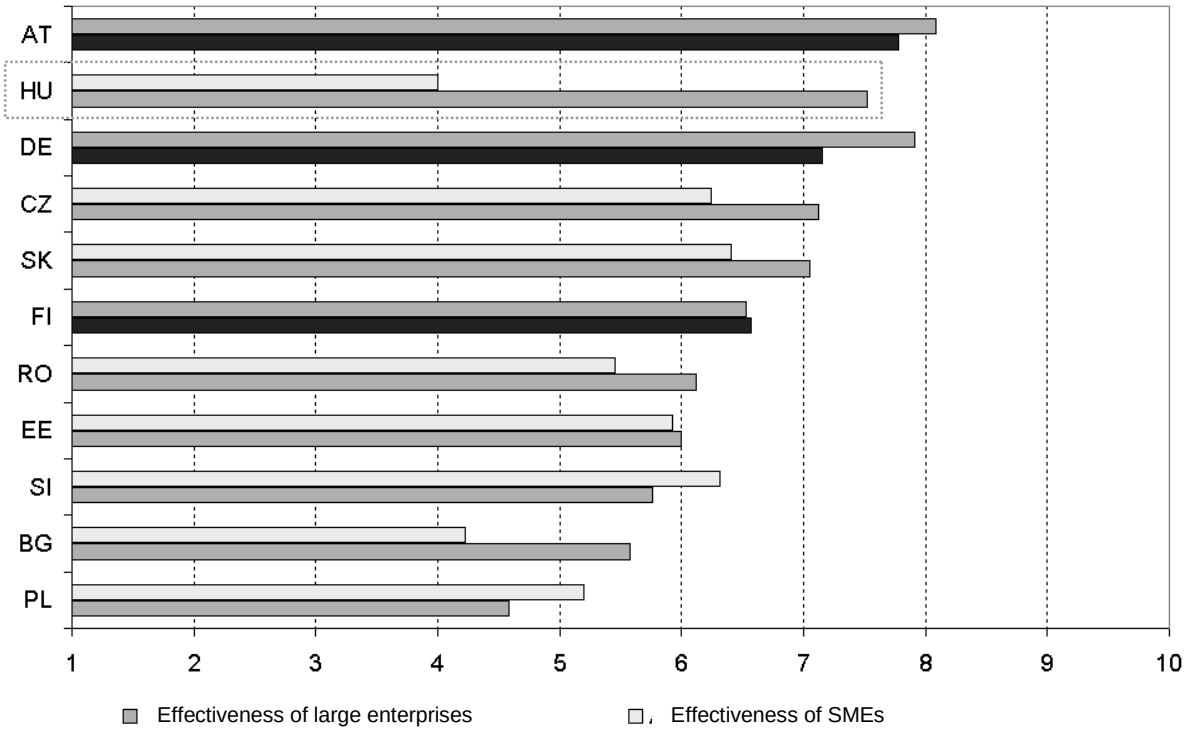
In addition, while small firms appear to have a higher growth rate, they also have a tendency to exit the industry more rapidly (Szerb and Ulbert, 2002; Román, 1991). In most industries these two tendencies offset each other, which provide explanation for why small businesses do not exhibit a higher growth rate than large companies (Landström, 2005). Our results also supported that larger firm size is more viable.

The Role of the SME Sector

The importance of the small and medium size enterprise (SME) sector is well-known: They constitute about two-third of the employment, 50-60% of GDP, one-third of export, and make significant contribution to innovation all around the world. While the Hungarian SME sector has a large number of businesses entities, the competitiveness most of these firms and the whole SME sector is very low. However, there is a partial disagreement between entrepreneurs, the government, and some experts about the reasons of this unsatisfactory performance. Entrepreneurs blame the government for the high tax and social security burden, and the unpredictable government policy while government and some independent expert call the attention to the lack of entrepreneurial and managerial skills, networking and missing strategy including innovation (Strategy for the Development of Small and Medium-sized Enterprises 2008). Hungarian SMEs have an average employment of only 3,21 while the EU has 4,3. The over-dominance of the micro sized businesses can be seen from the share of the employment data.

If we look at IMD competitive ranking and Global Competitiveness Index Hungary fell rapidly between 2000 and 2008. In year 2007/2008 Hungary fell 15 places on the ranking, and a warning sign, that it even differs from neighbouring countries performance. The IMD survey makes it possible to compare effectiveness between small and large enterprises.

FIGURE 4: Large companies and SMEs effectiveness 2008



Source: Versenyképességi évkönyv Magyarország (Yearbook of competitiveness Hungary) 2008, p. 50.

The figure shows that the bad performance caused by low effectiveness of SMEs. We come to similar results, if we compare to EU averages. In the European Union SMEs performance is about 2/3 of large companies, while Hungarian SMEs have only 40% of added value.

The deteriorating of SME sector started two years before the crisis, and hit in very bad condition. The decreasing competitiveness is not only the consequence of macroeconomic unbalances in state

budget, or crumbling institutional condition, rather internal factors influencing individual competitiveness. In this study we examined some factors of competitiveness of small businesses.

Limitations

As the sample is rather small (N=305) we have to keep in mind several limitations, like it is limited to analyze at regional or industry level. The characteristics of Hungarian SMEs also limits results, like small size, less developed organizational structure and less added value on average compare to European SMEs.

Conclusions

The global financial and market demand crisis offered a good opportunity to test our former knowledge and management thinking about entrepreneurial success and failure. The crisis caused threats and opportunities at the same time. We tried to identify those factors that lead to success.

We found that a larger firm has better odds to succeed, but quick and cautious strategic adaptation is a more important factor. Those who could act proactively could benefit from the crisis. Besides, general knowledge/resources like financial assets and markets, and access to them through broad social capital and network configuration give more free space to deliver the planned strategy. Deep industry specific knowledge/resources could run the business into heaven or hell, depending in which industry it operated.

The key success factors at the time of crises seems to be the following:

1. Choose the right external environment, industry
2. Get access to financial assets
3. Get easy access to stable and defendable markets
4. Offer the right price/quality products
5. Lower your costs to keep profitability
6. Continuous look for new opportunities
7. Grow fast but keep resilience

Acknowledgements

This research was supported by TÁMOP 4.2.1/B-09/1/KMR/-2010-0005. We would like to thank to Lilla Hortoványi for her valuable comments.

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Do Entrepreneurial Motivations Change when Establishing a New Venture?

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Abstract

Entrepreneurs are supposed to be driven by specific motivations when starting and establishing a new venture. Using a set of motivational items collected and developed by *Berthold et al* (2007), the study analyzes which aspects motivate or rather demotivate entrepreneurs. Based on a large scale panel study, it distinguishes these results between companies of different ages. Comparing all new businesses with those of lesser newness, some interesting insights into motivational evolution in the early development stage of young entrepreneurs appear that can be summarized as entrepreneurial disillusionment. Hence, there is evidence for a motivational liability of adolescence.

The results show that entrepreneurial motivation fades with time, independent from the type of motivation analyzed. This fading proceeds with continuously decreasing rates and almost stops roughly five years after launching the business. The motivational items differ in fading strength: While expertise, experience and the responsibility for family and staff seem to be rather stable motivations, self fulfillment and income expectations drop down more intensely.

1. Introduction

The propensity of individuals to become and the willingness to be an entrepreneur is determined not only by sociographic characteristics, but also by personal attitudes, perceptions, and mental dispositions like risk perception, perception of earnings, or risk taking behavior (Seitz/Tegtmeier 2007, Gemünden/Konrad 2000, Cattell 1973)

„Earnings“ may be extrinsic (income, reputation of being an entrepreneur) or intrinsic (self-fulfillment, independence). Both aspects are influenced by legal regulations, governmental authorities, the tax framework, social norms, or moral concepts. Opportunities and threats are exogenous factors that can be evaluated by an enterpriser based on an individual setting of personal traits. In this setting individuals decides to become and to be an entrepreneur.

Theoretic models created to explain entrepreneurship are mostly aligned with income disparities between self employment and salaried work: Individuals choose one of these options regarding future income, risk, and personal capabilities. The contractual salary for being employed is lower and less risky, while an entrepriser gains residual income that is higher and more volatile. Therefore, individuals choosing self employment are different from hired people serving a business (Parker 2005, 7). However, expected income is not the only explanation to be self employed (Parker 2005, 39). Surprisingly, expected income of self employed people is lower than the average income in the US (Hamilton

2000, 623-629). But entrepreneurs may also appreciate non monetary rewards like the social standing and reputation of being independent (Gianetti & Simonov 2004, 2).

Aside from those extrinsic motivations, entrepreneurs are supposed to be driven by intrinsic incentives which are the realization of an opportunity, self-fulfillment, responsibility for the employees of the business and the own family, or the continuation of a family tradition (Parker 2005, 80).

Using a set of motivational items developed by *Berthold et al* (2007), this study is about to check what drives entrepreneurial ambition for achievement, which aspects motivate or rather demotivate self employed people, and what courages and disencourages them to act entrepreneurial. Based on this initial approach, it tends to analyze if entrepreneurial motivations change when establishing a new venture or succeeding an already existing one. A large scale panel study allows to compare motivations between entrepreneurs running companies of different ages.

Section 2 of this paper presents the data set used. Section 3 delivers descriptive results concerning 16 entrepreneurial motivators under inspection. Section 4 inquires the change in motivation by comparing companies of different ages. Section 5 explores the willingness to become self employed once again. Section 6 closes the study with a short discussion.

2. Data and Methodology

The present study reports the results of a survey of 3.231 German entrepreneurs starting a new venture between 2001 and 2008. The study is based on a panel data set, utilizing data of young enterprises that have been monitored within the start up panel of Northrhine-Westphalia (NRW), Germanys largest federal state, which has been run since 2000 and will undergoe its eleventh wave of observation in 2010. Until 2009, it has monitored more than 12,000 start ups, predominantly belonging to the crafts business sector. This sector can be viewed as typical for entrepreneurial activities in Germany in terms of size, business model, legal type, and other. As a consequence, the study focuses on ´ordinary´ business starters predominantly neither having innovative nor technology based business concepts here. The panel covers start ups as well as successions and active participations, and contains solely full time entrepreneurship. Therefore, it is not biased by part time businesses that are mostly not comparable to full time ventures – for instance because they are created only for auxiliary income.

The core elements of the start up-panel NRW are standardized written questionnaires distributed periodically, which allow a long time monitoring of a high quantity of young entrepreneurs and their newly created or acquired enterprises. The start-up panel NRW allows to control for survivorship bias. Because all included start ups have been monitored through government authorities, no hidden exit is possible. Furthermore, all exits could be verified by using a special crafts register, where all entries and exits have to be recorded.

The annual panel wave questionnaires always ask for some basic data used to describe corporate development (sales volume, quantity of staff, investment volume, Corporate earnings expectation, Corporate profit situation, production activity, achievement of profit goals). This basic part always is complemented by a nonrecurring, specific topic focused on aspects under investigation only once, like counselling, recruitment of staff, entrepreneurial marketing, or motivation. These regular panel examinations were accompanied by an extra enterprise data base with detailed business information, and some examinations placed aside the panel waves. The enterprise data base, among other data, provides

information about the age of the enterprise, the legal form of the company, its location, the gender of the entrepreneur, and so on.

The following table briefly describes the sample analyzed in panel wave no. 9 from 2008:

Table 1

Variable	**Cases**	**Mean**	**Standard Dev.**
Age of Company [years]	3231	3.25	.98
Sole proprietorship*	3231	.721	.449
Limited liability company*	3231	.152	.360
Building industry*	3231	.294	.456
Service industry*	3231	.274	.447
Gender: male*	3231	.773	.419
Corporate profit situation**	3170	2.23	.647
Corporate earnings expectation**	3159	2.11	.608
Employees	3142	5.33	7.39
Annual sales [in 1,000 €]	2896	370.87	996.05

** yes=1, no=0 – ** Response options: well (=3), satisfactory (=2), poor (=1)*

The complementary part of the questionnaire contains items adopted from Berthold et al (2007), who refer to Lembke/Reinfeldt (2007), Fueglistaller et al (2008), Eckhardt (2002), Blanchflower/Oswald (2001), Holmes/Schmitz (1990), De Meza/Webb (1987), and Lucas (1978). These items were adjusted for the entrepreneurial sample by ways of a pretest run with 45 randomly selected interviewees. The pretest suggests to eliminate two items and to rephrase some items to enable better understanding. Thereafter, 11 internal motivational items remained.

In line with Berthold et al (2007),

- an item measuring surrounding public and governmental conditions of entrepreneurial activity had been integrated additionally (legal regulations). It ist used to describe terms and conditions for entrepreneurial deployment. It can be regarded as a public limiter of opportunities.
- an item measuring market conditions of entrepreneurial activity had been integrated additionally (industry competition).

Going beyond Berthold et al (2007), who designed their study for established enterprisers in the german mechanical engineering industry, and following findings of current surveys (see *Probleme im Mittelstand 2007 – Ergebnisse einer Studie des Bundesverbandes der Selbständigen (BDS), www.bgs.dgv.de, 2007; Zentralverband des deutschen Handwerks, Stellungnahme zum Zahlungsverhalten von Handwerkskunden, Berlin, 12.05.2005*), we added three further items to adopt the set of items for people running a newly founded or succeeded business. These are designed to measure important operational conditions, yielding at the personnel of the business (commitment of staff) and the customers (order inflow, payment behavior). All of these additional items seem to be appropriate to measure disencouraging outside barriers that can be controlled only conditionally, but might impact the motivational perception of the respondents.

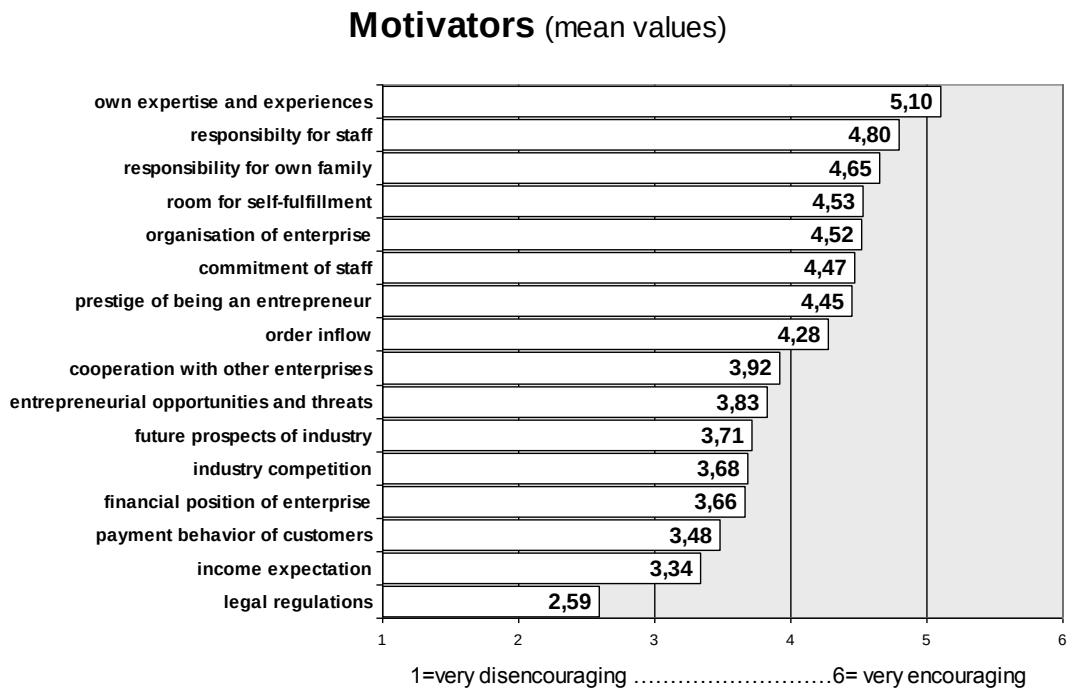
Find a list of the resulting 16 items in figure 1 (section 3).

3. What does entrepreneurs motivate?

All 16 items under inspection were measured using a 6-point-scale ranging from 1 (for a very disencouraging aspect) to 6 (for a very encouraging aspect).

Figure 1 depicts all 16 mean values. The picture shows remarkable differences between the motivators asked for. Very encouraging are the expertise and experience the entrepreneur holds (mean value 5.1), the responsibility for his staff (4.8) and his family (4.65), the option for self-fulfillment (4.53) and the option to form and to layout the enterprise according to their own ideas (4.52). In line with the traditional stereotype of dynamic enterprisers, the respondents aspire to independence and entrepreneurial responsibility. Unsurprisingly in this setting, disencouragement most notably comes from legal regulations by fiscal and legal systems.

Figure 1:



Conducting a factor analysis using these 16 manifest variables (see appendix for details), five distinct background phenomena can be derived. These are

- the "private being" and personal precincts (family, intrinsic motivations – component 2),
- the enterprise (inside view on enterprise: staff, organization of enterprise – component 1),
- the financial and profit situation of the enterprise (order inflow, personal income – component 4),
- market and competition (inside-out view; customers, industry competition – component 5), and
- public and governmental surrounds (government, taxes, laws, entrepreneurial reputation in society – component 3).

The motivational impact of these latent variables decreases in the order mentioned above.

4. Does motivation change?

Comparing young entrepreneurs of different newness in business, it seems to be quite interesting to examine motivational changes after establishing the business. We assume, that the early development stage of a newly founded or succeeded business may alter motivation.

This aspect represents the guiding research question of this paper. Figure 2 shows a comparison of two subpopulations of the panel. With each item, it indicates the mean value difference between both groups. The first one contains entrepreneurs who founded or succeeded their venture in the years 2001 – 2003 (pop. 2001), the second one those of the years 2007 – 2008 (pop. 2007). In this context, we encountered an effect that we call *entrepreneurial disillusionment*. The figure gives strong evidence that motivation declines with the time passed since becoming self employed.

Note that every item faces a pretty intense decline. All differences in mean value between the groups are highly significant ($\alpha<.00$). The decline in mean value ranges from -0.2 to -0.78 within the rating scale described above. As one can see, there are a more or less stable motivators like expertise, experience and the responsibility for the own family (green area). They seem to be hardly changed for years. On the other hand, there are items facing an extreme sliding (red area), like income expectation, self-fulfillment or the company´s financial position.

Figure 2:

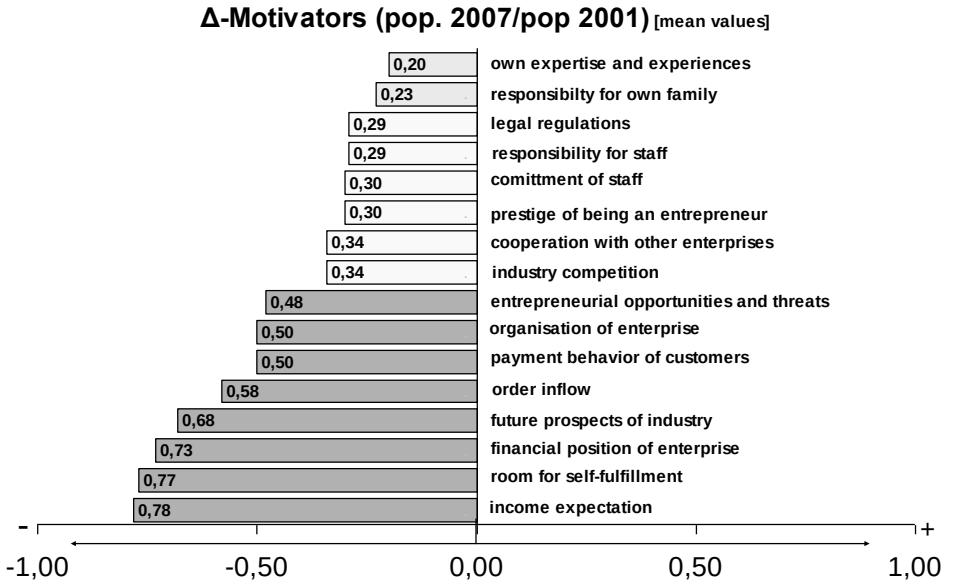


Table 2 shows all mean values of the three subgroups. In line with the differences found between youngest and oldest enterprises depicted above, there are similar differences between all three groups. In every item there is a continuously progressing downward slide in motivation. Because the 2001/2004-deltas are much smaller than the 2004/2007-deltas, decreasing rates of motivational loss can be assumed.

Table 2

entrepreneurial motivation	**all**	**pop. 2007**	**pop. 2004**	**pop. 2001**
own expertise and experiences	5,10	5,25	5,08	5,05
responsibilty for staff	4,80	5,01	4,77	4,72
responsibility for own family	4,65	4,82	4,67	4,59
room for self-fulfillment	4,53	4,97	4,49	4,20
organisation of enterprise	4,52	4,77	4,45	4,48
commitment of staff	4,47	4,70	4,42	4,40
prestige of being an entrepreneur	4,45	4,65	4,45	4,35
order inflow	4,28	4,68	4,32	4,10
cooperation with other enterprises	3,92	4,15	3,92	3,81
entrepreneurial opportunities and threats	3,83	4,10	3,76	3,62
future prospects of industry	3,71	4,08	3,69	3,40
industry competition	3,68	3,83	3,72	3,49
financial position of enterprise	3,66	4,15	3,63	3,42
payment behavior of customers	3,48	3,79	3,47	3,29
income expectation	3,34	3,84	3,27	3,06
legal regulations	2,59	2,89	2,56	2,39

Checking control variables, the mean comparison test gives evidence that this effect is *independent* from size, profit situation, earnings expectation, and turnover. However, a majority of items *depend on* gender (more desillusionment in female subpopulation) and type of self-employment (succession: more desillusionment).

A comparison of non grouped single year cohorts indicates that the sliding effect almost stops roughly five years after launching the business.

5. Would they do it again?

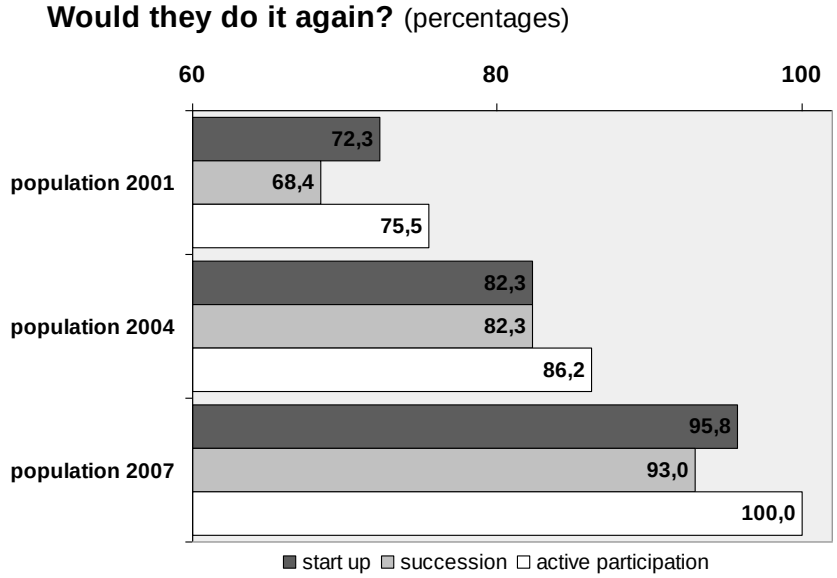
Finally, we examined willingness to become self employed again, seen from today´s point of view – in other words: the affinity to do it again. This question is used to determine an overall assessment of sustainable satisfaction with self employment.

Table 3

willingness to become self employed again (mean values, yes=1/ no= 0)	**start ups**	**successions**	**active participations**	**all**
population 2001-2003	.723	.684	.755	.716
population 2004-2006	.823	.823	.862	.824
population 2007-2008	.958	.930	1.000	.950
all	.825	.817	.838	.814

Figure 3 shows the respective results. In line with the observations concerning motivational items, satisfaction with self employment fades with time. The mean comparison test confirmes that this effect is *independent* from size, profit situation, earnings expectation, and turnover. However, it *depends on* gender (more desillusionment in female subpopulation, with $\alpha = 0.024$) and type of self-employment (succession: more desillusionment, $\alpha = 0.009$). The time passed since starting the business remarkably determines variance ($R^2_{corr} = .280$).

Figure 3:



6. Conclusion

The study delivers some valuable new insights into the motivational perceptions of German entrepreneurs. It shows remarkable high rates of decreasing entrepreneurial motivation and satisfaction. Summarizing the observations made above, there is indication for an entrepreneurial disillusionment concerning every dimension of motivation and satisfaction with self employment. So there is strong evidence for a motivational liability of adolescence.

The results show that entrepreneurial motivation as well as satisfaction with self employment fade with time, independent from the type of motivation analyzed. This fading proceeds with continuously decreasing rates and almost stops roughly five years after launching the business. The motivational items differ in fading strength: While expertise, experience and the responsibility for family and staff seem to be rather stable motivations, self fulfillment and income expectations drop down more intensely.

To confirm these findings on an individual basis, a longitudinal cut covering a few years will be needed. Note that this study delivers a comparison of different cohorts at one point in time only. But a longitudinal study would hardly be feasible because of its costliness. Moreover, it would crowd out other topics within the panel for years. However, the results at hand are so explicit and consistent that this limitation might be neglectable.

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Appendix

	factor loadings (varimax rotation)	**component**				
		1	**2**	**3**	**4**	**5**
1	future prospects of industry			**0,67**		
2	cooperation with other enterprises			0,31		**0,60**
3	legal regulations			**0,73**		
4	industry competition		0,37			**0,65**
5	income expectation				**0,62**	
6	room for self-fulfillment		**0,64**	0,43		
7	entrepreneurial opportunities and threats		**0,66**	0,38		
8	responsibility for own family		**0,64**			
9	own expertise and experiences	0,50	**0,51**			
10	payment behavior of customers				0,35	**0,60**
11	financial position of enterprise				**0,85**	
12	commitment of staff	**0,79**				
13	organisation of enterprise	**0,78**				
14	responsibilty for staff	**0,78**				
15	order inflow				**0,66**	
16	prestige of being an entrepreneur			**0,56**		

Nonprofit Organizations and Social Entrepreneurship Intentions

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Abstract

Nonprofit organizations are valued because they provide services that address unmet needs. Nonprofit organizations who engage in social entrepreneurship augment their contributions through the new services, programs, enterprises and revenue generated. It is not surprising, therefore, for policy makers to encourage social entrepreneurship, social innovations and social enterprises. Such an initiative was introduced in Singapore recently. However, not all nonprofit organizations seek to innovate or create social enterprises. They may continue to devote themselves to their specific fields and existing practices. Entrepreneurship research suggests that under certain conditions, organizations engage in entrepreneurship through new ventures, projects, and innovations. Hence, it is of interest when incumbent nonprofit organizations will engage in social entrepreneurship; what influences their decisions or intentions to create social enterprises. This paper describes the social enterprise scene in Singapore and reports an exploratory study on the intentions of Singapore nonprofit organizations to initiate social enterprises and the influence of their organizational attributes on these intentions.

Introduction

The nonprofit sector in most developed countries is known for the provision of services that are not provided for by the free market. The nonprofit sector similarly plays a significant role in meeting unmet needs. In Asia, these needs continue to grow even as the economies develop in the economic arena albeit with a strong presence and role of the government being seen in Korea (Bidet, 2002) and in Hong Kong (Lee, 2005). The situation is no different in Singapore where the government plays both a corporatist and statist role as in Hong Kong (Lee, 2005) although the processes are different. The social sector dominates Singapore's nonprofit space. These can be traced from Singapore's early days as a British colony, during which many nonprofit organizations in the social sector were faith based groups or closely related to such groups. After independence in 1965, the government played an increasing role as funder and then a key policy initiator of new programes, projects and even structures (Wee, 2004; Tan, 2007; Ngiam, 2009). While the state played a smaller role in the colonial period, in the post-independence phase, the Singapore government gradually began to influence the developments in the nonprofit sector.

In recent times, entrepreneurship has moved into the nonprofit arena under the rubric social entrepreneurship (see e.g. Van Ryzin, Grossman, DiPadova-Stocks and Bergrud, 2009). Social entrepreneurship has contributed to the nonprofit sector through new innovations and services. Social entrepreneurship benefits the nonprofit organizations through new service innovations, programs and new revenue sources through social enterprises created. The development of social enterprises in various

countries has not escaped the attention of Singapore's policy makers as social entrepreneurship in its myriad activities address social problems and needs with new innovations and solutions. Social entrepreneurship also provides in some instances self-sustaining activities and on the part of nonprofit organizations that are serving social needs, might be a sources of revenue from for profit activities.

The nonprofit sector in Singapore saw a new policy shift in 2003 when the Singapore government introduced incentives for the development of social innovations through social enterprises. Going by the success of prominent social enterprises in Asia such as the Population and Community Development Association in Thailand, and Grameen Bank in Bangladesh, social enterprises appears to provide an attractive option to get the nonprofit sector to be more entrepreneurial and innovative in helping their beneficiaries through earned income activities. Existing nonprofit organizations such as voluntary welfare organizations as well as individuals and businesses were provided with the opportunity to obtain financial support for starting social enterprises. In a bid to spur the nonprofit sector to greater innovation and social entrepreneurship, existing nonprofit organizations such as voluntary welfare organizations as well as individuals and businesses were provided with the opportunity to obtain financial support for starting social enterprises. These incentives were disbursed through the creation of the Social Enterprise Fund (SEF), which at the present time is known as the ComCare Enterprise Fund (CEF). These developments piqued this researcher's interested in the question whether Singapore nonprofit organizations would be interested in social innovations and to create social enterprises and their motivations for so doing. Research in the field of entrepreneurship indicates that individuals and corporations would engage in entrepreneurship when they perceive social innovations and social entrepreneurship as feasible activities. The entrepreneurship literature also suggests that apart from these organizational attitudes, the organizations proclivity towards innovativeness and risk-taking might influence the nonprofit organizations' intentions to engage in social innovation. Hence, the provision of financial resources might not be a sufficient motivation, especially if the nonprofit organizations have financial resources. Hence, a study was conducted to examine the intentions of existing nonprofit organizations in Singapore to create social enterprises. This paper provides a brief account of the nonprofit sector in Singapore and reports the study conducted.

The Nonprofit Sector in Singapore and the Role of the Government

Since the founding of Singapore by Sir Stamford Raffles in 1819, the colonial government adopted a laissez-faire approach to developing Singapore, providing little welfare and allowing things to be as they were unless there was unrest. The influx of immigrants during the early days of Singapore brought with them social problems which the government then did not know or wish to lend a hand to. In fact, the earliest voluntary organizations were groups which can be broadly classified along racial and/or religious lines. These were the clan associations (predominantly Chinese and grouped by surname/dialect) and the missionaries. The missionaries, for example, established the first school in Singapore from as early as 1819, while the Cantonese clan formed the Kwong Wai Shiu Hospital in 1910 to provide treatment for the chronically ill. Wealthy businessmen turned philanthropists also contributed towards playing the role of the surrogate caregiver by taking on leading roles in the provision of education, skills training, shelters and medical care. Well-known philanthropists such as Tan Tock Seng, Dato Lee Kong Chian, Mohammed Eunos bin Abdullah and P Govindasamy Pillai Kalyanamandabam remain in the public consciousness till the present day.

With self-government in 1959 and independence in 1965, the government took a more involved role in fostering the social sector. By this time, although the ruling government has started to take on a major role in providing subsidised housing, education and medical care, the nonprofit sector remains a key player. This development is in tandem with the realization on the part of the Singapore government in the late 1990s of the need to develop the "heartware" that knits the citizenry together by having the communities "own" the social needs in their neighbourhoods. The mechanisms through which this objective of knitting the citizens living in the neighborhoods together was to be achieved, were the Community Development Councils (CDCs) that worked with nonprofit organizations and volunteers. The CDCs were originally set up in 1997 to coordinate and lead the existing grassroots organisations. From the oriinal nine CDCs, they were subsequently revamped in 2001 to their present form, with five CDCs, each with a full-time mayor who is a political appointee. These CDCs took charge of the administering of social-assistance schemes, offering employment assistance to the retrenched and unemployed, as well as promoting racial harmony and enhancing community bonding. In their expanded roles, CDCs worked closely with nonprofit organizations in the introduction of new and social initiatives, often in the sponsoring or mobilization of additional resources.

As part of the "many helping hands" approach of the government, nonprofit organizations provide the additional hands in reaching out to the needy and disadvantaged in the community. Hence, there is vested interest by the government in ensuring that nonprofit organisations continue to remain relevant. One way is to foster their innovativeness, or more specifically, to expose nonprofit organizations to the marketplace. Social enterprise provide a good such entry point.

Social Enterprise and Social Entrepreneurship Development in Singapore

In 2003, the government ministry in Singapore responsible for community and social services, the Ministry of Community Development, Youth and Sports (MCYS) embarked on an initiative to interest charities, nonprofit organizations, community groups, businesses and individuals in social entrepreneurship. The move coincided with the inaugural social entrepreneurship forum at the university this author worked at. It was a significant move as the ministry had decided to make available grants of up to S$300,000 to each successful applicant (including new or existing nonprofit organizations) who wished to set up a social enterprise. Successful applicants could use the sum over a three year period.

By encouraging nonprofit organisations to set up businesses as a possible avenue to raise funds, it was the intention that the SEF will help the nonprofit sector to be more self-reliant, innovative and financially sustainable. For this reason, the types of business funded under the SEF were varied - spanning various business sectors such as food and beverage, car polishing services, cleaning services and data entry services, and the beneficiaries covered a broad spectrum, including ex-drug addicts, ex-offenders, the disabled, the elderly, delinquent youths and the chronically unemployed. (Singapore Parliament Report, 17 November 2004). In 2005, the SEF has been renamed as the CEF, part of a larger ComCare Fund, the government initiative to assist the needy Singaporeans. Under CEF, the funding criteria narrowed into funding enterprises that helped to create employment opportunities and skills training to needy disadvantaged Singaporeans.

While the provision of financial incentives augments the environmental munificence for social entrepreneurship in providing financial resources the availability of financial support (Huisman, 1985; Shane, Kolvereid, & Westhead, 1991, Begley, Tan & Schoch, 2005), the question remains whether the

incumbent nonprofit organizations in Singapore intend to embark on social innovations and start social enterprises. These developments in Singapore provide an opportunity to conduct an exploratory study on the intentions of nonprofit organizations in Singapore to engage in social entrepreneurship, to start social enterprises. Unlike for-profit organizations where internal organizational characteristics may influence entrepreneurship intentions, nonprofit organizations may not possess such characteristics. This paper thus reports a study that explores social entrepreneurship intentions (defined as the intention to start social enterprises) and the influence of organizational characteristics on social entrepreneurship intentions.

Relevant Literature

Nonprofit researchers have variously pointed to the integral role of resources to the ability of nonprofit organizations to flourish, innovate and deliver their services (Anheier, 2005). The entrepreneurship literature supports the important role of the availability of financing. However, there is more to the decision to create a new enterprise than the availability of funding. There are other factors as work. Of interest to researchers and policy-makers would be the knowledge which nonprofit organizations are more likely than others to start social enterprises. Whether a nonprofit would create a social enterprise would be influenced by its organizational attributes – attitudes and traits. Entrepreneurship theories have been used to explain the development of nonprofit organizations (Anheier, 2005). We draw on two streams in the entrepreneurship literature: entrepreneurial intentionality and corporate entrepreneurial traits.

Entrepreneurship research has demonstrated the role of intentions on entrepreneurial action. Krueger et al. (2000) developed their theory of entrepreneurial intentions. Begley and Tan (2001) found that face and shame acted as socio-cultural influences on the entrepreneurial intentions of individuals in society. Brazeal (2004) argues that entrepreneurial intentionality applies to corporations influencing the extent of corporate entrepreneurship. This stream of literature suggests that attitudes towards entrepreneurship possessed by nonprofit organziations would influence their intention to start social enterprises. Yet this is an area of interest as nonprofit organizations might not perceive that they have the ability to venture into social entrepreneurship. Nonprofit organizations are by definition not for-profit in their missions and might possess different capacities and attitudes. Hence, they might not evince intentions to start social enterprises when their organizations do not consider such activities within their reach, if they do not think they possess the efficacy.

Research into corporate entrepreneurship posits that certain organizational factors explain the incidence of corporate entrepreneurship. These organizational traits, innovativeness, risk taking and proactiveness are components of entrepreneurship orientation of corporations (Miller & Friesen, 1982; Covin & Slevin, 1989). As a multidimensional construct, entrepreneurship orientation has been found to have a positive association with organizational profitability and growth (Covin & Slevin, 1991; Lumpkin & Dess, 1996; Miller & Friesen, 1983; Wiklund & Shepherd, 2005). Davis, Marino, Aaron and Tolbert (2009) employed entrepreneurship orientation to examine the external scanning behavior of home nursing administrators by profit status and found no significant difference in the entrepreneurship orientation between the nonprofit organizations and the for profits in that sector though the nonprofit organizations are more likely to engage in external scanning.

Innovativeness is associated with a strong organizational commitment to "engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services or technological processes" (Lumpkin & Dess, 1996, p. 142). Risk taking refers to the "degree to which managers are willing to make large and risky resource commitments—i.e., those which have a reasonable chance of costly failure" (Miller & Friesen, 1978, p. 923). Proactiveness involves an "opportunity-seeking, forward-looking perspective involving introducing new products or services ahead of the competition and acting in anticipation of future demand to create change and shape the environment" (Lumpkin & Dess, 2001, p. 431). Hence in this exploratory study, the separate organizational dimensions of innovativeness, risk taking and ambiguity avoidance were included in the survey employing items adapted from the existing entrepreneurship scales.

Business startups require resources. One key activity in the startup phase of a business is financing. With nonprofit organizations, like charities existing on donor dollars, there is likely to be scarcity of resources. Hence, without the resources, it is likely that nonprofit organizations would not have intentions to engage in social entrepreneurship. Leaders or managers are needed to spearhead these new activities. Nonprofit organizations with resource sufficiency may not have an intention to start social enterprises. Hence, the study explored the influence of this aspect of resource availability. While the policymakers have provided financial incentives to motivate the nonprofit organizations in Singapore to create social enterprises, these incentives will only entice nonprofit organizations who do not have financial means.

The social mission focus of a nonprofit organization may influence its social entrepreneurship intention. If its focus is on developing a volunteer network and a donor base, there might be less inclination to start a social enterprise. Conversely, social entrepreneurship might offer an opportunity for the nonprofit an alternative to fundraising or to achieving its social agenda through business activities reducing the reliance on volunteers. Hence it is unclear whether the nonprofit organizations' focus on the social mission would influence social entrepreneurship intention positively or negatively. As such, the study did not specify a direction and seeks to explore this relationship.

Method

Sample A mail survey was employed for the study. The questionnaire was mailed to a list about 390 nonprofit organizations MCYS' database and additions to the list from other sources such as the database from the National Volunteer and Philanthropy Centre. The questionnaires were completed by the executive directors and senior management of the nonprofit organizations. In total, the researchers approached 600 nonprofit organisations, and follow-uped on incomplete responses through phone calls. A total of 147 surveys, or 24.5% response rate was achieved. Of these responses, only 101 of the respondents had not started a social enterprise and these formed the sample for this study.

Instrument A survey instrument was developed with scale items to measure the constructs of interest. Scales were developed for this study to measure measuring social entrepreneurship intention (3 items), perceptions of organizational efficacy of social entrepreneurship and the organization attributes of innovativeness, risk-taking and ambiguity avoidance. The respondents were requested to rate the statements on a five point scale with 1 being "Strongly Disagree" and 5 being "Strongly Agree." The measures were subjected to exploratory factor analysis employing principal component analysis with varimax rotation and to reliability tests. The items are described below together with the results of the

exploratory factor analysis (EFA) and reliability tests. Unless otherwise mentioned, the items included satisfied the thresholds for the EFA. As this study is exploratory in nature, it was decided to retain measures where the Cronbach alpha was above 0.5.

Intention was measured employing 3 statements requesting the respondent to indicate their organizations' intention to start a social enterprise or not (alpha = 0.841). Organization efficacy measures were developed drawing upon suggestion from the literature. Eight statements were developed. The results from the EFA showed that these items loaded on two different factors with item item to be dropped. The first factor is organization efficacy and the items requested the respondents to rate the capability of their organizations to a good concept to start a social enterprise, raise enough funds to start a social enterprise, to staff a new social enterprise using existing manpower resources, or find enough skilled employees to start and run a social enterprise, obtain the necessary technology, market information and know-how (alpha = 0.846).

Resource availability is the second variable that resulted from the EFA on the organization efficacy items. The measures explored whether the organization could raise enough funds to start a social enterprise, staff a new social enterprise using existing manpower resources and start a social enterprise without any form of assistance (such as subsidies, funding) from the government (alpha =0.702). This variable is conceptually justified as the nonprofit sector in Singapore is usually less well-resourced in funding and staffing. Most of the people employed in this sector in Singapore are mostly from the social work sector and may not be suited for social entrepreneurship ventures.

The organization attributes of innovativeness, risk-taking and ambiguity avoidance was examined employing items adapted from the corporate entrepreneurship literature. Innovativeness was explored employing statements on the organization's emphasis on research & development, and innovations; whether it sought new ways to address social needs; and whether they found problems that required an innovative approach the most challenging (reverse scored). The EFA led to the exclusion of one item. Another item was excluded for theoretical reasons. The resultant two items had an alpha of 0.592.
Risk-taking employed 4 items on the organization's preference for high-risk projects with chance of very high returns; if the organization believed that bold and wide-ranging acts are necessary to attain its goals; if the organization's response to uncertainty was a bold and aggressive posture; and whether the organization was often in the lead as the first to introduce new products/services. One item was excluded after the EFA and 3 items retained (alpha = .651). Ambiguity avoidance was measured with 4 items. One item was excluded after the EFA. The three items retained (alpha = 0.632) measured the organization's preference for "tried and tested" methods, work that is steady and support for our work is certain, and the organisation's preference for risk avoidance.

The importance of the social mission was explored through the statements: "Our organisation's priority is to run programs that directly tie to our social mission and not take risks in running a social enterprise;" "Our organisation would rather grow a larger volunteer base than start a social enterprise;" "Our priority is to grow a larger donor base rather than start a social enterprise."

Findings

The nonprofit organization respondents served the following beneficiaries: Youth (49.5%), Family (49.5%) and Children (48.5%). As the nonprofit organizations at times served more than 1 group of beneficiaries, the totals do not add up 100%. They relied on donations (47.5%) and grants (37.6%) as

their top 2 main sources of revenue. Surprisingly approximately 10% of respondents indicated earned income as their primary source of income.

Over 90% of the SEs are aware of the ComCare Enterprise Fund (formerly known as the Social Enterprise Fund). As such, there is awareness of the government initiatives on social entrepreneurship. The respondents were asked about the relative importance of factors on their organisation's decision to start a social enterprise. The results are shown in Table 1 below. The generation of income for social programs is the reason rated highest by the respondents. The means for the other factors that relate to the social missions are also rated highly: fulfilling the nonprofit organization's mission (mean = 3.95), job creation for the needy and existing beneficiaries had means of 3.84 and 3.85 respectively.

Table 1: Importance of Factors in Starting a Social Enterprise

	Mean*	Standard Deviation
Generate income for social program	4.16	0.869
Fulfil and meet organization mission	3.95	0.792
Create work opportunities for needy in community	3.84	0.977
Create work opportunities for existing beneficiaries	3.85	0.942
Create new markets for products/services	3.67	1.011
Tap on grants/incentives from government	3.67	1.001
Reduce reliance on donations	3.55	0.964
Develop capabilities of Staff	3.55	0.964
Reduce Reliance on government funding	3.25	1.108

* Where 1= strongly disagree and 5 = strongly agree.

The study explored the relationship between the independent variables on intention employing multivariate regression in SPSS. The results are shown in Tables 2 & 3 below. Three independent variables are found to have significant bearing on social entrepreneurship intention: social cause, organization efficacy and innovativeness.

Table 2: Means, Standard deviations, and intercorrelations

Variable	Mean	Standard Deviation	1	2	3	4	5	6
Social cause	2.5017	.74926	1.000	.172	.080	.116	-.247	.126
Efficacy	3.1139	.89828	.172	1.000	.625	.397	-.055	.501
Resource Availability	2.3102	.84361	.080	.625	1.000	.317	-.099	.329
Risk-taking	2.7591	.67350	.116	.397	.317	1.000	-.250	.328
Ambiguity avoidance	3.4620	.67160	-.247	-.055	-.099	-.250	1.000	-.073
Innovativeness	3.8663	.73448	.126	.501	.329	.328	-.073	1.000

* Where 1= strongly disagree and 5 = strongly agree.

Table 3: Regression results

Variable	Standardized coefficients	t- value	Significance
Social cause	.335	3.937	.000
Efficacy	.289	2.467	.015
Resource Availability	-.117	-1.113	.268
Risk-taking	.089	.959	.340
Ambiguity avoidance	.077	.890	.376
Innovativeness	.272	2.852	.005

Note. R^2 =.379 Adjusted R^2= .340 (N=101)

Discussion

This exploratory study shows that organization attributes affect social entrepreneurship intentions. Nonprofit organizations that have a high perceived organization efficacy would have a higher intention. This finding is consistent with other studies on the role of perceived feasibility on the entrepreneurship intentions (Guerrero *et al*, 2008). It suggests that the obstacles to social entrepreneurship lie within the nonprofit organizations. If the constituents within the nonprofit organizations, particularly, the strategic actors with the power and influence to shape the attitudes of the workers, do not perceive creating social enterprises as desirable or feasible, the intention to do so would be absent. Since entrepreneurship intentions are the precedent to action (Kreuger *et al*, 2000), steps need to be taken to address these attitudes. Singapore policy makers need to work on the nonprofit organizations in addition to the provision of financial incentives, if they are to see results. There are antecedents to organization efficacy. The nonprofit organizations must possess the capabilities to embark on social entrepreneurship. The attitude associated with organization efficacy does not stand alone but is linked to abilities, skilled workforce, and access to the necessary ingredients of market information and technology. To spur greater social entrepreneurship, it might be necessary to provide training and facilitate access to market information so they have the wherewithal to start.

Innovativeness as an organization attribute has a positive influence on social entrepreneurship intentions. This finding is consistent with the findings in entrepreneurship literature on this dimension of entrepreneurship orientation. The scale items employed for this study need to be improved upon as for measurement purposes there could be more than 1 item for this construct. It is a significant finding as it is a clear indication of an organization attribute that works in tandem with the sense of ability towards an intention to start a social enterprise. The development of this orientation and attitude within the organization would aid plans to engage in social entrepreneurship.

The non-significance of risk-taking, ambiguity avoidance and resource availability deserve some discussion as this finding is unexpected. While exploratory, the study had expected that scarcity in resources, since the respondents are mostly volunteer organizations or charities, or its availability would influence social entrepreneurship intentions. Yet it would appear that this is not necessarily the case and that the other factors discussed earlier, of innovativeness, the social cause and efficacy having greater influence.

Nonprofit organizations are not known to be risk-takers. They are more likely to prefer certainty and be conservative. Hence, these two constructs risk-taking and ambiguity avoidance suggested by prior research were examined. That these two variables were not significant is comforting as it sug-

gests that the nonprofits are not conservative or risk averse but that social entrepreneurship by existing nonprofit organizations is indeed possible. It is revealing. Stereotypes of charities and volunteer organizations are being only focused on their existing programs are not justified.

The importance played on the social cause influences social entrepreneurship intention: it has a significant influence on social entrepreneurship intention (coefficient = .335, $p < .05$). While it was unclear at the outset if social cause would be positive or negative in its effect on intention, analysis shows that it influences intention in a positive direction. *Prima facie*, this may appear to be an odd finding since as the saying goes "you cannot serve God and mammon." Yet the social cause and social entrepreneurship have a common goal of the social cause. Hence it is not surprising since the social enterprise can address the same social causes, especially when they employ the disadvantaged or generate income that are ploughed into social causes. The mean for this variable is below the median on the side leaning towards disagree.

This finding has implications for the policy makers. It is clear that nonprofit organizations such as existing charities would be inclined to start social enterprises if these have a bearing on their ability to attain their social mission. Policy makers should not advocate social entrepreneurship solely for any pecuniary benefits alone but strengthen the case for social entrepreneurship as a means to attaining their goals. Similarly, the nonprofit organizations seeking to embark on social entrepreneurship need to highlight to their internal and external stakeholders the manner in which social entrepreneurship is a means to achieving the social cause. This is needful as the social entrepreneurship activities often require the involvement of other staff as team members or innovators and units in the organization in contributing resources.

It can be argued from the findings of this exploratory study that nonprofit organizations seeking to engage in social entrepreneurship should embark on developing their organizations in building the capabilities for enterprise activities. Being pro-enterprise in outlook and the introduction of applicable business practices into nonprofit organizations will contribute to the efficacy of the organization. Emphasising the need for innovation and innovativeness would be a help. All these comments are prefaced on the theory of intentionality.

Conclusion

The social entrepreneurship journey in Singapore is still at its early stages. The nonprofit sector has seen further developments since the access to financial resources made possible through the government initiative. Since 2003, the Singapore government has supported 73 social enterprises through the ComCare Enterprise Fund and its predecessor, the Social Enterprise Fund. As at 2009, 47 of them are active social enterprises (Ministry of Community Youth and Sports, 2009). There are other social enterprises that are not sponsored through this fund. A study estimated that the population of social enterprises, funded or not, stood at some 150 in 2007 (Ministry of Community Youth and Sports, 2007). Other elements of the eco-system to sustain social entrepreneurship have been introduced since the introduction of the government's Social Enterprise Fund. Training of manpower needed for this sector has been introduced at the tertiary institutions. The Ngee Ann Polytechnic launched its Diploma of Business and Social Enterprise (Ngee Ann Polytechnic, 2010) in 2008. This author had the opportunity to provide inputs on its design. Social entrepreneurship has been offered as a course at the Singapore Management University since 2006. Two research centres have been established: the Lien Foun-

dation Centre for Social Innovation at SMU (www.smu.edu.sg/centres/lien/index.asp) and the Centre for Social Entrepreneurship and Philanthropy at the National University of Singapore, (www.nus.edu.sg).

This study has its limitations as it has been conducted in the early days of the availability of funding. The level of awareness four years after the launch was assumed. However, if the existing nonprofit organizations had kept their noses to the grindstone and persevered at their work in alleviating the social issues, it might also mean a lack of awareness that would have impinged on the study results. There is also the use of scale items designed for this purpose, that have in the case of a number of the constructs not worked out as planned. Needless to say, there is need for further research into the development of social entrepreneurship and the identification and development of organizational factors that furthers the creation of social enterprises.

It is likely that the difference in domains may be a significant factor in the "equation" that has needs to be considered in future studies. Most nonprofit organizations are staffed by individuals trained and experienced in addressing social problems. They also involve volunteers, who give of their time. Thus, nonprofit organizations are more likely than not to comprise constituents, who are either by their training, experience or "calling," unfamiliar with creating social enterprises. In some instances, they may be "repulsed" at the idea of engaging in for profit causes, since for many, they "enlisted" for the nonprofit cause. The importance of the role of top management and middle management has been examined in corporate entrepreneurship. It may well be that they play an equally important role in nonprofit organizations and social entrepreneurship. As such, future research needs to examine the influence of the training and experience of managers on the social entrepreneurship intentions of nonprofit organizations.

Acknowledgement

This study has been made possible with the assistance of the Lien Foundation Centre for Social Innovation at the Singapore Management University and with the assistance of Gabriel Lim as research assistant.

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ISBN-10: 3-906541-27-4
ISBN-13: 978-3-906541-27-3
EAN: 9783906541273