



**“CHALLENGES IN
ENTREPRENEURSHIP
AND SME RESEARCH”**

2nd Inter-RENT Online Publication

Editor

Friederike Welter

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and Entrepreneurship (ECSB)**

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Challenges in Entrepreneurship and SME Research (Editorial)

Friederike Welter

The Inter-RENT Workshop 2005

The idea for the Inter-RENT workshop came originally from the Board of the ECSB and was developed by the ECSB secretariat together with a group of ECSB members (such as the editors of the first Inter-RENT publication, Tom Cooney and Pasi Malinen). For Inter-RENT 2005, a total of eleven RENT conference papers that were presented at the RENT 2004 Conference in Copenhagen were invited to participate in the process. The theme of the publication was selected to be 'Challenges of Entrepreneurship and SME Research' since a substantial number of good quality papers had been presented on the theme at the conference. From the initial invitations, nine authors expressed a desire to participate in the process.

Once the papers had been identified, the process began with an internal peer review of the papers. Each participant was asked to review two of the papers, which meant that each author would receive feedback from two of their peers, plus they would develop their own editing skills by reviewing other papers. Each author was then asked to revise their paper based upon the feedback received from their peers. After this, expert referees were selected based on their background and specific expertise in entrepreneurship and small business research as related to the different papers. Their comments and feedback on how to improve the papers were incorporated by authors into the next revision. During the course of Inter-RENT, three people evaluated each paper, before all ECSB members were invited to comment on the paper through the ECSB website at a later stage of the process.

Finally, a small committee which consisted of the initiator of Inter-RENT, Dr. Tom Cooney, this year's Inter-RENT chair Prof. Friederike Welter, the upcoming chairs for 2006, Dr. David Urbano, and 2007, Dr. Olivier Torres, and ECSB Executive Secretary Paula Kuopusjärvi, have been reviewing all papers for this electronic best-paper selection of Inter-RENT. The authors are however free to submit their reworked articles to refereed journals.

The long-term goal of Inter-RENT is to create a forum that will enable especially younger ECSB members to deepen a selected conference theme from the previous RENT conference, leading to the publication of a number of high-quality articles. This initiative has exciting potential for ECSB as an organisation and, more specifically, for its members. It promotes the progression of conference papers into published articles, as well as developing the depth and understanding of a new topic each year.

Inter-RENT 2005 built on the previous year's experiences, and several persons were involved to make it a success. This includes the authors, who contributed to the process, and

Paula Kuopusjärvi, who held lead responsibility for the website and for the final publication online. Paula's work and support throughout the process has been immense and her huge contribution is particularly acknowledged.

Our thanks also go to those who were involved in refereeing the papers. Their active participation and guidance is highly appreciated. The referees of the Inter-RENT were (in alphabetical order):

- Prof. Alistair R Anderson, Robert-Gordon University, Aberdeen, Scotland
- Dr. Thomas M. Cooney, Dublin University of Technology, Ireland
- Dr. Pasi Malinen, Turku School of Economics and Business Administration, Finland
- Prof. Helle Neergaard, Aarhus School of Business, Denmark
- Dr. Colm O'Gorman, University College Dublin, Ireland
- Dr. Olivier Torres, Assistant Professor, E.M. Lyon, France
- Prof. José M. Veciana, Universidad Autonoma, Spain
- Dr. John Watson, Associate Professor, The University of Western Australia

The Inter-RENT 2005 Best Papers

The four papers presented in this online publication allow us to explore some of the challenges entrepreneurship and SME research today face, both from a methodological point of view and from the questions we often neglect to ask.

In their contribution, *Ruta Aidis and Arnis Sauka* concentrate on SME development in a transition context. Although more and more studies explore entrepreneurship in a transition context, there is no systematic study comparing barriers to SME development at different transition stages. They utilise indicators proposed in previous research, which approximates three transitional stages, to categorise 23 transition countries into transitional stages. They proceed to develop a framework which identifies SME development trends, drawing on an analysis of 35 empirical studies on SME constraints in transition countries. Results indicate that more fundamental barriers related to legal issues are more characteristic of the early stages of transition while more specific constraints related to human resources and skill development characterise later transition stages. These differences suggest that the types of policies and programmes offered to SME owners should be sensitive to changing transition conditions. Moreover, since formal barriers such as policy instability and uncertainty seem to continue to form business barriers throughout the transition process, it is of utmost importance that policy makers in the transition countries focus on insuring a transparent and straightforward policy development process.

The question *Rachida Justo, Alberto Maydeu and Julio O. De Castro* ask in terms of the overall Inter-RENT topic is related to methodology and measurement of entrepreneurship. Based on GEM data for Spain, the authors discuss indicators based on levels and the likelihood of entrepreneurial behaviour. Whilst the notion of measuring the likelihood of

entrepreneurship is not a new concept, the authors adopt a more dynamic view, which allows them to examining differences in the likelihood over time within countries as well as across countries. Moreover, they argue that the level of an individual's entrepreneurial activity is affected by the social context in which that activity occurs. This context is not uniform and its effect varies due to factors such as social networks, education, gender, etc. As a result, an entrepreneur's personal social network is treated here as a random variable that changes from individual to individual.

The next two papers are case-based contributions exploring strategic change and failure in a SME context. Although the question of strategic change in SMEs as such is not a new challenge in SME research, the paper by *Karita Luokannen and Rodrigo Rabetino* brings in a fresh perspective in terms of the method they use. They draw on three in-depth cases from the Finnish furniture industry, applying a process perspective and analysing environmental factors as well as the internal firm perspective. Their data analysis reveals that strategic changes are the result of multiple, overlapping processes. In a short term perspective, firms' responses to environmental stimuli often look like reactive tactic. However, in a longer time perspective, owner-managers were able to identify strategic challenges and to implement new projects. Moreover, the cases suggest a strategic behaviour in SMES, which reflects Mintzberg's emergent strategies. In general, entrepreneurs act with bounded rationality and strategies are often based on experience and intuition instead of calculation and planning.

Few studies in entrepreneurship focus on failed ventures and failed entrepreneurs. Business failure often is equalled with personal failure, and entrepreneurs might be reluctant to admit that they have not achieved their goals. On the other hand, one might expect business failure enhancing entrepreneurial learning. In this context, the paper by *Mika Pasanen* concentrates on identifying failure factors and failure trajectories in SMEs, both conceptually and empirically. His empirical study was based on in-depth interviews with the ex-entrepreneurs of 12 failed SMEs. The results reveal three types of failure trajectories: (1) failed borderline cases; (2) rapid collapse failures; and (3) failed seekers of legitimacy. The empirical results may help entrepreneurs and those who are fostering entrepreneurship and SME development, in learning from mistakes and failures during SME development.

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Entrepreneurship in a Changing Environment: Analyzing the Impact of Transition Stages on SME Development

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Abstract

An issue gaining importance in transitional literature is the need to develop entrepreneurial capabilities through a thriving small and medium-sized enterprise (SME) sector. However, it can be argued, that in order to successfully develop SMEs it is important to understand the specific barriers they encounter at different transition stages. Though there are a number of studies on SMEs in transition countries, no systematic analysis has been conducted on the effects of different types of barriers to SMEs at different stages of transition. In this paper we address this knowledge gap. We utilise indicators proposed in previous research to approximate three transitional stages to categorise 23 transition countries into transitional stages. On this basis, we develop a framework which identifies SME development trends based on an analysis of 35 empirical studies on constraints facing SME development in transition countries. Our results indicate that more fundamental barriers related to legal issues are more characteristic of the early stages of transition while more specific constraints related to human resources and skill development characterise later transition stages. These differences indicate that the types of policies and programmes offered to SME owners should be sensitive to changing transition conditions.

Key Words: *transition countries, SMEs, transition stages, business barriers*

Introduction

Entrepreneurship can take many forms and can be defined in many ways. In our paper we focus on entrepreneurship as it takes place in small and medium size enterprises (SMEs) since the two are often found to be closely related. As Wennekers and Thurik note: 'Small firms are the vehicle in which entrepreneurship thrives' (1999:29).

SMEs are of special importance to transition countries for a number of reasons. Firstly, they are able to provide economic benefits beyond the boundary of the individual enterprise in terms of experimentation, learning and adaptability. These characteristics are especially important in economies undergoing radical transformation such as has occurred in the formerly centrally planned countries. Secondly, in most transition countries, the SME sector was largely neglected and even discriminated against in the early transition period with emphasis placed on the rapid privatization of large scale enterprises and not the development of the SME sector. This has arguably resulted in less resources and attention being paid to the needs of SME development. In addition, research in transition countries

shows, that even if SMEs do not generate net new jobs, they reduce the erosion of human capital by providing alternative employment opportunities for relatively skilled yet unemployed workers (EBRD 1995). Though it is often argued that SME development is especially crucial for the early phases of transition (EBRD, 1995; Smallbone and Welter, 2001), it is, in fact, just as important for the advanced stages of post-transition. As M. Porter (1990) has argued, invention and entrepreneurship are at the heart of national advantage and country competitiveness.

In the last ten years, governments in the transition countries have introduced a number of policies aiming to promote entrepreneurship through SME development. The main impetus for this 'intervention' are the specific constraints encountered by SMEs. It is argued that though the SME sector can be much more responsive and flexible to changes in the marketplace, it is also much less able to influence such developments. Limited access to finance, a low degree of professionalism, difficulties in recruiting qualified personnel, dependency on clients and suppliers and the absence of economies of scale are identified as the core SME sector weaknesses and the main areas where SMEs may require special attention (Burns, 2001). In this respect, understanding the problems faced by SMEs in the specific context of transition could provide the necessary background to develop policies for SME support.

One of the most important findings in the SME literature is that context matters as it shapes not only the role of small firms but also their structure and performance (Karlsson & Dahlberg, 2003:1). The transition countries of Central and Eastern Europe and the former Soviet Union seem particularly suited for a study on the influence of context for several reasons. Though transition countries have chosen different paths of development, they have all undergone a tremendous amount of economic and social change; an important aspect of which has been the development of a new private sector. In addition, the unprecedented degree of institutional change experienced by transition countries has been largely moving in a similar direction: The switch from a system based on state planning and allocation of resources dictated by the government to a system characterized by decentralized market allocation. This system change necessitates substantial change in laws and regulations as well as norms and expectations (Raiser, et al. 2001:2). Of specific interest to our study is the effect of context on the emergence and development of a legal SME sector, which under the central planning system was severely restricted¹.

To date, though there is no consensus on what constitutes 'transition stages', researchers have developed different categorisations of the transition process. For example, Campos and Coricelli (2002) created seven stylised facts describing the transition process². Though insightful, the stylised facts proposed by Campos and Coricelli are not useful from an

¹ As Earle and Sakova (2001: 6) have noted: "It is difficult to imagine a regime more hostile towards entrepreneurship than the centrally planned economies of Eastern Europe".

² The seven stylised facts proposed by Campos and Coricelli (2002) describe the main characteristics of the transition process. They are: 1) Output fell, 2) Capital shrank, 3) Labor moved, 4) Trade reoriented, 5) Structure changed, 6) Institutions collapsed, and 7) Costs were high.

entrepreneurship development point of view. More suitable for this purpose seems to be the transition indicators developed by the European Bank of Reconstruction and Development (EBRD) that plot the progression of economic transition according to macroeconomic as well as institutional variables. These indicators have been systematically compiled since 1989 for the countries undergoing economic transition³. Other authors such as Smallbone and Welter (2001), have used selected EBRD indicators in order to distinguish between transition countries where market reforms have been slow or not properly installed and countries where they are more advanced. Furthermore, the three transition stages based on new institutional theory⁴ proposed by Van de Mortel (2002) provide additional conceptual considerations for the categorisation of barriers useful for the analysis of SME constraints.

A number of authors have identified the distinct characteristics of entrepreneurship and SME activities in transition countries where the environment is undergoing quite dramatic changes (Dallago, 1997; Scase, 2000; Chilosi, 2001; Smallbone & Welter, 2001; Aidis, 2006). Some authors have distinguished between countries at different stages of market reform (Kolodko, 1999; Smallbone and Welter, 2001). Other authors such as Surdej (2003) have shown the interlinkage between market and institutional changes and the number of start-ups (in Poland). However, no study has attempted to systematically classify barriers to SME development during different transition stages across the transition countries.

In this paper we operationalise a selection of indicators proposed in previous research to approximate transitional stages that would make sense from an entrepreneurship development perspective. We utilise these indicators to categorise 23 transition countries into transitional stages. This framework is then used to identify SME development trends drawn from an analysis of 35 empirical studies on constraints faced by SMEs in transition countries. The primary objective of this paper's analysis is to identify which SME barriers are of the main importance at different transition stages.

Our analysis contributes to the existing literature by providing insights into the dynamic relationship between barriers and SME development during distinct stages of the transition process. As such, we fill an important knowledge gap by comparing SME barriers in different transition stages for 23 transition countries. Our results specifically show that fundamental barriers related to legal issues are more characteristic of the early stages of transition while specific constraints related to human resources and skill development characterise later transition stages. These results indicate a number of policy implications for entrepreneurial development at specific stages of transition.

The paper is structured as follows: Section two presents the conceptual background including a discussion of the classification of transition stages. A conceptual framework is developed in section three. Since our study is limited mainly to economic transition from the entrepreneurship and SME development viewpoint, we focus our discussion only to relevant

³ For further information regarding EBRD transition indicators please see section 2.2 and appendix 7.

⁴ Developed by Douglass North (1997a).

literature. Section four presents the data and methodology used. Section five presents the results and in section six we discuss the limitations of our approach. The paper ends with concluding remarks in section six.

Conceptual background

In this section we describe and analyse the main concepts used in the context of our study based on a review of existing theoretical and empirical studies. Section 2.1 focuses on defining and understanding transition, transition stages and SME barriers. In section 2.2 we explore some of the ways transition stages have been classified. Two main methods are highlighted: the EBRD transition indicators and Mortel's (2002) three stage approach. Alternative indicators for measuring transition progress as well as existing single country studies distinguishing among different transition stages from the entrepreneurship and SME development viewpoint are also discussed.

Defining and understanding the transitional context

For the 23 countries contained in our sample, transition can simply be defined as a process of change from a centrally planned to a well functioning market oriented system⁵. According to the definition introduced by the EBRD (1994) transition is about institutional change, involving not only the advance of the private sector but also a fundamental transformation of the role of the state, in particular in the economic, financial and legal institutions underpinning the market economy. It is the institutional arrangements for the allocation and generation of goods and resources, and the ownership incentive and rewards structures that institutions embody, that characterise the differences between a market and a command economy. Transition may also be regarded as an ultimate objective in itself as well as an end in itself (EBRD 1994: 3).

However it should be noted that while there are core features that a market economy possesses, there is no unique destination point for the transition process (EBRD 1995). Given the different starting points and initial conditions of the transition countries, there can not be a single, unique route for transition. A priori a large number of variables could influence transition paths and resulting patterns of institutional change. Three main issues stand out as influencing the initial conditions for a given country: geographical factors, cultural factors, and the institutional legacy of central planning (Raiser 2000).

Not all authors agree about the influence of initial conditions. A literature review based on growth in transition countries by Merlvede (2000) found that though more unfavourable initial conditions lead to a larger output fall, the effects fade over time and can be offset by stabilization and reform policies. He further found that the stabilization of inflation which is

⁵ We restrict our analysis to the 15 countries which formerly comprised the Soviet Union and eight central and eastern European post-socialist countries. Countries that have emerged from the former Yugoslavia were not included due to the armed conflicts taking place in this region in the 1990's which can bias the transition stage results.

facilitated by sustainable government balances is a prerequisite for the recovery of growth. A fixed exchange regime is also important for stabilizing inflation but the empirical evidence is mixed. Stabilization is not a sufficient condition for output recovery since structural reform is also necessary (ibid).

Our analysis would be greatly simplified if the transition process followed a simple, linear progression. Unfortunately it does not. Rather it is a complex process involving a multitude of influences and factors. Though it is agreed that certain fundamentals of market economies should be a part of any successful transition, the 'end of transition' remains a contestable issue⁶.

Classification of Transition stages

In the initial stages of our research, we attempted to use all available international indicators such as GDP levels, the Corruption Perceptions Index from Transparency International or the Freedom Index from Heritage International in order to classify the transition stages. These indices would have provided further insights into both informal and formal institutional factors affecting transition countries. Unfortunately the data available from these indices do not provide ample coverage for the transition process (please see appendix 6 for a detailed discussion). The only indicator that does cover the transition period for the 23 transition countries is the EBRD's transition indicators. Therefore we focus on introducing the EBRD indicators in this section. For a more conceptual and theoretical approach, we utilise the three stage model developed by Van de Mortel (2002) which is presented in greater detail at the end of this section.

EBRD transition indicators

According to the EBRD, the first or initial phase of transition was dominated by the structure of the inheritance from the communist system and the political repercussions following the collapse of this regime. The main reforms characterising this period include: the privatisation of assets (small-scale privatisation), the liberalisation of markets (through price, foreign exchange and trade liberalisation) and the establishment of a degree of macroeconomic stability (EBRD 1997).

The next phase of transitional reforms requires policies, institutions and behaviours⁷ that can foster and accelerate economic growth. Second transition phase reforms include a continuation of the privatisation of assets (through large-scale privatisation), improving enterprise performance through governance and enterprise restructuring, the further liberalisation of markets (through competition policy), the development and maintenance of

⁶ Though the answer to this question is beyond the scope of this paper, it is perhaps of interest to mention that no single indicator or definition currently exists that accurately describes the end of transition. A number of authors have suggested that the end of transition is achieved by reaching the level of an 'advanced market economy'. Unfortunately there exists no generally acceptable definition for what precisely characterizes an 'advanced market economy'. For further discussion, see Brown 1999).

⁷ Informal institutions such as changes in attitudes and 'culture' (North, 1990).

infrastructure (through infrastructure reform) and reform to financial institutions (banking and interest rate liberalisation and the creation of non-banking financial institutions). A main challenge in this phase is developing and providing market-oriented governance i.e. a building and deepening of the institutions and behaviour that are at the heart of a well-functioning market economy (ibid.). These stages are summarised in table 1.

Table 1 - EBRD's classification of transition phases and requirements

Phase	Initial phase	Next phase
Main requirements	Privatisation of assets, market liberalisation and macroeconomic stability	The development of policies, institutions and behaviour that accelerates growth
Specific indicators of progress	<ul style="list-style-type: none"> • Small scale privatisation • Price liberalisation • Foreign exchange and trade liberalisation 	<ul style="list-style-type: none"> • Large scale privatisation • Governance and enterprise restructuring • Competition policy • Infrastructure reforms • Banking and interest rate liberalisation and non-banking financial institutions

Source: EBRD (2002)

As illustrated in table 2, the EBRD's classification indicators are based on four main categories, each containing at least one subcategory. Scores for transition progress are measured from a minimum score of 1 to a maximum score of 4+. Scores are given with decimal points to provide more accurate differentiation. In general, a score of 1 indicates little progress; 2 indicates some progress; 3 indicates substantial, comprehensive progress; 4 indicates a level of progress approaching international standards; and a 4+ score indicates the standards and performance typical of advanced industrial economies (For a more detailed presentation please see appendix 7).

Table 2 - EBRD transition indicator classification

Enterprises	Markets and trade	Financial institutions	Infrastructure
Large-scale privatisation	Price liberalisation	Banking reform & interest rate liberalisation	Infrastructure reform
Small-scale privatisation	Trade & foreign exchange system	Securities markets & non-bank financial institutions	
Governance & enterprise restructuring	Competition policy		

Source: EBRD (2003)

Though the EBRD indicators provide excellent overall coverage of the transition period, they tend to overlook the influences of informal factors. A theoretical transition classification model presented by E. van de Mortel (2002) specifically addresses these missing links.

Van de Mortel's three stage model

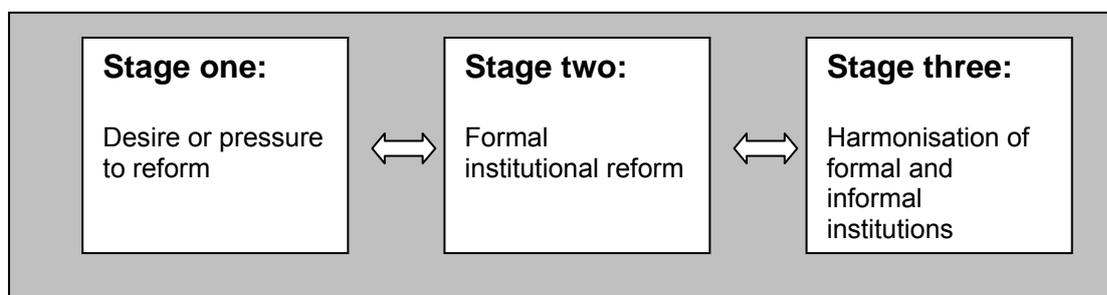
Elma Van de Mortel (2002) classifies three stages of transitional progress using a framework based on institutional theory as developed by D. North (1990). According to Van de Mortel, the first stage of transition starts when a country has the freedom or desire to reform, or when it is forced to start transforming its economy. For those countries willing to transform, this stage is usually very short. However countries forced to transform may have difficulties determining their transition strategy since transition starts with the collapse of the former institutional framework, e.g. total vacuum of legislation, rules, etc. In this stage of transition it is crucial for the countries to develop their main transition strategies. However this step can only be taken if a suitable political structure is in place; providing a clear and duly endorsed power distribution between the president, government and parliament. Van de Mortel notes that the first stage of transition tends to be more successful in those countries where there are more stable constitutional institutions able to make decisions about the direction and speed of strategic processes (2002). But then again the ability of the transition country to develop such institutions depends mainly on past experience. Considerable impact also comes from factors we understand as national identity e.g. common language, recognition of similar values, etc. According to Van de Mortel, it is still too early to speak about property rights and privatisation during the first stage of transition. The first stage ends when the decision-making process related to new laws and regulations begins.

The second stage of transition is mainly shaped by formal institutional reforms (e.g. introduction of legislation and rules). An important precondition has to be met before an economy arrives at this stage, i.e. a start must have been made with privatization and decentralization of economic decisions. Instead of being superficial, privatisation has to be structurally and decidedly focused towards the shift in decision-making power. Decentralisation, on the other hand, should mean that owners or managers of firms can decide about selling prices, about where to buy input, which goods will be produced, and so on. During the second stage of the transition, legislation and rules are reassessed and replaced, i.e. the legal framework is shaped. For instance, banking laws, protection of private property, competition, law and bankruptcy laws are to be introduced. Even if slowly, informal institutions, like personal attitudes, economic behaviour and culture have to change during the second stage as well. However, as long as the formal institutions have not taken shape and framework uncertainty persists, there can be no harmony between the formal and informal institutions.

The third stage of transition starts when the introduction of legal framework is roughly completed. Marginal changes remain possible, but they mainly concern a refinement of the newly implemented institutions. During the third stage the main focus is on the change of economic behaviour of agents. Economic actors experiment in order to see which economic

decisions lead to better results in the context of the new economic order. Furthermore, it is crucial that people accept the new formal institutional framework. This stage can last rather long and can be completed successfully only if harmony between the formal and informal institutions has arisen. Without this harmony the new institutions are unlikely to persist, and, if they do, they will in all likelihood not be effective and the transition process may regress to the previous stage. The probability that harmony will develop between two kinds of institutions depends among others on the duration and the hardship suffered during the second stage of transition. When people see their incomes decline and have to live in poverty for a prolonged period of time, they are likely to blame the new economic and political order for their difficulties and will have little inclination to accept the new order and adapt to it (Van de Mortel, 2002: 23). These three transition stages are summarised in figure 1.

Figure 1 - A model of Van de Mortel's three transition stages



Adapted from Van de Mortel (2002).

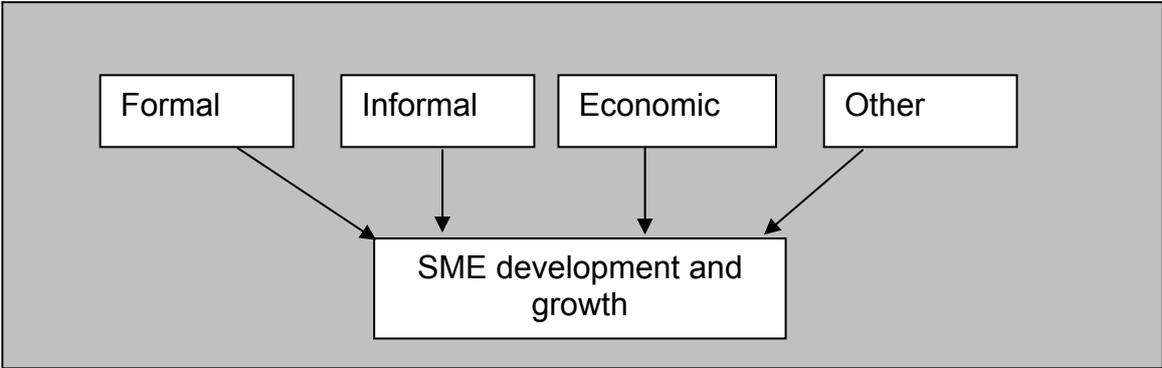
Developing a conceptual framework

When we compare Van de Mortel's three transition stages with the EBRD indicators we find a general agreement as to the formal institutional changes that need to take place during stages one and two. EBRD indicators, however, mainly focus on economic and to some extent also political transition whereas Van de Mortel's transition stages go a step further by including a deeper societal dimension, i.e. the more 'fuzzy' category of informal institutional influence such as attitudes, values and culture. She argues that they play a crucial role in allowing the more formal reforms in the transition process to progress.

But are these two factors reflecting the various influences on SME and entrepreneurship development? Acs and Karlsson (2002) raise a critical voice against focusing solely on institutional influences to private enterprise development since they only present a limited part of the overall economic milieu within which entrepreneurship may develop. Other important conditions include demand and supply conditions, the degree of competition in various markets, the state of the infrastructure, the supply and skill level of the labour force, the entrepreneurial climate and access to knowledge. Authors such as Aidis et al. (2006) have enhanced their institutional analysis by including economic factors.

In addition to the typical institutional classifications (formal and informal barriers) addressed by the EBRD indicators and Van de Mortel’s analysis, we agree with Acs and Karlsson’s view that economic factors must also be included in our analysis of influences to entrepreneurial development. In the context of this classification for the transition country context, economic factors mainly include production factors such as access and cost of appropriate financial and human capital (including training) and infrastructure. Therefore we label this category as ‘economic’ factors. We also feel that an additional category should be added to capture factors not included in the other three categories. Our analysis therefore identifies four core influences to SME development and growth: formal, informal, economic constraints as well as an ‘other category’ in order to capture additional influences (figure 2). The specific areas and issues classified under each of the four categories as derived from the existing literature on barriers to SME development in transition countries and are presented in appendix 2. It should be noted, however that this classification of barriers should be seen as a conceptual approximation of the sets of factors influencing SME development rather than clear cut-off points. Some of these categories may overlap and a particular barrier can belong to two or more categories depending on the interpretation. Moreover one barrier faced by an SME could be a consequence of some other barrier(s) both in the frame of a particular category as well as in- between them.

Figure 2 - Four categories of constraints to SME development and growth



Data and Methodology

As already mentioned, the transition process itself is not only a complicated phenomenon but is also a non- linear process. Thus one would expect that indicators capturing the progress of the transition process, which make sense from the entrepreneurship development viewpoint, to be complex as well. Among other factors, transition indicators from an entrepreneurship perspective, would need to consider differences between various transition countries in terms of historical influences, both long and short term, affecting the starting points of transition as well as the speed and path of transition. Informal influences on the transition process, such as culture and the norms of different actors, including government, regulating (tax inspection, etc.) and business promotion organisation representatives, the general population and, of course, SME owners and managers themselves, should also be taken into consideration.

In light of these factors and considering the limitations of other available data, we chose EBRD's yearly average indicator (see Table 3 and Appendix 1) as the most suitable option for approximating the transition stages. There are several reasons for this choice. Firstly, they cover all 23 transition countries we are interested in throughout the transition process (data is available starting in 1989). Secondly, the impact of the long and short-term history, namely, differences in starting points of transition countries are considered by these indicators. Thirdly, the common measurement scale ensures that the progress of transition, regardless of the path taken, is measured uniformly for all transition countries. Additional support for the use of EBRD's indicators emerges from a number of existing single country studies (for list see Appendix 5), most of which might be classified following methods similar to Van de Mortel's stages framework, indicate the appropriateness of using EBRD transition stages as the main guideline to approximate different transition stages from an entrepreneurship development point of view.

In order to classify the countries according to transition stages, we delineated EBRD ranks into three stages following the EBRD's 4 score system. A rank of 1 to 1.9 was classified as indicating little progress i.e. the primary stage; rank 2 to 2.9 was classified as indicating some progress i.e. the secondary stage; and, rank 3 to 4 was classified as indicating substantial progress approaching international standards, i.e. the advanced stage.

Table 3 - EBRD transition indicators ranked into three transition stages

country	Primary stage*	Secondary**	Advanced***
Albania	1989 - 1993	1994 - 2004	-
Armenia	1989 - 1994	1995 - 2001	2002 - 2004
Azerbaijan	1989 - 1996	1997 - 2004	-
Belarus	1989 - 2004	-	-
Bulgaria	1989 - 1992	1993 - 1998	1999 - 2004
Czech Republic	1989 - 1990	1991 - 1992	1993 - 2004
Estonia	1989 - 1992	1993	1994 - 2004
Georgia	1989 - 1994	1995 - 1999	2000 - 2004
Hungary	1989 - 1990	1991 - 1992	1993 - 2004
Kazakhstan	1989 - 1994	1995 - 2004	-
Kyrgyzstan	1989 - 1993	1994 - 2004	-
Latvia	1989 - 1991	1992 - 1995	1996 - 2004
Lithuania	1989 - 1992	1993 - 1995	1996 - 2004
Moldova	1989 - 1993	1994 - 2004	-
Poland	1989	1990 - 1992	1993 - 2004
Romania	1989 - 1993	1994 - 1998	1999 - 2004
Russia	1989 - 1992	1993 - 2002	2004
Slovak Republic	1989 - 1990	1991 - 1993	1994 - 2004
Slovenia	1989 - 1991	1992 - 1994	1995 - 2004
Tajikistan	1989 - 1997	1998 - 2004	-
Turkmenistan	1989	-	-
Ukraine	1989 - 1994	1995 - 2004	-
Uzbekistan	1989 - 1993	1994 - 2004	-

Source: Various EBRD Transition reports

* = EBRD indicator rating from 1 – 1,9; ** = EBRD indicator rating from 2,0 – 2,9; *** = EBRD indicator rating from 3,0 – 4

As shown in table 3, according to EBRD indicators, as of 2004, two CIS countries were still in the primary stage (Belarus, Turkmenistan); Eight countries were in the secondary stage

(Albania, Azerbaijan, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Ukraine and Uzbekistan); and thirteen countries were in the advanced stages of transition (Armenia, Bulgaria, Czech Republic, Estonia, Georgia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovak Republic and Slovenia).

Our transition country data is derived from a systematic analysis of previous available surveys on the barriers to SME development in 23 transition countries. The libraries and electronic databases of three universities formed the backbone of our search for surveys: The ICE collection at Jönköping University, the London School of Economics and University College London. We searched under the following main keywords: SME (entrepreneurship, small/ medium, business) in transition, SME barriers (constraints) in transition and econ* of (in) transition. We also searched for single country studies on SME barriers and transition stages using the ICE collection at Jönköping University. In our search for literature, we focused on the following main sources:

- Leading peer reviewed journals in entrepreneurship research⁸ (such as Small Business Economics, Journal of Business Venturing, Entrepreneurship: Theory and Practice, Entrepreneurship and Regional Development, The Journal of Small Business Management)
- Annual proceedings and research reviews in the field of entrepreneurship (such as Advances in the study of entrepreneurship, innovation and economic growth edited by Gary Liebcap, Volumes 2 – 15, published in 1989 – 2004⁹)
- Specialised journals, mainly focusing on transition countries (such as MOCT- MOST, Baltic Economic Review, Post- Communist Economies)
- Transition and selected country reports from international organisations (such as the EBRD, the World Bank, OECD)
- Working papers (from sources such as the World Institute for Development Economic of Research (WIDER), Tinbergen Institute Research Series, Williamson Davidson Institute (WDI), SSRN papers).
- Proceedings from leading international conferences on entrepreneurship (such as RENT, Babson, Academy of Management)

The selected 35 studies on constraints facing SMEs cover various transition stages in 23 different countries of transition. To ensure a high quality of analysis, most of the surveys used were published in high quality academic journals. In addition other sources such as country reports, etc. which provided a broader picture of the constraints faced by SME were included. The main focus of our analysis were surveys on SME development barriers. Half of the studies used were single country surveys while the other half of the studies included two or more countries. Most of those studies including more than one country analysed SME constraints within a single transition stage. The vast majority of studies used cover the main SMEs sectors in a particular country. The unit of analysis used in the studies was SMEs in transition countries.

⁸ For more information on selection criteria of leading journals please see <http://eweb.slu.edu/booklist.htm>

⁹ Published by JAI Press, Greenwich, Connecticut.

Unfortunately, SMEs are defined in different ways in different country contexts. The most common classification used was are less than 50 employees (indicating a small enterprise); less than 200 employees or less than 250 employees (indicating a medium enterprise). Standard definitions for SMEs can range from under 50 employees to up to 500 employees. Given our limited access to the raw data used in the surveys analyzed, this presented a definitional problem. This is not a problem specific to the transition context, though it affected our ability to analyze across studies¹⁰. The number of barriers examined in an individual study ranged from 6 to 65 barriers. The data presented in the 35 surveys used was mainly collected using mail survey methods, while personal interviews were used less extensively. A number of studies employed both methods. For the majority of surveys, the respondents were managers and owners of SMEs. For a more detailed description of the studies used, see Appendix 4.

Since our primary aim is to identify which SME barriers (e.g. formal, informal, economic or others) are of 'main' importance at different transition stages, we followed a three step process. In step one, we classified all 35 studies according to transition stage. In step two, we classified the barriers identified as 'important' by the studies into formal, informal, economic and 'other' categories. Finally, in step three, we compared and summarised the main barriers and barrier groups identified at different transition stages. For further information on the classification of SME barriers see Appendix 2 and 3. A list of all 35 surveys utilised is presented in Appendix 4.

Given the different methodology and measurement scales used to analyse SME constraints in the studies used, some general scales of measurement were developed. These are described in table 4.

Table 4 - Criteria for the measurement of SME barriers

(1) If the importance of a barrier was measured as a percentage of total respondents considering it to be important (in some studies- most important, or that barrier was a problem that must be improved). In these cases, the barrier was considered to be important if at least 30 percent of the total respondents considered it as important.

(2) If the importance of a barrier was measured by the mean (average) score using different scales, the following method was used:

Scale from 1 to 5: Where 5 is the most problematic barrier. In this case, we considered the most important barriers to be those where the mean is more than 3,0

Scale from 1 to 4: Where 1 is the most problematic barrier. In this case, we considered the most important barriers to be those where the mean is less than 2,0

Scale from 1 to 8: Where 8 is most important problem. In this case, we considered the most important barriers to be those evaluated with 5 and more.

(3) There were also some surveys where authors did not provide with any quantifiable measurement scales. In these cases we rely on the author's judgement and consider those barriers as most important which are mentioned to be such by the authors themselves.

¹⁰ This is the main reason why at this stage we did not employ any quantitative estimation methods. This provides an exciting opportunity for further research on this topic.

Results

After classifying the 35 studies into transition stages and identifying the main SME barriers at each stage, our aggregated barriers for the three transition stages point to a number of interesting observations. As shown in figure 3, several formal and economic constraints affected SME owners throughout the three transition stages. This was not the case for informal or other constraints. The constraints specific to each transition stage are shown in figure 3 under the headings of formal, informal, economic and other categories. Since a number of similar barriers were identified affecting both stages 2 and 3, these are listed in a column located between stages 2 and 3. It should be further noted that given the exploratory character of our analysis, it is more useful to focus on the general nature and trends that can be derived from our results and save more specific analysis for later research.

Our results indicate the following three trends. First of all, we can identify a general trend of more fundamental barriers to more specific constraints being identified as transition progresses from stage one to stage three. Furthermore, as the transition process moves to stage three and beyond, SME owners seem to become increasingly more concerned with human resources (labour) and skill development (training) than at the initial stages. This changed ultimately to the increased need to develop internal business capabilities to deal with increasing competition as well as business growth such as specific consulting and advice and business training programmes. Supporting evidence for this result is provided by a study in Hungary which identified the need for business training programmes in the more advanced stage of transition (Acs et. al. 2001). Secondly, we find that three formal constraints: taxes, policy instability and legal regulations form a barrier for business development throughout the transition stages. Though taxes are a constraint faced by businesses worldwide, policy instability and uncertainty seems more specifically related to the transition process and indicates the effect of the difficulties of adopting a new legal framework for SME owners. Thirdly, we find that access to and the cost of financing continues to be a barrier to businesses throughout the three transition stages. Though access to financing is a constraint identified by many western businesses, this result draws special attention to the difficulties of developing an adequate independent banking sector that would serve the capital needs of SMEs in the transition context.

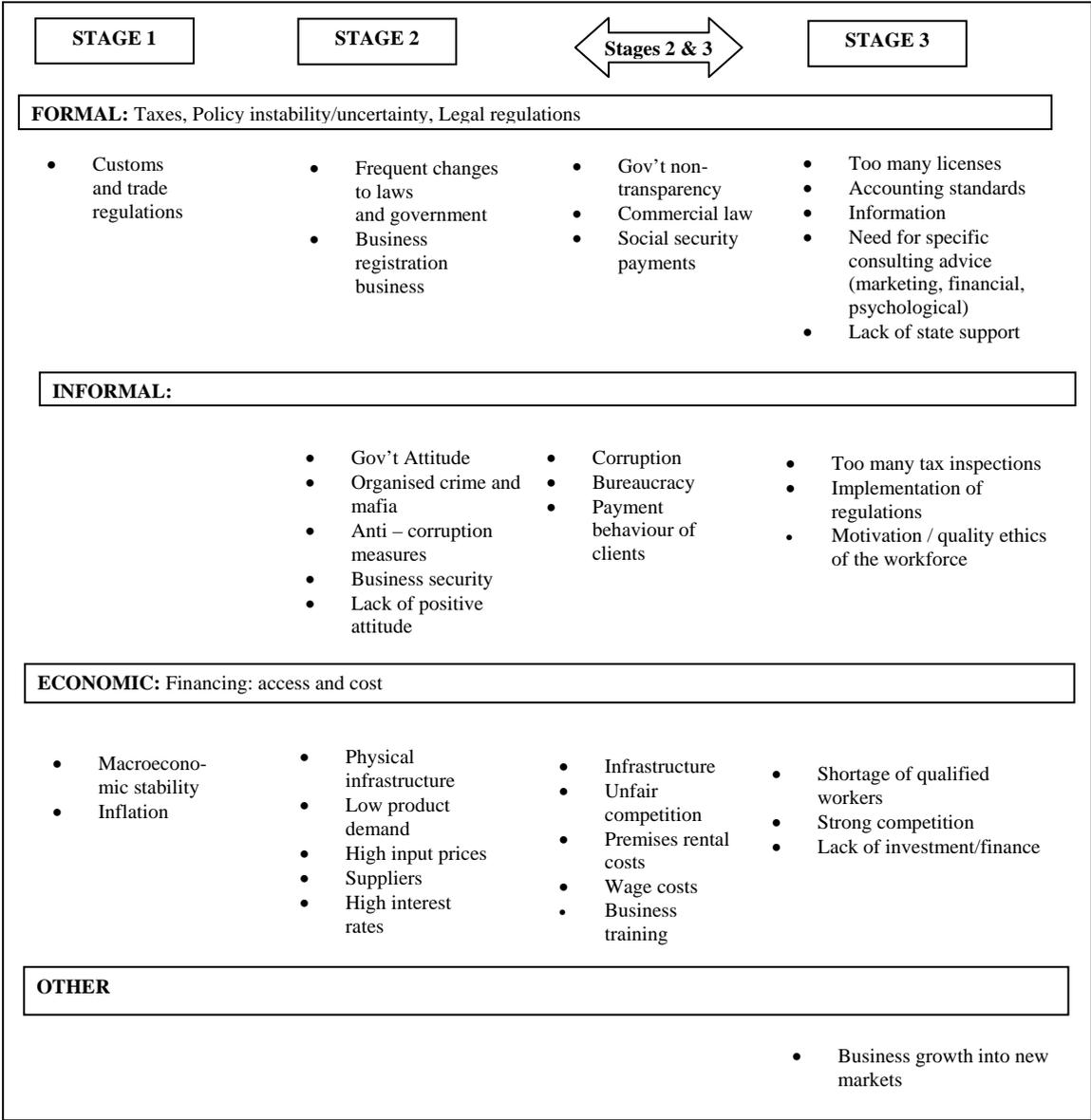
Are informal barriers 'irrelevant' at stage 1?

Our results certainly point to the unlikely conclusion that informal barriers are not important at stage 1. But we believe there may be some other reasons for this seemingly incongruous result. First of all, it may be the case of missing data because of the few studies available with data on barriers to SMEs in transition countries at stage one. However it may also be possible that these results illustrate a situation in which the SME owners may be less aware of the informal constraints because these constraints 'stayed constant' and exemplify a situation of 'the fish don't talk about the water'. In this instance other constraints would seem

more important such as formal and economic barriers because they are undergoing dramatic changes and put additional demands on SME owners to adapt to changing conditions.

In addition, business owners in later transition stages may become more vocal about informal barriers such as corruption as they become more accustomed to the changes in formal and economic context and become more aware of the fact that informal barriers such as corruption are fundamentally detrimental to their business development in the long term.

Figure 3 - Main barriers facing SMEs in different transition stages



Limitations

The classification of different types of barriers into formal, informal, economic and other categories forms the core of our analysis but at the same time, it is a difficult distinction to make. For example policy instability and uncertainty though classified as a formal constraint is also very closely related to official attitudes (which are informal constraints). One of the main problems encountered is the ability to empirically distinguish between these categories. Moreover, if a survey only asks if 'business inspections' present a business barrier it remains unclear as to whether business inspections as such are a barrier or if it is actually the 'rent seeking' characteristic of business inspections that forms the barrier. In our model, we would classify these two as distinctly different. The former is a formal barrier and the latter an informal barrier. But if a survey does not ask for the distinction, then we can not extract this subtle difference from the data available. In this sense, qualitative interview data provides more depth and detail which facilitates more fine-tuned classification than quantitative data. However, empirical research could very well capture these institutional differences if the questions are formulated properly.

Another important issue regarding SME barriers and transitional stages is the fact that the general characteristics of SMEs prevalent at the different transitional stages are changing as well. One could expect more basic types of arbitrage entrepreneurship to dominate in the early stages of transition with more sophisticated forms of entrepreneurship (based on for example, technological competitiveness) to increase as the market becomes more competitive in later transition stages. Therefore our results probably reflect the changes to barriers that are significant for different forms of SMEs as much as for the transition stage.

Though the EBRD indicators provide adequate coverage of the transition period, they have their limitations. The main drawbacks of EBRD's measurements are their focus on instrumental macroeconomic processes such as macroeconomic stabilization, privatization and liberalisation. These three issues have been emphasized by the International Monetary Fund and were outlined by the Washington Consensus. However, more recent research has indicated that these conditions though necessary for the transition process are not sufficient to realize transitional 'success'. The limited scale (from 1 to a maximum score of 4) of change provided by the EBRD indicators poses other difficulties since a very limited range of variance can actually be captured. Moreover, given that transition is a non-linear process, some countries such as Russia and Belarus exhibit outlier years. In 1995, Belarus had a total transition indicator score of 2.00 which would place it in the secondary transition stage for that year. However, in subsequent years the score decreased to under 1.9. In Russia, a similar situation occurred in 1997 where the indicator score was 2.96 though in the following years it decreased back to under 2.9 until 2003 when Russia once again reached the advanced level of transition (with a score of 2.92). Though not presented in table 3, these outliers can be seen in the appendix 1 and whenever possible were taken into account while analyzing the data. Using EBRD average indicator for the approximation of transition stages rather than analysing each of the four categories (see Table 2) could be a debatable issue.

Finally, a limitation relevant not only to EBRD indicators but for the approximation of transition stages in general arises from the phenomena of the transition process. Since it is a non-linear process, stages as distinguished can partly overlap during the transition process. Nevertheless this approximation provides some scope to analyse SME development constraints in the context of the distinctive transitional environment.

Concluding remarks

There is a growing body of literature on entrepreneurship in transition countries and many studies have identified the barriers to SME development for specific countries at specific periods of time. Yet there is no systematic study which has compared the barriers to SME development at different transition stages. In this paper we attempt to fill this knowledge gap. Using a novel methodology, based on our classification of the EBRD transition indicators, we classified 23 transition countries into three transition stages: primary, secondary and advanced stages. We then distilled the main barriers identified in the 35 studies according to our 'enhanced' institutional-based model distinguishing between formal, informal, economic and other barriers.

Our analysis introduced four main contributions. Firstly we developed a conceptual model to distinguish three main influences on business development: formal, informal and economic barriers. Secondly we classified the transition countries into three transition stages we developed based on the EBRD indicators. Thirdly, through a systematic analysis of 35 existing studies, we operationalise our conceptual model in order to obtain insights into the main barriers that affect SMEs at different stages of the transition process. Finally, given the extensive data utilised, we are able to provide a more broad-based illustration of some of the general trends experienced by SME owners during the transition process that up until now have been mainly researched using a country-specific approach.

Our results indicate that a number of constraints experienced by SMEs changes as the transition process progresses. SME owners seem more affected by more fundamental barriers formal constraints in stages 1 and 2 (the primary and secondary stages of transition) while in stage 3 (the more advanced stage) SME owners seem to become increasingly more concerned with human resources (labour) and skill development (training) than in earlier stages. We also find that three formal barriers such as taxes, policy instability and uncertainty and one environmental barrier, access to and cost of financing, form business barriers regardless of the transition stage. Since our results fall in line with much of the findings indicated by individual transition country studies, we are able to highlight the general effects of certain business barriers on SME development during stages in the transition process.

The types of policies and programmes offered to business owners should also be sensitive to these changes. Since SME owners in stages 1 and 2 seem much more affected by fundamental formal constraints, at these stages policies that would diminish these barriers such as information on taxes and simplified tax policies would be most appropriate. Whereas

businesses in stage 3 may profit more greatly from specific business training programmes to improve their skills in marketing, obtaining specific forms of financing and growing their business into new markets. Since formal barriers such as policy instability and uncertainty seem to continue to form business barriers throughout the transition process, it is of utmost importance that policy makers in the transition countries focus on insuring a transparent and straightforward policy development process. Finally, given the fact that access and cost of financing continued to be a constraint to SMEs regardless of the transition stage, it is a fundamental issue that should be addressed at all stages of the transition process. Furthermore, as Pissarides (2004) has indicated, it is important for financing opportunities to adapt to the requirements of SME owners as transition progresses, allowing for more complex forms of financing including venture capitalists in more advanced stages.

There is much ground for future research focusing on identifying general characteristics of SME barriers during different stages of transition. Specifically, it would be very insightful to implement a more quantitative, meta-analysis approach based on the conceptual model and transition stage classification developed in this paper.

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References

- Acs, Z.; Lazslo, S.; Jozsef, U. and Attila, V. (2001), Hungary GEM 2001 National Report, Global Entrepreneurship Monitor. ([Http://www.gem.org](http://www.gem.org)).
- Acs, Z.; and Karlsson, C. (2002), Introduction to institutions, entrepreneurship and firm growth: The case of Sweden. *Small Business Economics*, vol 19:2, pp. 63 – 67.
- Aidis, R. (2006), *Laws and Customs: Entrepreneurship, Institutions and Gender During Transition*. SSEES Occasional Series, University College London, London.
- Aidis, R.; Welter, F.; Smallbone, D. and Isakova, N. (2006), Female Entrepreneurship in Transition Countries: The Case of Lithuania and Ukraine. *Feminist Economics*, forthcoming.
- Batra, G.; Kaufmann, D. and Stone, A. (2003), The firms speak: What the world business environment survey tells us about constraints on private sector development, working paper, <http://papers.ssrn.com>
- Brown, A. (Editor) (1999), When is Transition Over? W.E Upjohn Institute for Employment Research, Kalamazoo, Michigan.
- Brunetti, A.; Kisunko, G. and Weder, B. (1998), Institutions in Transition: Reliability of rules and economic performance in former socialist countries, 1997. World Bank working paper, no. 1809.
- Burns, P. (2001), *Entrepreneurship and Small Business*. Palgrave Macmillan.
- Campos, N. and Coricelli, F. (2002), Growth in Transition: What we know, what we don't know and what we should know. *Journal of Economic Literature*, vol. XL, pp. 793 – 836.
- Chilosi, A. (2001), Entrepreneurship and Transition. *MOST* 11:327 –357.

- Dallago, B. (1997), The Economic System, Transition and Opportunities for Entrepreneurship. Chapter 7, pp. 103-124 in Entrepreneurship and SMEs in Transition Economies, The Visegrad Conference. Paris: OECD.
- Earle, J. and Sakova, Z. (2001), Entrepreneurship from scratch. SSRN Working paper, <http://papers.ssrn.com>.
- European Bank of Reconstruction and Development (EBRD). (1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004), Transition Report. London
- Feige, E. (1997), 'Underground Activity and Institutional Change: Productive, Protective, and Predatory Behavior in Transition Economies.' pp. 21-34 in Transforming Communist Political Economies, edited by C. Tilly J. Nelson & L. Walker. Washington DC: National Academy Press.
- Freedom House (2004), Freedom in the World Survey, <http://www.freedomhouse.org>
- Hedlund, S. (1999), Russia's 'Market' economy: A bad case of predatory capitalism. London: UCL Press.
- Heritage Foundation (2004), Index of Economic Freedom, <http://cf.heritage.org>
- Karlsson, C. and Dahlberg, R. (2003), Entrepreneurship, Firm Growth and Regional Development in the New Economic Geography: Introduction. *Small Business Economics* 21: 73- 76, 2003.
- Knaack, R. (1995), The Collapse of the Russian Economy: an Institutional Explanation, in Economic Institutions, Markets and Competition edited by B. Dallago, L. Mitt one, Cheltenham: Edward Edgar.
- Kolodko, G. (1999), Transition to a market and entrepreneurship. The systematic factors and policy options. Paper for the UNU/ WIDER project "Small and Medium Enterprises: How does Entrepreneurship Develop in Postsocialistic States", Helsinki, Finland.
- Merlevede, B. (2000), Growth in transition economies: A review of the literature. Working paper, University of Antwerp, Department of Economics.
- Nørgaard, O. (1996), The Baltic States after independence. Brookfield, VT: Edward Elgar.
- North, D. (1997a), The Contribution of the New Institutional Economics to an Understanding of the Transitional Problem. Helsinki: Wider Annual Lectures, United Nations University World Institute for Development Economics Research.
- North, D. (1997b), Understanding economic change. Pp. 13 - 19 in Transforming communist political economies, edited by C. Tilly J. Nelson, & L. Walker. Washington DC: National Academy Press.
- Pissarides, F. (2004), Financial Structures and private sector development in the new Europe, Chapter 3 in D. Masciandoro (Editor) Financial Intermediation in the New Europe: Banks, Markets and Regulation in the Accession Countries, Edward Elgar: Northampton, MA.
- Porter, M. (1990), The Competitive Advantage of Nations, New York: Free Press.
- Raiser, M.; Di Tommaso, M. and Weeks, M. (2001), The measurement and determinants of institutional change: Evidence from transition economies, EBRD working paper nr. 60, <http://www.ebrd.org>
- Scase, R. (2000), Entrepreneurship and Proprietorship in Transition: Policy Implications for the Small- and Medium-size Enterprise Sector. Helsinki: United Nations University World Institute for Development Economics Research.
- Smallbone, D. & Welter, F. (2001), The Distinctiveness of Entrepreneurship in Transition Economies. *Small Business Economics* 16:249-62.

- Surdej, A. (2003), SME Development in Poland: Policy and Sustainability' p. 98 – 113, (Chapter 7) in *Small and Medium Enterprises in Transitional Economies*, edited by R. McIntyre & B. Dallago. Hampshire, UK: Palgrave.
- Transparency International (2004), Corruption Perceptions Index, <http://transparency.org>
- Wennekers, S. & Thurik, R. (1999), Linking Entrepreneurship and Economic Growth. *Small Business Economics* 13:27-55.
- Van de Mortel, E. (2002), *An Institutional Approach to Transition Processes*. Hants, UK: Ashgate.
- Yeager, T. (1999), *Institutions, Transition Economics and Economic Development*. Oxford: Westview Press.

Appendix 1 - EBRD Transition indicators (average)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Albania	1.00	1.00	1.11	1.63	1.89	2.07	2.33	2.48	2.48	2.48	2.48	2.63	2.67	2.67	2.67	2.81
Armenia	1.00	1.00	1.00	1.48	1.52	1.59	2.11	2.44	2.52	2.67	2.70	2.70	2.85	2.92	2.96	3.00
Azerbaijan	1.00	1.00	1.00	1.19	1.30	1.30	1.70	1.85	2.15	2.33	2.33	2.41	2.48	2.56	2.59	2.63
Belarus	1.00	1.00	1.00	1.26	1.56	1.59	2.00	1.82	1.67	1.52	1.52	1.59	1.67	1.78	1.81	1.81
Bulgaria	1.00	1.11	1.70	1.85	2.04	2.26	2.33	2.37	2.81	2.81	2.92	3.11	3.15	3.22	3.26	3.37
Czech Republic	1.00	1.00	2.11	2.63	3.07	3.30	3.30	3.41	3.48	3.52	3.55	3.59	3.67	3.67	3.67	3.74
Estonia	1.00	1.18	1.37	1.85	2.63	2.96	3.11	3.18	3.33	3.41	3.52	3.59	3.63	3.67	3.67	3.74
Georgia	1.00	1.00	1.00	1.26	1.41	1.41	1.96	2.44	2.70	2.78	2.81	2.92	2.92	2.92	2.92	2.96
Hungary	1.30	1.78	2.37	2.59	2.96	3.22	3.48	3.52	3.70	3.78	3.81	3.85	3.85	3.85	3.85	3.85
Kazakhstan	1.00	1.00	1.00	1.30	1.52	1.74	2.26	2.67	2.78	2.81	2.70	2.78	2.85	2.85	2.89	2.89
Kyrgyzstan	1.00	1.00	1.00	1.48	1.74	2.52	2.70	2.74	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.93
Latvia	1.00	1.00	1.19	2.00	2.26	2.81	2.81	3.07	3.11	3.11	3.18	3.22	3.26	3.41	3.48	3.56
Lithuania	1.00	1.15	1.19	1.59	2.44	2.67	2.85	2.96	3.04	3.07	3.15	3.26	3.37	3.48	3.48	3.48
Moldova	1.00	1.00	1.00	1.44	1.70	2.04	2.52	2.56	2.63	2.70	2.70	2.70	2.74	2.74	2.70	2.74
Poland	1.26	2.26	2.41	2.56	3.00	3.11	3.26	3.37	3.44	3.55	3.55	3.63	3.66	3.66	3.66	3.66
Romania	1.00	1.00	1.26	1.59	1.85	2.26	2.41	2.41	2.74	2.85	2.93	3.00	3.04	3.04	3.04	3.18
Russia	1.00	1.00	1.11	1.89	2.19	2.41	2.59	2.85	2.96	2.55	2.48	2.59	2.67	2.85	2.92	2.96
Slovak Republic	1.00	1.00	2.11	2.52	2.85	3.04	3.11	3.19	3.19	3.22	3.30	3.33	3.41	3.44	3.48	3.56
Slovenia	1.52	1.74	1.89	2.04	2.70	2.85	2.93	3.04	3.07	3.22	3.30	3.33	3.33	3.37	3.37	3.37
Tajikistan	1.00	1.00	1.00	1.30	1.37	1.37	1.70	1.74	1.78	2.00	2.04	2.15	2.15	2.22	2.26	2.30
Turkmenistan	1.00	1.00	1.00	1.00	1.00	1.15	1.26	1.26	1.48	1.45	1.45	1.37	1.30	1.30	1.30	1.30
Ukraine	1.00	1.00	1.00	1.19	1.30	1.48	2.19	2.30	2.52	2.44	2.48	2.59	2.63	2.70	2.74	2.78
Uzbekistan	1.00	1.00	1.00	1.19	1.41	1.96	2.22	2.22	2.15	2.11	2.04	2.00	2.11	2.11	2.08	2.08

Source: EBRD (1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004).

Appendix 2 - Classification of barriers influencing SME development and growth

Formal	Informal	Economic	Other
High taxes	Payment behaviour of clients	Macroeconomic stability (inflation)	Inability to grow into new markets
Government intervention in economy	Rent-seeking through inspections	Physical infrastructure – old unreliable equipment	
Laws and regulations (policy instability/uncertainty, frequent changes, non- transparency, unpredictability, operation, customs and trade regulations, accounting standards, business registration)	Motivation of the workforce/quality ethics in the workforce	Shortage of qualified workers	
Business inspections	Bureaucracy	Shortage of high quality managers	
High social security payment	Poorly functioning state (business security issues such as inadequate measures against organized crime, mafia)	Cost of loans, interest rates, collateral requirements	
Poorly functioning state (implementation of business regulations problems arising from administration as well as lack of personnel)	Implementation of business regulations (as a consequence of responsible officials attitudes)	Loan application	
Lack of state support (in terms of building appropriate infrastructure with arising constraints as information provision to small firm employees, need for specific consulting advice (marketing, financial, psychological) and lack of SME policies)	Lack of state support (represented by attitude of the government towards business)	Unfair competition	
Financing structure		Strong (domestic and foreign) competition	
		Low product demand	
		High input prices	
		Suppliers not ready to deliver (procurement problems)	
		Business training	

Appendix 3 - Classification and types of SME barriers identified in different transition stages

	Formal	Informal	Economic	Other
All stages	<ul style="list-style-type: none"> • High taxes/ tax rate • Policy instability/uncertainty • Legal issues / regulations 		<ul style="list-style-type: none"> • Financing problems • Access to finance/credit • Cost of finance/credit 	
Stage 1	<ul style="list-style-type: none"> • Customs and trade regulations 		<ul style="list-style-type: none"> • Macroeconomic stability • Inflation 	
Stage 2	<ul style="list-style-type: none"> • Frequent changes to laws/gov't • Time to register business 	<ul style="list-style-type: none"> • Attitude of the gov't • Organised crime and mafia • Inadequate measures against corruption • Business security 	<ul style="list-style-type: none"> • Physical infrastructure – old unreliable equipment • Low product demand • High input prices • Suppliers not ready to deliver • High interest rates 	
Stage 2&3	<ul style="list-style-type: none"> • Gov't non-transparency • Operation of commercial law • High social security payments 	<ul style="list-style-type: none"> • Bureaucracy • Payment behaviour of clients • corruption 	<ul style="list-style-type: none"> • Unfair competition • Premises rental costs • Wage costs • Infrastructure – lack of telephone connections • Business training 	
Stage 3	<ul style="list-style-type: none"> • Too many licenses • Accounting standards • Unpredictability of economic regulations • Information provision to small firm employees • Need for specific consulting advice (marketing, financial, psychological) 	<ul style="list-style-type: none"> • Preferential treatment • Dishonest competition • Too many tax inspections • Implementation of business regulations • Motivation of the workforce/quality ethics in the workforce • Lack of state support 	<ul style="list-style-type: none"> • Shortage of qualified workers/labour • Strong competition • Lack of investment/finance for expansion • Inflation 	<ul style="list-style-type: none"> • Inability to grow into new markets

Appendix 4 - Studies on constraints facing SMEs in transition.

Transition stage (data collected)	Country(ies)	Sectors covered	Sample size	Definition of SME	Method used	Key informants	Number of barriers examined	Author(s), title and source
III (2000)	Slovenia	All sectors except agriculture	173	Less than 250 employees	Personal interviews. Random sample	SMEs owners and managers	51	Barlett, W. and V. Bukvič. 2001. Barriers to SME Growth in Slovenia. MOCT-MOST 11: 177- 195, 2001
II (1997)	Albania	Manufacturing, construction, trade and service sectors	50	Less than 200 employees	Complete questionnaire (nearly 400 questions) and face to face interview	SMEs owners and managers	15	Hashi, I. 2001. Financial and Institutional Barriers to SME Growth in Albania: Results of an Enterprise Survey. MOCT- MOST 11: 221- 238, 2001
III (1997)	The Czech Republic	Manufacturing, construction, trade and services	100	Less than 200 employees	Interviews	SMEs owners and managers	40	Bohata, M. and J. Mladek. 1999. The Development of the Czech SME Sector. Journal of Business Venturing 14, 461- 473, 1999
III (1999)	Hungary	Small- scale manufacturing or production, services	280	na	Mail surveys and telephone interviews	Small business owners and operators	12	Fogel, G. An Analysis of Entrepreneurial Environment and Enterprise Development in Hungary. 2001. Journal of Small Business Management 2001 39(1), pp. 103- 109
II (1996 and 1997)	Kyrgyz Republic	Concentrated on service activities	1996: 160 1997: 219	na	Mail questionnaire Descriptive statistics and Logit analysis.	Owners of small non- farm household businesses	12	Anderson, K. and R. Pomfret. 2001. Challenges Facing Small and Medium-Sized Enterprises in the Kyrgyz Republic, 1996-97. MOCT- MOST 11:205-219, 2001
II (1993, 1996 and 1998)	Russia	All sectors	1993: 277 and 281 1996: 887 1998: 227	According Russian Federation federal law of 14 June, 1995.	Standardized survey	SMEs owners and managers	8	Radaev, V. 2001. The Development of Small Entrepreneurship in Russia. WIDER Discussion Paper No. 2001/135
III (1997 and 1998)	Hungary	All sectors	2000	na	na	Owners and managers of small enterprise	11	Dallago, B. 1999. Context and Policies for the Transformation and Growth of SMEs. The Case of Hungary with Russian Implications. WIDER Research for Action 50.
III (1993)	Poland	na	na	na	Interviews	Small business owners and managers	11	Robson, G. 1993. The problems facing small firms in Poland. Discussion Paper No 93-4 School of Business Management, University of Newcastle upon Tyne, UK.
II (1995)	Russia and Bulgaria	All sectors	Russia: 216 Bulgaria: 221	Less than 200 employees	Interviews. Random samples. Tabulation of responses. Multinomial regression analysis.	SMEs owners and/ or chief executive officers	11	Pissarides, F., Singer, M. and Svejnar, J. 2003. Objectives and Constraints of Entrepreneurs: Evidence from Small and Medium Size Enterprises in Russia and Bulgaria. Journal of Comparative

					Regionally stratified random samples.			Economics (2003) 13, 503-531
II (1993-1996)	Bulgaria	All sectors	120	Less than 50 employees	Mail questionnaire	Small business owners and managers	13	Dmitrov, M. and Todorov, K. 1995. Small Business Development in Bulgaria. In Fogel, et al. 1995 (eds). Moving to Sustainability. How to Keep Small Business Development Centers Alive. Averbury. England, USA.
III (1999)	Poland	All sectors	320	Less than 50 employees	Mail questionnaire	Small business owners	10	Matusiak, K. 1999. Entrepreneurial Attitudes and Innovations of Small and Medium- Sized Enterprises in Poland. Unpublished
III and II (1993)	Poland, Hungary, the Czech Republic (III) and Slovak Republic (II)	All sectors	140 in each country	Less than 500 employees	Mail questionnaire	SMEs owners and managers	16	OECD working papers, vol. IV. Small Business in Transition Economies, 1996.
II (1999)	Albania	All sectors	101	Less than 250 employees	Mail questionnaire	SMEs owners and managers	9	Muent, H. 2001. Taxes, Competition and Finance for Albanian Enterprises: Evidence from a Field Study. MOCT-MOST 11: 239-251, 2001.
II (1996)	Russia and Poland	Shops	55 in Russia (Moscow) 50 in Poland (Warsaw)	Less than 50 employees	Survey	Owners	6	Frye, T. and A. Shleifer. 1997. The Invisible Hand and the Grabbing Hand. American Economic Review, 1997, 87/2, 354 – 358.
I, II and III (1997)	All 23 countries	All sectors	Different sample size in different countries	Less than 200 employees	Mail questionnaire	Owners and managers	31	World Development Report 1997. World Bank.
I, II and III (1999)	All 23 countries	All sectors	Different sample size in various countries	Less than 200	Mail questionnaires	SMEs owners and managers	65	BEEPS 1999, EBRD and World Bank.
I, II and III (2002)	All 23 countries	All sectors	Different sample size in various countries	Less than 250	Mail questionnaires	SMEs owners and managers	25	BEEPS 2002, EBRD and World Bank.
I and II (1997)	Ukraine (II) and Belarus (I)	All sectors	343 in Ukraine 200 in Belarus	Less than 200	Quantitative survey and in- depth case studies	SMEs owners and managers	17	Smallbone, D. et al. 2001. The contribution of Small and Medium Enterprises to Economic Development in Ukraine and Belarus: Some Policy Perspectives. MOCT-MOST 11: 253-273, 2001.
III (2000)	Lithuania	All sectors	332	Less than 50 employees	Mail questionnaire	SMEs owners and managers	19	Aidis, R. 2003. By law and by custom: Factors affecting small- and medium-sized enterprises during the transition in Lithuania. Tinbergen Institute Research Series, PhD Thesis.
III (2000)	Lithuania	All sectors	1500	Less than 50	Mail questionnaire	SMEs owners and	11	Survey by the Employer's House, the

				employees		managers		Lithuanian Business Employers' Confederation and SIC Market Research. Lithuania, 2000.
III (1998)	Latvia	All sectors	295	Less than 250 employees	Interviews	SMEs owners and managers	16	Tisenkopfs, et al. 1998. How does small entrepreneur feel? Report to the Government of Latvia. Philosophy and Sociology Institute of the University of Latvia. (In Latvian)
III (1997)	Latvia	All sectors	180	Less than 250 employees	Mail questionnaires and interviews	SMEs owners and managers	9	Kuzmina, I. 1999. Socially economical aspects of entrepreneurship in Latvia during transition period to market economy. PhD Thesis, University of Latvia. (In Latvian)
III (2001)	Latvia	All sectors	541	Less than 250 employees	Interviews	Top managers of SMEs	12	Latvian Development Agency and the World Bank Foreign Investment Advisory Service. 2001.
III (2002)	Latvia	All sectors	300	Less than 250	Face to face interviews or questionnaire	SMEs owners and managers	16	SKDS. 2002. Environment of Small and Medium size entrepreneurship in Latvia. Results of enterprise survey. (In Latvian)
III (1997-1999)	Lithuania	All sectors	1750	Not only SMEs but only 3 percent of the respondents had more than 49 employees	Face to face administration of the questionnaire	owners and managers	14	Jancauskas, E. 2000. Verslo Pletra: Lietuvoje ir vidurio Europoje, Statistikos Tyrimai, Vilnius. (In Lithuanian)
II (1999)	Ukraine	All sectors	900	SMEs (less than 250 employees)	Face to face interviews	Directors/managers	19	Yacoub, M. and B.Senchuk. 2000. The state of small business in Ukraine. An IFC Survey of Ukrainian small enterprises.
II (1999)	Ukraine	All sectors	3800	SMEs (up to 250 employees)	Face to face interviews	Directors and managers	17	Gray, A.T. and W.B. Whiston. 1999. A survey of business in Ukraine. By Management Systems International and Kiev International Institute of sociology.
II (1995 and 1996)	Russia	All sectors	N/a	SMEs (up to 250 employees)	N/a	N/a	8	OECD, 1999. Financing Newly Emerging Private enterprises in transition economies. Survey by Russian Independent Institute of Social and National Problems.
III (1997)	The Czech republic	All sectors	100	SMEs (up to 200 employees)	Interviews	N/a	11	Csaba, L. 1998. (ed.). The Hungarian SME sector development in comparative perspective. By Center for international Private Enterprise USAID. funded and KOPINT- DATORG Foundation for Economic Research.
III (1995)	Poland,	Manufacturing	Total 600	SMEs (up to 250	Face to face	Managers	16	Smallbone, D. et al. The development

	Estonia, Latvia, Lithuania		interviews	employees)	interviews			of Manufacturing SMEs in Poland and the Baltic States: Policy issues and priorities. In Ram, M. et al. 1997. Small Firms Enterprising cultures. Published by Paul Chapman Publishing.
II (1992)	Poland	All sectors	190	SMEs (up to 250 employees)	Mail questionnaires	Owners	11	Study by the Department of Economics and Management. 1992. In Daskiewicz, N. Barriers of growth of small and medium size enterprises in Poland according to the opinion of their owners.
III (1999)	Poland	All sectors	93	SMEs (up to 250 employees)	Mail questionnaires	Owners	17	Study by the Department of Economics and Management. 1999. Follow up of 1992 study. In Daskiewicz, N. Barriers of growth of small and medium size enterprises in Poland according to the opinion of their owners.
III (1998)	Estonia	Manufacturing and service sectors	100	SMEs (up to 250 employees)	Interviews	N/a	29	Phare 1998 report. The state of small business in Estonia. Ch. 4. Problems and priorities of Estonian SMEs.
III (1998)	Poland	All sectors	742	SMEs (up to 250 employees)	Mail questionnaire	N/a	N/a	Dzierzanovski, W. 1998. (ed). Report on the condition of the small and medium size enterprise sector in Poland for the years 1997-1998. Chapter 9. SME development barriers.
III (1999)	Poland	All sectors	150	SMEs (up to 250 employees)	Structured interviews	N/a	10	Couch, B. 1999. Growth strategies for SMEs in a transition economy: the case of Poland. 22 nd ISBA National Small Firms Policy and Research Conference Proceedings. Leeds, United Kingdom.

Appendix 5 - Single country studies distinguishing among different stages of economic transition

Country	Stages	Approach	Author(s), title and source
Belarus	Three stages 1991- 1994; 1995- 2000; 2001 onwards.	During the 10 years of its independence, Belarus is classified into three periods. The first one represents the beginning of the market transformations, second- starting of the system crisis and time when economic transformation took place. Third stage, however, is characterised by overcoming of the economic crisis, relative stabilisation and beginning of a stable growth. But as the author notes classification is no easy task since there is “contradicting economic transition in Belarus ... “ (Kobiakov, 2003: 3)	Kobiakov, A. 2003. Socio-economic development of Belarus. In Best Practice in the Development of Entrepreneurship and SMEs in Countries of Transition: The Belarussian Experience. United Nations, Geneva, Switzerland.
Estonia	Three Stages: 1988-1991; 1992-1997; 1998 onwards.	Stages classified according development of SME sector.	Kilvits, K. R. Lumiste, R. Lumiste. 2002. <i>SME policy influence on the economic and regional development of entrepreneurship in Estonia</i> . RENT XVI Conference Proceedings. Barcelona, Spain.
	Four stages: late 1980s; 1990-1991; 1992-1993; 1994- onwards.	Phases of transition classified according development of private enterprising in Estonia. First stage in this classification represents pre transition period, e.g. first steps in order to develop new forms of entrepreneurship, Fourth one, however, represents the beginning of micro and macro stabilisation. Stages classified according business development in Estonia.	Aho, S., T. Piliste and J. Teder. 1998. Abstract. In <i>Private Entrepreneurship in Estonia 1989-1996. Experiences and Challenges of Transitional Economy</i> . University of Tampere, Research Institute for Social Sciences. Työraportteja 54/1998 Working Papers. Teder, J. Experiences and Challenges of the Estonian Entrepreneur. In <i>Private Entrepreneurship in Estonia 1989-1996. Experiences and Challenges of Transitional Economy</i> . Chapter 4. University of Tampere, Research Institute for Social Sciences. Työraportteja 54/1998 Working Papers
	Three stages 1986- 1989; 1990- 1993; 1994 onwards.		
Latvia	Three stages. Late 80 th - end of 1990; 1991-1993; 1994 -	Stages of transition distinguished from the point of view of the development of the Latvian small business sector.	Kuzmina, I. 1999. <i>Entrepreneurship and Small Business development in Latvia</i> . RENT XIII Conference Proceedings. London, UK, 1999.

		onwards.	
<i>Lithuania</i>	Two stages: pre 1994; post 1995.	Two distinct transition periods towards market economy are distinguished. First one is mainly characterized by negative economic developments, as decrease in total industrial production, domestic turnover and international trade, upsurge in inflation and fall of the standard of living as well as weakening in labour and financial control (UNDSP 1999: 9 in Aidis, 2003). The period after 1994, however, are characterized by macro stabilisation, represented by stable growth of GDP and investment, decrease in inflation, increased foreign investment, relatively low and stable unemployment and other indicators.	Aidis, R. 2003. <i>By law and by custom: Factors affecting small- and medium-sized enterprises during the transition in Lithuania</i> . Thela Thesis: Amsterdam.
<i>Poland</i>	Three stages: 1989- 1990; 1991-1992; 1993 onwards.	Transition phases are distinguished from the viewpoint of entrepreneurship and specifically private sector development.	Biesbroucc, W. and V. Bilsen. 1995. <i>The importance of SMEs Restructuring with and Application to Poland</i> . In Industrial Organisation and entrepreneurship in Transition. 1996. Dimitrov, M. and K.Todorov. (eds.). Proceedings of the international conference, Varna- Albena, Bulgaria, June 5-8, 1995.
<i>Romania</i>	Three stages: 1990-1993; 1994-1998; 1998 – onwards.	Three distinct stages of transition that overlap the political developments are classified in the context of the process of economic and social reform.	Sergio, A. 1998. Transition and Democracy in Romania: the Pains of a Gradualist Restructuring. In Larcon, J.P. (ed.). 1998. <i>Entrepreneurship and Economic Transition in Central Europe</i> . Kluwer Academic Publishers.
<i>Russia</i>	Three stages: 1987-1988 (pre transition); 1989-1991; 1992- onwards.	Stages are distinguished considering development of Russian entrepreneurship and entrepreneurs.	Lynch, R.D. and V.V. Makoukha. 1997. <i>Entrepreneurs in Post-Communist Russia</i> . In Privatization and Entrepreneurship. The managerial Challenge in Central and Eastern Europe by Ullmann A.A. and A. Lewis (Eds). New York : International Business Press, cop..
	Four stages 1986-1991; 1992-1994; 1995-1997; 1998 – onwards.	Stages are distinguished from the viewpoints of macroeconomic policy, legislation and institutional change from the point of view of SME sector development. First stage represents pre transition period, the third one- relative stabilisation followed by the fourth stage classified as 'crisis', when "belief that economic stabilisation has been achieved collapsed in August 1998 with the end of the 'financial pyramid' built on state short term securities". (Radaev, 2003: 117).	Radaev, V. <i>The Development of Small Entrepreneurship in Russia</i> . In McIntyre, R.J. and B. Dallago (Eds.). 2003. <i>Small and Medium Enterprises in transitional Economies</i> . Palgrave Macmillan, Great Britain.

Appendix 6 - Alternative indicators

A seemingly obvious and straightforward indication of economic transition progress would be GDP growth figures. Though all transition countries experienced a decline in output, a number of countries have been able to record high levels of GDP growth especially in the mid to late 1990's. Table A6 presents the estimated level of real GDP in 2003 as compared to pre-transition GDP rates measured in 1989. Ten out of twenty-three countries have surpassed their 1989 GDP levels. However, the arbitrariness of this development and incongruity with other EBRD transition indicators seriously questions its explanatory value. Hungary and Poland's high degree of economic recovery corresponds to their economic and political reforms however Albania's high score is matched by only a secondary level of transition. Closer inspection of Albania's GDP level shows high levels of international aid has resulted in increasing its GDP figures to an artificially high level.

Table A6 - Estimated GDP level of real GDP in 2003 (1989 = 100)

Country	Estimated GDP 2003	Country	Estimated GDP 2003
Albania	129	Lithuania	84
Armenia	89	Moldova	41
Azerbaijan	71	Poland	135
Belarus	100	Romania	92
Bulgaria	84	Russia	77
Czech Republic	108	Slovak Republic	114
Estonia	102	Slovenia	120
Georgia	41	Tajikistan	62
Hungary	115	Turkmenistan	105
Kazakhstan	94	Ukraine	51
Kyrgyzstan	75	Uzbekistan	107
Latvia	83		

Source: EBRD 2004

Unfortunately, when searching for other possible indicators, substantial data problems were encountered. A study by Raiser et al. (2001) investigated the relevance of a number of factors to institutional change in 25 transition countries. They developed a structural model of institutional change using both time series and cross-sectional data on transition countries. In their results, Raiser et al. find strong evidence that economic reforms and political liberalisation are more powerful forces influencing institutional change than changes in economic structures induced by such reforms. Hence the importance of political liberalisation for economic transition. The results of the study by Raiser et al. (2001) indicating the political liberalisation is an important determinant of institutional change inspired us to refer to measures of political liberalization. Therefore we consulted the surveys conducted by Freedom House measuring the levels of civil liberties and political freedom. We were able to find data for our entire country sample however the earliest observation year is 1993. According to our estimates using the EBRD transition indicators, by 1993, ten countries had already entered the second stage of transition. Therefore if we were to use the Freedom House data, we would miss four crucial observation years.

Another possibility was to use data on levels of corruption such as those presented in the corruption index by Transparency International. Measures of corruption can provide an indication of a harmonisation of informal and formal institutions. However here we run into even greater data problems since the earliest observation year is 1995 and then only for Hungary. Most countries are represented in the sample only by 1999 however even by 2003 not all countries are represented.

We also consulted the measurement of informal markets in the Index for Economic Freedom compiled by the Heritage Foundation. The level of informal markets can indicate

the level of compliance with formal rules. However, in this index the earliest observation year for most of the transition countries is 1995 and not all of them are included.

In addition, we referred to the Heritage Foundation's index for government intervention. Decreasing rates of government intervention could serve as an indication of a shift of economic power from government control to private economic agents. However, the Heritage Foundation's index for most transition countries begins in 1995. Using this index for evaluating transition seems highly suspect given the fact that some advanced Western countries exhibit very high levels of governmental intervention such as France (score = 5) and Norway (score = 3.5) and seem to be able to combine it with an efficient market economy. The score for Belarus is the same as for Norway (score = 3.5) in 2003 which reveals nothing regarding the actual transition progress since Belarus continues to be an example of a transition country that is unreformed and reluctant to introduce any fundamental market-oriented mechanisms. According to EBRD indicators, Belarus is only at the primary stage of transition (EBRD 2003).

Another alternative measure would be to look at human development related indicators such as poverty, income distribution, years of schooling and mortality rates. Here once again data is limited and only available in the mid 1990's and late 1990's for most transition countries. We also consulted various macroeconomic indicators in order to assess the transition stages such as inflation levels, exchange rate regimes, current account balance and percentage of GDP created by the private sector. But for each one of these indicators, we found quite serious inconsistencies in terms of their relation to actual transition progress measured by the EBRD.

In sum, most indicators measuring transition do not provide coverage of the entire transition period and are therefore not suited for our study. The most appropriate combination that can be used from the existing literature seems to be the EBRD transition indicators and Van de Mortel's classification of transition indicators (2002).

Appendix 7 - EBRD transition indicators

In order to understand the development of EBRD's transition indicators, it is important to understand the motivation behind their creation. EBRD's analysis of reform patterns in transition countries since 1989 suggests that three factors are crucial for sustaining reform progress: (1) Comprehensive economic liberalization to create market competition and generate demand for market-supporting institutions; (2) Market liberalization is more effective combined with political competition; (3) The process of transition is facilitated by international integration (EBRD 2002).

According to the EBRD, the first or initial phase of transition was dominated by the structure of the inheritance from the communist system and the political repercussions following the collapse of this regime. The main reforms characterising this period include: the privatisation of assets (small-scale privatisation), the liberalisation of markets (through price liberalisation and foreign exchange and trade liberalisation) and the establishment of a degree of macroeconomic stability (EBRD 1997).

The next phase of transitional reforms requires policies, institutions and behaviours that can foster and accelerate economic growth. Second transition phase reforms include a continuation of the privatisation of assets (through large-scale privatisation), improving enterprise performance through governance and enterprise restructuring, the further liberalisation of markets (through competition policy), the development and maintenance of infrastructure (through infrastructure reform) and reform to financial institutions (banking and interest rate liberalisation and the creation of non-banking financial institutions). A main challenge in this phase is developing and providing market-oriented governance i.e. a building and deepening of the institutions and behaviour that are at the heart of a well-functioning market economy (ibid.).

The EBRD transition indicators are based on annual scores indicating transitional progress and are calculated based on an average score of nine separate indicators grouped into four categories¹¹: Enterprises, markets and trade, financial institutions and infrastructure. The 'Enterprises' category includes separate indicators for progress in large-scale privatization, small-scale privatization and governance and enterprise restructuring. 'Markets and trade' includes three separate indicators measuring price liberalisation, trade and foreign exchange system and competition policy. Financial institutions include two separate indicators measuring banking reform and interest rate liberalisation and securities markets and non-bank financial institutions. Infrastructure includes only one indicator measuring infrastructure reform.

In brief, the 'enterprises' category measure indicates the process of large-scale privatisation; the implementation of reforms to cut production subsidies; the introduction of effective bankruptcy procedures; and sound corporate governance practices (EBRD 2001). The 'markets and trade' category indicates the extent and effectiveness of competition policy in combating the abuses of market dominance and anti-competitive practices. With regards to 'financial institutions', this indicator measures the extent to which interest rates have been liberalised; the establishment of two-tier banking; and the creation of securities markets. In addition, 'financial institutions' also assesses the extent to which prudential regulations have been raised towards international standards, whether they have been enforced effectively and if procedures exist for resolving the failure of financial institutions. Finally, the infrastructure indicator measures the extent of tariff reform; the commercialisation of enterprises; and the extent of regulatory and institutional development (ibid.).

¹¹ For a more detailed description please refer to EBRD (2003:17).

Indicators of Entrepreneurship Activity: Some Methodological Contributions¹²

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Abstract

Using a model-based approach, this paper re-examines the measurement of entrepreneurial activity at the national level. Our contribution centres on two main aspects. First, our study allows for the measurement of the likelihood of entrepreneurial behaviour, or entrepreneurial propensity. Second, utilizing social network theory, we introduce the social entrepreneurial environment as a key indicator of likelihood of entrepreneurial activity.

Using the data provided by the Global Entrepreneurship Monitor (GEM) project, we provide an alternative measure of entrepreneurial activity which includes entrepreneurial social environment, assumes the existence of a continuum in entrepreneurial behaviour and provides a measure of entrepreneurial propensity. Results indicate that our model provides support for the combined use of entrepreneurial propensity and the entrepreneur's social context.

Key Words: *Entrepreneurship, Cross-country-Measurement*

Introduction

Our contribution centres on two main aspects. First, our study allows for the measurement of the likelihood of entrepreneurial behaviour. Different than prior measures of entrepreneurial activity, where individuals are or are not considered entrepreneurs, we argue theoretically and analyze empirically the notion of levels and likelihood of entrepreneurial behaviour. Rather than classifying individuals as entrepreneurs or non-entrepreneurs, we adopt a more dynamic view of the phenomenon by letting individuals differ in their propensity to engage in entrepreneurial activities. In doing so, we argue for examining differences over time within countries, as well as across countries.

Second, utilizing a social network theory approach, we introduce the social entrepreneurial environment as a key indicator of likelihood of entrepreneurial activity. We contend that the level of an individual's entrepreneurial activity is affected by the social context in which that activity occurs. This context is not uniform and its effect varies due to factors such as social networks, education, gender, etc. As a result, an entrepreneur's personal social network is treated here as a random variable that changes from individual to individual.

The core of our proposed theoretical model lies in the use of two latent continuous variables: the first one reflects an individual's entrepreneurial propensity, that is, his likelihood of

¹² Support for this research comes from a Grant from Fundación BBVA, Madrid. Spain

engaging in venture creation. The second dimension reflects the individual's social entrepreneurial environment, and captures the elements of a person's adjacent environment that may affect his entrepreneurial propensity. We argue that this measure should be built into the analysis of entrepreneurial activity, and should help provide a strong indicator of the pervasive effects of entrepreneurship.

The purpose of the paper is to propose a new approach to measuring entrepreneurship, one that is complementary to the approaches that have been used recently in cross-country comparisons. Our hypotheses will be tested using data available the GEM project for comparing entrepreneurship levels across countries. Whilst we recognize the contribution of prior studies measuring entrepreneurial activity¹³ - such as the GEM project - as a means of gaining insights into the dynamics of entrepreneurship, we seek to provide a new model of entrepreneurship that, in conjunction with existing measures, will help us reach a more consistent and comprehensive view of the variation of the entrepreneurial phenomena within and across countries.

The Measurement of Entrepreneurial Activity

While most scholars concur about the need to measure new venture creation, entrepreneurial activity, and its impact on the wealth of societies, there is no consensus about how to measure this phenomenon or about the adequacy of previous and current measures (Davidsson, 2004; Dennis 1997, 1999; Gartner and Shane, 1995; Verheul et. al 2002; Williams 1993). There are several reasons for this lack of scholarly agreement. First, the extant literature on entrepreneurship has proposed a broad array of different definitions of this phenomenon (Gartner 1990; Hébert, and Link 1989; Praag 1999; Shane and Venkataraman 2000). Entrepreneurship is indeed a multidimensional concept, which, depending on the focus of the research and the theoretical perspective adopted, can address very distinct social realities (Davidsson 2004; Verheul et al. 2002). Underlying these social realities two major views exist in the entrepreneurship literature (Bryat and Julien 2000; Davidsson 2004). The first, following the seminal works of two French theorists, Turgot and Say, considers entrepreneurship as anything related to independently owned businesses and their owner-managers. The second follows the approach of Cantillon and Schumpeter¹⁴, and studies entrepreneurs through their fundamental role in economies as innovators.

This diversity of definitions has, in turn, significant implications for the measurement of entrepreneurship levels (Reynolds, 1992a). For instance, final counts can vary depending on the view adopted by researchers to determine who is an entrepreneur; in particular, whether a firm is started for the purpose of self-employment is to be included in the measure of entrepreneurship or whether only firms started with the prospect of value creation are included. Indeed, many firms that are started with the purpose of creating self employment

¹³ See for example the PSED project (<http://projects.isr.umich.edu/PSED/index.cfm>).

¹⁴ For more information about J. Turgot, J.B. Say, R. Cantillon and J. Schumpeter, see Herbert and Link (1982).

would not be included in the measure of entrepreneurial activity if the baseline for inclusion was firm/value creation and the expectation of future growth.

Second, the measurement of entrepreneurial activity in a country depends on the level of analysis chosen by the researcher. In their review of longitudinal studies on entrepreneurship, Gartner and Shane (1995) identified two types of research: research focusing on individual level activity (e.g., self-employment) in order to measure the entrepreneurial phenomenon, and that mostly concerned with firm level activity (e.g., organization creation). However, both approaches present inherent shortcomings; measures focusing on individuals not only ignore firms but might also undercount some specific kinds of entrepreneurs (e.g. self-employed who hire employees). By contrast, firm creation measures often fail to capture businesses started as proprietorships or partnerships.

A third issue raised by researchers deals with the methodological approaches used to measure entrepreneurial activity. Scholars have expressed concerns regarding the undercounting of new firm entries and exits in the market, and the effect of this undercounting on the assessment of the impact of entrepreneurial activity (Bates 2005; Birley, 1984; Davidsson 2004; Dennis 1997, 1999; Williams 1993). Moreover, many of the databases used by entrepreneurship scholars have been designed for purposes other than the study of entrepreneurship, making them a less than suitable tool for gauging the phenomenon of entrepreneurship from an academic point of view.

Applied to cross-country comparisons, the measurement issues associated with entrepreneurship become even more problematic and the researcher is faced with additional elements to take into account. On the one hand, the absence of universally agreed upon indicators makes it particularly difficult to provide meaningful and reliable comparisons of the level entrepreneurship across nations (OECD 1998). Verheul et al. (2002) assert that country levels of venture creation can indeed be determined by a wide spectrum of factors, the importance of which varies according to “the disciplinary approach, the level of analysis, the discrimination between demand and supply factors and a distinction between influences on the actual and equilibrium rate of entrepreneurship” (Verheul et al. 2002: p.7).

On the other hand, levels of entrepreneurial activity in a country can be affected by contextual issues such as the existence of a supportive or hostile macro or microenvironment for venture creation. This argument is consistent with Gartner and Shane’s (1995) claim that measures of entrepreneurial rates need to reflect both a longer time frame and some kind of measure of the effect of the environment.

Measuring Entrepreneurial Activity in the GEM Project

The GEM project constitutes a very important research tool that can allow entrepreneurship scholars to address the issues related to the measurement of entrepreneurial activity across countries. However, operationalizing and implementing the measures used in this project is not ideal and, like any other measure, can be improved. Moreover, the GEM provides a very

rich database that has not been fully exploited and we believe that our study can help to present this data in a way that is more respectful of the complex entrepreneurial realities.

One of the better known outcomes of the GEM project is an estimate of a nation's entrepreneurial activity, the Total Entrepreneurship Activity (TEA) index. The GEM study is designed to overcome a number of concerns raised in prior research about the measurement of entrepreneurship. Heeding the advice of Gartner and Shane (1995), it is a yearly ongoing measure designed to capture entrepreneurial activity and its effects over time. Trying to meet the challenge of obtaining a representative sample of on going, independent start-up processes and, therefore, addressing the concerns of Dennis (1997), Williams (1993) and Birley (1984), the GEM project is also based on a very large random sample of adult individuals. These individuals are presented with three focal screening questions aimed at identifying those in the process of creating a venture:

- q1: whether the individual is currently involved in a startup (indication of being nascent entrepreneur)
- q2: whether their current job involves a start-up (nascent intrapreneur)
- q3: whether the individual is the owner/manager of a new business (owner-manager)

Individuals who identify themselves as a nascent entrepreneur/ nascent intrapreneur/ or, an owner-manager of a new firm, are directed to a longer interview where they are asked specific questions about themselves and their firms. Therefore, the resulting TEA index has the advantage of addressing the issue of levels of analysis raised by Gartner and Shane (1995), because it allows for the capture of individual self-employment as well as new firm creation.

Despite its utility, the GEM project is still striving to reach full scholarly recognition with respect to its TEA index being a reliable tool for measuring entrepreneurship across countries (Hindle, 2005). We believe that one possible way to diminishing researchers' reticence to make the most of the GEM data is by enhancing the measure of entrepreneurship levels for each country¹⁵. Therefore, a significant contribution of this paper is a re-examination of the way entrepreneurial activity is measured using the existing GEM data.

Theoretical Background

In this study we propose an alternative model-based approach to measuring and comparing entrepreneurial activity within and across countries, an approach that introduces two main modifications to the traditional ones used in measuring the extent of entrepreneurial activity in a country.

¹⁵ While we acknowledge that the GEM Project would benefit from a substantial rework of the questionnaire currently used, changes in the questionnaire affect the ability for continuous and longitudinal analysis. The improvements proposed in this paper relate to the approach taken in measuring entrepreneurial activity, not to the questionnaire itself.

First, rather than viewing entrepreneurial activity as either/or proposition, that is, individuals either are or not entrepreneurs, we introduce the notion of a likelihood for entrepreneurial behaviour. In doing so, our model measures this likelihood and creates an index that is a continuous variable that allows individuals to vary in their propensity to undertake entrepreneurial activities.

Secondly, and drawing upon social network theory, we base our model on the assumption that entrepreneurial activity is affected by the social context in which that activity occurs, so that a measure of the entrepreneur's personal network, in combination with a measure of its propensity to undertake an entrepreneurial activity, provides a richer measure of the impact and strength of entrepreneurial behaviour in specific countries. Whereas the measurement of direct entrepreneurial activity is important, we believe that it is incomplete without an examination of the entrepreneurial social environment and its impact on the likelihood of venture creation.

Measuring a Country's Entrepreneurial Propensity

Following Gartner's (1989) view that "who is an entrepreneur?" is the wrong question, we similarly argue that "how many entrepreneurs there are in a country?" or "which country has the highest rate of entrepreneurs?" is an incomplete enquiry (Hindle, 2005) and should be replaced with an assessment of a country's relative propensity for entrepreneurship. Assuming that entrepreneurs "are not a well defined population but a hazy and moving target" (Davidsson, 2004, p. 70), we believe that researchers should be cautious when comparing the level of nascent entrepreneurial activity across countries and should qualify the TEA index with a measure that captures a country's actual and future entrepreneurial potential.

The TEA national index is computed as the proportion of respondents classified as nascent entrepreneurs in a representative national sample. Each individual in the sample is classified as either an entrepreneur or non-entrepreneur based on his or her responses to the questions q1 to q3 in the GEM survey. We argue that the use of this classification overlooks an essential dimension of the entrepreneurship phenomenon, that is, individuals can show a varying propensity or degree of entrepreneurship.

The concept of "degrees of entrepreneurship" was first introduced by Cooper and Dunkelberg (1986) to illustrate how the different ways of becoming a business owner exhibited different levels of entrepreneurial intensity. Several scholars took over this notion to explore individual-level (Tay 1998), as well as organizational-level variations (Schafer 1990)

in entrepreneurial inclination¹⁶. More recently, Davidsson (2004) built on this idea and stressed the importance of studying “Why, when and how do individuals, organizations, regions, industries, culture, nations (or other units of analysis) differ in their propensity for the discovery and exploitation of new venture ideas” (Davidsson 2004, p. 29). Following this reasoning, we present an improvement in the TEA measure based on the proposition that entrepreneurial behaviour should be measured on a continuum. Specifically, we claim that rather than treating entrepreneurship as a dichotomous variable, it seems more legitimate to consider that some economic actors show a greater propensity¹⁷ for entrepreneurship than others.

H_{1a}: Individuals’ propensity for entrepreneurial activity is a latent continuous variable with multiple possible indicators.

H_{1b}: Particular instances of entrepreneurial activity (such as being involved in a start up) are linked to individuals’ propensity for entrepreneurial activity via a threshold relationship.

The Role of the Entrepreneur’s Social Network

Research in sociology suggests that positions in a social structure influence the attitudes, behaviours and outcomes of the actors occupying those positions (Granovetter, 1985). This social influence has become an emerging subject of research in the field of entrepreneurship (Dodd, 1997; Stuart and Sorenson, 2004) with the development of two main streams: inter-organisational networks and the entrepreneur’s personal network¹⁸. Our study draws on this second theoretical construct and studies its impact on the incidence of venture creation.

Bearing in mind researchers have adopted a variety of definitions of a personal network, each one differing in scope, we adopt Gilmore and Carson’s (1999) definition of a network as: “A collection of individuals who may or may not be known to each other and who, in some way contribute something to the entrepreneur, either passively, reactively or proactively whether specifically elicited or not” (Gilmore and Carson 1999, p. 31).

¹⁶ It is important to note that the notion of propensity to entrepreneurship used in this paper is different from the similar concept used by some scholars which adopts a trait’s approach to defining entrepreneurs and the odds of a person to become an entrepreneur. This is the case, for example, of the “entrepreneurial attitude orientation” construct, which is positioned in the field of sociology (Robinson et al., 1991), and which used to measure the entrepreneurial attitude along three dimensions: behaviour, belief and emotion. It is, however, interesting to note that Kollmann et al. (2005) consider all these three factors to be connected to the individual’s attitude towards a particular environmental stimulus. Our study establishes the same kind of connection.

¹⁷ Although we acknowledge that the idea of entrepreneurial propensity should not be limited to quantitative differences, in this article we will concentrate on this dimension since the GEM explores the qualitative dimension quite effectively. The project uses the distinction between “opportunity-based” and “necessity-based” entrepreneurship to illustrate how nations may have similar start-up rates that represent very different levels of real and profitable entrepreneurial opportunities (see Acs et al. 2005; Davidsson 2004; Reynolds et al. 2004).

¹⁸ See O’Donnell, Gilmore and Cummins (2001) for a thorough literature review on the different perspectives and research streams encompassing network analyses in entrepreneurship.

The most prevalent tenet in personal network-based entrepreneurship studies is that persons involved in pro-entrepreneurship networks are more likely to engage in entrepreneurship. This argument emanates from Aldrich and Zimmer's (1986) pioneering investigation highlighting the need to examine entrepreneurial processes in their environmental context. Indeed, if we think of ideas, knowledge, and capital as the main components entrepreneurs must assemble in firm creation, social relations provide the connections required to unite these ingredients. Social relations shape information flows allowing for the identification of promising opportunities, and trace the ties through which capital flows, helping entrepreneurs to overcome obstacles to resource mobilization.

Although there have been few attempts to link micro social structures empirically to the incidence of entrepreneurial activity, sociology scholars repeatedly insist that personal links have a direct impact on an individual's decision to launch a new venture. For example, Stuart and Sorenson (2004) reported a previous research finding demonstrating that "individual academic scientists' propensities to transition to entrepreneurial activity in the early academic life sciences depended to a large degree on the extent to which their networks and work settings included pro-entrepreneurship scientists. [...] In any situation in which entrepreneurial activity either violates norms or rarely occurs, one might expect that network-based social influence processes will underlie the diffusion of new venture formation in a population." (Stuart and Sorenson 2004: p.223). These findings reinforce Aldrich and Zimmer's argument (1986) that traditional approaches to research on international entrepreneurship have neglected the relational nature of the entrepreneurial process, overemphasizing deterministic models based on national culture.

The personal social network construct is particularly useful in studying countries' entrepreneurial propensity as an aggregate of the individuals' odds of engaging in entrepreneurship. In line with O'Donnell et al.'s (2001) argument, we believe that this approach provides several advantages over others in explaining the creation of new firms. These advantages include: a) the integration of the environmental context, b) its dynamic perspective and, c) its ability to explain why some individuals start firms while others do not (Aldrich and Zimmer, 1986; Johannisson, 1987). Based on GEM data, our study introduces three types of variables that reflect the extent of an individual's inclusion in an entrepreneurial social network:

Knowing an Entrepreneur is one of the most obvious drivers of an individual's familiarity with and inclination towards an entrepreneurial career. As stated above, entrepreneurs need to establish connections in order to identify an opportunities and assemble the resources needed to begin operations. At some point before or during this process, entrepreneurs might be influenced by relations with socializing agents who motivate and help them to start their ventures.

Business angel activity is not only a direct manifestation of entrepreneurial endeavours; it is also proof of a person's privileged position in an entrepreneurial network. As Stuart and Sorenson (2004, p. 213) stated: "One reason why social networks shape the entrepreneurial

process so importantly is that they provide the conduits through which private information flows. To the extent that individuals occupy heterogeneous positions in networks, they vary in their access to this information. And to the degree that the recognition of entrepreneurial opportunities hinges on access to private information, differences in network positions can thus explain much of the inter-individual variance in access to the knowledge required to discern attractive opportunities for new ventures”.

In this sense, when individuals contribute to entrepreneurial activity as investors, they become part of the entrepreneurial network involved in the venture creation process. Their integration in this particular circle process provides them with continuous feedback and information that is likely to stimulate even more interest in and knowledge about the entrepreneurial process.

The perception of good opportunities in one's region¹⁹: The geography of entrepreneurial activity is considered by several scholars as a significant implication flowing from the influence of social network structure on opportunity identification and resource mobilization, giving birth to the popular “industrial district thesis”. This perspective can be typified by the idea that: “Because entrepreneurs utilize the contacts in their social networks to found firms, because individuals' contact networks concentrate in the region in which they work and live, and because established firms produce many of the resources consumed in new venture creation (tacit knowledge and skilled labour), new firms in an industry tend to arise in the same locations as existing ones” (Stuart and Sorenson, 2004, p.221). Our research builds on this idea and connects it with the above mentioned argument that a person's likelihood of engaging in entrepreneurship depends on his privileged position within an entrepreneurial network. Indeed, there are reasonable arguments to assume that the identification of a good opportunity in ones region reflects, to some extent, the opportunities and constraints that arise from the relations that embed a focal individual in a social circle. The more individuals are embedded in social circles that are favourably disposed towards to entrepreneurship, the more good opportunities they will see.

The Relationship between Entrepreneurial Propensity and Social Networks

The evidence and arguments from previous research point to the fact that research concentrating only on measuring firm entries understates the extent of entrepreneurial activity and its impact on society. Krueger and Brazeal (1994) argue that “Few research studies have conceptualized or measured entrepreneurial potential, though interest in pre-emergence entrepreneurial activity has recently grown [...]. However, measures of entrepreneurial potential seem to remain wedded to various ad hoc profiles of personality

¹⁹ It should be noted here that the perceived opportunity is also used in some models as a measure of an individual's propensity to entrepreneurship. For example, Parnell, Crandall and Carden, (1995) included “one's beliefs concerning entrepreneurial opportunities in the economy (i.e., financial rewards, employment, etc.)” as one of the perceptual factors that measure entrepreneurial propensity, that is, one's proclivity for choosing an entrepreneurial career. However, these models focus on the individuals' perceptions to explain behaviour, while our approach stresses the inclusion of the external environment condition, in particular the one immediately related to the individual, as a trigger for entrepreneurial behaviour.

and demographic characteristics with minimal predictive validity...” (Krueger and Brazeal 1994, p. 92). Recognizing that entrepreneurial activity does not occur in a vacuum, the authors discussed the importance of developing an “entrepreneurial potential” so that potential entrepreneurs can find suitable conditions to develop their ideas. Implicit in their notion of “entrepreneurial potential” is the idea that

“The group, organization, or community possesses some potential for entrepreneurial activity. The environment need not be already rich in entrepreneurs, but has the potential for increasing entrepreneurial activity [...]. Regardless of the existing level of entrepreneurial activity, such “seedbeds” establish fertile ground for potential entrepreneurs when and where they perceive a personally viable opportunity. That is, “entrepreneurial potential” requires “potential entrepreneurs” (Krueger and Brazeal, 1994, p. 92).

Some traditional approaches to entrepreneurship have posited the existence of differing “propensities to entrepreneurship” according to national or cultural origins. Although it is widely recognized that culture and social norms have an indirect effect on entrepreneurial career choices (Hofstede, 1980; Davidson, 1995; Verheul et al. 2001; Wennekers et al. 2001), there is a feeling among some researchers that these socio-cultural models of entrepreneurship are overly deterministic. Aldrich and Zimmer (1986) state that “The major problem with this approach is that groups alleged to possess a propensity to entrepreneurship display their predisposition only under limited, country-specific and historically-specific conditions. Research findings strongly suggest that we should attribute the flowering of a group’s predisposition to situational, rather than deterministic, conditions” (Aldrich and Zimmer 1986, p. 7-8).

In this study we build on previous literature and argue the existence of environmental influence that affects an individual’s entrepreneurial propensity. But rather than drawing on over deterministic models, we turn our attention to the situational conditions under which entrepreneurs undertake venture creation. Specifically, we contend that the social entrepreneurial environment affects the level of entrepreneurial activity and the addition of a model of social network to entrepreneurial activity provides a robust description of the entrepreneurship process. Thus:

H₂: Entrepreneurial activity will be positively affected by the social entrepreneurial environment.

Methods and Analysis

For this study we used a sample of 7,000 Spanish respondents to the 2003 GEM survey. The sample was obtained through interviews by a survey firm specialized in phone surveys.

While the current TEA index is built around direct measures of an individual’s entrepreneurial activity (independent start-up, current job involves start-up, current owner/manager of

business), it does not include other indirect or environmental indicators of activity that also have a real impact on an individual's entrepreneurial activity. Nevertheless, GEM's datasets do provide several types of environmental indicators: macro-level measures of a country's environment for entrepreneurship, expert's assessment of their country's entrepreneurial environment and adult individuals' assessment of their perceived proximate environment.

This third set of variables is of special interest for this paper since it offers the possibility of using responses from a sample of entrepreneurs and non-entrepreneurs; two groups that show significant differences in their perceptions of the entrepreneurial environment. Moreover, consistent with Dennis (1997) and Aldrich et al. (1990), within the analysis of the environment we concentrate on the examination of environment familiarity and intra-population processes, since these variables relate to the proximate entrepreneurial environment of individuals, that is, the elements of the environment that are close to a person, and that may foster her/his propensity to launch a business. This proximate environment is, in our opinion, more likely to influence an individual's behaviour.

Our model is based on the assumption that an individual's entrepreneurial activity and proximate environment are latent continuous variables that are related to the observed survey questions through a threshold relationship. We provide an assessment of the goodness of fit of our proposed model, and we propose linear combinations of the GEM indicators that can be used as valid proxies of the latent variables in our model.

Consistent with GEM's specification of TEA, we used three indicators of direct entrepreneurial activity (q1, q2 and q3) and included 3 indicators from the GEM survey of the Social Entrepreneurial Environment:

q4: business angel activity,

q5: know an entrepreneur, and

q6: good start-up opportunities in your area within the next 6 months.

An important assumption of this research is that the variables q1-q3 and q4-q6 are proxies for two unobservable (continuous) constructs, Entrepreneurial Activity, and Social Entrepreneurial Environment, respectively. Table 1 provides the frequencies for the GEM variables used in this study. Five individuals refused to respond to one or more of these variables and were deleted from further analysis. Thus, the effective sample size is 6995 observations.

Table 1: Frequencies of Selected Variables

Code	Variable	No	Don't know	Yes	Total
q1	Independent startup?	6708	0	297	7005
q2	Current job involves a start-up?	6877	4	114	6995
q3	Owner/manager of a business?	6333	1	661	6995
q4	Business angel in past 3 years?	6766	0	229	6995
q5	Know entrepreneur in last 2 years?	4769	144	2082	6995
q6	Start-up opportunities within next 6 months?	3097	1580	2318	6995

We hypothesize that a two-factor model underlies an individual's response to our survey questions as depicted in Figure 1. The first latent variable (factor) corresponds to the individual's propensity to engage in entrepreneurial activity (EP). This factor has four indicators (q1 to q4)²⁰. The second latent variable corresponds to the individual's social entrepreneurial environment (SEE) with three indicators (q4, q5, q6). We also hypothesize that individuals' entrepreneurial propensities are determined by their social entrepreneurial environment, which is unique for each individual (that is, it changes from individual to individual).

Consistent with this view, we present a model of entrepreneurial propensity and social entrepreneurial environment and argue there is a relationship between these two dimensions –both determined on the basis of a number of proxy variables-. Figure 1 presents our model.

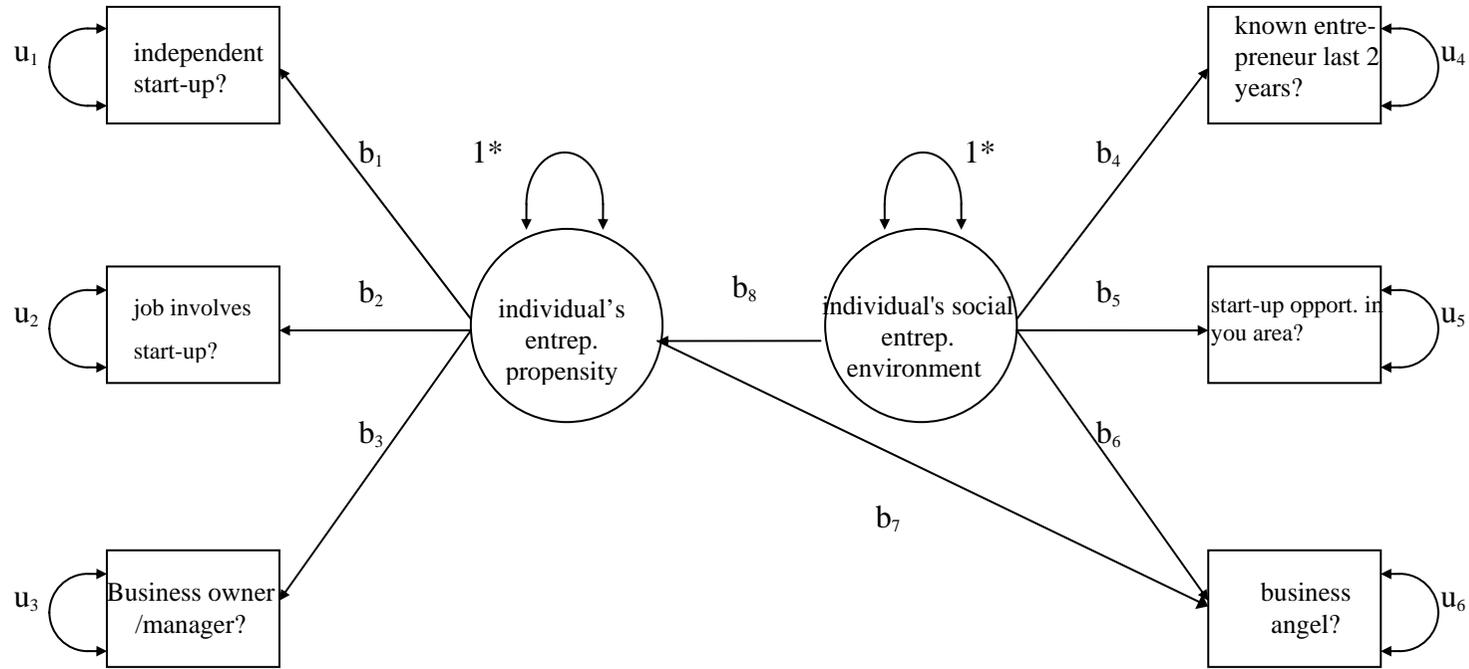
Since the model's random errors and latent variables are likely to be induced by a large set of specific causes, we assume that the random errors and latent variables are normally distributed. Now, to link this theoretical model to the observed individual responses, we assume a threshold relationship such that for each observed variable

$$q_i = \begin{cases} \text{No} & \text{if } q_i^* < \tau_{i,1} \\ \text{Don't know} & \text{if } \tau_{i,1} \leq q_i^* \leq \tau_{i,2} \\ \text{Yes} & \text{if } q_i^* > \tau_{i,2} \end{cases} \quad (1)$$

where the τ 's are thresholds that change from variable to variable, and the q_{i}^* 's are propensity scores assumed to underlie each of the observed categorical responses.

²⁰ It is interesting to note that from our point of view being a business angel is also a form of EA, although it is not taken into account in the TEA index. We include angel investing in our EA measure and believe GEM should reconsider and recalibrate the TEA measure, even if that entails reanalyzing the data from previous years so that year-to-year comparisons are adequate and valid.

Figure 1: A Two Dimensional Model of Entrepreneurship



Note: * parameter fixed for identification purposes

Note that we assume that ‘Don’t know’ responses provide information about the individuals’ entrepreneurial propensities and social environment²¹. Furthermore, the incorporation of ‘Don’t know’ responses into the model leads to a substantial reduction in missing patterns. Had we discarded ‘Don’t know’ responses, the effective sample size would be 5313 (a 24% data loss).

We fitted this structural equation model using Mplus (Muthén and Muthén 2001). The model fits well given the large sample size employed: $\chi^2 = 15.1$ on 7 df ($p = 0.03$), RMSEA = 0.01. Table 2 provides the slope parameter estimates for the model in Figure 1 along with their standard errors. Also, Table 3 provides the R^2 for each of the six variables used.

As can be seen from these tables, the variable worst accounted for by the model is whether there will be good start-up opportunities within the next 6 months ($R^2 = 6\%$). On the other hand, the variable best accounted for by the model is whether the current job involves a start up ($R^2 = 90\%$). The latter is the best indicator of the individuals’ propensity to engage in entrepreneurial activities (see Table 2). On the other hand, the best indicator of the individuals’ business environment is whether they have known an entrepreneur in the last two years. Finally, as we had hypothesized being a business angel is a weak (although significant) proxy of an individual’s propensity to be involved in entrepreneurial activities.

Table 2: Parameter Estimates and Standard Errors for the Slope Parameters

Parameter	b1	b2	b3	b4	b5	b6	b7	b8
Value	0.51	0.86	0.45	0.65	0.24	0.30	0.18	0.47
SE	0.04	0.06	0.04	0.08	0.03	0.08	0.07	0.09

Table 3: Proportion of Variance Accounted For

Code	variable	R^2
q1	Independent startup?	0.32
q2	Current job involves a start-up?	0.90
q3	Owner/manager of a business?	0.25
q4	Business angel in past 3 years?	0.18
q5	Know entrepreneur in last 2 years?	0.42
q6	Start-up opportunities within next 6 months?	0.06

²¹ Our model is based on the assumption that data in GEM is not missing randomly. Davidsson (2004) expressed concerns about the problem of the GEM relying on “the respondent’s *subjective interpretation* of what should and should not be counted as ‘*now trying to start a business*’”. He also claimed that the problem could vary according to cultural differences, noting the example of Germany and Ireland, where a considerable proportion of “no” and “don’t know” answers might occur when the respondent would have liked to say “yes”. Following the idea of “degrees of entrepreneurship” stated before, we assume that the pattern observed by missing data is the following: when the respondent answers “Don’t know”, he is in fact choosing an intermediate answer between the “yes” and the “no”.

Of particular interest is the effect of an individual's propensity to engage in entrepreneurial activities on their social entrepreneurship environment. This effect is significant and strong, $R^2=18\%$.

In closing, we have verified that our model for GEM's measure of entrepreneurship is supported by the data. This model assumes two continuous latent variables as opposed to the TEA's current binary classification of respondents as either entrepreneurs or non-entrepreneurs. Our model enables researchers to draw powerful statistical inferences regarding the entrepreneurship phenomenon. In our model, the main quantities of interest are the means for the latent variables concerning an individual's propensity to engage in entrepreneurial activities and an individual's entrepreneurial environment. Interest lies in investigating how these means change over time within a country and across countries. Furthermore, the model allows for the comparison of thresholds and latent variable slopes over time within a country, and for comparisons across different countries. Finally, and most interestingly, by incorporating additional exogenous variables into our model, such as an individual's background, country economic variables, and a country's cultural environment, it is possible to investigate the effects of these background variables on the model's latent means, thresholds, and latent variable slopes, in a manner similar to multivariate probit analysis (see Muthén 1979; Browne, and Arminger 1995; Tay 1998). However, although statistically optimal, the approach advocated here requires considerable statistical expertise. Therefore, we consider in the next section constructing linear combinations of the indicators that can be used as an approximation for our model's latent variables.

Proxies for the Latent Variables

Point estimates and standard errors for each individual's standing on the two latent variables in our model of the level of entrepreneurship can be obtained by integrating the posterior distribution of the latent variables, given their responses to the six indicators considered in this study. We investigate in this section whether suitable proxies for these estimates can be alternatively obtained by the following procedure. We code the responses to the indicators q1 to q6 as 'No' = 0, 'Don't know' = 1, and 'Yes = 2'. Then we compute

$$EP = (q1 + q2 + q3 + q4)/8 \quad (2)$$

$$SEE = (q4 + q5 + q6)/6 \quad (3)$$

Here, EP and SEE are normalized indices (that is, they range between 0 and 1) of an individual's propensity to engage in entrepreneurial activities and of an individual's entrepreneurial environment, respectively. To investigate the convergent and discriminant validity of these proxies, we calculated the correlations between these proxies and the point estimates of the latent variables. These are shown in Table 4.

Table 4: Correlations among the TEA, Point Estimates of the Latent Variables, and Latent Variables Proxies

	TEA	EP	SEE
Entrepreneurial Activity	.73	.89	.47
Social Entrepreneurial Environment	.29	.41	.90
TEA	1	.70	.10
EP	.70	1	.22
SEE	.10	.22	1

Notes: All correlations are significant ($\alpha = .01$); entrepreneurship activity and environment are the point estimates of the latent variables, EP and SEE are our proxies of those latent variables

As can be seen in the Table, our proposed proxies correlate .90 with the point estimates of our model's latent variables. Hence, they show high convergent validity and can be used as valid proxies for the latent variables. However, note that the use of proxies underestimates the correlation between entrepreneurial activity and entrepreneurial environment because it does not take into account the unreliability of the proxies. The correlation between the proxies is only 0.22 (see Table 4) whereas the correlation between the latent variables is 0.47 (see b8 in Table 2).

Most interestingly, the TEA index correlates 0.70 with the proxy of entrepreneurial activity but only 0.10 with the proxy of social entrepreneurial environment. Thus, although based on rather different principles, our measure of economic activity correlates quite highly with the TEA index.

Discussion and conclusions

The measurement of entrepreneurial activity in different countries is an important concern both for researchers interested in entrepreneurship and for public policy concerns (Birley 1984; Dennis 1997; Haswell, and Holmes 1989; Laitinen 1992; Williams 1993). In this paper we have re-examined the approach at measuring entrepreneurial activity, introducing the notion of likelihood of entrepreneurial activity. This implies a significant change in the way entrepreneurship is viewed from one in which a person is or not an entrepreneur to the notion of levels of entrepreneurship in individuals. Moreover, we include and measure the effects of entrepreneurial environment on entrepreneurial activity. We believe these are significant contributions to the examination and measurement of entrepreneurial activity.

One important addition in our measure is that it provides a model-based approach to measuring entrepreneurial activity; one that incorporates an individual's social entrepreneurial environment in the measure. Network-based arguments clearly have significant potential to enhance our understanding of an individual's propensity to engage in entrepreneurship. In this sense, our study addresses the concerns of sociology scholars by providing an empirical tests and validation of the general assertion that the incidence of entrepreneurial activity hinges on the structure of an individual's social network (Stuart and

Sorenson, 2004). Indeed, consistent with these theoretical arguments, our results indicate that an individual's personal context significantly affects his odds of undertaking direct entrepreneurial activity, and suggest that failing to consider such effect significantly understates the extent of entrepreneurship in a country.

The metrics in this study are also an improvement over previous approaches because they are transparent and result in a propensity score for entrepreneurial activity that is normalized and continuous. This point is a significant departure from prior research in entrepreneurship, and in particular from the GEM's TEA measure. The use of a classification, as in the TEA, in which individuals are determined to be either entrepreneurs or not entrepreneurs reflects a static approach at the phenomena, whereas the use of propensity, calculated as a variable ranging from 0 to 1, allows researchers to take a dynamic view of the process and to incorporate the notion of the likelihood of entrepreneurship over time. This, we believe, is a significant contribution, and one that merits rethinking the traditional approaches to examining entrepreneurial activity.

Important also is the introduction of the notion of thresholds in the context of new venture creation. On top of the examination of entrepreneurial activity (in terms of propensity), our model also allows us to examine the thresholds that determine when people start firms. This is a very important point for both research and public policy. From the perspective of research it gets us closer to determining the points that determine the likelihood of new venture creation. Our future examinations in this area will focus in better determining the characteristics of those thresholds.

The research also allows for an analysis of the percentage of the variance accounted for by each element in the model. Our model has a 90% prediction rate for entrepreneurial activity based on whether the current job of the person involves a start up, and a 32%, 25% and, 18% prediction rate based on whether it involves an independent start up, an owner manager of a business or being a business angel, respectively. Consistent with previous evidence, the strongest predictor of entrepreneurial activity is whether the current job of the individual involves a start up.

As long as we adhere to a dynamic perspective of the entrepreneurship phenomenon and view individuals as having a certain propensity to be entrepreneurs, then we can more effectively make inferences about a country's comparative strength in entrepreneurship. This approach may not completely resolve the question of how to ideally compare one country's entrepreneurial activity with another, but it takes a step closer to measuring this difference in a more consistent manner. Moreover, we believe that this approach challenges us to develop research questions, methodologies and techniques that will do justice to the complexity of entrepreneurship (Gartner, 1985 and 1988). Indeed, we argue that entrepreneurial activity is not a clear-cut reality that can be roughly put down in numbers; rather, entrepreneurship is a potential that people have in certain degrees and that, combined with specific circumstances, can give birth to actual venture creation.

One caveat is important to discuss at this point. It is important to realize that both the TEA and our measures of EP and ESE are simply indices. They do not represent the% of actual and potential entrepreneurs. While it is tempting to think about the TEA as percentage of entrepreneurs, and there is evidence that it is sometimes misused as such, the value of these indices lies in the ability to compare across time, and countries and regions rather than providing absolute values of entrepreneurial activity.

Finally, we recognize that the measurement of entrepreneurial activity will always be a contentious matter and it is not our intention to reopen up the debate on a definition of entrepreneurship. Nevertheless, we consider that proposing an alternative and consistent measure for international comparison of entrepreneurship could significantly contribute to the advancement of academic knowledge as well as provide policy-makers with useful inputs for designing programmes to enhance the economic welfare of their countries in the context of global competition.

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References

- Acs, Z.J., D.B. Audretsch and D.S. Evans (1994). The determinants of variations in self-employment rates across countries and over time. Mimeo
- Acs, Z.J., B. Carlsson, and C. Karlsson (1999). *Entrepreneurship, Small and Medium-Sized Enterprises and the Macroeconomy*. Cambridge: Cambridge University Press
- Acs, Z.J., and D. Storey (2004). "Introduction: Entrepreneurship and Economic Development," *Regional Studies*, 38 (8), 871-877
- Acs, Z.J., P. Arenius, M. Hay, and M. Minniti (2005). *Global Entrepreneurship Monitor 2004 Executive Report*. London: Babson College and London Business School.
- Aldrich, H.E. (1990). "Using an ecological perspective to study organizational founding rates," *Entrepreneurship theory and Practice*, 14 (3), 7-24.
- Aldrich, H. and Zimmer, C. (1986). Entrepreneurship through social networks. in *The Art and Science of Entrepreneurship*, ed. D.L. Sexton and R.W. Smilor, 3-23. Cambridge, MA: The Ballinger Publishing Company.
- Aldrich, H.E., A. Kalleberg, P. Marsden, and J. Cassell (1989). "In pursuit of evidence: sampling procedures for locating new businesses," *Journal of Business Venturing*, 4, 367-386.
- Aldrich, H. E., A. Elam, & P.R. Reese. (1996). Strong Ties, Weak Ties and Strangers: Do Women Business Owners Differ from Men in Their Use of Networking to Obtain Assistance? In *Entrepreneurship in a Global Context*, Eds. S. Birley and I. MacMillan, London: Routledge
- Arenius, P., and M. Minniti (2005). "Perceptual variables and Nascent entrepreneurship," paper presented at the GEM 2005 Conference, Budapest, Hungary, 25
- Audretsch, D.B., and M. Fritsch (2000). "Geography of firm births in Germany," *Regional Studies*, 28 (4), 359
- Audretsch, D.B., and A.R. Thurik (2000). "Capitalism and democracy in the 21st century: from the managed to the entrepreneurial economy," *Journal of Evolutionary Economics*, 10 (1), 17

- Bates, T. (2005). "Analysis of young, small firms that have closed: delineating successful from unsuccessful closures," *Journal of Business Venturing*, 20 (3), 343
- Birley, S. (1984). "Finding the new firm," *Proceedings of the Academy of Management*, 47, 64
- Blanchflower, D.G. (2000). "Self-employment in OECD countries," *Labour Economics*, 7, 471-505.
- Browne, M.W., and G. Arminger (1995). "Specification and estimation of mean and covariance structure models," in *Handbook of statistical modeling for the social and behavioral sciences*. Eds. Arminger, G., C.C. Clogg, and M.E. Sobel. New York: Plenum Press, 185
- Bruyat, C., and P.-A. Julien (2000). "Defining the field of research in entrepreneurship," *Journal of Business Venturing*, 16, 165-180.
- Busenitz, L. G., P. West III, D. Shepherd, T. Nelson, G.N. Chandler, and A. Zacharakis (2003). "Entrepreneurship research in emergence: Past trends and future directions," *Journal of Management*, 29 (3), 285
- Carree, M.A., A. van Stel, A.R. Thurik, and A.R.M. Wennekers (2002). "Economic development and business ownership: an analysis using data of 23 modern economies in the period 1976-1996," *Small Business Economics*, 19 (3), 271-291.
- Coviello, N. E., and M. V. Jones (2004). "Methodological issues in international entrepreneurship research," *Journal of Business Venturing*, 19(4), 485-508
- Chandler, G. N., and D. Lyon (2001). "Issues of Research Design and Construct Measurement in Entrepreneurship Research: The Past Decade," *Entrepreneurship Theory and Practice*, Summer, 25 (4), 101-113.
- Coduras, A., I. De la Vega, R. Justo and C. Cruz (2005). *The Global Entrepreneurship Monitor (GEM). Executive report Spain 2004*. Najeti Chair-Instituto de Empresa, Madrid.
- Coduras, A. and R. Justo (2003). *The Global Entrepreneurship Monitor (GEM). Executive report Spain 2002*. Najeti Chair-Instituto de Empresa, Madrid
- Cooper, A, and, W.C. Dunkelberg (1986). "Entrepreneurship and Paths to Business Ownership," *Strategic Management Journal*, 7 (1), 53-69.
- Davidsson, P. (1995). "Culture, structure and regional levels of entrepreneurship," *Entrepreneurship and Regional Development*, 7, 41-62.
- Davidsson, P. (2004). *Researching Entrepreneurship*. New York: Springer Verlag.
- De Castro, J., J. Pistrui, A. Coduras, B. Cohen, and R. Justo. *The Global Entrepreneurship Monitor (GEM). Executive Report Spain 2001*. Najeti Chair-Instituto de Empresa, Madrid.
- Dennis, Jr., W. J (1997). "More Than You Think: An Inclusive Estimate of Business Entries," *Journal of Business Venturing*, May, 12, 175-196
- Dennis, Jr., W. J (1999). "Business starts and stops," *Wells Fargo/NFIB Series*, November, Washington, DC: The NFIB Education Foundation.
- Dodd, S.D. (1997). "Social network membership and activity rates: some comparative data," *International Small Business Journal*, 15 (4), 80-87.
- Gartner, W. B. (1985). "A conceptual Framework for Describing and Classifying the Phenomenon of New Venture Creation," *Academy of Management Review*, 10 (4), 696-706.
- Gartner, W. B. (1990). "What are we talking when we talk about entrepreneurship?," *Journal of Business Venturing*, 5(1), 15-28.

- Gartner, W. B., and S. A. Shane (1995). "Measuring Entrepreneurship Over Time," *Journal of Business Venturing*, 10 (4), 283-301.
- Gilmore, A. and D. Carson (1999). "Entrepreneurial marketing by networking", *New England Journal of Entrepreneurship*, 12 (4), 31-38.
- Gnyawali, D.R., and D.S. Fogel (1994). "Environment for entrepreneurship development: Key dimensions and research implications," *Entrepreneurship Theory and Practice*, 18, 43-62.
- Granovetter, M. (1985), "Economic action and social structure: the problem of embeddedness", *American Journal of Sociology*, 91 (3), 481-510.
- Haswell, S., and S. Holmes (1989). Estimating the Small Business Failure Rate: A Reappraisal. *Journal of Small Business Management*, July, 68 – 74.
- Herbert, R.F. and Link, A.N., *The Entrepreneur*, Preager, New York, 1982
- Hébert, R.F. and Link, A.N. (1989). "In search of the meaning of entrepreneurship," *Small Business Economics*, 1 (1), 39-49.
- Hindle, K. (2005). *A Measurement Framework for International Entrepreneurship Policy Research: From Impossible Index to Malleable Matrix*. Unpublished document.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Jackson, J. E. and G. Rodkey (1994). "The attitudinal climate for entrepreneurial activity," *Public Opinion Quarterly*, Fall 58 (3), 358-380.
- Johannisson, B. (1987). "Anarchists and organizers-entrepreneurs in a network perspective," *International Studies of Management and Organisation*, 17, 49-63.
- Keeble, D., and S. Walker (1994). "New firms, small firms, and dead firms: Spatial patterns and determinants in the United Kingdom," *Regional Studies*, 28 (4), 411-427.
- Kirchhoff, B.A., and B.D. Phillips (1989). "The effect of firm formation and growth on job creation in the United States," *Journal of Business Venturing*, 3, 261-272.
- Kollmann T. , J. Christofor, and A. Kuckertz. (2005). "Explaining entrepreneurial orientation: Conceptualization of a cross-cultural research framework," Paper presented at the *EURAM 2005 Conference*, Munich, May 4-7.
- Krueger, N.F. (1993). "The impact of prior entrepreneurial experience on perceived new venture feasibility and Desirability," *Entrepreneurship Theory & Practice*, 18 (1), 5-21.
- Krueger, N.F. Jr. and D.V. Brazeal (1994). "Entrepreneurial Potential and Potential Entrepreneurs," *Entrepreneurship Theory and Practice*, 18 (3), 91-104.
- Laitinen, E. K. (1992). "Prediction of Failure of a Newly Founded Firm," *Journal of Business Venturing*, 7 (4), 323-340.
- Lumpkin, G.T., and G.G. Dess (1996). "Clarifying the entrepreneurial orientation construct and linking it to performance," *Academy of Management Review* 21 (1), 135-172
- Murphy, G., J.W. Trailer, and R.C. Hill (1996). "Measuring performance in entrepreneurship research," *Journal of Business Research*, 36, 15-23.
- Muthén, B. (1979). "A structural probit model with latent variables," *Journal of the American Statistical Association*, 74, 807-811.
- Muthén, L. and B. Muthén (2001). *MPLUS*. Los Angeles, CA: Muthén & Muthén.
- Naman, J. L., and D. Slevin (1993). "Entrepreneurship and the concept of fit: a model and empirical tests," *Strategic Management Journal*, 14, 137-153.
- Noorderhaven, N.G., A.R.M. Wennekers, G. Hofstede, A.R. Thurik and R.E. Wildeman

- (1999). *Self-employment out of dissatisfaction*. Tinbergen Institute Discussion Paper 99-089/3, Rotterdam: Tinbergen Institute.
- O'Donnell, A., Gilmore, A., Cummins, D., & Carons, D. (2001). "The network construct in entrepreneurship research: a review and critique," *Management Decision*, 39 (9), 749-760.
- OECD (1998). *Fostering Entrepreneurship, the OECD jobs strategy*, OECD, Paris.
- Parnell, J.A., W.R. Crandall and, M. Meneffee, (1995). "Examining the impact of culture on entrepreneurial propensity," *Academy of Entrepreneurship Journal*, Vol.1 , Issue 1, Fall, 39-52.
- Pfeffer, J. and, G.R. Salancik (1978). *The external control of organizations: A resource dependence perspective*. New York: Harper and Row.
- Praag, M.C. Van (1999). "Some classic views on entrepreneurship," *The Economist*, 147 (3), 311-335.
- Reynolds, P.D. (1992a). "Predicting new-firm births: interactions of organizational and human populations," in *The state of the Art of entrepreneurship*. Eds. D.L. Sexton, and J.D. Kasarda. Boston: PWS-Kent, 268-300.
- Reynolds, P.D. (1992b). "Sociology and entrepreneurship. Concepts and contributions," *Entrepreneurship Theory and Practice*, 16 (2), 47-70.
- Reynolds, P.D., D.J. Storey, and P. Westhead (1994). "Cross-national comparisons of the variation in new firm formation rates," *Regional Studies*, 28 (4), 443-456.
- Reynolds, P. D., M. Hay, and S.M. Camp (1999). *Global Entrepreneurship Monitor. 1999 Executive Report*. London: Babson College, London Business School and the Kauffman Center for entrepreneurial leadership.
- Reynolds, P. D., W. D. Bygrave, and A. Erkkö (2004). *GEM Global Report 2003*, Kansas MO: Kauffman Foundation, Babson College, and London Business School.
- Robinson, P. B., D. Stimpson, J. Huefner, and Hunt, H. (1991). "An attitude approach to the prediction of entrepreneurship", *Entrepreneurship Theory & Practice*, 15(4), 13-31.
- Shane, S., and S. Venkataraman, (2000). "The promise of entrepreneurship as a field of research," *Academy of Management Review*, 25 (1), 217-227.
- Shapiro, A. (1981). "Self-renewing economies," *Economic Development Commentary*, 5 (Apr.), 19-22.
- Shapiro, A. (1982). "Social dimensions of entrepreneurship," in C. Kent, D. Sexton, and K. Vesper (Eds), *The encyclopedia of entrepreneurship*, 72-90. Englewood Cliffs, NY, Prentice Hall.
- Schafer, D.S. (1990). "Level of entrepreneurship and scanning source usage in very small businesses," *Entrepreneurship Theory and Practice*, 15 (2), 19-31.
- Sternberg, R., and T. Litzenger, (2004). "Regional Clusters in Germany – Their Geography and their relevance for Entrepreneurial Activities," *European Planning Studies*, 12 (6), 767.
- Storey, D.J. (1999). "Six steps to heaven: evaluating the impact of public policies to support small business in developed economies," in: D.L. Sexton and H. Landström (eds), *Handbook of Entrepreneurship*, Blackwell: Oxford, 176-194.
- Stuart, T. E., & Sorenson, O. (2004). Social Networks and Entrepreneurship. in R. Agarwal, S. Alvarez, & O. Sorenson (eds.), *Handbook of Entrepreneurship*, 211-228.. Kluwer.
- Tay, R.S. (1998). "Degree of Entrepreneurship: An Econometric Analysis Using the Ordinal Probit Model ", *Journal of Small Business and Entrepreneurship*, 15 (1), 83-99.

- Ucbasaran, D., P. Westhead, M. Wright, (2001). "The Focus of Entrepreneurial Research: Contextual and Process Issues," *Entrepreneurship Theory and Practice*, Summer, 25 (4), 57-80.
- Van de Ven, A. H. (1993). "The development of an infrastructure for entrepreneurship". *Journal of Business Venturing*, 8 (3), 211-230.
- Verheul, I., S. Wennekers, D. Audretsh, and R. Thurik (2002). "An Eclectic Theory of Entrepreneurship: Policies, Institutions and Culture", in David Audretsch, Roy Thurik, Ingrid Verheul and Sander Wennekers (eds.), *Entrepreneurship: Determinants and Policy in a European-US Comparison*, Boston: Kluwer Academic Publishers, 11-82.
- Wennekers, A.R.M. and Thurik, A.R. (1999). "Linking entrepreneurship and economic growth," *Small Business Economics*, 13 (1), 27-55.
- Wennekers, A. R. M., N. G. Noorderhaven, G. Hofstede and, A. R. Thurik (2001). "Cultural and economic determinants of business ownership across countries," Proceedings, Babson Conference, 13-16 June 2001, Jönköping.
- Williams, M. L. (1993). "Measuring Business Starts, Success and Survival: Some Database Considerations," *Journal of Business Venturing*, 8, 295 - 299.

Strategic Change Processes in SMEs – The longitudinal Analysis of Three Finnish Furniture Firms

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Abstract

This study focuses on SMEs' strategic changes in dynamic environments. In order to deeper understand these changes, the specific characteristics of SMEs' strategic behaviour, and the interaction of internal and external factors are included simultaneously in the analysis. The conceptual framework is based on studies of strategic adaptation and SMEs' strategic behaviour. The empirical research consists of three longitudinal case studies in the Finnish furniture industry, for which processes are analysed. The data analysis reveals that strategic changes are the result of multiple, overlapping processes. In short term, firms' responses to environmental stimuli often look like reactive tactics. However, in a longer time orientation, owner-managers were able to identify and implement new ideas and projects in their business environment. Additionally, owner-managers' ways to make strategic decisions in turbulent situations seems to be based more on experience and intuition instead of being calculated and planned.

Key Words: *SMEs' strategic changes, strategic decision-making, Finnish furniture industry*

Introduction

Dynamism, uncertainty, and discontinuity are words often used to describe today's business environment. Firms continuously face changes and new situations in their environments, which challenge their traditional ways of acting and, in the names of survival and success, evoke the necessities for adaptation and change. This is true especially in the context of small and medium sized firms, which are recognized to be relatively strongly dependent on their environmental conditions. As Chell et al. (1998) and Cope et al. (2000) suggest the triggers for changes in SMEs often originate from a critical situation faced by a company, which might open opportunities for new development.

Scholars have been interested in the phenomena of organizational change and adaptation already for decades, starting from the earliest studies of contingency theorist in 1950s (Miller and Friesen, 1980). As a consequence, different school of thoughts have emphasised different aspects of change²². As main streams, population ecology and strategic adaptation

²² For example, Garud and Van de Ven (2002) present four different theories to explain the process of change (teleological, life cycle, dialectical and evolutionary).

have dominated the literature about the relationship between organization-environment and strategy (Tsai, MacMillan and Low, 1991:9). In this context, the relationship between firm and environment is usually presented as a continuum with its extremes in environmental determinism and managerial voluntarism (Hrebiniak and Joyce, 1985; Vesalainen, 1995). The deterministic perspective suggests that the survival of organizations is mainly determined by environmental selection (Hannan and Freeman, 1977, 1984), and firms possess different “inertial forces” which constrain their possibilities to adapt when environmental conditions change (Hannan and Freeman, 1977). Thus, external factors are essential to explain change; and because managers hardly have options for decision-making; the role of management is passive.

However more commonly, strategic changes are studied from the voluntaristic perspective, which assumes that the managers have substantial discretion to decide independently about the firms’ strategies. The success of the organization is a function of the manager’s abilities to evaluate the environmental conditions and the internal capabilities of his firm, in order to formulate and implement effective strategies (Porter, 1980). In other words, even the environment is a big restriction for the strategy development, it can be manipulated (Child, 1972), and managers are seen as active and often proactive persons. The contingency approach, in turn, adopts an intermediate perspective, emphasizing the predetermined nature of environmental contingencies for firms’ strategies, structures, and performance. Thus, managers choose strategies and preferences consciously as a reflection about what constitute the best strategy for a certain environment (Shane and Kolvereid, 1995). In this case, managers are seen mainly in a reactive light.

When adaptation theories (mainly strategic and contingency approaches) are applied to small firms, most of the studies conclude that a common pattern of change is “reactive adaptation”, suggesting also that changes at strategic level do not happen frequently, and often small firms are poorly managed. However, if we consider the heterogeneity of the SME population, and the owner-manager’s strong personal influence on his/her firm behavior, the common view of SME change pattern evokes many questions with regard to the simplicity of the strategic change phenomena in SMEs. Moreover, due to the strong emotional link between owner-managers and SMEs, generic theories on strategy do not represent correctly the situation of the small and medium-sized companies (Chan and Foster, 2001). This makes us wonder if it is really possible to characterize these processes by using the traditional classification from the strategy literature.

In the light of these shortcomings, we believe that the answer for the previous question is *no*, mainly for two reasons. First, basically all theoretical development related to strategic changes has happened in a large firm context, explaining the transition from one steady state to another (Nicholls-Nixon et al., 2000). Additionally, the literature is mainly concentrated on the firm’s competitive positioning, while the interaction between market positioning and the internal resources of a firm has not been studied deeply in SME context (Bosch, Huse and Senneseth, 1999:50-51). The orientation of these studies is extremely strategic, and leans on variables which are suitable for measuring changes in/of large firms. Many of these studies

are also normative, aiming to give advice on how a change process should be managed. However, SMEs are not simply smaller large firms. Moreover, strategic planning is not an activity commonly carried out in SMEs, and their everyday life is more based on routines predetermined by the nature of the production process, their manufactured products, and environmental conditions. Thus, if strategic change is analysed by focusing on strategic planning and implementation variables, we can easily understand the conclusions literature so far has associated with change in SMEs.

Secondly and at a more general level, most of the studies are cross-sectional. Instead of explaining the process of change itself, studies mainly had focused on analysing whether change has happened or not, than *“to observe managers facing obstacles and making decisions that initiate change. The longitudinal observation required for such research is difficult and costly to do at the organizational level”* (Gersick, 1994:11). We argue that the cross-sectional nature of these studies is somehow limiting our understanding of the processual nature of change and adaptation. As suggested by Pettigrew, Woodman and Cameron (2001), the inclusion of time, history, process and action in the analysis would give us a better understanding of the phenomena of change.

In this context, we suggest that purely strategic approach is not suitable for studying small firms' strategic change processes. Instead, the framework which recognizes the special characteristics of SMEs' which affect the change processes (strategic behavior), explicitly takes into account the interaction between internal and external factors, and reveals dynamism of change processes, could enrich the knowledge of the phenomenon. This study intends to contribute to the existing knowledge about SMEs' strategic changes in a dynamic environment. Due to the scarcity of this kind of studies, we need a much deeper understanding of the characteristics of strategic changes in SMEs. The purpose of the study is to answer the following questions:

- Which are the critical incidents triggering strategic changes, and to which extent are these changes provoked by internal factors within the firm or by the environment?
- Which are the main factors that affect SMEs' strategic changes, and how do they interact? In which way do owner-managers' characteristics affect these changes?
- On which levels and for which functions do changes happen, and how are they inter-linked? To which extent are strategic changes proactive and reactive?

Two implicit tensions are notable in the analysis. The first tension is the relationship between the macro-economic conditions and the micro-economic responses. Regarding these responses, a second tension appears between the managerial discretion to make strategic decisions vs. environmental determinism.

We aim to answer these questions with a longitudinal case study of three Finnish furniture manufacturing firms. In the next section, we present the conceptual framework based on studies of strategic adaptation and strategic entrepreneurship (Hitt, Ireland, Camp and

Sexton, 2001) This is followed by a methodological discussion in the third section, whereas the fourth section is dedicated to the case analysis. Finally, we present our main findings and conclusions in sections five and six.

Conceptual framework

Strategic change and adaptation

In adaptation studies, strategic change is understood as the means by which organisations can maintain or find the fit between themselves and the environment. Additionally, organizational change primarily reflects the decisions and strategies of leaders and dominant coalitions in organisations in response to changes in environmental threats and opportunities (Singh, House and Tucker 1986). Previous studies are notable in the versatile characterisation of changes. For example, change is measured in relation to the “radicalism” of change (first order and second order changes), changes in core and peripheral features, different change levels, and the nature of change (proactive or reactive) (e.g., Garud and Van de Ven, 2002; Hannan and Freeman, 1984; Miles and Snow, 1978; Kelly and Amburgey, 1991). These studies offer a good basis for analysing strategic changes, mainly by pointing out different levels and functions where firms usually change.

According to Hannan and Freeman (1984), organizational changes can be divided into two types, which both include strategic elements: core feature changes (i.e. stated goals, forms of authority, core technology, and marketing strategy) and peripheral feature changes (i.e. horizontal and market-extension mergers, joint ventures, and interlocking directorates). The authors concluded that changes are more common in peripheral features, and relatively rare in core features.

Perhaps more concrete, Vesalainen (1995:68) classifies changes as: (1) core feature (redefinition of business’s values and beliefs), (2) strategic (product development or market development in order to change the organisation/environment relationship), (3) competitive (using a variety of competitive and functional strategies), and (4) operative adaptation (resource allocation adjusting the quantity of resources in the internal transformation process). In his study of small firms, adaptation commonly occurred on operative and competitive levels.

In general, several classifications of a firm’s adaptive behaviour have been developed²³. These typologies highlight the essential features of situation-specific strategies; capture the major commonalities and provide guidance at the corporate level on how to develop a business (Herbert and Deresky 1987: 136). In addition, typologies and classifications try to build a comprehensive picture about the phenomena under investigation, and make

²³ This includes Miller and Friesen (1980): nine organisational transition archetypes; Ansoff’s (1975) competitive and entrepreneurial behaviour; Mintzberg (1973) entrepreneurial, adaptive, and planning; Mintzberg (1978) intended, realised and emergent strategy; Greenwood and Hinings (1993): archetypes mainly regarding organisational design.

generalisations about it. Among well-known typologies of strategic behavior one could highlight two: Porter's (1980) distinction between differentiation, focus, and cost leadership and the typology of Miles and Snow (1978).

Miles and Snow (1978) use the adaptive cycle to present a dynamic process of adaptation. This adaptive cycle is divided into three major problems resp. change areas: an entrepreneurial (choice of product-market domain), engineering (choices of technologies for production and distribution), and administrative problem (uncertainty reduction and innovation enhancement). In the process of adaptation, the management has to solve these problems continually (Miles and Snow 1978). Miles and Snow's ideas are interesting from our point of view because they include proactive and reactive aspects of adaptation in their classification. Moreover, they take into account the interactive nature of different (strategic) change elements. They classify firms into four groups based on their strategic orientations: (1) **prospector** (companies looking continually for new opportunities), (2) **analyzer** (companies working in stable domains and searching for new opportunities, mainly by imitating successful offensive answers), (3) **defender** (companies protecting their market niche, and not searching for new opportunities), and (4) **reactor** (passive companies without long term goals that do not follow a consistent model of behaviour).

In this context, Segev (1989) suggests that Porter's (1980) differentiation type could be compared with Miles and Snow's (1978) prospectors, while cost leadership could be matched with the defender type. Additionally, analyzers and reactors would be part of a continuum between these previous extremes (Miles and Snow 1978). In terms of appropriateness of the strategy, prospectors, defenders and analyzers are the successful types, while reactors could be classified as "stuck in the middle", and their behaviour labelled as unsuccessful strategies.

However, the processes of adaptation and change are rarely as simple as single typologies let us assume. Mintzberg et al. (1998) use the term 'domino effect' to illustrate how a firm's routines are inter-linked, and a change in one issue is often followed by changes in other issues (Mintzberg et al., 1998). These changes do not include just internal changes, but also variations in the relationships with different stakeholders (Venkataraman et al., 1998). Pettigrew et al. (2001), in turn, have clearly stressed the importance of a processual approach in change studies. Following their argumentation, history and future are present at the same moment, which affect a firms' change capability in the sense of positive and negative path dependencies. Finally, like adaptation studies suggest, strategic changes are usually linked to strategic decision making in the context of environmental opportunities and threats.

SMEs' strategic behaviour

In a SME context, the strategic change process results from an interaction between internal and external factors. Although the environmental influence is strong, and strategic decision-making process is highly influenced by outside parties (Lawrence and Lorsch, 1969;

Tushman and Romanelli, 1985), the strategic management process is also case-specific and strategy formulation is a highly contextual activity. Additionally, goals are not consistent across people and time, and search behaviour is local and cognitively limited (Cyert and March, 1963) instead of being rational. As Eisenhardt et al. (1992:20-22) have stated: *“Goals are unclear and shift over time. People often search for information and alternatives haphazardly and opportunistically. Analysis of alternatives may be limited and decisions often reflect the use of standard operating procedures rather than systematic analysis” ... “Decision makers satisfice instead of optimize, rarely engage in comprehensive search, and discover their goals in the process of searching”*

In this context, an owner-manager's personal characteristics (i.e., the willingness for risk taking and need for achievement) and his/her ideas influence strongly to SME goals, and the processes of strategy formulation and implementation (Covin and Slevin, 1989; McCarthy, 2003). Mintzberg and Waters (1982) argue that the organisation's size influences the rationality of strategic decision-making (in SMEs rationality is lower); and many studies found that high uncertainty, external control, and threatening environments reduced the rationality of strategic decision-making (Fredrickson, 1984; Miller, 1987; Dean and Sharfman, 1993). Moreover, it has been recognized that owner-managers act based on the way they interpret the environment (Bourgeois, 1980). Thus, even when agents face similar stimuli, they make different decisions, due to the varied perceptions that they have about the reality (Penrose, 1959). In this way, persons are restricted by the way in which they socially build their reality (Silverman, 1970). As Tsoukas (1994:13) has stated: *the organisation and the environment are “subjectively constructed entities which may change once individuals' understandings and interpretations change”* (Tsoukas, 1994:13).

Therefore, when facing environmental changes, owner-managers make adaptation decisions based on heuristic and mental models. Hence, managers rely on simplified and imperfect representations of the world in order to process information. These mental models affect their interpretation of strategic issues. Together with heuristics used to make decisions (strongly linked to key beliefs and experiences) and with intuition (Eisenhardt et al., 1992; Brouthers et al., 1998) they influence the decision-making process (Barr; Stimpert and Huff, 1992). Thus, entrepreneurs can make decisions and exploit opportunities in situations where a structured decision-making mechanism could be a barrier (Alvarez and Busenitz, 2001). Within this heuristic perspective, strategic decision-makers are rational and irrational at the same time (Eisenhardt et al., 1992; Brouthers et al., 1998).

However, mental models also include many inertial²⁴ elements, and strategic change often is difficult (Barr; Stimpert and Huff, 1992). As a consequence, changes can involve experimentation, driven by trial and error logic. This experimentation in turn can reconstruct the owner-manager's mental models, and new understanding related to changed environmental conditions can develop (Nicholls-Nixon; Cooper and Woo, 2000). This process can involve the unlearning of old beliefs, the building new perception, and the development of a cause-effect understanding about the new environmental situation as well as the development of experience and insight to act in a spontaneous and improvised way (Barr; Stimpert and Huff, 1992; Crossan, 1998; Eisenhardt, 1989; Alvarez and Busenitz, 2001). Improvisation is the capability to make decisions within a short time and with limited resources and information (Leybourne, 2003). At the same time, when the company acquires a larger experience for the improvisation, it also continues to optimise this process to apply it in future events (Chelariu et al, 2002). However, improvisation requires not only risk-taking and error-tolerance, but also a deep understanding of customers, competitors and industry, together with the capacity to use resources.

In short, in the context of SMEs the interpretation of the environment is unique and based on manager's learning and experience (Bowman and Ambrosini, 2000). Thus, strategic development and change are rather a result of a combination of knowledge (mainly learning from experience) and reaction to critical events (in which owner-managers learn to process information, adjust strategy and make decisions) than of planned developments (Deakins and Freel, 1998:146; McCarthy, 2003). As a consequence, owner-manager rarely formalise their strategic vision (Covin and Slevin, 1989), and strategies can be characterized as being empirical and intuitive with only little formalisation (Eisenhardt et al., 1992; Brouthers et al., 1998). Further, the processes of strategy-generation are fragmented, evolutionary and intuitive, and strategies emerge out of a series of conscious decisions, together with and interacted in a turbulent environment. Moreover, sometimes a flexible and experimental way of acting is considered as convenient (Mintzberg, 1978). Finally, it can be stated that the implementation of the strategy rarely has an impact on the structure of a small firm (Lobontiu, 2002).

Based on the previous theoretical discussion, we want to shortly emphasize three aspects which most importantly guide our empirical analysis. First, following adaptation studies suggestions, we will analyse changes through their main adaptive elements (customer relationships and markets; technology investments; product and product development; and strategic decisions) and levels (strategic, competitive, and operative). Secondly, we will direct

²⁴ Inertia, originating from path dependency, is seen as a factor that complicates adaptation. Inertia may appear in many forms, e.g. top management's cognitive models, resistance to make changes in strategy and routines, investments, production and product decision, and relationships to different stakeholders (Huff, Huff and Thomas, 1992). With regard to SMEs' inertia and their capability for change, one can conclude that in general and compared to large firms, small firms are considered to be more flexible due to the flat organization structure (or the lack of formal structure), fast decision-making and an ability to react quickly. On the other hand, scarce resources (i.e. lack of financing options and skilled employees in different expertise areas) are hindering possibilities for change.

our attention to some essential aspects of owner-manager personality (levels of rationality, risk aversion, and proactiveness), their decision-making style (planned vs. emergent) and their strategic orientation (Miles and Snow types), which might influence the strategic change processes within the small firm. Thirdly, we will analyse strategic changes by taking into account the interaction between internal and external factors in the long run.

Methodology

We draw on results from a longitudinal, multiple case study. Longitudinal cases are suitable for analysing processes in their natural settings in a comprehensive way. This methodology also allows for high sensibility in data analyses because the number of variables is not limited in advance. This is a particular important issue in process studies, where it can be expected that non-linear and even unexpected relationships between variables exist. Moreover, multiple cases allow us to analyse strategic change processes at the level of (each) individual firm, and later on to make inter-case comparisons (Yin, 1994; Denzin and Lincoln, 1994).

Our analysis follows the main ideas of a processual analysis (Pettigrew, 1997). The driving assumption is that a social reality is a dynamic process, and it occurs rather than merely exists. A process can be defined as a sequence of events that describes how things change over time, where the context, agents and actions, and time and history are embedded in a process (Pettigrew, 1997). The analysis is guided by five internally consistent assumptions: 1) *embeddedness: studying processes across a number of levels of analysis* (inter-related levels of macro, sectoral, organisational and individual factors are analysed); 2) *temporal interconnectedness: studying processes in past, present and future* (path dependence, and owner-managers' interpretation are shaping the processes); 3) *a role in the explanation for context and action* (context and action are intertwined); 4) *a search for holistic rather than a linear explanation of processes* (the focus is to find many inter-linking conditions which link feature of context and process to certain outcomes); 5) *a need to link the process analysis to the location and explanation of outcomes* (providing a focal point for the whole investigation, and allowing to compare cases against and with each others).

We chose the Finnish furniture industry as a target sector for empirical analysis, mainly for three reasons. First, during the past 15 years, the furniture industry has faced many changes: economic boom and recession on the macro-level, increasing international competition and strengthened position of retailer chains on industry level, and changing consumer preferences in the end market. Secondly, the industry is highly SME-dominated and can be characterised as a mature and production-oriented manufacturing industry with traditional business models. Third, we have access to longitudinal data of furniture manufacturers which allow for our long-term orientated and processual research.

The case selection was based on the longitudinal, qualitative interview data of 60 Finnish furniture manufacturers. This data was collected, using the same format, in 1986, 1990, 1993, 1995, and 2000 within the Furniture Project in the Department of Marketing of the

University of Vaasa. The thematic phone interviews were based on structured interview guidelines and consisted of mainly open ended questions, focusing on customer relationships and markets domains; products and product development; technology and investments; co-operation with other furniture producers; strategy; and the competitive situation. Related to each theme, the possible changes and reasons for changes (“why questions”) were discussed. Additionally, accounting information from 1986-2000 is available.

From that data, we selected three case firms for a deeper, process-oriented analysis. The case selection was based on the following criteria: First, all firms had to have survived the whole research period without insolvency or other financial reorganisations. In this way, all firms have “lived through” the same environmental conditions without support from authorities. This similarity in basic conditions improves the validity of the inter-firm comparisons. Secondly, strategic level changes can be identified in all cases, thus reflecting the phenomena under investigation. Third, each firm’s strategic change processes had to differ from each other. This criterion was set up in order to present strategically different kinds of cases, and to analyse inter-firm similarities and differences. Under these conditions, the first case presents a process in which a mainly domestically operating firm went through a strategic reorientation from being home furniture producer to becoming a business-to-business subcontractor. In the second case, the case firm’s internationalization efforts are characterising the change process. Finally, the third case illustrates a change process whereby a traditional furniture manufacturer becomes a system subcontractor of an international furniture giant.

The empirical analysis was partly based on the longitudinal data described earlier. Because this data include mainly firm level information, we interviewed by phone the owner-managers of selected firms in order to obtain information on strategic-decision making and strategic behaviour, and to complete (and validate) the longitudinal data. These interviews included both qualitative and quantitative elements. First, with the guidance of open ended questions, we discussed the owner-manager’s strategic decision-making style. Secondly, following the method of Dean and Sharfman (1993), we tested the rationality of the decision-making of owner-managers. This was done in order to evaluate the theoretical discussion related to the rationality of SME decision-making. Third, following the method of Kickul and Gundry (2002), we studied the owner-managers’ personal tendency to be proactive. This was done in order to see if the firm level strategic actions reflect the characteristics of owner-managers. In addition, willingness to take risks was measured. Both, the rationality of decision-making and proactive personality were measured by using seven-point Likert scale. Finally, we asked owner-managers to classify their firms within the typology of Miles and Snow (1978). This was done by reading the descriptions of each strategic type (James and Hatten, 1995; Brouthers et al., 1998), and owner-managers were asked to comment on each category based on its suitability to describe their own business. This was done in order to see how owner-managers see their firm strategy in a long time perspective.

In this context, the analysis progressed through three main steps:

- First, we wrote descriptive case histories in order to build a general picture of case firms. In these case descriptions, our aim was to identify the most essential changes, and to explore the possible interactions between internal and external factors.
- Secondly, we arranged the external and internal events chronologically into charts, and marked the most important interconnections between environmental influences, the firm's responses, and events (the arrows do not represent cause-effect relationships; instead, they are used to link stimulus and responses that are related in one way or another). These charts are divided in five levels (general environment, business environment, external relationships, answers, and internal factors). The general environment illustrates macro economic conditions, while the business environment includes the issues related to the furniture industry. Answers address the responses and actions the firm has made related to environmental changes and internal factors. Internal factors point to the main strengths and weaknesses of a firm to cope with and in its environment. Finally, external relationships show the results of the interplay between environmental changes, firm answers and the reallocation of internal factors (external and internal forces).

Thus, the purpose of the chart is to illustrate how the stimulus and stress of different environmental levels (general and business environment), firm's internal capabilities and resources (technology, products, and human resources), and the interaction between these internal factors, external relationships and environment are shaping the change process (answers). The issues presented in the chart are based on the interpretations of the owner-managers, and on critical events faced by the company.

- Third, with the outcome of the analysis in mind, we analysed the data, concentrating on the most important changes and processes. Case findings were linked to our broader theoretical discussion, and the results were discussed in the context of (SME) strategic behaviour and adaptation.

With regard to the reliability and validity of the study, certain aspects should be emphasized. (Yin, 1994; Lincoln and Guba, 1985). When considering construct validity, the search for change patterns is guided by theoretical discussion and concepts. Regarding the information correctness, even the longitudinal data was not designed for this study, and it was only partially collected by the authors; the interviews conducted in different years increase data truthfulness as "current" data from each year. On the other hand, external validity is commonly tested through generalisation of results. The objective of this study is analytical generalisation, not scientific generalisation for a population. Lastly, the interpretation of qualitative data is always subjective. In this study, the data was interpreted and validated through an in-depth dialogue between both authors, thus reaching a richer interpretation. The quantitative measures (seven-point Likert scales) we applied to assess the rationality of decision-making and personality proactiveness were not used statistically, but to assess the rationality of decision-making and personality proactiveness of these three owner-managers.

In both cases, Cronbach's alpha which is higher than .79 indicates the internal reliability of measured items (cf. Dean and Sharfman, 1993 and Kickul and Gundry, 2002).

Industry description and case analysis

The Finnish furniture industry can be described as a traditional, SME dominated manufacturing industry. Basically all manufacturers are SMEs, often lead by owner-managers, and management is highly based on the entrepreneurs' attitudes and beliefs about the business and what it should be. During the past 15 years, the Finnish furniture industry has faced many changes, thus offering an interesting field to study firm behaviour in a dynamic environment.

The 1980s was a good decade for producers and due to high demand the challenges faced by the companies were mostly at the productive level. During the 1980s, furniture producers invested much in production facilities and production processes, whilst active product development was not their main concern or activity. Even though the competition was hard, companies enjoyed the freedom to make strategic decisions and choices (Aravuo, 1994).

At the beginning of the 1990s, the Finnish economy fell into a deep recession and the total sales of the furniture industry crashed. In 1990-1993, the amount of furniture producers declined by 25%, turnover by 35%, and the number of employees by 38%. In 1994, the total sale decreased by about 7%, and the overall investment rate was low (Alanko, 1996). Also competition got new rules during the recession. The pressure for price competition was high, and many firms had to reduce prices at the expense of their revenues. Also the power of retailer chains became a major determinant; they reduced their purchases, and many did not conclude yearly contracts with producers any longer. As a common consequence, production series were shortened and manufacturing firms had to store products themselves. Many furniture producers had to lay off people or temporarily close down their business. Additionally, furniture imports increased, proving to be competitive both in quality and price, which further increased the difficulties for Finnish producers. Furniture exports increased in 1993-1994, however mainly due to government supported exports projects during the worst recession.

The Finnish economy started to recover in 1994; however the corresponding developments in furniture industry took their time. The industry started to grow again slowly and steadily in the late 1990s. Also exports had increased, and the amount of investments had grown continuously. However, despite these positive signs of industry development, many companies still faced enormous problems. Technologically and production oriented manufacturers still had difficulties in being competitive regarding their prices and design. Also the co-operation between small furniture producers had been problematic, and many firms had difficulties to build close relationships with retail chains. Finland became a member of the European Union in 1995, which also created tension in the industry in the sense of competition and legislation (Laine-Kangas, 1998).

Case 1: MF (see figure “Case 1” in Annex)

MF was established in 1987 as a consequence of a spin-off. In its first years, the company had 95 employees, and it operated in three kinds of businesses: own product development and production (home furniture), home furniture production as a subcontractor, and public furniture production as a subcontracted order. About 30% of the turnover consisted of subcontracting sales, and 70% of own home furniture sales to domestic retailer stores. Exports accounted for about 20% of the turnover. According to the owner-manager, delivery times, quality, and price were the competitive strengths that MF possessed.

By the end of the 1980s, hard competition and product imitation constrained MF's possibilities to differentiate its products. As short term responses, MF implemented competitive and operative level changes by increasing its product development (including better quality raw material), changing the product mix, and technologically catching up in order to achieve more effective production. In this regard, the business environment pushed (or alerted) MF to focusing its business activities. However, nothing changed dramatically, and the operative and competitive level changes were mainly incremental.

In the threshold of recession at the beginning of the 1990s, operating in three different businesses was difficult for MF, and the owner-manager saw many threatening elements in the environmental conditions (especially in the home furniture business): a decreasing demand, increasing price competition, decreasing product prices, the increasing power of retail chains, and the arrival of the economic depression. Under these circumstances the owner-manager realized that focusing on subcontracting would be the best option for MF. Benefits from this strategic change would be continuing customer relationships, and possibilities to anticipate orders in a longer time perspective. The owner-manager commented the situation as follows: *“We have been producing book shelves [home furniture] for a long time and when we anticipated that retail would become centralised in chains and they would be bigger entities, we would not survive in that competition... and we started to strengthen subcontracting”*.

As a consequence, MF had to develop and compete in the home furniture business, as well as develop its operations in subcontracting business. For this purpose, MF actively searched for co-operation partners and invested in machinery and production process development. Thus, their intention to increase subcontracting started active processes internally and with regard to external relationships. Thus, the owner-manager's *perception* of environmental circumstances and their consequences for business proactively triggered the necessity for strategic change.

Even though the intention to be a subcontractor was strong, the process itself was not easy. Mainly due to difficulties to find subcontracting customers and large-scale investments made in production facilities, MF had to continuously put effort also into the development of the home furniture business. Thus, it broadened its home furniture product mix and increased product development activities. At the same time, the environmental conditions (decreased

demand and increased power of retail chains) forced MF to adapt its internal activities, downscaling to smaller production series. In this context, the owner-manager's survival recipe was simply "try to make business instead of competing with prices". Furthermore, it had to lay off 30% of its employees, and freeze all investments. In this point, MF's actions seem to be mainly a reactive adaptation on competitive and operative levels.

Regardless of the difficulties and due to the environmental uncertainty in the domestic market, MF actively continued the development of subcontracting business. This had strategic level consequences when MF established the "JT-marketing company" together with four local furniture manufacturers. The aim of this co-operation was to increase export by sharing marketing expenditures and to offer a complete set of products for hotels and big customers (each of the five firms was specialised on its own product). This was a big investment of both money and productive factors, and went hand in hand with lots of expectations. In 1995 the owner-manager saw the business through JT as a stone foundation of MF. The owner-manager assessed the JT-marketing company as a subcontracting customer, and in this sense its establishment presented a conscious action toward his strategic intention. The establishment of JT marketing company is a clear example of proactive strategic level change.

Although subcontracting was slowly increasing in the mid 1990s, many external incidents hindered this process. First, changes in the domestic industry limited the customer base. This was due to generalised investments in new technology in the furniture sector: customers who used to buy semi products from MF started to produce these parts themselves. Secondly, the low value of Swedish crown and Ikea's decision to freeze its subcontracting in Sweden increased the competition with Swedish subcontractors, as a consequence of which MF lost exports. However, the JT marketing company increased sales to Germany, which compensated for the losses in domestic and Swedish markets. At the same time, MF was negotiating business possibilities with Ikea, albeit without a result. Simultaneously in 1995, MF was able to develop its business by investing in machines and putting some effort in product development and marketing. Additionally, an external designer was contracted for its own product development. We would characterise this period as a period of normal development, guided by both environmental conditions and internal intentions.

The simultaneous development of the home furniture business (own products) and the subcontracting business finally proved to be a too heavy business model for MF, and MF faced its probably most critical period in the late 1990s. Despite of product development efforts, the competition in the home furniture market was extremely hard, and MF lost an important retailer chain customer. Additionally, MF had problems with exports, the subcontracting business did not developed as strong as it was expected, and large debts caused extra pressure.

In this context, in 1998 MF's owner-manager finally made a clear decision to implement a strategic level change and become 100% subcontractor in business-to-business markets. As a consequence, basically all its business went through four business-to-business customers

in different segments (office furniture, ships, caravans and hotel furniture), and it stopped home furniture producing. This decision caused clear changes on the operative level, when MF stopped its own product design and marketing activities, and sales activities were organized through customer-focused sales engineers. Also the cost burden was reduced due to the discontinued marketing and product development activities. This seemed to be a correct decision in the sense that MF managed to survive the critical years, reaching a satisfactory performance level. During 1997-2000, MF made the biggest investments in its history and as a consequence, extended its possibilities of producing customized products. In 1999, MF had 96 employees, just one more than at the beginning of observation period.

Case 2: RP (see Figure "Case 2" in Annex)

RP is a family business, founded in 1965. At the beginning of our observation period in the 1980s, RP operated mainly in the domestic market, and its business consisted of own product development and production (mainly bookshelves), which was sold to several retailers. RP did not do any subcontracting sales; nor was its own product sale concentrated on any special customers or chains. At this time, RP's machines were relatively new and highly automated, and it continuously developed cost-effective production. Since 1984, one shelf series, "T-shelf", has been its most important product. In 1985, RP had 35 employees.

In the context of the economic boom and fast growing demand at the end of the 1980s, RP invested heavily into production automatization and T-shelf effect production. Additionally, they extended the T-shelf product by developing new modules. According to the owner-manager, 1988-89 were really good years for RP, and they managed to increase profitability and sales.

A decade of growth and success, however, was followed by deep economic recession in the beginning of the 1990s, which clearly affected RP's business. First, triggered by macro level problems, RP lost 30% of its sales due to the bank crisis. Secondly, RP experienced credit losses from its customers and as a consequence, it had to redefine the customer base according to their solvency. Additionally, RP had to give bigger discounts to its customer. However, it was also able to continue product development, whereas investments were only necessary improvements. According to the owner-manager, the general situation in the furniture market at that moment was the most difficult after Second World War. He also believed that it was mainly due to their relatively good production facilities and product, that RP managed to avoid the mindless price competition and keep all its employees. It seems that in this period, RP mainly received negative 'surprises' from the environment, which forced it to reactively adapt to these circumstances.

However, it seems that difficulties in the domestic market and the consequently declining performance awakened the owner-manager to think about his business more carefully. In this context he perceived exports as a means of survival and success for the so far solely domestically operating RP. As a result of this decision, RP made several proactive actions in order to achieve this goal. Later on, the owner-manager commented the critical decision to

invest in export activities as follows: *“The decision to start to broaden strongly export market has been one important decision. If we would have decided that in any case we will not start export and stay just in home market, it is possible that we [RP] surely not exist anymore or our business would be in a totally different level.”* Therefore, environmental conditions worked as a trigger for a strategic intention, which in turn lead to many relevant proactive processes.

Thus, after the devaluation of the Finnish Mark in 1991, RP started to increase slowly its exports, mainly by participating in several co-operation projects with other Finnish furniture producers. For these purposes, it put a lot of effort into new product development and production issues, but also continued its T-shelf development and production.

As an initial and the biggest co-operation project at the beginning of the 1990s, RP tried to establish a business in the USA, together with three sofa producers. For this purpose, the firms prepared brochures and business place in that market. However, two out of the three sofa manufacturers went bankrupt, and RP continued the process only with one of the partners. Products, however, proved to be unsuitable for the US market, the distribution chain selection was unsuccessful, and finally the low value of the currency complicated the project. A second remarkable export effort was directed to Hungary, where RP tried to develop business with two other Finnish furniture manufacturers. Although this project did not lead to bankruptcies, it did not fulfil expectations. Poland was their third big export target, where RP directed its efforts together with eight Finnish furniture firms. Like the two previous projects, this market entry again faced enormous problems. One by one, the Finnish partners either gave up or went bankrupt, and finally RP was left alone in the project.

Clearly, these exports efforts were mainly consuming RP's resources without bringing forth the expected economical results. They also reflect the difficulties related to the “smallness” of SMEs in export development activities: partner selection, marketing, product adaptation for foreign market, and distribution channel selection. However, RP's activities all present concrete and proactive efforts for developing export transactions, which included joint activities with other firms as well as changes in internal projects (i.e. product and processes adaptation).

In 1995, exports amounted to 20% of total sales, and the domestic market was still clearly RP's biggest income contributor. The owner-manager was carefully deliberating about the market characteristics. Recession had eliminated lots of small retailers from the market, and centralized chains were holding the power. His perception was that chains did not buy design products, but cheaper serial products. On the other hand, chains expected just-in-time deliveries from the producers, as they cut down on stockholding. Additionally, he saw the imports from the Baltic countries as a big threat. Facing this, the owner-manager realized the importance of co-operation and long term relationships with chains. As a result, he started to co-operate with a retailer chain. Our data do not reveal if this relationship was initiated by RP or the chain, but one important reason for such a relationship might be the fact that furniture sales were strongly concentrated on chains and RP had to adapt to this reality.

In the second half of the 1990s, RP continued its active product and production process development, and it increased its efforts to export, especially marketing. As a result, RP's exports grew. For example, export to Russia was really significant in 1997-98, until the value of Russian currency collapsed in 1998. RP also tried to re-enter the US market with a new product. In 1997, RP took its biggest step in export operations, establishing a delivery and sales company in Poland. This affiliated company operated in the Warsaw area, and fifteen independent dealers were selling RP's products in different areas of the country. The decision to establish business in Poland resulted from the Polish co-operation project at the beginning of the decade. In a sense, Poland was a familiar market, and RP also believed in the potential of this particular market.

At the same time, some important developments also happened in the context of the above mentioned retail chain relationships, when a retail chain, operating in Sweden and Finland, became interested in the "T-shelf" (RP's most important product). As a result of their negotiations, RP slightly the T-shelf, and started to manufacture it for a retailer chain as a private label product. Thus, exports to Sweden increased and compensated the loss in Russian market. According to our knowledge, this was the first time RP extended the contract to include exclusive sale rights for a retailer, manufacturing one of their successful products in a customer's name.

Thus, it seems that despite of many disappointments in export co-operations, and thanks to the initial growth in exports and the experience resulting from these attempts, RP kept believing in the strategic importance of export operations, proactively continuing the search for new opportunities. What happened to the Russian export activities serves as a good example for how macro economic conditions can determine the business of a small firm. The relationship with the retailer chain and the production of a private label product, in turn, reflect a change in RP's product and customer philosophy. The reasons for this change could be partly due to positive experiences RP had made with a Finnish retail chain, and partly because it was the only way to start business with this particular customer.

In 2000, exports constituted 50% of RP's sales. According to the owner-manager, as a lesson they learnt from the recession, RP had tried to enter as many markets as possible in order to diversify its risk. Even more interestingly, the owner-manager judged that the firm's philosophy had switched from production orientation to market and customer orientation. Moreover, RP's own machinery construction was an important competitive factor in differentiating products and preventing imitation. In 1999, the firm had 40 employees, five more than at the beginning of the observation period.

In the RP case, environmental pressure had a clear effect on the firm's activities. During the recession, the firm faced difficulties and, as a response, it attempted to find new markets. At a strategic level, the main decisions were long term export orientation as well as the establishment of a new company in Poland. In this sense, exports became more important and were more than a tactic to survive the recession. At a competitive level, RP increased its marketing efforts and co-operations with other furniture producers and, also, started closer

co-operation with retail chains. Finally, at an operative level, the continuing process of technology catch-up was a dominant characteristic of the firm's development. Also, its important internal competitive factors were a distinctive product, good quality and price relationships, and good delivery times. On the other hand, the greatest difficulties were a lack of marketing knowledge, finding foreign marketing channels, and building effective working co-operations with other furniture producers.

Case 3: PH (see Figure "Case 3" in annex)

PH was established at the beginning of the 1980s. Within the first ten years, its business pattern was common and traditional in the furniture market: a broad product mix (home furniture) and a domestic market. In 1985, PH had 15 employees, and its customer base consisted of one big retail chain and several small retailers. As product philosophy, PH both wanted to launch new products into a market and follow other firms' actions.

The economic boom and an intense competition simultaneously characterised PH's business environment at the end of the 1980s. These circumstances became apparent especially in product and labour related issues: as a response to fast product imitation, PH had to increase its product differentiation efforts. Its peripheral location however complicated the process of recruiting skilled employees. However, a fast and flexible delivery, product quality, price, and good customer relationships were PH's strengths within these years. PH's operations did not change much (mainly incremental development), and this period could be characterised as a normal way of acting in an intensely competitive environment.

An important turning point for PH's development occurred in 1990, when Ikea "found" PH through the Finnish Ikea Trading Service. PH seized this opportunity to start business on a large-scale basis with Ikea. The owner-manager was aware of the changes this decision would bring to PH's internal processes because Ikea's production would be demanding in terms of production resources and time. This would lead to clear changes in the use of production facilities, and it might also limit the possibilities of PH's own product development and production. The reasons why the owner-manager decided to start business with Ikea were perhaps a result of combination of two factors: an extremely good possibility for large-scale business, and growing competition in the domestic market. Whatever reason, this is an example for a conscious strategic decision.

Starting from this decision and its realization, PH developed both its own product related business and the Ikea business. Ikea business proved challenging, and PH had to learn and invest heavily in order to meet the requirements. Actions included, e.g., investments in new machinery and recruitment of new employees. At the same time, Finland experienced its economic recession, and the furniture business became more demanding. The owner-manager also perceived imports from Soviet Union and Baltic countries as threats. The increased power of retail chains forced PH to give them special prices. In order to avoid direct price competition, PH increased its own product development. Finally, its domestic sales were concentrated mainly on two retailer chains. At this time, the owner-manager

perceived exports as a worthy investment, and an extra effort was directed to design products for foreign markets. As a result, PH managed to grow even in a period when the domestic market suffered from a deep recession. Growth happened due to increased exports (50% of the turnover in 1991), which in turn mainly resulted from the Ikea business. However, the broad product mix caused efficiency problems and PH had difficulties to maximize the benefits from their focused customer relationships.

As was expected, the relationship with Ikea triggered many changes on the operative level, which at the same time could be characterised as voluntary (based on strategic decision) and as forced (the only way to do business). In the domestic market, retail chains showed their power in pricing issues, forcing PH to adapt to their rules. These issues also might have triggered PH's proactive actions towards exports markets.

During the first half of the 1990s, the relationship with Ikea increased in importance. Sales to Ikea amounted to 60% of PH's total sales in 1993 and to 75% in 1995 respectively. At the same time, PH grew as a company, both as regards the number of employees and turnover. However, this growth did not come easily, and PH needed to develop its operations constantly in order to be competitive in this relationship. Thus, PH continuously invested in modern production facilities, and developed Ikea's products. It also needed to present a three years plan for Ikea, and it had to obtain ISO 9000 quality status. The owner-manager also saw the employees' commitment and motivation as important in order to reach PH's goals. Thus, he implemented an employee motivating programme. Moreover, he organized team work and a bonus salary system. Moreover, PH actively cooperated with other Finnish Ikea subcontractors. In the domestic market, PH continued business with two retail chains, based on annual contracts and with the chains being responsible for product design, while PH's own product development activities decreased. As in previous periods, this period included several internal changes and developments, which were directed by PH's strategic intention. It also seems that the biggest pressure PH faced was triggered from present relationships, whereas the macro environment did not strongly affect PH.

In the late 1990s, PH's development and growth continued in a similar way, characterised by Ikea's increasing role, its investments in machinery and new employees. However, the broad product mix still caused efficiency problems. This led the owner-manager to making a strategic decision and to narrowing down the product assortment, and concentrate only on kitchen tables. Moreover, he decided to stop PH's own product development. Production from now on would be based on customers' products, especially on foreign large customers. These decision and intentions triggered an active search for financially healthy large customers, mainly in USA, Japan and France. Additionally, PH hired a marketing manager in order to intensify this process. At the beginning of 2000, PH had 90 employees, exports represented about 90% of the sales, whereas Ikea presented 96% of total sales.

In this last period, PH continued its conscious and purposeful development of the Ikea-related business. However, interestingly, the decisions and intentions related to the own product development and its customer policy reflected a change in strategic level. If PH were

to realize its intentions, it would become a subcontractor without own products and product development. We suggest that there are several reasons affecting this intention. Firstly, due to the positive experiences with Ikea (i.e., firm growth, long term contracts, and serial production) the subcontracting business seems a promising operating mode. Secondly, the alarmingly large dependence on Ikea probably evoked a necessity to diversify the risk involved here and find new customers. Thirdly and again related to Ikea, large investments in production made it possible for PH to operate on a larger scale and thus, to produce for other large customers. On the other hand, the broad product mix had caused efficiency problems, and the large-scale production did not allow for customized, small-scale production. In this sense, its own earlier decision forced the company to change its product and customer policies.

The relationship with Ikea was essential for PH's development, assisting the firm to grow even in recession years. The development of the relationship was based on continuous efforts to improve production efficiency, which also allowed PH to search for new big volume customers. In this case, the main change occurred at a strategic level when the firm, in the long run, switched from a more traditional business way (broad product mix, domestic market) to being an Ikea system subcontractor. However, this was not an isolated decision. From the beginning, the owner-manager understood continuous development of production facilities and labour force to be an essential element for the firm's strategic intention. It was a process that started with the initial decision to produce for Ikea, including many minor decisions and changes at the competitive and operative levels: ISO 9000, team work, continuous improvements in production facilities (machines and labour force), narrowing the product mix, and co-operation with other producers. As a consequence, PH was focusing on one product, decreasing its own product design and development. Thus, PH's specific context was redefined, and main competitive challenges now arise from international competition as Ikea's subcontractor.

Discussion

The case analyses showed that each firm had changed at different levels (strategic, competitive and operative) and in relation to different adaptive elements (product and market domains, production and technology; and management). At strategic level, many changes were proactive decisions, triggered both from the owner-manager's strategic intention and environmental conditions. In competitive level, changes include both proactive and reactive responses to competitive situations and normal development. On the operative level, technology development seemed to be a continuous target for development, whereas production and labour related changes reflected environmental conditions. Finally, as common characteristics of the main strategic change processes, two issues can be emphasized: firstly, all firms had an intention towards strategic change, and secondly, the realization of main changes took a long time. However, change processes themselves differed with regard to their nature and contents.

In the case of MF, the process was chaotic, and the final decision to concentrate on b-to-b customers was critical for the firm's survival. At the same time, MF faced new challenges in its production process, mainly because the production of caravan and ship products was different from its normal products. Also, the general survival demanded several overlapping change and adaptation processes, including development of own products, marketing, the establishment of the JT marketing company, and subcontracting. MF was the only firm, which had to lay off employees during recession time.

Table 1 – Summary of main characteristics and changes in case companies

CHARACTERISTICS		MF	RP	PH
STRATEGIC CHARACTERISTICS	Written strategy	No	No	No
	Personality proactiveness	High	Medium	Medium
	Willingness for risk-taking	High	Relatively high	Low
	Rationality of decision-making	Rational-irrational	Rational-irrational	Rational-irrational
	Decision-making style	Intuition, improvisation, experimentation	Intuition, improvisation, experimentation	Intuition
M&S classification (strategic orientation)	Before recession: D During the strategic change process: A After change: P	Before recession: D During the strategic change process: A,P	Mainly D	
CHANGE PROCESSES	Main strategic change	From home furniture producer to b-to-b subcontractor	From domestically to export and internationally oriented producer	From traditional home furniture producer to Ikea subcontractor
	Strategic level change processes	Establishment of JT-marketing company Concentration on b-to-b customers and stop own product activities	Several export oriented co-operation projects Establishment of delivery and sale company in Poland Private-label for Swedish chain	Ikea business Product concentration: tables
	Competitive level change processes	Product development and designer Product mix and material Marketing	Discounts Marketing New market penetration Co-operation with other producers	Product mix Product development Co-operation related to Ikea sub-contracting
	Operative level change processes	Technological catch up Production: production and series Employer lay off Task organization (finishing own product development; customer based sales engineers	Technology catch up Marketing learning	ISO 9000 Team work Continuing cost efficiency Technology catch up
EMPLOYMENT CHANGE IN THE PERIOD		From 95 to 96 employees	From 35 to 40 employees	From 15 to 90 employees

P = prospector, A = analyzer, D = defender.

In the firm RP, the change toward internationalization was characterized by experimentation, mainly in the form of several co-operation projects with other furniture manufacturers. Additionally, a critical step was taken, when the firm established its own delivery and sale company in Poland. Moreover, the strategic importance of chain relationships (i.e., the private label product for a Swedish chain), and the development of marketing activities increased when competition hardened. Changes related to product development and to production were mainly incremental.

In the last case (PH), the main change process appeared more linear compared to the previous cases. The owner-manager saw the sale concentration on one customer as risky behaviour and he tried to develop other relationships at the same time. In this case, there were remarkable changes in product mix and production, mainly due to the concentration on tables, and finally the termination of own product development. On the operative level, team work and ISO 9000 were the most remarkable changes.

Next, we will discuss the case firms' strategic change processes from the perspectives of strategic decision-making and strategic orientation.

Strategic decision-making

Starting with the *personal characteristics of owner-managers*, none of the owner-managers appears rational or irrational in their decision-making processes (measured on the method by Dean and Sharfman, 1993). This result is supporting the idea of heuristics (Eisenhardt et al., 1992). Additionally, in all cases, the owner-managers differed in their attitudes toward risk-taking. Whilst MF owner-manager's willingness to take risks seems to be high, in RP's case it seems to be relatively high, and in PH's case relatively low.

Furthermore, none of the owner-managers based their change processes on any analytical *planning* or a written strategy. According to the owner-manager, MF did not have a written strategy but long-term goals in mind. In RP, planning is not common activity, and it is only carried out related to important topics with a two to three years timeframe for implementation. Finally, in the PH case, planning occurs at a general level and with a long term perspective.

Additionally, owner-managers neither use much formal information in decision-making (information comes mainly from customers), nor do they generally compare different options. Only MF's owner-manager admitted to have compared options before making decisions. According to him, "*decisions come quite fast... it is a different thing to be able to implement them as fast... There is no time to think and investigate from every side...*" PH's owner-manager (more rational and more risk averse) said that when he makes a decision, firstly he thinks about how this decision will affect the firm's competitiveness and secondly, how this decision will affect routines, and which kind of long term effect it will have.

In all cases, strategic decision-making was a mix of intuition, experience, and the evaluation of the internal resource-base of a firm. However, the owner-managers of MF and RP, who

showed a higher risk-orientation, recognized certain components of improvisation in their strategic behaviour, stating that in situations where risk is not high and the opportunity appears a good one, they also made experiments. The owner-manager of RP described decision-making in the following way: *“It is like intuition... It is based on own knowledge, skills and experience, but there also is a lot of feelings... we are of the opinion that this has to be a good solution, and we act based on this. Rarely do we have any special factual information”*. PH’s owner-manager (more averse to risk and more rational) thought that experience is important (especially at an operative level), and he recognised that decision-making is generally based on intuition: *“Apparently it is more to this side... [intuition] and it is more this way than it would be based on some exact calculation and decision would come that way. It precisely just come this kind of feeling that this is that way, and this kind of decision has to be done in this situation.”* However, he rejects the idea of improvisation and experiments in decision-making.

In all cases, owner-managers said that their ways to make decisions has not been changed much throughout time, and that they had made all decisions individually. However, they concluded that their ability and willingness to take risks is decreasing with age. In this context, PH’s owner-manager is trying to implement decision-making in teams, but this process is at the beginning and learning stage. Additionally, important strategic decisions are made in all case firms not only when problems appear, but also anticipating the future.

As was expected, strategic planning as understood in the conventional strategy literature does not fit the context of SMEs. Instead, we would characterise the case firms’ strategies as intentional and emergent. Firstly, even change processes were not based on analytical planning, owner-managers had clear ideas in mind as to business development, and several decisions supported these ideas. Secondly, change processes were not linear, but they included improvisation and experimentation, which themselves shaped the change processes.

Strategic orientation: Miles and Snow’s typology

In terms of the adaptive cycle introduced by Miles and Snow (1978), environmental pressures challenged the market areas in all cases, and, in that sense, the entrepreneurial problem was activated. In the first case, MF could balance entrepreneurial, engineering and administrative problems, but the process was difficult and took time because it was continuously interrupted by external forces. On the other hand, RP could balance entrepreneurial and engineering problems: the main difficulties appeared as an administrative problem related to the implementation of their export intentions. However, in the long term RP learnt to manage its foreign activities. Finally, it seems that in the PH case, the entrepreneur managed to maintain the equilibrium between the three areas in the change process.

Classifying the case firms according to the typology of Miles and Snow leads to interesting results. MF’s strategic orientation varied during the observation period. The main reasons

were a changed behaviour and discrepancies with its strategic intentions and its actual behaviour. At the beginning, MF behaved as a defender. At the same time, the owner-manager showed a proactive attitude by anticipating problems in actual business and by searching for new opportunities both in products and markets. After the decision to focus on subcontractor activities, MF showed analyzer behaviour by operating on the home furniture market and looking for new opportunities in the supplier business. Additionally, when MF worked as a 100% supplier, it showed prospector behaviour when it changed its business sectors. Finally, the entrepreneur's own interpretation was that MF behaviour could be characterised as a reactor, defender or analyzer, depending on which part of the firm's life cycle and which activities of the company were analysed. As regards the connection between firm strategic behaviour and the personality of the owner-manager (high proactiveness and high willingness to take risks), the strategic behaviour appears to reflect the personality of the owner-manager.

RP could be classified as a defender before the economic crisis. However, after the decision to focus on export, RP behaved like an analyzer in the domestic market, and a prospector in foreign markets, mainly because its export decisions were often experimental in nature, showing fast reactions to new opportunities. In addition, the entrepreneur's own interpretation was that RP's behaviour had many characteristics of defender and analyzer, but he also identified the firm as a prospector in foreign markets. In this case, the personal characteristics of the owner-manager (medium proactiveness and relatively high willingness to take risks) and the firm's strategic behaviour also seem to go hand in hand.

Finally, PH seems to be a defender as concerns the realised strategy in the sense of Ikea's proportion of sales and those technological adjustments made in order to be competitive. However, if we analyse the entrepreneur's intentions and efforts in finding new large-scale customers in new foreign markets, we can also see characteristics of an analyzer in intended strategy. The entrepreneur's own interpretation was that in the domestic market, before his business with Ikea, his strategy was closer to an analyzer with many and innovative products. However, as Ikea's subcontractor, he classifies his strategic behaviour mainly as a defender. As it was in two previous cases, the owner-manager personality (medium proactiveness and low willingness to take risks), and firm strategic behaviour are matching.

In this context, we could have forced each firm to fit one of the categories of Miles and Snow typology. However, as a side effect, we would have ignored many small but important steps and changes, and limit the analysis to a more general level. By doing this, we would have lost the richness of the change processes as explored here, the important elements of SME strategic behaviour (especially intuition and experimentation), and the success of implementing changes in a long run. Based on our analysis we therefore suggest that typologies proposed by the adaptation theory are not adequate in describing SME behaviour. In general, proactive behaviour is related to successful firms and reactive behaviour to less successful. In that sense, following traditional adaptation typologies, small firms are often classified as behaving either reactive or defensive (e.g., Vesalainen, 1995) and, as a consequence, they are often described as poorly-managed. Thus, when Miles and Snow's

typology is applied to SMEs, a large part of the sample is labelled “defender” or “reactor”. This result could be related to a combination of factors:

- The difficulties of a small firm to allocate resources for a continuous search of new opportunities and implementing the actions needed to benefit these opportunities (i.e., needed to be a prospector). Also, the lack of resources to obtain information, the lack of strategic planning, and the decision-making style of the owner-manager can reduce the probability to be classified as an analyzer. Moreover, Brouters, Andriesen and Nicolaes (1998) suggest that small firms could pursue a defender strategy, not because it is the best, but because managers act in a non-rational way, basing decisions on their personal preferences.
- As Kickul and Gundry (2002) suggest, strategies classified as "prospector" by Miles and Snow's typology are strongly related to the personality of the owner-manager. Specifically, this type of strategies goes hand in hand with a proactive owner-manager personality. When applying the Kickul and Gundry (2002) method to our cases, RP's and PH's owner-managers seem to have a medium level 'proactive personality'. Interestingly, the MF owner-manager showed a proactive personality, and he also was more of a risk-taker and prospector in our analysis.
- Due to the heterogeneity of internal factors, environmental changes affect each company in a different way. In this sense, the ability to survive, the capacity to exploit new opportunities; and the ability to take advantage of those difficulties to obtain earnings will depend on each company and each entrepreneur (Venkataraman et al, 1998). *"It is reasonable to believe then, that adaptive behaviour, will vary from one organisation to another....the causal direction and the magnitude of bivariate relationships among environmental, organisational, and strategy-making variables differ systematically among several different homogeneous sub-samples. The research for simple, universal findings is therefore likely to obscure important relationships"* (Miller and Friesen 1980: 269-270) Thus, it is not always possible to make non-redundant classifications within a typology. This was clearly demonstrated in our analysis in two senses. Firstly, the classifications changed over time and depending on the phases of the change processes. Secondly, the analysis of the owner-manager intentions and actual strategic behaviour would have resulted in different kinds of classifications.

Conclusions

In our cases, the main strategic change processes resulted from several inter-related factors, which both enabled and hindered the processes: the environmental conditions, the owner-manager and his personality, and internal resources. In terms of environmental influences, macro economic conditions appear to play an important role in determining SME behaviour and change processes. At industry level, powerful actors (mainly retail chains) interfered in change processes by offering new opportunities or by tightening conditions. Interestingly, this

often resulted in proactive actions in other areas. Moreover, other external stakeholders (co-operation with other producers) partly enabled, partly complicated the intended changes. Additionally, it seems that the owner-manager's personality, and his individualistic and determinant decision-making style are characterising change processes (in all cases the firm's strategy was in harmony with the owner's personality). Also internal resources and the capability to change were affecting the process. Especially resource development, production flexibility, expertise (or the lack of it) in different management areas, and product differentiation were critical to the capability of the SMEs analysed to implement change. Moreover, the smallness of the firms seems to be an extra hurdle for strategic changes. It also appears that practising and developing two kinds of businesses at the same time (during the change processes) is a heavy operation mode for small firms, and sooner or later they need to concentrate on one core business. In general, the results of the case studies suggest the importance of analysing change processes as an interaction of a firm's internal and external factors.

Secondly, strategic change processes take time. MF's owner-manager described firm change process in the following words: *"[Change to be supplier] has happened slowly in our case... we did not change suddenly. The reason for that is that because we are this kind of private firm, we have had to keep cash flow constant ... so we have been changing gradually throughout a longer period of time. We have changed it in small steps... we were not able to blaze new trails with one big jump"*. Thus, in order to better understand a small firm's change processes, longitudinal research methods are recommended.

Thirdly, within our case firms, two principal triggers for main strategic changes could be identified. In the first two cases, it seems that the owner-managers' *perceptions* of present (and future) environmental conditions (tightening competition, industry power structure) and their consequences for own business (i.e., the threatening or decreasing performance level, several reactive adaptations) motivated the owner-managers to think about their business more seriously, and this evoked the necessity for strategic reorientation. In the third case, the main strategic change was triggered per chance, when new business opportunities occurred.

Fourthly, strategic change in small firms seems to be a result of multiple, overlapping processes, where firms need to be able to develop short-term survival tactics and, at the same time, keep or change normal routines. In a short term perspective, a firm's response to any environmental stimuli might often look like a reactive tactic, whereas the same action in a longer perspective might be a first step to start an intentional change process. In this context, the main challenges faced by our case-study firms are the necessity to redefine market positions, redefine productive specialisation, and surpass scale restrictions.

Finally, as the adaptation literature suggests, the case firms tended to act in defensive ways when they faced environmental turbulence. Within a short term, companies tried to reduce personnel costs, redefined internal tasks, and implemented product-market decisions (on competitive and operational levels of adaptation). However, in a longer term perspective, owner-managers were able to identify new ideas and projects in their business environment.

Here, the owner-managers were able to take advantage of resources and experience developed throughout their maturity path (strategic level of adaptation). All three case firms usually included in their strategic agenda some of the following activities: i) narrowing product mix, ii) product differentiation/innovation, iii) focusing key customers, and iv) a greater propensity to co-operate with other companies. In addition, the analysis of the decision-making processes helped to appropriately understand how the firms reacted to environmental signals and how individual decisions can affect the process. In general, entrepreneurs act with bounded rationality and strategies are often based on experience and intuition instead of calculation and planning. Thus, an alternative to the rigid thought of the strategic planning school would be shifting attention to improvisation modes.

Limitations

The main problems and limitations of the study are related to the data collection method. The interviews in different years have been conducted mainly through telephone (face-to-face interviews were conducted just in 1986), and different people were involved. Additionally, secondary data mainly refers to firm related issues, and there is only limited information available related to the owner-manager characteristics. However, longitudinal studies often are based on secondary data, i.e., records, annual reports and other public information, or on retrospective reconstructions of the past based on memory. These data collection methods have their weaknesses such as impression management, the bounded human ability to remember past events and an automatic tendency to rationalize and glorify past decisions. In small firms, annual reports or records are not often available, and thus, the reconstruction of the past is even more complicated. In our study, most questions were open ended and qualitative in nature, and “why questions” had been presented in order to clarify the changes and developments in different themes. Additionally, we included some new interviews in order to get some more information related to owner-managers, and also to validate a few issues related to the secondary data. Despite the data collection limitations, the data seem to be adequate from a research point of view. It gives us a rich understanding of the change processes in the case firms. However, the fact that our sample includes just three firms in one industry also needs to be considered a limitation.

Implications and future research

Especially in the conventional strategic and adaptation literature, the majority of the studies are concentrated on large firms, and SMEs are often considered as a homogenous group, or as smaller copies of large firms. However, researchers within the SME and entrepreneurship field have criticised this for a long time. In this context, we hope that our study stimulates the discussion in the field of strategy research, mainly by taking into account the complexity and richness of SME change processes in changing environments. We also wish for our results to assist researchers in directing their attention to those critical and inter-related factors that affect strategic change processes. Additionally, due the long term implementation of strategic changes in SMEs, a longitudinal research approach is recommended. As a practical

implication, this study can help policy makers and SME advisors to better understand SME behaviour, which in turn might assist them in improving support and training activities directed at small business managers and entrepreneurs.

As one question for future research, one interesting possibility is to broaden this study to include more cases, and thus reveal the richness of the phenomena. Moreover, it could be relevant to replicate the study in other industries. In this way, we could see if the strategic change variables are the same in different contexts, and to which extent industry and strategic industry factors is characterising change processes in small firms. Additionally, the relationship between small firm and environment appears to be an essential phenomenon. It would be interesting to concentrate on this issue by deeply analysing specific inter-related events in order to tease out how the same environment treats firms in different ways, and at which point and which aspects commonalities start to appear.

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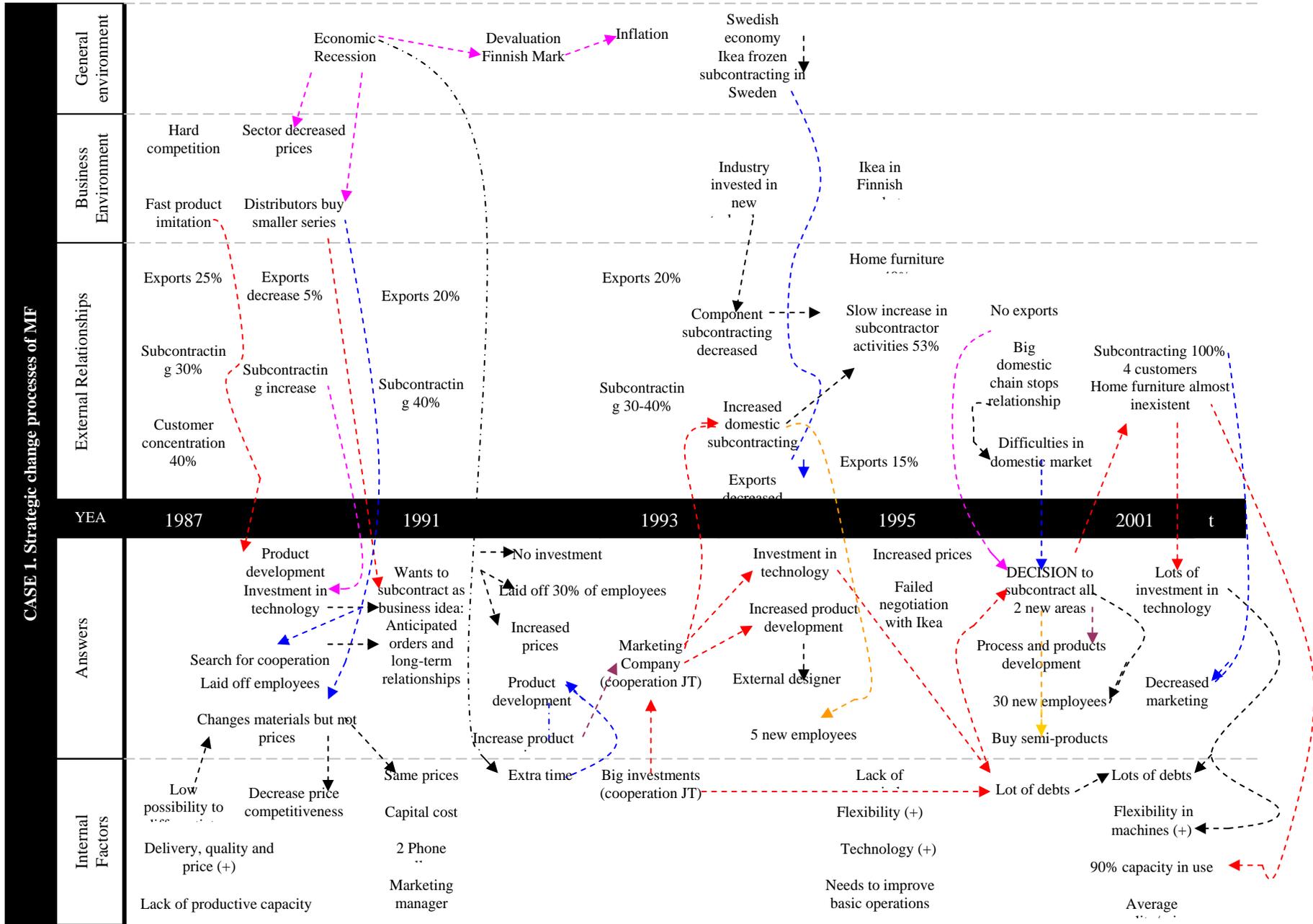
References

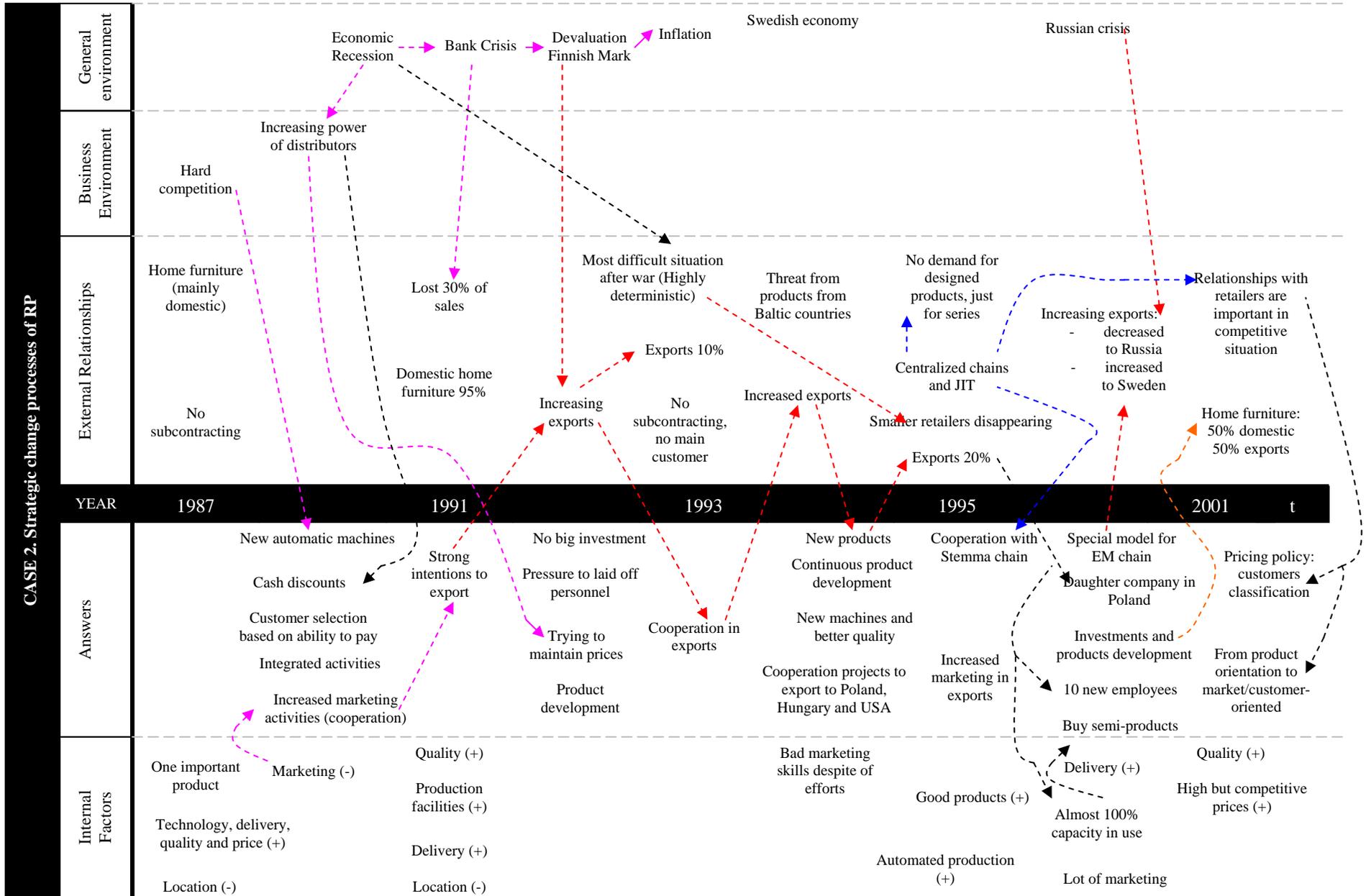
- Alanko, K. (1996), *Huonekalujen Valmistus. Toimialaraportti 1996*, Helsinki: KTM Yrityspalvelu
- Alvarez, S. and Busenitz, L. (2001), The Entrepreneurship Of Resource-Based Theory. *Journal of Management*, 27 (2001), pp 755-775
- Ansoff, I. (1975), Making Strategic Surprise By Response To Weak Signals. *California Management Review*, 8 (2), pp 21-33
- Aravuo, K. (1994), *Huonekalujen Valmistus. Toimialaraportti 1994*, Helsinki: KTM Yrityspalvelu
- Barr, P.; Stimpert, J. and Huff, A. (1992), Cognitive Change, Strategic Action And Organizational Renewal. *Strategic Management Journal*, 13, pp 15-36
- Bosch, O.; Huse, M. and Senneseth, K. (1999), Resource Configuration, Competitive Strategies, And Corporate Entrepreneurship, An Empirical Examination of Small Firms. *Entrepreneurship Theory and Practice*, fall
- Bourgeois, L. (1980), Strategy And Environment, A Conceptual Integration. *Academy of management Review*, 5 (1), pp 25-39
- Bowman, C. and Ambrosini, V. (2000), Strategy From An Individual Perspective. *European Management Journal*, 18 (2), pp 207-215
- Brouthers, K.; Andriessen, F. and Nicolaes, I. (1998), Driving Blind, Strategic Decision-Making in Small Companies. *Long Range Planning*, 31 (1), pp 130-138
- Chan, S. and Foster, M. (2001), Strategy Formulation In Small Business, The Hong Kong Experience. *International Small Business Journal*, 19 (3), Apr./Jun., pp 56-71
- Chelariu, C.; Johnston, W. and Young, L. (2002), Learning To Improvise, Improvising To Learn. A Process Of Responding To Complex Environments. *Journal of Business Research*, 55, pp 141-147
- Chell, E. and Pittaway, L. (1998), A Study Of Entrepreneurship In The Restaurant And Café Industry, Exploratory Work Using The Critical Incident Technique As A Methodology. *International Journal of Hospitality Management*, 17, pp 23-32

- Child, J. (1972), Organizational Structure, Environment And Performance, The Role Of Strategic Choice. *Sociology*, 6, pp 1-22
- Cope, J. and Watts, G. (2000), Learning By Doing – An Exploration of Experience, Critical Incidents And Reflection In Entrepreneurial Learning. *International Journal of Entrepreneurial Behaviour and Research*, 6 (3), pp 104-124
- Covin, J. G. and Slevin, D. P. (1989), Strategic Management Of Small Firms In Hostile And Benign Environments. *Strategic Management Journal*, 10, pp 75-87
- Crossan, M. (1998), Improvisation In Action. *Organization Science*, 9 (5), pp 593-599
- Cyert, R.M. y March, J.G. (1963), A Behavioural Theory Of The Firm. Englewood Cliffs: Prentice Hall
- Deakins, D. and Freel, M. (1998), Entrepreneurial Learning And The Growth Process In SMEs. *The Learning Organization*, 5 (3), pp 144-155
- Dean, J. and Sharfman, M. (1993), Procedural Rationality In The Strategic Decision-Making Process. *Journal of Management Studies*, 30 (4), July, pp 587-610
- Denzin, N. and Lincoln, Y. (1994), Introduction, Entering The Field Of Qualitative Research. In Denzin, N. and Lincoln, Y. (eds) *Handbook For Qualitative Methodology*, Thousand Oaks: Sage Publications. pp 1-17
- Eisenhardt, K. (1989), Making Fast Strategic Decisions In High-Velocity Environments. *Academy of Management Journal*, 32 (3), pp 543-576
- Eisenhardt, K. and Zbaracki, M. (1992), Strategic Decision Making. *Strategic Management Journal*, 13, pp 17-37
- Friedrickson, J. (1984), The Comprehensiveness Of Strategic Decision Processes, Extension, Observations, Future Directions. *Academy of Management Journal*, 27 (3), pp 445-466
- Garud, R. and Van de Ven, A. (2002), Strategic Change Processes. In Pettigrew, Thomas, and Whittington (eds), *Handbook Of Strategy And Management*, London: Sage Publications, pp 206-231
- Gersick, C. (1994), Pacing Strategic Change, The Case Of A New Venture. *Academy of Management Journal*, 37 (1), pp 9-45
- Greenwood, R. and Hinings, C. (1993), Understanding Strategic Change, The Contribution Of Archetypes. *Academy of Management Journal*, 36 (5), pp 1052-1081
- Hannan, M. and Freeman, J. (1984), Structural Inertia And Organizational Changes". *American Sociological Review*, 49, pp 149-164
- Hannan, M. and Freeman, J. (1977), The Population Ecology Of Organizations. *American Journal of Sociology*, 82 (5), pp 929-964
- Herbert, T. and Deresky, H. (1987), Generic Strategies, An Empirical Investigation Of Typology Validity And Strategy Content. *Strategic Management Journal*, 8 (2), pp 135-147
- Hitt, M.; Ireland, R.; Camp, S. and Sexton, D. (2001), Quest Editors Introduction To The Special Issue Strategic Entrepreneurship, Entrepreneurial Strategies for Wealth Creation. *Strategic Management Journal*; 22, pp 479-491
- Hrebiniak, L.G. and Joyce, W.F. (1985), Organizational Adaptation, Strategic Choice And Environmental Determinism. *Administrative Science Quarterly*, 30, pp 336-349
- Huff, J., Huff, A. and Thomas, H. (1992), Strategic Renewal And The Interaction Of Cumulative Stress And Inertia. *Strategic Management Journal*, 13, pp 55-75

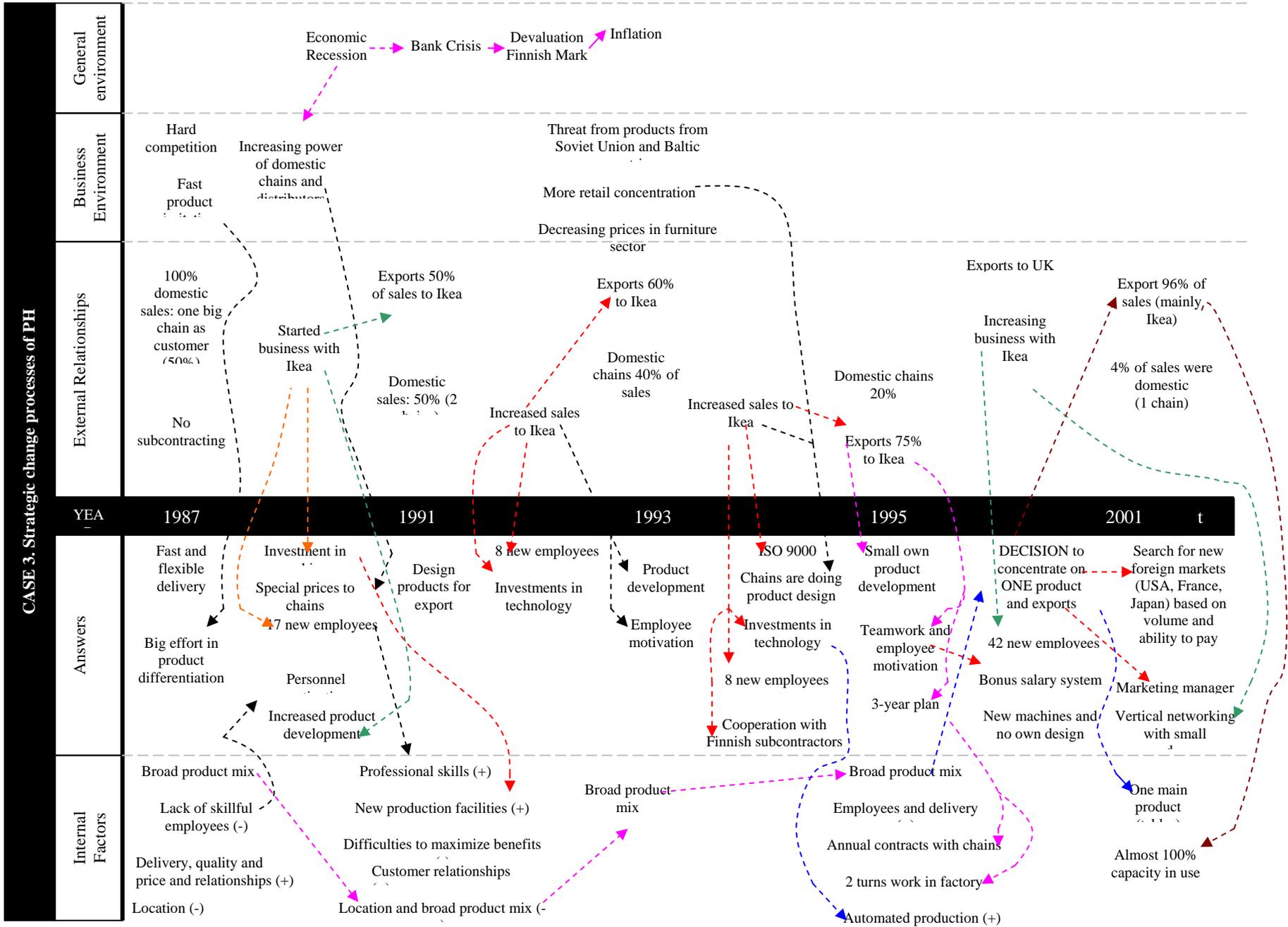
- James, W. and Hatten, K. (1995), Research Notes And Communications. Further Evidence On The Validity Of The Self Typing Paragraph Approach, Miles And Snow Strategic Archetypes In Banking. *Strategic Management Journal*, 16, pp 161-168
- Kelly, D. and Amburgey, T. (1991), Organisational Inertia And Momentum, A Dynamic Model Of Strategic Change. *Academy of Management Journal*, 14, pp 591-612
- Kickul, J. and Gundry, K. (2002), Prospecting For Strategic Advantage, The Proactive Entrepreneurial Personality And Small Firm Innovation. *Journal of Small Business Management*, 40 (2), pp 85-97
- Laine-Kangas, T. (1998), Huonekalujen Valmistus. Toimialaraportti 1998, Helsinki: Työvoima- ja elinkeinokeskus
- Lawrence, P. R. and Lorsch, J. W. (1969), Developing Organizations, Diagnosis And Action. Addison-Wesley Publishing, pp 23-30
- Leybourne, S. (2003), Some Observations On The Use Of Improvisation Within The Project Management Of Change". Plymouth Business School.
- Lincoln, Y. and Guba, E. (1985), Naturalistic Inquiry. London, Sage Publications
- Lobontiu, G. (2002), Strategies And Strategic Management In Small Business. Copenhagen Business School, Department of Management, Politics and Philosophy (WP. 15)
- McCarthy, B. (2003), Strategy Is Personality-Driven, Strategy Is Crisis-Driven, Insights From Entrepreneurial Firms. *Management Decision*, 41 (4), pp 327-339
- Miles, R. and Snow, C. (1978), Organizational Strategy, Structure And Process. N.Y.: McGraw-Hill
- Miller, D. (1987), Strategy Making And Structure, Analysis And Implications For Performance. *Academy of Management Journal*, 30 (1), pp 7-32
- Miller, D. and Friensen, P. (1980), Archetypes Of Organizational Transitions. *Administrative Science Quarterly*, 25, pp 268-299
- Mintzberg, H. (1973), Strategy-making In Three Modes. *California Management Review*, 16 (2), pp 44-53
- Mintzberg, H. (1978), Patterns In Strategy Formation. *Management Science*, 24 (9), pp 934-948
- Mintzberg, H. and Waters, J. (1982), Tracking Strategy In An Entrepreneurial Firm. *Academy of Management Journal*, 25, pp 465-499
- Mintzberg, H.; Ahlstrand, B. and Lampel, J. (1998), Strategy Safari. NY: The Free Press
- Nicholls-Nixon, C.; Cooper, A. and Woo, C. (2000), Strategic Experimentation, Understanding Change And Performance In New Ventures. *Journal of Business Venturing*, 15, pp 493-521
- Penrose, E. (1959), The Theory Of The Growth Of The Firm. NY: Willey
- Pettigrew, A. (1997), What Is Processual Analysis? *Scandinavian Journal of Management*, 13 (4), pp 337-348
- Pettigrew, A.; Woodman, R. and Cameron, K. (2001), Studying Change And Development, Challenges For Future Research. *Academy of Management Journal*, 44 (4), pp 697-713
- Porter, M. (1980), Competitive Strategy. NY: Free Press
- Segev, E. (1989), A Systematic Comparative Analysis Of Two Business-Level Strategic Typologies. *Strategic Management Journal*, 10, pp 487-505

- Shane, S. and Kolvereid, L. (1995), National Environment, Strategy, And New Venture Performance, A Three Country Study. *Journal of Small Business Management*, 33 (2), pp 37-50
- Silverman, D. (1970), *The Theory of Organizations*. London, Heinemann
- Singh, J.; House, R. and Tucker, D. (1986), Organisation Change And Organizational Mortality. *Administrative Science Quarterly*, 31, pp 587-611
- Tsai, W. ; MacMillan, I. and Low, M. (1991), Effects Of Strategy And Environment On Corporate Venture Success In Industrial Markets. *Journal of Business Venturing*, 6, pp 9-28
- Tsoukas, H. (1994), Introduction, From Social Engineering To Reflective Action In Organizational Behaviour. In *New Thinking Organizational Behaviour*, Oxford: Butterworth and Heinemann, pp 1-22
- Tushman and Romanelli, (1985), Organization Evolution, A Metamorphosis Model Of Convergence And Reorientation. In Staw, B. M. and Cummings, L. L. (eds.), *Research in Organizational Behaviour* (vol. 7, pp. 171-232). Greenwich, CT: JAI Press, pp 171-222
- Venkataraman, S. and Van de Ven, A. (1998), Hostile Environmental Jolts, Transaction Set, And New Business. *Journal of Business Venturing*, 13, pp 231-255
- Vesalainen, J. (1995), The Small Firm As An Adaptative Organization. *Acta Wasaensia*, No. 42, Universitas Wasaensis, Vaasa
- Yin, R. (1994), *Case Study Research. Design and Methods*. 2. edition. Thousand Oaks: Sage Publications Inc.





CASE 3. Strategic change processes of PH



Tracking Small Business Failure Factors and Trajectories

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Abstract

The aim of this study was to identify SME failure factors and trajectories. The empirical study was based on in-depth interviews with the ex-entrepreneurs of 12 failed SMEs. The results reveal that several factors related to the entrepreneurs, the firms and their environments were associated with SME failure. There were also more firm-type specific factors contributing to SME failure. Moreover, three types of failure trajectories were identified: (1) failed borderline cases; (2) rapid collapse failures; and (3) failed seekers of legitimacy. The results indicate that many factors associated with failure are internal, and so under the management's control. One or a few major factors seem to cause firm failure, though there are several inter-related factors and processes contributing to SME failure. In many cases, the root cause of failure can be traced to problems in management and to the lack of strategic management in particular.

Key Words: *small businesses, performance, failure, strategic management*

Introduction

This paper focuses on failed small and medium enterprises (SMEs) in peripheral locations. The objective was to identify SME failure factors and trajectories. A number of studies have focused on firm success, but few recent studies have focused on firm failure (Thompson 2001: 619). However, as we know, some firms succeed and others fail. It has been found that entrepreneurs' chances of financial success are substantially greater than the chances of loss (Dennis & Fernald 2001). However, they are not nearly as favourable as new firm owners seem to believe (Cooper et al. 1988). It seems reasonable to assume that much could be learned from failed firms.

A high proportion of new ventures are closed down during their first years of life, and many SMEs are closed down every year, indicating that these firms were not able to maintain the alignment with their environment, or had never even achieved it. For instance, in Finland in 2002, half (50.2%) of the firms that closed down had survived less than five years (Statistics Finland 2004). However, managers are as much responsible for avoiding failure as for achieving success (Argenti 1976: 182). As a matter of fact, it has been argued that the most important and most challenging business goal is long-term survival (e.g. Simon 1996: 12). Moreover, survival is, at least in the long term, a prerequisite for success in other terms, such as market share or profitability. To date, however, studies of firm longevity have focused on large companies.

However, SMEs are often the only feasible engines of development, especially in peripheral regions. They generate societal growth in terms of new jobs and revenues; they create innovations, and form flexible production networks. In fact, relatively speaking, the number of jobs created by expanding small firms is larger than the number of jobs created by new firms during their first year of operation or by large firms (Wiklund 1998: 1). However, few studies have focused on the foundations of performance of SMEs in peripheral locations. This is unfortunate, as business is not managed in the same way in different areas (see e.g. Lussier & Pfeifer 2000; Yusuf 1995).

Changes in the environment cause more uncertainty in SMEs than in large companies. Their resources for acquiring information about the market and changing the course of the enterprise are more limited. The response to environmental changes is different in SMEs than in large companies (e.g. Chen & Hambrick 1995). Large firms may even exit from one of their business areas, but this is not usually possible in a single-business firm. The options for responding are limited by the firms' resources and strategic choices as well as by the opportunities offered by the industry and location.

Previous research on SME failure

Challenges in research

There are several definitions of business failure (see e.g. Watson & Everett 1996a; 1993). Firm failure has been defined in several ways, e.g. bankruptcy, insolvency, liquidation, death, deregistering, discontinuance, ceasing to trade, closure, and exit (e.g. Storey 1994: 78-81; Bruno et al. 1987). These definitions overlap each other to some extent (Sten 1998), and they may have different meanings in different countries. As a result of this conceptual pluralism, comparisons between results of previous studies of failure are difficult. In this study, a failed firm is defined as one which has gone into liquidation, i.e. it has ended its business and left behind unpaid creditors, and so the empirical cases in this study are unequivocal failures. Aggregating closures with failures has been a typical problem in several previous studies.

It is important to notice that not all firms that go out of business do so as a result of failure, and those that do not should be separated from failures. For instance, according to Thompson (2001: 631), ultimate business failure happens when a business is liquidated or sold. However, a distinction should be made between two kinds of situations: optional and non-optional. When there are no options, the discontinuance of the firm or business can be defined as failure: in other cases the situation can be labelled as exit. On the other hand, a business which is sold because the entrepreneur wants to realize a profit, for example, is an exit, and closer to a success than a failure.

It is also important to understand the root causes of failure, not only the symptoms. In many studies, it seems that a clear distinction is not made between the symptoms and causes of failure (see e.g. Boyle & Desai 1991). For instance, financial ratios are seen to be symptoms

rather than causes of failure (Argenti 1976). However, prior empirical studies of failure have concentrated almost exclusively on financial ratio data, though the usefulness of ratio-based firm failure prediction models has been questioned (Lussier 1995). It has often been argued that a firm failed because it had run out of money, whereas the root cause may be poor or ineffective management, for example. Revealing the underlying reasons for failure, in particular, and their dynamics would obviously be useful for the creation of the business on a sustainable basis.

Moreover, many firm failures do not happen suddenly, but develop over time as a consequence of decline or crisis. The factors contributing to firm failure are often closely related to the causes of decline and crises. Although small firms are more vulnerable than large ones, few studies have focused on the failure, decline, crises, and turnaround of small firms (Chowdhury et al. 1993).

The findings of previous studies can be described as fragmented, while several common themes are evident. To date, research into firm performance has not provided a comprehensive explanation for SME failure. There is disagreement among previous studies concerning the factors contributing to firm failure (Lussier 1996). A huge number of variables seem to be associated with firm failure. In addition, most studies have focused on large companies, and those investigating small firms often concentrate on new ventures. Moreover, a large variety of research approaches has been used. Narrowness and the lack of a holistic approach are characteristic of many studies. In addition, few studies have focused on the factors affecting the performance of SMEs in peripheral locations.

However, there are several difficulties in studying failed firms (Bruno et al. 1987). These are: (1) difficulties in sampling; (2) the unwillingness of founders to discuss failure; (3) the inability of founders to understand and articulate causation; and (4) the multidimensional complexity of the problem. Difficulties in sampling relate to the selection of appropriate sampling frames of reference, but also to problems in locating the ex-entrepreneurs. The second and third problems relate to the length of time between failure and data collection. Multiple causation leads to categorization and comparison difficulties for researchers investigating the problem.

Research approaches

Many methodological approaches have been used to explain and understand firm failure. Here, studies of firm failure are divided into case studies, surveys, and database analyses, on the basis of their methodological approach to data acquisition. There are also some compilations of the results of previous studies of the factors associated with firm failure. Perhaps the most extensive is the one made by Storey (1994: 92-110). Boyle and Desai (1991) have reviewed the literature concerning the causes of small firm failure. They proposed a typology dividing the causes into four categories based on a matrix of two dimensions: (1) environment, i.e. internal vs. external; and (2) nature of response, i.e. administrative vs. strategic. Lussier and Corman (1995) have also reviewed the research

literature on factors contributing to small firm success versus failure. Vesper (1990: 38, 55) presents a list of failure causes in high-technology start-ups.

Case studies have been carried out by Bruno et al. (1987) and Zacharakis et al. (1999). Bruno et al. (1987) studied ten failed high-technology firms in emerging industries in California. Zacharakis et al. (1999) in their study of perceptions of new venture failure carried out matched case studies of venture capitalists and entrepreneurs.

In addition, there are some survey studies concerning the failure factors of firms. Carter et al. (1997) studied discontinuance among new firms in retail in the U.S. with a focus on the influence of initial resources, strategy, and gender. Lussier (1996) identified the ten most common reasons for small firm failure in a survey of 100 failed small firms representing the population of small firms in six states in the U.S.A. Gaskill et al. (1993) studied the perceived causes of small firm failure in apparel and accessory retailing in Iowa. Smallbone (1990) conducted a follow-up study of new ventures who were clients of an enterprise agency in the UK. Sommers and Koc (1987) studied high-growth firms in the telecommunications, computer equipment, instruments, and electronic components industries. Cressy (1996) analyzed the shape and the underlying temporal stability of firm failure distribution, using a large UK start-up database.

Failure factors

Many studies have concentrated on entrepreneur characteristics in explaining firm failure. However, the importance of the entrepreneur's personality traits has been seriously questioned (see e.g. Storey 1994: 109). Findings concerning the entrepreneur's age, gender, lack of work experience, and family background have been contradictory. Only the entrepreneur's education has been quite consistently verified in empirical studies to influence firm performance positively (Storey 1994: 109). However, there are also exceptions: In their study, Lussier and Corman (1995) found that the owners of failed firms had a higher level of education. In his literature review, Lussier (1996) shows that there is considerable evidence that firms managed by people without management experience have a greater chance of failure than firms managed by people with such experience (cf. Westhead et al. 1995: 88). Also, in some studies, lacking experience in the industry sector has been found to contribute to firm failure (Gaskill et al. 1993; Vesper 1990). Moreover, lack of motivation and commitment on the part of the entrepreneur is associated with firm failure.

Poor management is often associated with firm failure in several studies (Haswell & Holmes 1989; Gaskill et al. 1993; O'Neill & Duker 1986). An incomplete start-up team (Roure & Maidique 1986) and disagreement with partners (Hall & Young 1991) contribute to firm failure. In their study of failed high-technology firms, Bruno et al. (1987) report that an effective management team was more important for firm success than overall management competence. Indeed, in seven cases out of ten, an ineffective management team was seen to be one of the major reasons for firm failure. Lack of management skills was seen to be a major failure determinant by Zacharakis et al. (1999). Also, the entrepreneur's inability to

perform both planning and administrative functions is seen to be associated with firm failure (Boyle & Desai 1991).

Many failure factors are related to products and services, customers and markets, and cooperation with other stakeholders. The greater the product range, the higher the probability that the firm will survive (Reid 1991). Unsuccessful product timing has been found to be one cause of failure, i.e. early and late introductions are problematic (Bruno et al. 1987; see also Vesper 1990: 38). Also, dependency on a single customer or only a few customers is a major factor affecting firm failure (Reid 1991; see also Hewitt-Dundas & Roper 1999; Hall & Young 1991). High reliance on a single customer as well as ineffective distributor relations are factors associated with failure (Bruno et al. 1987). Hence, a diversified customer base plays an important role in firm survival (Storey 1994: 107). Obtaining sufficient sales is a challenge particularly for smaller firms (Cromie 1991; Hall & Young 1991). Cressy (1996) found that fluctuations in firm sales increase the probability of firm failure. Moreover, it has been shown that those firms which do not use professional advisers are more likely to fail than those which do (Vesper 1990; Gaskill et al. 1993; Lussier 1995).

Firm resources and finance are seen to have a critical role in many studies. Firms that start undercapitalized have a greater chance of failure than other firms (Lussier 1996; Hall & Young 1991). The failed new firms studied by Smallbone (1990) also suffered from undercapitalization, and lack of business was characteristic of them. Financial inadequacies such as undercapitalization and problems in venture capital relationship are the major factors affecting firm failure (Bruno et al. 1987; see also Zacharakis et al. 1999; Boyle & Desai 1991; Cromie 1991). In their study of discontinuance among new firms in the retail industry, Carter et al. (1997) showed that lack of human and financial resources is associated with business discontinuance. Such an association was also confirmed by Cressy (1996) in his database analysis. The lower the levels of external borrowing are, the higher is the probability that the firm will survive (Reid 1991). Labich and de Llosa (1994; also O'Neill & Duker 1986; Hall & Young 1991) claim that mishandling of debt loads is an important factor associated with failure. Moreover, inadequate record keeping and financial control has been found to be a cause of failure (Gaskill et al. 1993; Boyle & Desai 1991; Vesper 1990). Often, rapid firm growth generates problems with finance, which ultimately may lead to firm failure. Thus, problems in working capital management are associated with firm failure (Gaskill et al. 1993).

The firm's inability to attract and retain competent employees may also lead to failure (Sommers & Koc 1987; Boyle & Desai 1991; Lussier 1995). Cromie (1991) claims that the biggest problem related to personnel in young firms is getting good staff with the right attitudes. Labich and de Llosa (1994) claim that low employee morale and hostility may be an important reason for failure.

It has been found that young firms are more likely to fail than older firms (e.g. Dunne et al. 1989; Storey 1994: 109; Westhead et al. 1995). Similarly, smaller and especially very small firms are more likely to fail than their larger counterparts (e.g. Gallagher & Steward 1985; Dunne & Hughes 1992; Storey 1994: 109; Westhead et al. 1995; see also Watson & Everett

1996b). For the survival of young firms, their growth after startup is critical (Phillips & Kirchhoff 1989; Storey 1994: 109). Moreover, there is some evidence that the higher the firm growth rate, the higher the probability of survival, and also that firms which start larger have higher survival rates (Phillips & Kirchhoff 1989). The causes of crises and failure related to the management of transitions from one stage of development to another are described in the studies of organizational life cycles (see e.g. Flamholtz & Randle 2000; Kazanjian 1988; Greiner 1972; see also Boyle & Desai 1991).

A weak business concept or unclear business definition, i.e. lack of clarity about what business we are in, and lack of focus have been presented as causes of failure (Bruno et al. 1987; Smallbone 1990; Zacharakis et al. 1999; Labich & de Llosa 1994). Also, failure of vision has been found to be an important factor behind firm failure in the United States (Labich & de Llosa 1994). Resistance to change relates to the fact that “success can often be the seed of future failure”, which underlines the importance of continuous development (Labich & de Llosa 1994; see also Miller 1994). It has also been shown that lack of a business plan is associated with firm failure (Sommers & Koc 1987; Gaskill et al. 1993; Lussier 1995). Lack of planning and especially strategic planning is often seen to be characteristic of failed firms (Boyle & Desai 1991). Also, an overextension of the business may cause failure (Gaskill et al. 1993). Jennings and Beaver (1997) claim that the root cause of either small firm failure or poor performance is almost invariably lack of management attention to strategic issues.

Turning now to the external environment of the firm, we find Storey (1994: 94-95) arguing on the basis of his compilation of previous studies, that the industry sector seems to play a minor role in firm failure. However, the results of previous studies have been contradictory on this issue. For example, North et al. (1992) found wide sectoral variation in the survivability of SMEs, while many other studies have argued that there are no sectoral differences in failure rates (e.g. Phillips & Kirchhoff 1989; Kalleberg & Leicht 1991). One explanation for these conflicting findings may be found in a study carried out by Watson and Everett (1999), who claim that some definitions of failure are biased against certain industry sectors. Moreover, contrary to general belief, many firms filing for bankruptcy actually have growing sales and are situated in growing industries (Moulton & Thomas 1988).

The macroeconomic situation and changes in it have also been found to have an association with firm failure. Firms started during a recession seem to have a greater probability of failure than other firms (Bruno et al. 1987; Vesper 1990). Moreover, slow economic activity or recession has been found to be a major reason for failure (Lussier 1996). Poor external market conditions, including stiff competition, slow market growth, and small market size, have been found to be major factors associated with firm failure not only by entrepreneurs but also by venture capitalists (Zacharakis et al. 1999). Other studies have also found that stiff and increased competition, and the firm's inability to respond to it, is associated with firm failure (Roure & Maidique 1986; Gaskill et al. 1993).

Failure trajectories

Few recent studies have focused on firm failure processes and trajectories. Moreover, on the basis of the studies we do have, it seems that most studies have focused on large companies, and those investigating small firms often concentrate on new ventures.

In their study of large corporation failures, Hambrick and D'Aveni (1988) matched failed and survived firms. They describe the decline of the firm as a downward spiral. The significant features of the downward spiral include early weaknesses in slack and performance, extreme and vacillating strategic actions, and abrupt environmental decline. Moreover, they found that the failures showed signs of relative weakness very early, so it can be concluded that the deaths are protracted processes. Moreover, in his study of strategic and managerial consequences of organizational decline in large companies, D'Aveni (1989) found that bankruptcy may be delayed or even avoided in an environment of growing demand.

In fact, there are several ways to classify and describe the factors and mechanisms affecting firm failure. The basic classification divides the reasons into two categories: (1) firm-internal causes; and (2) firm-external causes. In addition to firms falling into these categories, there are also businesses that never start trading. Moreover, some firms cease to trade due to health problems, ageing or other reasons related to the person of the entrepreneur.

Factors affecting firm failure are often described by using life cycle stage models. Adizes (1979) has identified the four premature mortality outcomes in different life cycle stages: (1) aborted idea; (2) infant mortality; (3) founder's trap; and (4) divorce. Greiner (1972) has described firm development through different stages of organizational crisis. Failure to adapt to a series of crises caused by growth is one of the principal causes of failure for all organizations (Greiner 1972). Argenti (1976) has presented three types of failure trajectories: (1) never get off the ground; (2) obsessed by speed; and (3) insidious development. Moreover, Miller (1990) has named four development types of failing firms: (1) tinkerer; (2) imperialist; (3) escapist; and (4) drifter. He argues that the factors affecting firm failure are bound with the type of the firm.

The challenges of this study

Altogether, the findings of previous studies can be described as fragmented, although several common themes are evident. There is disagreement among previous studies concerning the factors contributing to firm failure (Lussier 1996). However, taking into account the several choices that researchers have to make concerning their study design, and therefore the diversity of studies, it is to some extent understandable that the results of studies are inconsistent with each other.

However, in the light of previous research, it can be suggested that there do seem to be certain factors related to failure. Firm failure often seems to be related the entrepreneur's lacking higher education and experience, and the lack of an effective management team, innovativeness in products, good customer relationships and avoidance of dependency on

only a few customers, good cooperation relationships, adequate financing, skilled personnel, strategic planning, firm growth, firm flexibility, focusing on core business, and operation in favourable economic conditions. Moreover, the classifications presented also suggest that there are contingency factors, e.g. firm life cycle stage, which may affect the results.

All this calls for the holistic investigation of failure factors and trajectories. There are firm-internal and firm-external factors, which may make either an immediate or a long term contribution to firm failure. The results can also be dependent on context and contingency factors such as firm type, which might explain inconsistencies in the results of previous research. The context often plays a critical role: what works in one context will not necessarily work in another. Moreover, investigating failure trajectories is important in order to identify the processes leading to firm failure.

On the basis of the literature review, the following research questions can be set:

- 1) What are the most common factors affecting SME failure?
- 2) Are there differences in failure factors between firm types?
- 3) What kind of failure trajectories can be identified among SMEs?

Data and methods

Data collection methods

This paper is based on the data of a larger exploratory study of the factors affecting SME performance (Pasanen 2003), and it utilizes the taxonomy of SMEs presented by Pasanen et al. (2000). Twelve failed SMEs were identified, based primarily on the information gained from local authorities, e.g. representatives of business development departments of municipalities and towns. Failures were defined as those SMEs which had gone out of business with loss to creditors. The entrepreneurs of the 12 failed SMEs in Eastern Finland were interviewed, and the main material was based on these in-depth case interviews carried out in 1999-2001. In addition to interviews, document material such as annual reports, financial statements, newspaper articles, etc. were collected and used as complementary secondary data.

Times for the interviews were fixed in advance, and the entrepreneur was asked to prepare for the interview by collecting the available annual financial statements. In some cases, other long-term key persons in the firm were also interviewed to provide complementary information. These were the cases where the principal interviewee had started as a CEO of the firm after the firm was founded, and there were some key person(s) who had longer experience in the firm, or the key person was more deeply involved than the CEO in some critical incident in the firm's history, and so had a better understanding of the issue in question. No discrepancies were found in the answers given by the entrepreneurs and the key persons. Some of the interviewees were re-interviewed later to obtain more detailed information about important incidents revealed in the first interview.

The framework for interviews was constructed on the basis of the results of the previous survey results and of the research literature. The interview was started by asking the interviewee about her or his view of the events and factors associated with the failure. The potential role of failure factors found in the relevant literature were also examined among cases. Each of the personal on-site interviews took from one to three hours. The interviews were recorded and transcribed.

Sample characteristics

The twelve failed SMEs in the sample can be characterized as follows. They shared four features: (1) size: SMEs, i.e. they employed fewer than 250 persons; (2) location: peripheral, i.e. outside major cities and not in core areas; (3) performance: a firm has gone into liquidation, i.e. it has ended its business, leaving behind unpaid creditors; and (4) ownership: independent firms, not subsidiaries of other companies.

Most entrepreneurs of failed SMEs were men (92%) and owner-managers (75%). Among owner-managers, two thirds of entrepreneurs were founders of these SMEs. The entrepreneur's average age was 47 years. Failed SMEs operated in several industry sectors, most of them (83%) in manufacturing, and the rest (17%) in the service sector. The average number of full-time personnel before the firm went out of business was 16 employees. However, these SMEs had typically reduced the number of employees during their last year of operation, and hence the number of employees did not indicate the highest number of personnel during the firm's life cycle.

The firms' average age was 14 years. Half of the failed SMEs were founded by at least two founders. However, interestingly, 58% of failed SMEs were owned by only one owner just before the firm went out of business. More than half (58%) were family firms, and most (58%) had consciously defined and specified goals and objectives. Moreover, there were failed SMEs in each stage of development.

All failed SMEs, except one, had stayed near to their original business. One third had faced at least once a situation where the firm's existence, i.e. survival, had been threatened (apart from the threat which had finally led the firm into liquidation). Two thirds had grown in terms of turnover during recent years of operation. Also, two thirds had operated in markets where demand had grown during recent years. Almost half of the failed SMEs (42%) were export firms. One quarter had products which were considered unique in the markets. On average, the most important customers accounted for 29% of the turnover for failed SMEs. One third were subcontractors, and half bought subcontracting.

Data analysis methods

In data analysis, first the situations before the failure of the cases were briefly described. In the description of the past development of the cases, the most important transitions, events and decisions affecting firm performance were identified and described. In this searching

process, the critical incident technique (Chell 1998; Flanagan 1954) was applied. Special attention was paid by the interviewee or the researcher to the factors which showed a potential or proven impact on firm performance. Though significant occurrences in the firms' history were identified by respondents, the final evaluation of their importance was based on the researcher's interpretation.

In particular, the researcher looked for the factors affecting the development of firm failure. The ways of responding to environmental changes and the strategic choices made by SMEs were clarified. The methods of qualitative research used made it possible to acquire an in-depth understanding of the events and processes that can explain a firm's responses and choices (see e.g. Mintzberg & Waters 1982: 466-468).

The interviews were coded and analyzed applying the grounded theory protocol (Glaser & Strauss 1967; Strauss & Corbin 1990). First, the qualities emerging from the data were identified and coded. After this conceptualization, the concepts were classified into categories that emerged from the data. Next, connections between the categories and sub-categories were analyzed. Finally the core category was selected, the story line was explicated, and sub-categories were related to the core category. However, the case descriptions, apart from one illustrative case, are not presented in this paper.

Results

Failure factors

Of the factors studied, typical of the entrepreneurs of the failed SMEs were lack of prior experience as an entrepreneur, lack of marketing skills, lack of prior managerial experience, and parents who were not entrepreneurs. Typical of the failed SMEs were a firm managed by one individual, lack of planning, a firm founded by one individual, no use of business advisors, dependency on one or a few big customers, small amount of products/services, and unfavourable macro economic conditions. In addition, characteristic of many failed SMEs was inadequate financing. The most common factors associated with SME failure among the sample cases are presented in Figure 1. It seems that there are several factors that may contribute to firm failure and they occur in different combinations in different firms. However, the root causes of failure seem to be largely firm internal, and so under the management's control (cf. Boyle & Desai 1991).

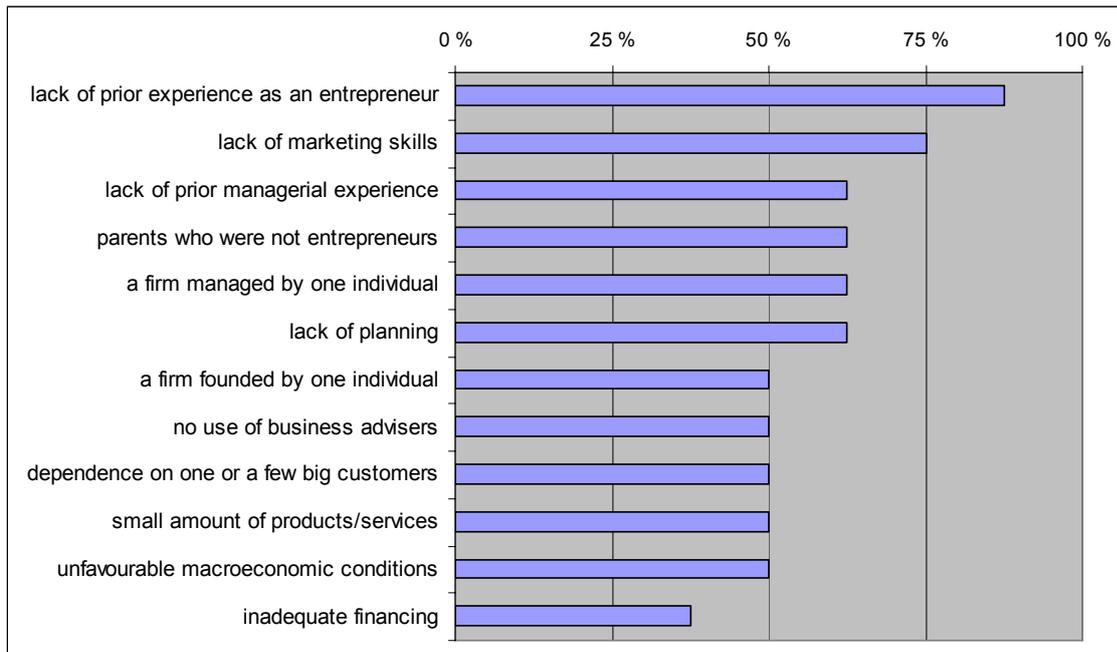


Figure 1 – The most common factors associated with SME failure (% of failed SMEs)

Differences in failure factors between firm types

However, the sample of failed SMEs was not a homogeneous group of SMEs, though many of the firms had some characteristics in common. It can be argued that due to the diversity of SMEs, understanding the phenomenon can be advanced through grouping them into homogeneous types of SMEs according to their characteristics. This makes it possible to study SMEs in homogeneous groups in which the SMEs within the group are similar and different from firms in other groups (e.g. Woo et al. 1991; Hornaday 1990).

In the following, the failed SMEs are studied in three clusters of SMEs: (1) stable, independent firms with no growth aspirations, operating in local markets (n=4); (2) innovators with continuous growth, operating in growing markets (n=5); and (3) efficiency-oriented networkers with leapwise growth (n=3) (for cluster descriptions, see Pasanen 2004). The distinction between the first and the other clusters reflects especially the difference between non-growth and growth firms. The second distinction between the two clusters of growth firms reflects the difference between incremental and organic, and leapwise, non-organic growth, in particular.

When looking at different types of SMEs, it seems that there are differences in the factors affecting SME failure between the clusters of SMEs. In *the cluster of stable independent firms*, failed SMEs had risks in customers and the timing of investments. Demand was unstable and unpredictable, and they were dependent on a few big customers. Big investments in premises and production facilities just before the economic recession and the collapse in demand were typical of these firms. As a matter of fact, unexpected and sudden changes in the environment seem to be a major source of causes of SME failure in this cluster.

In *the cluster of innovators with continuous growth*, characteristic of the entrepreneurs of failed SMEs was lack of prior managerial experience and of marketing skills. The failed SMEs were led by one person, they had products tailored individually for each customer, and their strategic planning and risk management were inadequate. They were vulnerable due to their dependency on one provider of some critical resource, i.e. being a customer of one bank only, or operating in a very narrow customer or product segment and in a very limited market area. The general economic recession of the 1990s had a great impact on the failures.

In *the cluster of networkers with leapwise growth*, in the case of the failed SMEs, the number of potential customers in the market was very limited, and firms expanded their operation to a new business area where they had no know-how.

The key findings concerning the factors associated with SME failure by clusters are summarized in Table 1.

Table 1 – Summary of the factors associated with SME failure by clusters

Firm type	Factors associated with failure
Stable independent firms	<ul style="list-style-type: none"> • risks in customers • risks in the timing of investments • unstable and unpredictable demand • unexpected and sudden changes in the environment
Innovators with continuous growth	<ul style="list-style-type: none"> • products tailored individually for each customer • inadequate strategic planning and risk management • dependence on one provider of some critical resource
Networkers with leapwise growth	<ul style="list-style-type: none"> • small number of potential customers in the market • expansion into a new business area where the firms had no know-how

Failure trajectories

Turning now to the life cycles of failed SMEs, three types of failure trajectories were identified: (1) failed borderline cases; (2) rapid collapse failures; and (3) failed seekers of legitimacy.

Failed borderline cases were failures characterized by long term weak and insidious development. Their existence had been under threat many times during their life cycle. They had faced several severe problems during their life cycle, but survived until they faced the last problem which led them failure. In fact, these firms had many major problems, which they could not resolve and they caused a downward vicious spiral. In some point of time the load of these vicious spirals exceeded the carrying capacity of the firm. However, the load was accumulated during a long period of time. Typical of these failures were the lack of strategic thinking, and lack of business-like thinking, in particular.

Typical of *rapid collapse failures* was the fast development of the process leading to firm failure. Often these firms had had no big problems before the one which caused the firm failure. In these cases, failures were based on high risk-taking which exceeded the firm's carrying capacity. Excessive risk-taking combined with the firms' low tolerance of environmental disturbances was fatal to these firms. They had a wrong view of the development of their environment in the future. The firms had made wrong decisions which they could not cancel anymore. On the other hand, the firms had no plans for the difficult incidents and circumstances, and so they were extremely vulnerable to the changes in their environment.

Failed seekers of legitimacy were firms lacking of a real competitive advantage. During their life cycle they sought their place in the markets, but were never able to achieve an alignment with their environment and legitimacy in the markets. They tried to correct their course of action several times but they could not find any way to compete successfully against their competitors. These firms had a wrong view about how the firm will succeed in the future. Moreover, compared with the other types of failed SMEs, these firms had the weakest preconditions, in terms of e.g. weak customer basis or inadequate financing, for successful business.

The key findings concerning the failure trajectories are summarized in Table 2.

Table 2 – Summary of the failure trajectories

Failure trajectory	Typical characteristics
Failed borderline cases	<ul style="list-style-type: none"> • long term weak and insidious development • many accumulative unresolvable major problems caused a downward vicious spiral • lack of strategic and business-like thinking
Rapid collapse failures	<ul style="list-style-type: none"> • fast development of firm failure without previous major problems • excessive risk-taking, but low tolerance of environmental disturbances • wrong view of the development of environment in the future, wrong and irreversible decisions, and no plans for unexpected environmental development
Failed seekers of legitimacy	<ul style="list-style-type: none"> • firms lacking of a real competitive advantage • never able to achieve an alignment with their environment and legitimacy in the markets • wrong view about how the firm will succeed in the future • weak preconditions for successful business

An illustrative case

In order to achieve a more comprehensive view of the failed SMEs, one illustrative case description is presented below. The example firm represents *the cluster of stable independent firms* in terms of firm type and *failed borderline cases* in terms of failure trajectory.

The situation before failure. The firm produced tailor-made metallic roofing sheets. Customers were hardware stores, wholesale firms, building firms, and consumers. Production was carried out almost exclusively by the firm itself. Time, i.e. rapid delivery of the tailor-made products, was the firm's most important source of

competitive advantage. The firm could deliver tailor-made products to customers in two days, whereas its main competitors took two weeks. The main competitors were big firms with a strong resource base, which appeared in their aggressive marketing, for instance. The firm was highly dependent on the economic activity in the construction sector.

Life cycle. The firm was founded in the late 1950s by the entrepreneur's father. Travelling abroad, he had come across metallic roofing sheets which could be installed without using a professional plater. After returning home, he developed the first machine in Finland for producing such metallic roofing sheets. He had seen a business opportunity, a clear niche in the market for such products. At the beginning, sales were made through wholesale firms because they dominate in the building material trade, but in the last years more than 50% of products were sold directly to consumers. Research and development had been continuous. Old machines had been improved or replaced by new ones every other year, to increase production speed. In the early days, products were standard, but a dramatic change was made in the mid-1960s, since when products were tailor-made for each customer. Starting in the 1970s, metallic roofing sheets were used in constructing the walls of factories, and later also in the walls of dwelling houses and office buildings, where they are still much used today.

The entrepreneur had run the family firm since 1980, when his father had retired. In the 1980s, new machines had been bought and production lines had been renewed to increase production speed. The year 1983 was a turning point in the field because of the launch of a new production technique. The firm had been the second in Finland to start producing tile-patterned metallic roofing sheets which gave roofs a new look and were a real success in the market. The entrepreneur compared it with *"a transition from the era of the telephone to the era of the mobile phone"*. The product range expanded considerably, and marketing had become more focused. Previous investments had been made using cash flow financing, but in the early 1990s, just before the beginning of the general economic recession, the firm had had to invest in new production facilities using borrowed capital.

In the early 1990s, the firm started exporting metallic roofing sheets to the Baltic countries, Russia and Central Europe. Soon after, some Finnish competitors also expanded their market areas into the same areas, and severe price competition started. Three years later, the firm had to withdraw from foreign markets. In the 1990s, the field changed very much as a result of acquisitions, mergers and other restructuring in the industry sector. This meant that new contacts had to be established, with suppliers for example. The number of competitors had been reduced but the new or merged competitors had become bigger and stronger than ever before.

In the mid-1990s, the firm bought an installation firm. At the beginning, they had some good projects, and the size of the workforce rose rapidly from two to seven men. However, very soon the profitability of the installation business collapsed due to the oversupply of assemblers from all around the country who were willing to do the work for "ridiculously" low prices, as the entrepreneur put it. After three years of operation, the installation unit was closed down. During this three year period, personnel relations suffered because of the wage differences between assemblers and employees in the workshop, and this caused dissatisfaction among employees in the workshop. Both the installation business and exporting turned out to be unprofitable. Another problem had been caused by the steel supplier, who had guaranteed the quality of the steel. There were some problems with the quality, and consumers directed their complaints to the firm and not to the supplier, who, as a matter of fact, was responsible. This caused the firm a lot of extra work and probably influenced negatively the firm's reputation in the market.

A high seasonal variation in demand had caused a major problem for the firm. In winter, demand was low, but in summer there were more orders than the firm could handle. In the last years of the firm's operation, the production of the production lines partly replaced the lower demand in winter. The production of the production lines was rare among the competitors. The production lines were sold to customers in the Baltic countries, Poland and Russia.

The entrepreneur reported that his mental resources were running out in the early 1990s. He was tied up in every-day business and routines, and had no time for strategic thinking and planning. In fact, he was facing one problem after another, particularly concerning the tax authorities. For many consecutive years, certain writeoffs had been accepted by the tax authorities only after appeal, and the entrepreneur felt that some of the decisions were unjust. Consequently, he had lost his faith in justice. Finally, he neglected to deal with some matters and this led to the situation where the tax authorities got the upper hand.

During the economic recession, the firm had also had hard times with credit losses arising from the failure of many customer firms. In addition, the entrepreneur had not been capable of laying people off, keeping all personnel throughout the year, even during winter time when there was no work for all of them, for several reasons. On the one hand, he had known the people a long time and wanted to take care of them. On the other hand, once let go it was by no means sure that they would come back when the high season started. However, it seems that the entrepreneur was not sufficiently business-like in this matter. As he said: *"Employing people is expensive"*. It seems that he acted more on the basis of feelings than sense, and treated the personnel as a big family. He described his feelings in the 1990s thus: *"I was running up a steep sand bank but my feet were sliding down all the time and I was getting nowhere"*.

The case was characterized by the following factors, which often associated with firm failure: the entrepreneur lacked prior experience as an entrepreneur and prior managerial experience, and the firm was managed by one individual, lacked planning, did not make use of business advisors, and operated in unfavourable macroeconomic conditions. Moreover, the firm had risks in customers (credit losses) and the timing of investments (big investment in new production facilities using borrowed capital just before the economic recession). Demand was also unstable (high seasonal fluctuations) and unpredictable (rapid decrease in demand due to the general economic recession).

The firm's long-term weak and insidious development was related to the lack of strategic thinking and of business-like thinking (e.g. not laying off employees). The entrepreneur was tied up in routine tasks and had no time for strategic thinking and planning. Moreover, there appeared to be some resistance to renewal, which was revealed in the way of thinking "*we have always done things this way and survived, so why shouldn't we do things this way also in the future?*" The problems with the tax authorities over several consecutive years also ate up the entrepreneur's mental resources. Moreover, the market position of the firm was highly challenging: it had to keep ahead of the giants (major competitors) all the time. The attempts to find new business directions (exporting and installation business) turned out to be unprofitable.

Several severe problems accumulated in the 1990s, leading to a downward vicious spiral (for main problems and related adverse processes, see Table 3). The firm survived until the end of the 1990s, when the weight of these problems exceeded the carrying capacity of the firm and the adverse development led to a shortage of money and liquidation. However, the load was accumulated over a long period of time. Moreover, typical of this failure was the lack of strategic thinking, and lack of business-like thinking.

Table 3 – Main problems and related adverse processes

Main problems	Related adverse processes
Lack of strategic thinking	<ul style="list-style-type: none"> the firm was managed by one individual → tied up in routine tasks → no time for strategic thinking and planning
Lack of business-like thinking	<ul style="list-style-type: none"> acting more on the basis of feelings than sense → the decision 'not laying off employees' → continuous costs but no incomes the way of thinking "<i>we have always done things this way and survived, so why shouldn't we do things this way also in the future?</i>" → the entrepreneur treated the personnel as a big family social pressures to continue the family firm
Weaknesses in strategic management and inability to adapt to rapid environmental changes	<ul style="list-style-type: none"> a significant investment with borrowed capital was made just before the economic recession → poor timing of investments → collapse of securities and market demand → rapid decrease in revenues → problems in repayment of the loan and interests general economic recession → rapid decrease in demand → liquidation of many customer firms → sudden credit losses general economic recession → industry restructuring → the firm had to try to keep up with giants (competitors) with superior market power and to find new cooperation partners (e.g. suppliers) and negotiate new contracts with them
Challenging nature of	<ul style="list-style-type: none"> coping with high seasonal fluctuations → no work for all personnel in winter → the

business	decision 'not laying off employees' → continuous costs but no incomes
Problems with public authorities	<ul style="list-style-type: none"> the firm had continuous problems with the tax authorities → it was burdened with financially unfavourable taxation decisions → the entrepreneur's mental resources were running out → oversights in tax issues → costly consequences
Unsuccessful attempts to expand the scope of the business	<ul style="list-style-type: none"> starting exporting → competitors also expanded their market areas into the same areas → severe price competition → exporting turned out to be unprofitable → withdrawal from foreign markets purchase of the installation business → the atmosphere in the firm suffered from conflicts between assemblers and employees in the workshop oversupply of assemblers after the purchase of the installation business → profitability of the installation business collapsed → turned out to be unprofitable → the installation unit was closed down
Problems with the supplier	<ul style="list-style-type: none"> supplier's quality problems → affected negatively the firm's reputation → loss of customers

The case clearly shows that there were several inter-related factors and adverse processes affecting firm failure. In this case, credit losses, costly consequences of neglecting taxation matters, and the decision to 'not lay off employees' finally led to a shortage of money and liquidation. However, as we can see, there were both firm-internal issues (such as weaknesses in strategic management and their consequences) and firm-external issues (such as unexpected and sudden changes in the environment and their consequences) affecting firm failure. There were wrong strategic choices made by the entrepreneur as well as stochastic factors which made it very difficult for the firm to survive.

Discussion

Despite the fact that SMEs in different industry sectors differ from each other in numerous and significant ways, it was possible to identify similarities among the failed firms. It seems that some of these similarities are common to failed SMEs in general, and some are more cluster specific. On the other hand, each failure has its own story. Moreover, the failure trajectories crossed the clusters.

On the basis of the empirical results, one or a few major factors and processes seem to cause firm failure. The factors contributing to firm failure are often closely related to the causes of decline and crises. There was some evidence of a close relationship of factors causing a threat and failure, i.e. one severe problem may be a major cause of threat, and the co-existence of such problems may lead to SME failure. Failure factors and processes also seem to be inter-related. In many cases, the lack of strategic management (Boyle & Desai 1991; Jennings & Beaver 1997) was strongly associated with SME failure. However, it may also be that not all cases could have been saved from liquidation even by means of thorough strategic management, because of the sudden, unexpected and large-scale external shocks they faced in their environment.

Often, there was one initial triggering reason which, together with other problems, caused a downward vicious spiral generating new problems (cf. Hambrick & D'Aveni 1988). Thus, failure seems to generate self-reinforcing downward spirals. When a vicious spiral has begun, one problem feeds the creation of others and stopping such development becomes

more and more difficult. Several very different factors may be involved in these processes, and thus a holistic approach in studying them is required. Also, there can be several simultaneous adverse processes interacting with each other. However, in some cases the causes of firm failure seem to be highly situation specific and the process leading to failure progressed rapidly. Moreover, in some cases there were not proper preconditions for successful business, and so the failure could have been anticipated already in early stages of the firm's life cycle.

In general, a firm's inability to adjust to changing circumstances can be seen to be the reason for failure. Many firms are not prepared for potential external shocks in their environment. Anticipation of and preparation for potential threats could have helped very much in many cases. There were also failed cases with major problems originating from the lack of business-like thinking. Several studies have shown that factors related to poor management, e.g. managerial inadequacy, incompetence, inefficiency, and inexperience, are frequently causes of firm failure, in the small firm context particularly (Haswell & Holmes 1989). Moreover, poor management issues are often related to poor financial conditions, inadequate accounting records, and lack of good managerial advice. However, financial problems are often due to a lack of planning. In the stage of rapid growth, in particular, inability to manage growth and change may lead to firm failure (MacMillan et al. 1985; Hambrick et al. 1985). Many times, the root cause of failure can be traced to problems in management.

Relatively little research has focused on established firm failure in the SME context and in peripheral locations, in particular. However, information from failed SMEs can significantly expand our knowledge of SME performance, and so this exploratory study of failed SMEs in peripheral locations can be justified. Future research into failed SMEs calls for multisource interviews, i.e. interviews with entrepreneurs, members of management teams or key employees, financiers, cooperation partners, etc. As Zacharakis et al. (1999), for instance, show there are differing perceptions of the causes of firm failure between entrepreneurs and venture capitalists. It is worth noting that there may be several explanations for firm failure, not only one right answer to the question of why a firm failed. It has been found that several factors and processes may affect the creation of vicious spirals, and so in-depth studies of failure processes, i.e. of the factors and their causal relationships are highly important. Moreover, it would be useful to study these issues by using larger sample of SMEs. In this study, the small number of cases was a central problem for the investigation of cluster-specificity of the factors affecting SME failure.

Finally, the results can be useful for entrepreneurs and those who are fostering entrepreneurship and SME development. In studying the factors affecting SME performance, the investigation has produced knowledge which is valuable for nascent and acting entrepreneurs and those in charge of the firm. It seems likely that many SMEs and their stakeholders could learn from others' failures. Venture capitalists, financiers, and consultants can take advantage of these results. Moreover, on the basis of the results, organizations fostering entrepreneurship and SME development can better direct their actions and develop

their products, advisory services and education. For those who are responsible for public SME policy, the results provide some guidelines for decision making and the allocation of public actions, as well as an opportunity to evaluate the present SME policy and its developmental needs.

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References

- Adizes, I. (1979). Organizational passages: diagnosing and treating lifecycle problems of organizations. *Organizational Dynamics* 8 (Summer), 3-25
- Argenti, J. (1976). *Corporate collapse: the causes and symptoms*. Maidenhead: McGraw-Hill.
- Boyle, R. & H. Desai (1991). Turnaround strategies for small firms. *Journal of Small Business Management* 29 (3), 33-42.
- Bruno, A. & J. Leidecker & J. Harder (1987). Why firms fail? *Business Horizons* 30 (2), 50-58.
- Carter, N. & M. Williams & P. Reynolds (1997). Discontinuance among new firms in retail: the influence of initial resources, strategy, and gender. *Journal of Business Venturing* 12, 125-145.
- Chell, E. (1998). Critical incident technique, in *Qualitative methods and analysis in organizational research: a practical guide*, G. Symon & C. Cassell (eds.), 51-72. London: Sage.
- Chen, M. & D. Hambrick (1995). Speed, stealth, and selective attack: how small firms differ from large firms in competitive behavior. *Academy of Management Journal* 38 (2), 453-482.
- Chowdhury, S. & J. Lang (1993). Crisis, decline, and turnaround: a test of competing hypotheses for short-term performance improvement in small firms. *Journal of Small Business Management* 31 (4), 8-17.
- Cooper, A. & C. Woo & W. Dunkelberg (1988). Entrepreneurs' perceived chances for success. *Journal of Business Venturing* 3 (2), 97-108.
- Cressy, R. (1996). Small business failure: failure to fund or failure to learn by doing? In *The 41st ICSB World Conference Proceedings V*, 385-410. Stockholm, Sweden, June 16-19.
- Cromie, S. (1991). The problems experienced by young firms. *International Small Business Journal* 9 (3), 43-61.
- D'Aveni, R. (1989). The aftermath of organizational decline: a longitudinal study of the strategic and managerial characteristics of declining firms. *Academy of Management Journal* 32 (3), 577-605.
- Dennis, W. & L. Fernald (2001). The chances of financial success (and loss) from small business ownership. *Entrepreneurship Theory & Practice* 26 (1), 75-83.
- Dunne, P. & A. Hughes (1992). *Age, size, growth and survival revisited*. University of Cambridge. Small Business Research Centre. Working paper 23.
- Dunne, T. & M. Roberts & L. Samuelson (1989). The growth and failure of US manufacturing plants. *Quarterly Journal of Economics*, November, 671-698.
- Flamholtz, E. & Y. Randle (2000). *Growing pains: transitioning from an entrepreneurship to a professionally managed firm*. San Francisco: Jossey-Bass.

- Flanagan, J. (1954). The critical incident technique. *Psychological Bulletin* 51 (4), 327-358.
- Gallagher, C. & H. Stewart (1985). Business death and firm size in the UK. *International Small Business Journal* 4 (1), 42-57.
- Gaskill, L. & H. van Auken & R. Manning (1993). A factor analytic study of the perceived causes of small business failure. *Journal of Small Business Management* 31 (4), 18-31.
- Glaser, B. & A. Strauss (1967). *The discovery of grounded theory*. Chicago: Aldine.
- Greiner, L. (1972). Evolution and revolution as organizations grow. *Harvard Business Review* 50, July-August, 37-46.
- Hall, G. & B. Young (1991). Factors associated with insolvency amongst small firms. *International Small Business Journal* 9 (2), 54-63.
- Hambrick, D. & L. Crozier & L. Winter (1985). Stumblers and stars in the management of rapid growth. *Journal of Business Venturing* 1 (1), 31-45.
- Hambrick, D. & R. D'Aveni (1988). Large corporate failures as downward spirals. *Administrative Science Quarterly* 33 (1), 1-23.
- Haswell, S. & S. Holmes (1989). Estimating the small business failure rate: a reappraisal. *Journal of Small Business Management* 27 (July), 68-74.
- Hewitt-Dundas, N. & S. Roper (1999). Overcoming customer dependency: a case study of the strategies of small consumer food producers in Northern Ireland. *International Small Business Journal* 17 (4), 49-65.
- Hornaday, R. (1990). Dropping the e-words from small business research: an alternative typology. *Journal of Small Business Management* 28 (4): 22-33.
- Jennings, P. & G. Beaver (1997). The performance and competitive advantage of small firms: a management perspective. *International Small Business Journal* 15 (2), 63-75.
- Kalleberg, A. & K. Leicht (1991). Gender and organizational performance: determinants of small business survival and success. *Academy of Management Journal* 34 (1), 136-161.
- Kazanjian, R. (1988). Relation of dominant problems to stages of growth in technology based new ventures. *Academy of Management Journal* 31 (2), 257-279.
- Labich, K. & P. de Llosa (1994). Why companies fail. *Fortune* 130 (10), 52-58.
- Lussier, R. (1995). A nonfinancial business success versus failure prediction model for young firms. *Journal of Small Business Management* 33 (1), 8-20.
- Lussier, R. (1996). Reasons why small businesses fail: and how to avoid failure. *The Entrepreneurial Executive* 1 (2), 10-17.
- Lussier, R. & J. Corman (1995). There are few differences between successful and failed small businesses. *Journal of Small Business Strategy* 6 (1), 21-33.
- Lussier, R. & S. Pfeifer (2000). A comparison of business success versus failure variables between U.S. and Central Eastern Europe Croatian Entrepreneurs. *Entrepreneurship Theory & Practice* 24 (4), 59-67.
- MacMillan, I. & R. Siegel & R. Narasimha (1985). Criteria used by venture capitalists to evaluate new venture proposals. *Journal of Business Venturing* 1 (1), 119-128.
- Miller, D. (1990). *The Icarus paradox: how exceptional companies bring about their own downfall*. New York: HarperBusiness.
- Miller, D. (1994). What happens after success: the perils of excellence. *Journal of Management Studies* 31 (3), 325-358.
- Mintzberg, H. & J. Waters (1982). Tracking strategy in an entrepreneurial firm. *Academy of*

- Management Journal* 25 (3), 465-499.
- Moulton, W. & H. Thomas (1988). Firm growth, industry growth, and business failure. *Academy of Management Best Papers Proceedings*, 27-31.
- North, D. & R. Leigh & D. Smallbone (1992). A comparison of surviving and non-surviving small and medium-sized manufacturing firms in London during the 1980s, in *Small enterprise development*, K. Caley (ed.), 12-27. London: Chapman.
- O'Neill, H. & J. Duker (1986). Survival and failure in small business. *Journal of Small Business Management* 24 (1), 30-37.
- Pasanen, M. (2003). *In search of factors affecting SME performance: the case of Eastern Finland*. Kuopio University Publications H. Business and Information Technology 1. Kuopio: University of Kuopio.
- Pasanen, M. (2004). Strategic behavior patterns of SMEs in difficult surroundings. *The 4th International Entrepreneurship Forum Conference*, Paris: University of Paris Dauphine, France, September 22-24.
- Pasanen, M. & H. Niittykangas & M. Laukkanen (2000). A taxonomy of successful SMEs: the case of Eastern Finland. *The 20th Babson Entrepreneurship Research Conference*, Wellesley: Babson College, MA, USA, June 8-10.
- Phillips, B. & B. Kirchoff (1989). Formation, growth and survival: small firm dynamics in the US economy. *Small Business Economics* 1 (1), 65-74.
- Reid, G. (1991). Staying in business. *International Journal of Industrial Organisation* 9, 545-556.
- Roure, J. & M. Maidique (1986). Linking pre-funding factors and high-technology venture success: an exploratory study. *Journal of Business Venturing* 1, 295-306.
- Simon, H. (1996). *Hidden champions: lessons from 500 of the World's best unknown companies*. Boston, MA.: Harvard Business School Press.
- Smallbone, D. (1990). Success and failure in new business start-ups. *International Small Business Journal* 8 (2), 34-47.
- Sommers, W. & A. Koc (1987). Why most new ventures fail (and how others don't). *Management Review* 76 (9), 35-39.
- Statistics Finland (2004). *Vuonna 2002 lopettaneet yritykset toiminta-ajan mukaan*. www.stat.fi/tk/ys/yritysrekisteri/yritysrekisteri_al_vuosik.html (5.4.2004). Helsinki: Statistics Finland.
- Sten, J. (1998). Exit: success or failure? The 43rd ICSB World Conference, Singapore.
- Storey, D. (1994) *Understanding the small business sector*. London: Routledge.
- Strauss, A. & J. Corbin (1990). *Basics of qualitative research: grounded theory procedures and techniques*. Newbury Park: Sage.
- Thompson, J. (2001). *Strategic management*. 4th ed. London: Thomson Learning.
- Vesper, K. (1990). *New venture strategies*. Rev. ed. Englewood Cliffs, NJ: Prentice-Hall.
- Watson, J. & J. Everett (1993). Defining small business failure. *International Small Business Journal* 11 (3), 35-48.
- Watson, J. & J. Everett (1996a). Do small businesses have high failure rates? Evidence from Australian retailers. *International Small Business Journal* 34 (4), 45-62.
- Watson, J. & J. Everett (1996b). Small business failure rates: choice of definition and the size effect. *Journal of Entrepreneurial & Small Firm Management* 5 (3), 271-285.

- Watson, J. & J. Everett (1999). Small business failure rates: choice of definition and industry effects. *International Small Business Journal* 17 (2), 31-47.
- Westhead, P. & D. Storey & M. Cowling (1995). An exploratory analysis of the factors associated with the survival of independent high-technology firms in Great Britain, in *Small firms: partnerships for growth*, F. Chittenden et al. (eds.), 63-99. London: Paul Chapman.
- Wiklund, J. (1998). *Small firm growth and performance: entrepreneurship and beyond*. Jönköping International Business School.
- Woo, C. & A. Cooper & W. Dunkelberg (1991). The development and interpretation of entrepreneurial typologies. *Journal of Business Venturing* 6 (2), 93-114.
- Yusuf, A. (1995). Critical success factors for small business: perceptions of South Pacific entrepreneurs. *Journal of Small Business Management* 33 (2), 68-73.
- Zacharakis, A. & D. Meyer & J. DeCastro (1999). Differing perceptions of new venture failure: a matched exploratory study of venture capitalists and entrepreneurs. *Journal of Small Business Management* 37 (3), 1-14.

