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EU RESEARCH ON SOCIAL SCIENCES AND HUMANITIES

National Corporate Cultures and International Competitiveness Strategies - the Challenge of Globalisation for European SMEs

Final report

**Project HPSE-CT-1999-00027
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PREFACE

Within the Fifth Framework Programme of the European Union for Research and Technological Development (RTD), the Key Action *"Improving the socio-economic knowledge base"* carried broad and ambitious objectives, namely: to improve our understanding of the structural changes taking place in European society, to identify ways of managing these changes and to promote the active involvement of European citizens in shaping their own futures. A further important aim was to mobilise the research communities in the social sciences and humanities at the European level and to provide scientific support to policies at various levels, with particular attention to EU policy fields.

Since the launch of the Key Action in 1999 more than 1600 research teams from 38 countries have been mobilised. While most important collaborative efforts involve researchers from EU countries, the participation of accession countries is already noteworthy with 189 research teams from these countries.

The three Calls for proposals of the Key Action Call *"Improving the socio-economic knowledge base"* addressed different but interrelated research themes which contributed to the objectives outlined above. These themes can be regrouped under a certain number of areas of major policy relevance, each of which are addressed by a significant number of projects from a variety of perspectives.

These areas are the following:

- ***Societal trends and structural changes;***
16 projects, total investment of 14.6 Million Euro, 164 teams
- ***Quality of life of European Citizens,***
5 projects, total investment of 6.4 Million Euro; 36 teams
- ***European socio-economic models and challenges***
9 projects; total investment of 9.3 Million Euro; 91 teams.
- ***Social cohesion, migration and welfare***
30 projects, 28 Million Euro; 249 teams.
- ***Employment, and changes in work***
18 projects; total investment of 17.5 Million Euro; 149 teams
- ***Gender, participation and quality of life***
13 projects; total investment of 12.3 Million Euro; 97 teams
- ***Dynamics of knowledge, generation and use***
8 projects; total investment of 6.1 Million Euro; 77 teams
- ***Education, training and new forms of learning***
14 projects; total investment of 12.9 Million Euro; 105 teams
- ***Economic development and dynamics***
22 projects; total investment of 15.3 Million Euro; 134 teams
- ***Governance, democracy and citizenship***
28 projects; total investment of 25.5 Million Euro; 233 teams
- ***Challenges from European enlargement***
16 project; total investment of 12.8 Million Euro; 116 teams
- ***Infrastructures to build the European Research Area***
9 projects; total investment of 15.4 Million Euro; 74 teams.

The work undertaken by the project "National Corporate Cultures and International Competitiveness Strategies - the Challenge of Globalisation for European SMEs" has contributed primarily to the area ***Economic development and dynamics.***

The report contains information about the main scientific findings of the project and their policy implications. The research was carried out by 5 teams over a period of 3 years (2000-2002)

The project intended to find out how SMEs in various European regions were reacting to the push for economic internationalisation; and specifically, how they were restructuring themselves in technological and organisational terms and which management concepts they were using for this purpose. On this basis it examined the suitability and effectiveness of different policy mechanisms to support the internationalization of SMEs. Specific problems confronting SMEs as well as successful strategies of action ("best practice") were identified.

As the results of the projects financed under the *Key Action 'Improving the Socio-economic knowledge base'* become available to the scientific and policy communities, Priority 7 "*Citizens and Governance in a Knowledge Based Society*" of the Sixth Framework Programme of the European Union for Research and Technological Development (RTD) is building on the progress already made and aims at making a further contribution to the development of a European Research Area in the social sciences and the humanities.

I hope that readers find the information in this publication both interesting and useful, as well as clear evidence of the importance of the European Union's fostering of research in the field of social sciences and the humanities.

T. Lennon
Director

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Abstract

Companies can either act autonomously or co-operatively whilst moving business activities abroad. Our hypothesis did not prove valid that under the pressures of globalisation, small and medium-sized enterprises (SMEs) would increasingly choose a co-operative strategy. On the contrary, the majority of sampled companies follow predominantly an autonomous strategy. “Predominantly” means that companies usually make simultaneous use of different entry modes, i.e. direct exporting via independent representatives, subsidiaries for sales and offshore manufacturing, etc. Companies with an autonomous strategy may use international co-operative arrangements in one entry mode but predominantly prefer to go it alone.

In order to keep risks and cost under control, SMEs tend to follow an evolutionary expansion path, demonstrating an increasing commitment to internationalisation over time. However, our findings also show that progression to more committed forms of entry mode are not inevitable. Also, there are counter-examples of regression to less committed forms of entry mode. The resource situation of a particular company at a particular moment, and how this company can manipulate its resource situation, seems crucial in this respect. It is specifically through the handling of relational contracts and contacts that companies seem able to buffer and secure risks, to a greater or lesser extent.

Crucial for our understanding is to differentiate between explicit co-operative arrangements and informal network relationships. Supportive linkages with firms, institutions and personal ties provide opportunities, motives and support without a contractual agreement typical for *strategic alliances*. We call this the *supportive* role of networks or *supportive networks*. Network relationships exert a major influence on the strategy of SMEs in terms of why, how and where they internationalise activities. Whilst the literature often relies on a deterministic network model in which SMEs have no choice but to follow their large clients, our research reveals different concepts of network influence and focuses on SMEs as actors of their relationships.

Contrasting the two sectors studied, we found that overall both software companies and mechanical engineering companies have a slight preference for a go-it-alone strategy. In both sectors companies use network resources extensively for internationalisation. Software companies seem to exploit even more their contacts to large multinationals for internationalising activities on their own. Concerning the usage of intermediary institutions or network relationships to other SMEs, it works the other way round. Whilst exactly three fourth of the mechanical engineering enterprises approached public agencies for their internationalisation efforts, only about half of the software companies did so. It is also the mechanical engineering sector which makes more use of SME networks. In both sectors, the majority of the supportive networks had either regional or national roots.

Beyond sectoral and regional differences, however, entrepreneurs expressed little satisfaction with the services public agencies provide, especially in mediating contacts to potential partners and providing information about foreign markets. This finding, valid across the regions, indicates a structural misfit between tailor-made demand and supply, which intermediary institutions seem to have difficulty in bridging.

1 Introduction

Dietrich Hoss

1.1 Internationalisation of Small and Medium-Sized Enterprises in Europe and Beyond – Open Questions and Hypotheses

Due to increasing globalisation, national corporate cultures and management strategies in European countries are under considerable pressure to adapt to rapidly changing conditions. The continuing whirl of mergers, the number of joint ventures, and the diversity of corporate sell offs, break ups and reformations give a dramatic preview of something which many observers predict will be the dominant form of business organisation in the future of prosperous economies: the ‘global player’. National companies with international export connections are destined to become more and more dominated by globally active corporations.

This on-going “globalisation-debate” has in general referred to the big companies. However, in most industrial societies, small and medium-sized enterprises (SMEs) continue to be in general more important for production and employment-growth than the big companies. Accordingly, political and academic attention is increasingly being turned to SMEs, and in particular to the conditions necessary for them to become internationally competitive in global markets. SMEs do not have the budget needed to copy the acquisition strategies of large corporations. This restriction applies equally to the classic strategy of cross-border activities, i.e. setting up production and/or distribution facilities in other European countries or elsewhere in the world. So we started with a first assumption that, in contrast to the methods of control used by large corporations, co-operation would be increasingly the “method of choice” for SMEs in their attempts to establish themselves in new markets. If co-operation as opposed to authoritarian control in management practice were to prove a more efficient concept in the long term, then SMEs could be compensated for their lack of size in comparison to the big companies.

The literature on SMEs’ co-operation is hard to assess. Most prominent is the research on the so called “industrial districts” in the Third Italy where regional institutions – the richness of institutional support in a region – have a crucial role in facilitating co-operation between SMEs. However, the research on industrial districts usually lacks cross-regional, cross-national comparisons which we focussed our attention on. Nonetheless, we draw a second hypothesis from this field of research: if regional embeddedness matters for SMEs’ co-operation, this may be also crucial for the internationalisation processes of SMEs, and regional differences in this respect should be of noticeable influence. Thus we picked quite different regions in five countries, i.e. Rhone-Alps in France, Piedmont in Italy, Thuringia and Bavaria in Germany, North East Austria, and the northern part of the Netherlands.

International comparisons have achieved in the last few decades a generally high standard of methodological sophistication in comparing matched settings in different countries (Maurice et. al, 1982; Hofstede, 1980; D’Iribarne, 1989; Maurice et al., 1980; Heijltje et al., 1996). But until now, these international comparisons have related mainly to specific regions (particularly in Germany, France and Great Britain) and to

big companies. Therefore, a research project which undertakes a wider international comparison of SMEs and their strategies for internationalisation appears justified. Besides this, due to liberalisation and European integration in the 1990s, dramatic institutional changes are underway which are often portrayed in a convergence perspective. But here again big companies tend to be at the centre of attention. The impacts of the financial and corporate governance systems in Europe are barely analysed for SMEs. Our research is a first step filling this gap. By deciding on two industrial sectors to study - mechanical engineering and software production and application - we are able to contrast a “traditional” sector with a crucial part of the “new economy” which most benefited from the new stock option culture (*Aktienkultur*) in Europe during the high tech-stock boom between 1995 and 2000. We hypothesised that the new options for financing will influence the SMEs choice in the methods of internationalisation by providing alternatives for speeding up internationalisation.

Otherwise, one of our crucial hypotheses - drawn from the literature on the “new economy” and the information and technology sector - was that, where competence is high, and standards in language and technical terms are highly internationalised, as in the software industry or in the science-based industries, SMEs can demonstrate extensive cross-border activities and co-operations with international partners more easily than in other sectors. It also appears basically easier for them to enter into co-operations with new partners than it is for other medium-sized businesses.

There is a growing body of literature on internationalisation processes, which we refer to in the various chapters, but there is little comparative research from specific regions or industries on internationalising SMEs which includes both a traditional, well-established sector and a young growing industry, comparing them across different nations and regions in Europe. By filling gaps in research we also want to give deeper insights into the “push factors” underlying SMEs’ internationalisation and the obstacles preventing them from going abroad, hoping to draw lessons for both managerial learning and policy making.

1.2 Internationalisation Options and Strategies Beyond Indirect Exporting: the Conceptual Framework and Research Questions

Internationalisation as defined in the framework of the project consists of all institutional arrangements for organising and conducting international business/ transactions beyond indirect export. The “establishment chain” theory (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977) describes the dominant path of internationalisation as often being incremental and a long-lasting way of increasing commitment from export to sales offices, from sales offices to manufacturing subsidiaries, or in terms of distance: from close cultural and geographic regions or countries to more distant ones. Referring to this step-wise trajectory, we wanted to know if cross-border co-operation speeds up the internationalisation process or establishes at least a different path of internationalisation. Thus, we started to develop typologies based on the concept of internationalisation paths and differentiated between an autonomous path and co-operative path that includes both international strategic alliances (ISA) and following big clients abroad. However further analysis of the literature, and above all our first findings indicated that the path-concept gives too much the impression of more or less

fixed steps in a mechanistic development. On the one hand, the concept over-stresses the long-term strategic endeavours of SMEs: in fact, especially in the early stages of the internationalisation process SMEs are more often opportunity seekers than strategic planners. On the other hand, the internationalisation process of SMEs is much more intricate than current evolutionary concepts suggest. The process may end in failure, and often includes steps that are not strictly linked to those steps the SME had taken earlier.

Thus we changed our joined heuristic tool in one respect. We decided to differentiate between strategy and entry modes of internationalising SMEs, i.e. the institutional arrangements in SMEs are organising and conducting their international transactions -- as for example direct export via own sales staff or in close co-operation with independent partners, offshore production in wholly-owned subsidiaries or equity-based joint ventures. Based on this we identified two major strategies: the autonomous and co-operative strategy of internationalisation. By “strategy” we mean what Mintzberg describes as an emergent strategy – i.e., an organised course of action which was actually realised but not necessarily intended at the beginning of the process. Strategies in this sense are the result of different entry modes.

Based on this concept of strategy, we organised our research according to five questions drawn from the hypothesis outlined above:

Considering the lack of resources of SMEs and the growing pressure from globalisation, is co-operation the predominant strategy for SMEs to speed up internationalisation?

Do SMEs from the IT-Sector have an industry-specific advantage in expanding their activities abroad (due to highly internationalised technical standards and norms, uniform technical and professional language, and a new way of financing and corporate culture)?

What kind of external support is important for stimulating/facilitating international activities with growing commitment? Most importantly, what role does regional embeddedness play?

How is internal organisational development intertwined with growing internationalisation, and what kind of impact does internationalisation have on the organisation of the SMEs?

1.3 Overview of the Report

To serve the cross-national and cross-regional comparison we decided for a problem-oriented approach, i.e. each team took over a relevant question or dimension for the whole project. In this way the report is organised. After a more detailed description of the *Research Design and Methods* (chapter 2) of the project, provided by Bernd Teufel (Jena), Gerda Gemser, Maryse Brand, Arndt Sorge and Delano Maccow (Groningen) analyse the *Evolution of Strategy in the Internationalisation Process of European SMEs* (chapter 3). Here we learn that the autonomous strategy is the preferred strategy in our sample. However, this does not exclude a broader use of informal *supportive* networks. For this reason our research gives much attention to endeavours to analyse

types of such supportive networks, and their roots. The results are presented by Katharina Bluhm and Bernd Teufel (Jena) in *Caught in the Net – The Role of Networks in the Internationalisation of SMEs* (chapter 4). Based on this Angelo Michelsons (Turin) analyses the importance of regional embeddedness in: *Are They Locally Rooted? The Importance of Territory in the Internationalisation of SMEs* (chapter 5). Institutional change and its impact on SMEs, and on software companies in particular, are the subject of chapter 6 – entitled *Toward a Capital-Oriented Growth Model? Institutional Changes in Europe and its Implications for SMEs' Strategic Behaviour* by Katharina Bluhm and Bernd Teufel (Jena). Michèle Dupré (Lyon) analyses the main feedback impacts of internationalisation on SMEs internal organisation in chapter 7, entitled *Organisational Learning in SMEs – Feedback Effects of Growing International Commitment*. Finally, Angelo Michelsons gives a preliminary overview of *Policy Implications* of the project (chapter 8).

The rest of our project time will be dedicated to the policy implications and the dissemination of the results. A major step in this direction is the teaching film *Going International – Paths Taken by European SMEs* (comprising three parts: 1. *Herding (Germany) – The many paths to foreign markets*; 2. *Ever (France) – Thinking international from the start*; 3. *Fidia (Italy) – Innovation and internationalisation: a way of life*) of three SMEs studied in Lyon, Turin and Bavaria provided by Bernard Ganne and Jean-Paul Pénard (Lyon) which is handed in together with this report. The remaining time we will focus on the handbook, and several workshops at regional, national, and international level.

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2 Research Design and Methods

Bernd Teufel

This research project aims at furthering the understanding of why, when and how small and medium-sized enterprises (SMEs) in six European regions internationalise, and whether or not co-operation is their method of choice to do so. Finding an answer to these questions requires international comparison of SMEs - which was conducted by five participating institutions in Germany (*Institut für Soziologie, Friedrich-Schiller-Universität Jena* as project co-ordinator), France (*Institut des Sciences de l'Homme – GLYSI* in Lyon), Italy (*Dipartimento di Scienze Sociali, Università Torino*), Austria (*Forschungsgesellschaft für Industriosociologie, Universität Wien*) and the Netherlands (Faculty of Management and Organisation, University of Groningen) between March 2000 and February 2002. For this purpose, 64 company case studies were conducted in six European regions in these five countries (two regions in Germany, one in West and one in East Germany).¹ In the course of the inquiry in two steps first regional and economic experts, then managers (and labour representatives) in 64 companies from the sectors mechanical engineering and software production were interviewed with common interview guidelines.

How the regions, industries and cases were selected, what are the criteria for comparison, and which methods have been chosen to conduct and analyse it are explained below.

2.1 Overview of the Research

Research started in March 2000 with analysis of recent literature and evaluation of economic statistics as an initial step to gain an overview of the state of the art and the economic situation in the regions under consideration. The main foci of this search were on the one hand the specific problems of SMEs in terms of co-operation, internationalisation and globalisation; on the other hand the aim was to get a general picture of recent empirical research in each country (see table 2.1).

This was followed by a first phase of field research where until August 2000 45 interviews with common interview guidelines were conducted with experts representing local Chambers of Industry and Commerce, trade associations, financial institutions, state controlled consulting agencies and other institutions which are concerned about or cope with international activities of SMEs. The purpose was twofold: On the one hand, to learn about activities and programs of political, public and collective actors at different levels which target SMEs' internationalisation. On the other hand, to receive

¹ The differentiation between regions and countries is important in so far, as in this context our main focus is on regions as resource for the internationalisation of SMEs, and whether regional institutions impede or foster SMEs' internationalisation activities. On the other hand, the impact of the countries' institutional background can hardly be neglected. In sum, we first of all concentrate on regions taking the influence of national institutions into consideration.

information about potential companies for the case studies and get insight into the specific situation of SMEs in the selected areas.

Table 2.1: Work-packages of the research

Work-package Number	Work-package title	Start-month	End-month
1	Analysis of the literature; evaluation of relevant economic statistics	March 2000	April 2000
2	First stage of inquiry Carrying out and evaluating guided interviews with regional economic experts	May 2000	August 2000
3	Second stage of inquiry		
3.1	Carrying out company case studies	September 2000	March 2001
3.2	Filming	September 2000	March 2001
4	Processing and evaluating of the collected data	April 2001	October 2001
5	Drawing up research report and completion of teaching and demonstration film		
5.1	Drawing up research report	November 2001	February 2002
5.2	Completion of teaching and demonstration film	November 2001	February 2002

In the second and main phase of field research, company case studies were carried out in 64 companies, 32 each in the industrial sectors of mechanical engineering and software production. For this purpose, detailed semi-standardised interview guidelines were drawn up for in-depth interviews with the chief executive officers (CEOs) and/or the owners of the enterprises, with other managers (sales & marketing and production) and labour representatives (in case there are such institutions in the firms).

Developing joint questionnaires in English and then translating them into the native languages of each partner raises semantic problems. Varying patterns of understanding and interpretation, and translation inconsistencies risk distorting reality and causing semantic obscurity. One possible way of achieving common understanding would have been to repeatedly translate the interview guide in both directions. However this technique is only useful for wholly standardised interviews within quantitative surveys. For the in-depth interviews our project decided to employ, we chose the way of thoroughly discussing our research dimensions at several project workshops aiming at a shared and unambiguous understanding of all these dimensions. Then we jointly formulated questions operationalising the dimensions leading to an agreed English version interview guideline that was translated into the relevant languages by the teams themselves. In this way, even if questions of an interview in Italy might have been different from one in Germany, a common understanding of all dimensions and questions by the researchers was ensured.

Originally every company case study had been planned to comprise one interview with the CEO/ owner of the SME plus *at least* one other interview with another manager or labour representative. However, this was not realisable in all cases. Especially in rather small enterprises (less than 100 employees) CEOs often did not allow more than *at most* one additional interview. As in some cases only one interview altogether was possible, additional companies were addressed for compensation. By increasing the number of case studies it became possible to select for our core sample of 64 cases only these companies which met the selection requirements best (see section 2.2.3). The additional cases have not been included in our final sample, but have provided a further way of testing our hypotheses and making our results more reliable. Thus, the final sample comprises 64 “core cases” and 19 additional “peripheral cases”; 153 interviews were conducted altogether. However, for the international comparison undertaken ‘only’ the 64 “core cases” were taken as the common data base.

Table 2.2: Sample of the project (‘core’ and ‘peripheral’ cases)*

Country (Region)	Number of interviews in the two sectors		Number of companies in the two sectors	
	Mechanical engineering	Software production	Mechanical engineering	Software production
France (Rhone-Alps)	20	20	10 (8)	10 (8)
Italy (Piedmont)	7	10	6 (6)	7 (7)
Northern Netherlands	16	12	7 (5)	6 (4)
North East Austria	9	8	5 (4)	6 (4)
Germany (Central Franconia/ Thuringia)	29	22	13 (9)	13 (9)
Total	81	72	41 (32)	42 (32)

* ‘Core’ cases in brackets.

2.2 Principles of Comparison

International comparisons always struggle with a multitude of possible variables. The objects of research (for example companies) are located in different countries, embedded in different kinds of institutions, led by actors with different cultural backgrounds, influenced by different orientations, etc. In order to obtain clear evidence in an empirical comparison it seems necessary to keep a number of variables constant. In our case the objects of research are internationalising small and medium sized enterprises² in six European regions. To ensure closer specification we chose sharp criteria regarding what is meant by being “internationalised”, concentrated on specific regions in the five countries (section 2.2.1), focused on two industries (section 2.2.2) and carefully selected 64 companies for case studies (section 2.2.3). They are the data basis for this research project.

2.2.1 The Regions

The reasons for concentrating on regions rather than on countries were mainly the following. First, one of our hypothesis from the beginning was the important role of regional embeddedness for the internationalisation of SMEs - more for mechanical engineering, less for the software sector. Thus, regional institutions came into our focus. Secondly, the number of possible companies within one research area had to be large enough to facilitate the search for suitable companies by each national team. At last, for practical reasons: it seemed easier and more economical to examine companies nearby the research institutes than in far-away regions.

As a result we decided on six regions, rather different in terms of economic performance, industrial base and sector orientation. These are *Central Franconia* in northern Bavaria and *Thuringia* (Germany), *Rhone-Alps* in France, *Piedmont* in Italy, *North East Austria* and *Northern Netherlands*. Comparing companies which belong to the same sectors but being located in heterogeneous regions in different countries for us was the way to test our hypothesis.

Two of the regions are to be found in Germany (*Central Franconia* in northern Bavaria/ West Germany, and the economically rather backward *Thuringia* in East Germany). Of the total of six regions, three (*Rhone-Alps*, *Piedmont* (above all Turin), and *Central Franconia*) have a strong industrial basis, whereas *Northern Netherlands* consists of large rural areas.

² Following the definition of the EU-Commission. This definition is described in detail in section 2.2.3.

Table 2.3: Regions under consideration in the years 1998/1999

	Rhone-Alps	Piedmont	Central Franconia	Thuringia	North East Austria	Northern Netherlands
Inhabitants (*1000)	5.600	4.358	1.679	2.452	4.700	1.648
Employees (*1000)	2.246	995	623	972	1.914	692

Within northern Bavaria the focus is mainly on *Central Franconia* with its capital Nuremberg, an old industrial region “par excellence” belonging to the *Top Ten* of the industrial regions in Germany. The most important sectors in *Central Franconia* are mechanical engineering and electrical engineering, transportation, automobile suppliers and the pharmaceutical industry. Yet, in the last decade new industries are growing rapidly, i.e. technologies for environmental protection, medicine, IT and material technology/new materials. Within mechanical engineering automobile suppliers, producers of textile machines, the machine tool industry and producers of product forms for the plastic industry are the dominant industries.

In *Thuringia*, an economically rather backward area, located in the south western part of East Germany, the most important industrial sectors are the car and car supplier industry, metal industries, mechanical engineering, environmental technologies, synthetic material industry, electrical engineering, wood processing, toys, glass, precision engineering and optical equipment. *Thuringia* is unique in the sample since SMEs here can look back on only 10-years experience with a market economy after 40 years of a state controlled economy. This region is thus very fruitful for observing how “new-comers” in international business with little experience, scant resources and few contacts enter into internationalisation activities, and the problems such newcomers have.

Rhone-Alps with its capital Lyon is one of the biggest industrial regions in France, with much industrial diversity. Beside the car industry, electric and electronic components/equipment, mechanical equipment, chemical products and plastics, and metals and metallic products determine the industrial structure of the region, and are also its most important export goods. With 70.000 jobs the mechanical engineering sector plays a dominant role in the regional economy with 830 enterprises having more than 20 employees. Also the IT-sector is an important fast-growing sector in this region. It accounts for 60.000 jobs in the *Rhone-Alps* area, from microelectronics to on-line services, software development and telecommunications, making this area the number one pole for industrial research and development in France (70 % of industrial activity in microelectronics is located in the *Rhone-Alps* area!). More than 800 new companies have been set up over the last ten years in the fields of microelectronics, optronics, telecommunications, multimedia, or advanced software.

Piedmont in Italy is the most “mono-structured” industrial region in the sample. The industrial heart of this region is Turin, which has traditionally been dominated by the car industry and its suppliers. In more recent years, however, the car industry has declined in importance with financial and banking services and other services growing in importance, as well as “new economy” firms.

North East Austria consists of three provinces: Vienna, Upper Austria and Lower Austria. As in all Austrian economy the three provinces are dominated by small and me-

dium sized enterprises. Vienna during the last decade experienced a change from a region of production to the prime location for the service sector. In Upper Austria manufacturing is the dominant industry with the car suppliers industry becoming increasingly important. Lower Austria has been the fastest growing province of Austria in the 1990s. This development has been favoured by the opening of the borders with former communist neighbour countries and the relocation of businesses from Vienna to the suburban areas belonging to Lower Austria.

Northern Netherlands is a region consisting of the three provinces *Groningen*, *Friesland* and *Drenthe*. Although the history, culture and even language differ between the provinces, together they are often referred to as ‘het Noorden’ or ‘Noord Nederland.’ It consists of large rural areas with one large (Groningen), and a few smaller cities. In the *Groningen* industry, the more traditional sectors are over-represented (such as paper and metal industry, but also the potato starch and carton industry), but they are more innovative than their national counterparts’ average. The service sector is slightly underrepresented, especially as regards financial and banking institutions (they are concentrated around Amsterdam in the west). In *Friesland* and *Drenthe*, traditional industrial sectors are over-represented as well, especially the food and transportation vehicle industry. In spite of the domination by old industries, the northern Netherlands also provide a growing IT-sector. *Groningen*, in particular, has an image as an IT-city.

2.2.2 The Industries

The assumption underlying the choice of two different and contrasting sectors to be compared cross-regionally was that the form taken by SMEs’ internationalisation depend on the sector they belong to. While, for example, a sector like the food industry is ‘satisfied’ with exporting its locally produced goods, a world-wide highly competitive sector like the textile industry might mass-produce its clothes in far-away foreign subsidiaries and even re-import them. Accordingly, their forms of internationalisation are highly determined by the sector.

With the research project having started still during the hype of the so-called New Economy we decided to compare one of these rather younger sectors (e.g. software production) with an old, traditional industry (e.g. mechanical engineering). The discussion around the New Economy had presented an image of an industry following new rules and presenting a new business model, also with respect to internationalisation. While companies from the suddenly called Old Economy followed a rather slow step-by-step approach to international markets, New Economy firms were supposed to internationalise rather fast and right from the beginning. Our hypotheses in this context were not that software firms internationalise necessarily at higher speed but that – with co-operation as their method of choice – software firms would be more able to co-operate and therefore have broader access to foreign markets. Where cross-cultural competence is high (as in the information technology and communications industry or in science-based industries due to higher qualifications on average), SMEs can demonstrate extensive cross border activities and co-operation with international partners. Therefore, it seems easier for them to enter into co-operation with new partners than it

is for other medium-sized businesses with a more traditional industrial product spectrum, which tends to be dependent on the national market.

Thus, we defined the following criteria for the selection of the two sectors: a) Instead of opting for the most important sectors in the industrial structure of each region (a strategy which would not have allowed for cross-border comparison) we decided on two sectors which were present in sufficient numbers in each of the six regions. b) The two sectors should belong to contrasting industries, one to the so-called New Economy. c) Sector definitions should be clear-cut.

At the end, we specified our focus on these two sectors of industry:

Manufacture of machinery and equipment. Firms in this sector are considered typical “Old Economy” firms.

Production (and application) of software. With this decision we referred to three major segments of the software industry: a) embedded software (software in combination with hardware like electronic components or automation solutions in manufacturing industries; b) enterprise solutions (service, tools and products for other companies, often combined with tailor-made applications and system integrations); c) and mass products for consumers. Firms in this sector are considered to be representative for the “New Economy”.

2.2.3 Selection of the Cases

The next step after the decision about the regions and the choice of industries was the selection of 64 companies for case studies. It was planned to conduct 32 case studies in each sector. Within each region about the half of the companies under investigation should belong to the software- respectively mechanical engineering sector, altogether 16 case studies each in *Rhone-Alps* and *Piedmont*, eight case studies each in *Franconia*, *Thuringia*, *North East Austria* and *Northern Netherlands*.

Table 2.4: Planned and conducted case studies across sectors and regions

Regions/ Countries	Planned case studies		Conducted case studies	
	Mechanical engineering	Software production	Mechanical engineering	Software production
Rhone-Alps/ France	8	8	8	8
Piedmont/ Italy	8	8	6	7
Franconia/ Germany	4	4	5	5
Thuringia/ Germany	4	4	4	4
North East Austria	4	4	4	4
Northern Netherlands	4	4	5	4
Subtotal	32	32	32	32
Total	64		64	

The criteria for selection were first, to fulfil the requirements of the EU-definition for SMEs. According to the recommendations of the EU-Commission of April 3rd 1996, small and medium-sized enterprises (SMEs) have a) fewer than 250 employees, b) are independent in so far as not more than 25% of the capital or voting rights are owned by one enterprise, or jointly by several enterprises falling outside the definition of an SME. This threshold of 25% may be exceeded, if a) the enterprise is held by public investment corporations, venture capital companies or institutional investors, provided no control is exercised either individually or jointly, or if b) the capital is spread in such a way that is not possible to determine by whom it is held and if the enterprise declares that it can legitimately presume that it is not owned as to 25% or more by one enterprise, or jointly by several enterprises, falling outside the definitions of an SME. Secondly, we sought actively internationalising companies with more than 'mere' export activities (either direct or indirect export), and third, independent companies (not only in the sense of the definition but *de facto* independent enterprises; this excludes those suppliers for the car industry which are heavily dependent on one single customer).

Our search concentrated on firms of 50 to 250 employees in the mechanical engineering sector. The companies in the software sector should have at least 20 to about 250 employees. During the selection of companies it had indeed turned out to be difficult to find enough firms in the software sector in each region with at least 50 employees. Many, especially younger software companies are smaller than that.

The methods of selection were similar but differed in emphasis in accordance with the conditions prevailing in each country/region. The teams used different kinds of databases, the internet as an information pool, and conducted interviews with regional economic experts.

The *Netherlands* group selected their firms mainly from the commercial database of MarktSelect (a Dutch commercial database service). From this database they selected 141 SMEs having their headquarters in the northern region of the Netherlands (*Groningen, Friesland* or *Drenthe*) and fitting the criteria. In addition, the Netherlands team included other information sources, amongst others, the website of the firms (if present), potential membership in organisations such as the "Export Club" of the relevant Chambers of Commerce and Fenedex (an organisation, set up by Dutch industry that provides services in the field of export and other internationalisation activities), the Reach database of the Dutch Chambers of Commerce, and other sources such as experts or reports. Based on this information they ranked the firms according to their level of internationalisation and contacted them by phone to see whether they fitted into the sample and to ask the firms for co-operation.

In Austria, France and Italy, the selection of firms relied more on interviews with experts than on using databases. The expert interviews helped quickly to find firms suitable for the criteria.

In *Austria*, besides databases like Hoppenstedt and Herold, experts gave useful information about interesting firms. Most important experts were the general secretary of the Association of Austrian Machinery and Steel Construction Industries and a representative from the Austrian Computer Society (OCG) where right now a data bank containing information on Austrian software firms on behalf of the Austrian Business Chambers is established. Here too, the Internet proved to be helpful to collect further

information. In contrast to the mechanical engineering sector software firms were mainly contacted via email.

In *France* a wide range of interviews were conducted with experts in the *Rhone-Alps* region to get information on firms. Among others, interviews were conducted with the director of the section Industry of the Chambers of Industry and Commerce in Lyon, the director for international affairs of the same Chamber (CCI Lyon), the director of international affairs of the Regional Chamber and with representatives of various intermediary organisations and associations dealing with internationalisation such as ERAI (a support institution for French companies setting up plants abroad). After that, various databases were used, some comparable to Hoppenstedt, others constituted by studies ordered by the economic institutions for a better knowledge of the sector. The professional associations were an important support because they provided lists of members fitting the criteria. In *Rhone-Alps* there also exists an economic review known by almost all CEOs in *Rhone-Alps* and trying to collect information concerning the firms located in the regional area and their development projects.

The *Italian* colleagues also used mainly this way to select firms. The Turin team had the most difficulties to find firms fitting in our sample for comparison since Turin is dominated by Fiat, i.e. by large car producers and its suppliers. Though first contacts were already made in December, the interview period started here in February since it took more time to find access to firms which fitted the criteria.

The *German* group used both methods extensively, i.e. the database (mainly Hoppenstedt) and interviews with experts in Chambers of Industry and Commerce, intermediary organisations and associations. The information on firms provided by these institutions was helpful but turned out to be not enough to construct a firm cluster fitting the criteria. Hence, national and regional databases were widely used (including firm information of the Foreign Chambers of Commerce and Industries (AHK)).

To facilitate access to the firms, all teams decided to gain CEOs/ firm owners for an interview first and to ask afterwards for a second or third interview when the case turned out to be worthy of closer research.

2.3 Data Analysis

For analysis the collected data (all the interviews conducted and all information gathered in the 64 core cases) was processed and evaluated. For this purpose, all interviews (as far as possible) were recorded and transcribed. However, with a core sample of 64 companies with more than 120 interviews which lasted between one and two and a half hours the amount of material exceeds any researcher's capacity for international comparison. Besides, all interviews were conducted in either German, Italian, Dutch or French. To achieve a common basis for comparison first all interviews were summarised in English following common guidelines determined by the main research dimensions, then all interview summaries belonging to one company were again condensed into identically structured company profiles. These two instruments (both of six to eight pages length each) – summaries of all interviews and 64 company profiles – were the foundation for cross-national comparison.

At this point an additional evaluation instrument was included even though it was neither part of contract obligations nor planned at the beginning of the research. However, it became clear that the accumulated data about 64 cases was also worth evaluating quantitatively to facilitate and to complement the qualitative research. For this reason a number of hard facts (e.g. date of birth of the enterprise, number of employees, share of export, ownership structure, number of alliances/partnerships, subsidiaries, joint-ventures, etc.), and also certain well-defined analytic dimensions were transferred into a SPSS (Statistical Package for Social Sciences) data file to apply quantitative calculations (see especially chapter 3). Here we chose such dimensions which already rely on the qualitative analyses and assessments of the researcher according to the defined dimensions (like offensiveness and defensiveness of the strategies or the centralisation of decision making, for example).

For evaluation and presentation of the data and findings in cross-national research projects two approaches are thinkable: the country-by-country approach and the problem-oriented approach. While the country-by-country approach analyses the data of each country separately and compares the results afterwards, the thematic approach starts with cross-national dimension along which data are analysed. Our team decided for the second approach as it promises a more integrated research across the countries right from the beginning. Thus, based on the proposal and from what we have learned from literature and our field studies we developed five major analytical dimensions:

- international strategies (autonomous vs. co-operation);
- the role of supportive networks;
- the impacts of the territory (regional embeddedness) on internationalisation of SMEs;
- the micro-level impacts of institutional change of corporate governance and financing especially for the software companies;
- and feedback effects on employment and organisation of internationalising SMEs.

We have organised the chapters of this report along the lines of these dimensions. Each dimension was the responsibility of one team (or, in the case of corporate governance and financing, two teams).

3 Evolution of Strategy in the Internationalisation Process of European SMEs: An Intricate Phenomenon

Gerda Gemser, Maryse Brand, Arndt Sorge, Delano Maccow

3.1 Introduction

In this chapter we focus on the internationalisation strategies of the firms in our sample and changes in these strategies over time. In section 3.1 we describe the two basic internationalisation strategies firms may choose from, i.e. the autonomous and co-operative strategy, and present a concise overview of relevant literature relating to (changes in) internationalisation strategies. In section 3.2 we present the actual internationalisation profile of the firms in our sample and focus on statistically significant relations between sample characteristics and the firms' internationalisation profile. Section 3.3 describes patterns in the development of firms' internationalisation strategies. Section 3.4, finally, will provide a summary and some conclusions. For a general description of the sample characteristics and the methodology of selecting the cases, we refer to chapter 2.

3.2 Internationalisation Strategies

3.2.1 Autonomous versus Co-operative Internationalisation Strategies

Internationalisation will be conceptualised here as "the process of adapting exchange transaction modality to international markets" (Andersen, 1997). This definition includes the two dimensions that will be the focus of this chapter, namely 'entry mode strategy' and 'international market selection'. Entry mode will be defined as an institutional arrangement for organising and conducting international business transactions (Calof and Beamish, 1995; Root, 1987). Entry mode forms include, for example, direct export, joint ventures, and wholly owned subsidiaries.

We identify two basic internationalisation strategies that SMEs may follow: i.e. the co-operative and the autonomous strategy. Many firms will probably use both strategies at the same time, but we expect that one of these types of strategies will be dominant in most firms, and that this dominance can shift over time. These two different types of internationalisation strategies represent different degrees of resource commitment and therefore risk to the firm. Since SMEs are, in general, characterised by limited resources, it seems reasonable to posit that they tend to use the co-operative strategy instead of adopting the classic autonomous strategy. In section 3.4 we will empirically examine the relevance of this proposition.

Firms that use an *autonomous* internationalisation strategy act, as the term already indicates, in an independent way. Firms engaged in direct exporting using their own export sales staff or independent intermediaries operate in an autonomous fashion. Firms that have their own sales offices and/or their own production facilities in foreign mar-

kets also operate in an autonomous fashion. The autonomous strategy may be referred to as the 'classic' strategy of cross-border activities which was typical for larger firms for a long time. It is likely that, in an ideal world, any firm would prefer to be in charge of its own destiny and would choose a go-it-alone strategy. Yet the latter is most probably often outside the reach of SMEs because of resource constraints.

Firms that use the *co-operative* internationalisation strategy partly and deliberately give up their autonomy for the purpose of co-operating in order to facilitate internationalisation. Inter-firm relationships may overcome resource constraints (Fujita, 1998; Burgel and Murray, 2000). These relationships do, however, create costs in terms of, e.g., the creation of incentives and monitoring mechanisms, while revenues must, in general, be shared between the partners.

The co-operative strategy is one that is built on co-operative relationships among firms. In this chapter we are particularly interested in *International Strategic Alliances* (ISAs). An ISA is defined here as a co-operative relationship with a partner operating backward, forward or in the same stage of a value chain and aimed at the development, distribution, and/or production of products in a *foreign* market. This relationship may be characterised by equity sharing, such as in the case of joint ventures, and/or may be a contractual arrangement without equity sharing.

The co-operative strategy may be subdivided into 'one-side' dominated relationships to relationships which are more symmetrical in terms of resources and capabilities. ISAs that involve a small firm linking up with a large client or supplier are often characterised by asymmetries in power and commitment. Usually these large clients or suppliers 'direct' the internationalisation of the SME, exerting considerable influence on the product that is offered abroad, the location where the small firm directs its activities, and/or the activity that the small firm shifts abroad (production or after-sales service, the type of applications, etc.). On the other hand, this type of ISA can facilitate the internationalisation process of the small firm, since a package of orders is often guaranteed, the firm can use existing distribution networks, and/or can tap into existing knowledge on foreign markets.

Next to ISAs with large clients/suppliers that involve an explicit contractual exchange (i.e. the provision of goods, services, or information in return for financial or other types of compensation), the small firm may also receive 'soft' support from a client/supplier, for example in terms of being given contacts and foreign market information, without this support being embedded in a contractual arrangement. This would then classify as tapping into one's 'supportive network' (see below).

ISAs can come in various forms. We discern three basic types. The first type is the *non-equity strategic alliance*, an alliance that is formed through contractual agreements with a company to supply, produce, or distribute a firm's goods or services without equity sharing. Other types of co-operative contractual arrangements concern marketing and information sharing. It thus also includes, for example, licensing or franchising agreements. Because they do not involve the forming of a separate venture or equity investments, non-equity alliances are less formal and demand fewer commitments from partners than joint ventures and equity strategic alliances (Hitt et al, 2001). The second basic type is the *equity strategic alliance* which is an alliance in which partners own different percentages of equity in a (new) venture. An example is a firm with a majority or minority participation in a foreign partner. The third basic type is the *joint venture* where two or more firms create an independent firm by combining parts of

their assets. Commonly, partner firms own an equal percentage of a joint venture's equity (Hitt et al, 2001). Equity strategic alliances and joint ventures are closer to hierarchical control than are non-equity alliances (Hitt et al, 2001).

Next to these ISAs, internationalisation may be driven, facilitated or inhibited by 'supportive' linkages that do not involve an explicit contractual exchange. These supportive networks may consist of linkages with firms (large or small), institutions (such as chambers of commerce, universities, etc.) and personal ties (family ties, ties with former school friends or fellow students etc.) and may, for example, facilitate access to information on foreign markets and reliable business partners (see also Chapter Four). Supportive networks and inter-firm relationships involving explicit contractual arrangements for exchange may coincide. For example, some Italian districts have strong supportive networks built on the fact that firms translate affinities and relations in the value chain into wider pooling and sharing of institutionalised resources, as something inherent to a 'region' and/ or an industry. However the types have to be conceptually distinguished, for firms that choose to internationalise in an autonomous way instead of using the co-operative strategy, may still exploit supportive networks for their internationalisation efforts, while those using the co-operative strategy may not.

3.2.2 Changes in Internationalisation Strategies: A Theoretical Perspective

In this chapter, we will not only examine whether the SMEs in our sample choose to internationalise by means of a 'go-it-alone' strategy or by allying with partners up, down, or at the same level of the value chain. We also examine whether the internationalisation strategy of SMEs changes over time.

One of the few theories on internationalisation that tries to explain changes in internationalisation strategy is the 'establishment chain' theory. This theory suggests that firms expand internationally through various 'stages': internationalisation begins with low risk, low-commitment modes of entry - direct exporting via independent representatives or own sales staff - to high risk, high-commitment modes of entry - equity investment in offshore manufacturing and sales operations - (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977). This sequence of stages represents an increased commitment to the market as a result of managerial learning (Johanson and Vahlne, 1977). A second pattern predicted in this theory is that firms first search for markets in countries that are culturally similar and geographically close and over time and through experience, expand into culturally and geographically more distant markets (Johanson and Vahlne, 1977).

The 'establishment chain' theory thus describes the entry mode decision as an evolutionary expansion path. The explanation of a particular state (i.e. entry mode) is based on some prior state or a sequence of some prior states (Zaltman et al, 1973). Other theories such as transaction cost economics (TCE) or the network theory attempt to predict a firm's entry mode based on current values of a set of factors. The establishment chain theory has received considerable empirical support (see e.g. Kwon and Hu, 1995). However, the underlying assumptions of the theory of step-wise progression and forward motion have been heavily criticised as being 'much too deterministic' (see e.g. Andersen, 1997; Cannon and Willis, 1983; Reid, 1983; Root, 1987). This argument is supported by recent empirical findings that show that firms that are in a par-

ticular 'state' of internationalisation, can be subject to both backward and forward momentum, instead of progressing through stages (Calof and Beamish, 1995; Bell, 1995; Burgel and Murrey, 2000).

The logic of the establishment chain theory does not only exclude mode changes involving decreasing foreign commitment, but does also not include co-operative modes of entry, which is a considerable weakness considering the frequent use of such entry modes (cf. Anderson, 1997). Furthermore, it has been found that different entry modes do not so much represent distinct levels of commitment determined by past experiences (as the logic of the establishment chain theory would have it) but rather distinct managerial choices determined by product- and firm-specific considerations (Burgel and Murray, 2000; Bell, 1995).

3.3 Internationalisation Profiles

The objective of this section is twofold. First, we will examine the present internationalisation profile of the firms in our sample and, second, we will examine whether there are statistically significant relations between the dimensions of such a profile and descriptive case variables. To reach these goals, we will mainly use independent sample tests (t-test and anova) to analyse our empirical data.

We have based our internationalisation profile (IP-profile) on Daniels and Radebaugh (1998). We modified the dimensions of Daniels and Radebaugh (1998) to construct an IP-profile that consists of five dimensions.³ These five dimensions are shown in figure 3.1. This figure expresses the idea that the farther a company moves from the center on any axis, the deeper its international commitment becomes, an idea that is strongly related to the growing commitment idea as advocated by the establishment chain model (cf. section 3.2.2). As noted by Daniels and Radebaugh (1998), a firm need not necessarily move along the various dimensions at the same speed: a slow movement along one axis may free up resources that allow faster expansion along another.

The first dimension of our IP-profile measures the attitude of firms towards internationalisation activities, and ranges from a defensive to an offensive attitude. Our second dimension is 'entry mode' and ranges from the adoption of a low risk, low commitment entry mode (exporting) towards a high risk, high commitment entry mode (fully owned foreign subsidiaries). The third dimension is 'number of entry modes' and ranges from one to many. As noted by Daniels and Radebaugh (1998): "firms do not abandon earlier modes of entry when adopting new modes". As a firm is internationally successful, this firm will most probably expand its international activities to different kinds of customer groups that may need to be dealt with by different entry modes, while an increase in international experience and foreign sales may lead to new

³ The original dimensions of Daniels and Radebaugh (1998) are: (1) Impetus for internationalisation: from passive to active expansion; (2) Internal versus external handling of foreign operations: from external handling of foreign operations to the company handling its own foreign operations; (3) Mode of operations, ranging from limited foreign functions (usually export/import) to extensive production abroad with FDI and all functions; (4) Number of foreign countries in which a firm does business: from one to many (5) Degree of similarity between home and foreign country: from quite similar to very dissimilar.

opportunities for international sourcing and co-operation with foreign partners. The firm thus develops more, and more varied, linkages with international partners, which is a form of growing commitment. Our fourth dimension is the number of world regions covered by the firm's internationalisation efforts, ranging from one to many. Our fifth dimension, finally, measures 'psychic distance', that is the geographical, economic, and cultural similarity between the firm's domestic country and the foreign countries entered, which may range from quite similar to very dissimilar.

Figure 3.1: The usual pattern of internationalisation (adapted from Daniels and Radebaugh, 1998)

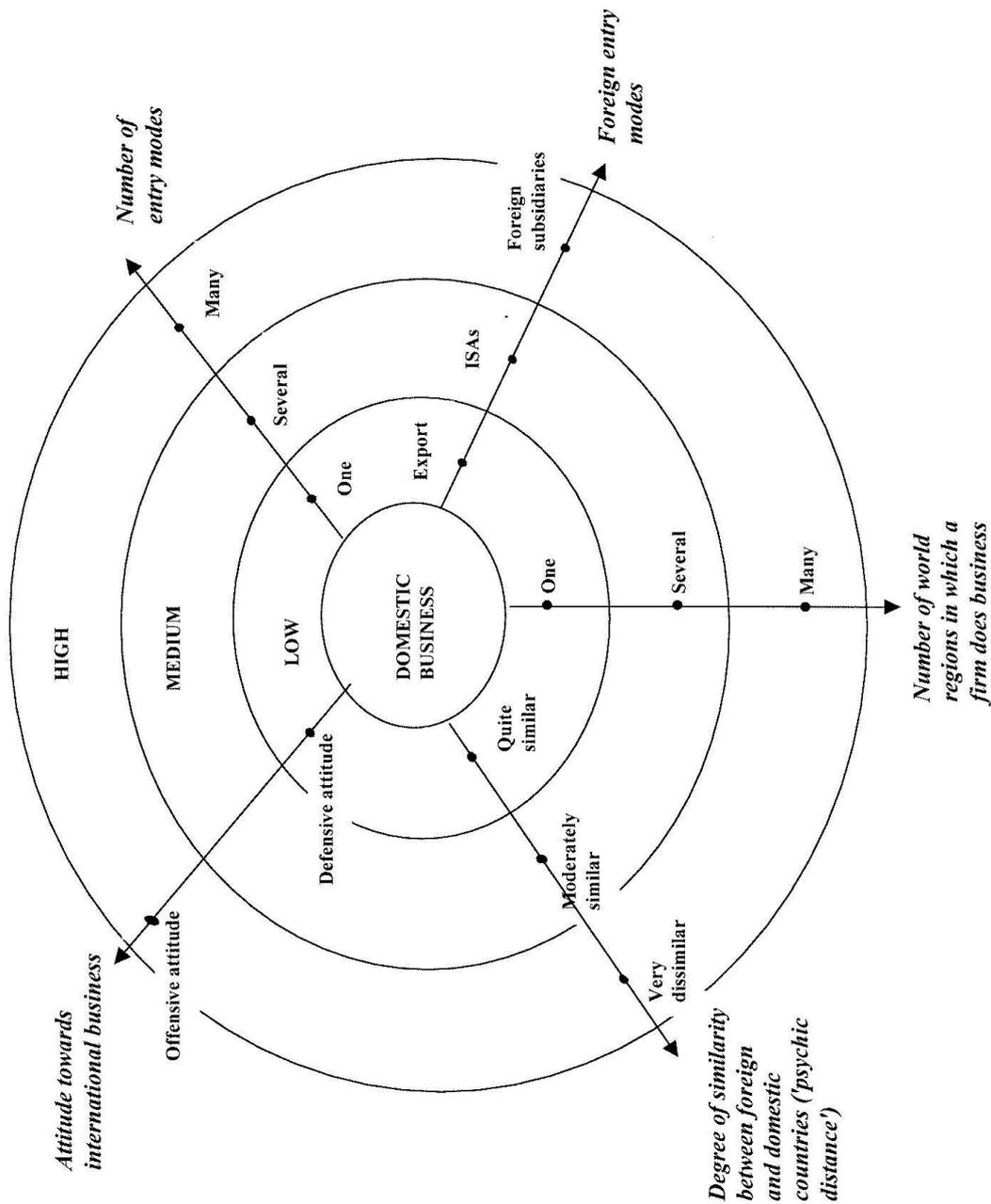


Table 3.1: Means of the IP-scores of the Total Sample and Main Groups based on Four Descriptive Variables^a

Maximum score, total sample, and total sample per sector							
	<i>Maximum Score</i>	<i>Total sample</i>		<i>Mechanical Engineering</i>	<i>Software Production</i>		
Internat. Attitude	6	4.22		3.75	4.69		
No. of Entry Modes	6	2.45		2.81***	2.07***		
Entry Mode	4	3.22		3.41	3.03		
No. of Regions Covered	5	3.00		3.38**	2.60**		
Psychic Distance	6	3.88		4.25*	3.46*		
Nb		60-64		32	28-32		
Total sample per country							
	<i>Germany</i>	<i>France</i>	<i>Italy</i>	<i>Netherlands</i>	<i>Austria</i>		
Internat. Attitude	4.67*	5.25*	4.15*	2.00*	3.75*		
No. of Entry Modes	2.61	2.25	2.23	3.13	2.14		
Entry Mode	2.83	3.25	3.23	3.22	4		
No. of Regions Covered	3.06	2.88	3.23	2.5	3.25		
Psychic Distance	4.25	3.13	4.5	4.22	3.25		
N ^b	16-18	15-16	12-13	8-9	7-8		
Total sample per ageclass (tested for 2 classes)							
	<i>Ageclass I and II</i>	<i>Ageclass III and IV</i>		<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>
Internat. Attitude	3.45**	5.03**		2.63	4.24	5.20	4.88
No. of Entry Modes	2.44	2.47		2.33	2.53	2.43	2.50
Entry Mode	2.97**	3.48**		2.88	3.16	3.33	3.62
No. of Regions Covered	2.77	3.23		2.73	2.81	2.73	3.09
Psychic Distance	3.97	3.8		4.29	3.69	3.29	4.25
N ^b	30-33	30-31		14-16	16-17	14-15	16
Total sample per sizeclass (tested for 2 classes)							
	<i>Sizeclass I and II</i>	<i>Sizeclass III and IV</i>		<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>
Internat. Attitude	4.22	4.22		4.20	4.24	3.91	6.00
No. of Entry Modes	2.29*	2.67*		2.20	2.40	2.57	3.25
Entry Mode	3.08	3.41		3.15	3.00	3.30	4.00
No. of Regions Covered	2.72*	3.38*		2.90	2.50	3.23	4.25
Psychic Distance	3.44**	4.46**		3.47	3.41	4.32	5.25
Nb	34-37	26-27		17-20	15-17	22-23	4

*p < .10; **p < .05; ***p < .01

a) For the variables 'number of entry modes' and the 'number of regions covered' the reported scores reflect actual numbers. For the other three dimensions ('international attitude', 'entry mode' and 'psychic distance') the scores represent ordinal classes, ranging from low to high scores. We realise that the average of an ordinal variable is not easily interpreted. However, our only goal here is to present a pattern, and for this purpose it is clearer to present the dimensions with similar score ranges. To gain insight in the relation between the descriptive variables and the five IP-dimensions we use one-way analysis of variance (Mann-Whitney and Kruskal-Wallis) on the total sample.

b) The number of cases may differ as a result of missing values.

Risk reduction and control issues are particularly important as regards Dimensions Two to Five (more variation of entry modes and regions covered, and less psychic distance reduce risk; more committed entry modes improve control and reduce transaction costs, but heighten risk; more regions covered and higher psychic distance lower control and heighten transaction costs). Also note that our Dimensions Three and Four are comparable to the extent that they measure the width of the international activities, while Dimensions Two and Five measure their depth. Dimensions Two to Five are directly related to the necessity to employ scarce resources, while Dimension One is about management's prioritisation of available resources and strategic choices.

We used the IP-profile described above to analyse the level of internationalisation of 1) the total sample and 2) relevant subgroups, i.e. subgroups based on country of origin, based on sector, based on firm size, and based on firm age. In Appendix One, you can find a description of how we measured the different dimensions of the IP-profile and other relevant variables. The results of our analyses are presented in table 3.1.

As shown in table 3.1, the firms in our sample have, on average, more an offensive than a defensive strategy (a score of over 4 on a 6-point scale), use less than three different entry modes, are relatively committed in terms of entry modes used (a score of over 3 on a 4-point scale), are internationally active in three different world regions; world regions that are, in cultural, economic and geographic terms, located fairly far from home (almost 4 on a 6-point scale).

As shown in table 3.1, departing from a classification based on *sectors*, we find that the mechanical engineering sector is in general less offensive, but uses more different and more committed entry modes, and works in more different and more distant regions. The differences on the variables 'number of entry modes', 'number of regions covered', and 'psychic distance' are statistically significant between the mechanical engineering and software sector. These results are indicative that the mechanical engineering firms in our sample have progressed further in terms of internationalisation than the software firms. This may also seem 'logical' since most of the mechanical engineering firms are much older than the software firms and in general started their internationalisation process at an earlier date.

When we compare the *countries* included in our research, we find only one significant relation, i.e. the French firms have a more offensive strategy than any of the other countries. Other *not* significant findings are that the Dutch firms use the highest number of entry modes and have the fewest regions covered, the Austrian firms use the most committed modes of entry, and the Italian firms go somewhat further away than the others. Based on the fact that only one of the relations is significant, we may con-

clude that the firms we sampled in the various countries are rather similar to each other as regards their IP-profile.⁴

When we group our firms based on *age*, we find two significant relations: the youngest companies are significantly more defensive, and the oldest firms on average have more committed entry modes. In particular this latter finding corroborates with the establishment chain theory, also considering that most of these firms started to internationalise by low risk, low commitment modes of entry (see section 3.4.3).

When we finally group our firms based on *size* we find that larger firms score higher on all dimensions, and significantly so on three of them, namely the number of entry modes, the number of regions covered, and physic distance. Especially from class III to IV (>250 employees) a large leap seems to occur. This concurs with general knowledge that in particular the smaller SMEs are less internationalised than larger firms.

In addition to determining the current IP-profile, it is interesting to look at some 'general' measures of internationalisation in order to assess the overall level of internationalisation of the firms in our sample.

The average *export share* of the firms in our sample is 42%. In the mechanical engineering sector the export share is significantly higher than in the software sector (49% to 35%, significant at $p < 0.01$). This is, again, an indication that the mechanical engineering firms in our sample are more internationalised than the software firms. In the small countries (Austria and the Netherlands) the level is significantly higher as well (70% and 52% versus 42%, 37% and 32% for France, Italy and Germany, significant at $p < 0.05$). This may be explained by the smaller home markets of these two countries, which induce SMEs to export their products sooner than when firms operate in a country with a larger home market.

We measured the average *aggregate score of commitment* for all firms, based on the scores on all five IP-dimensions. Out of a maximum score of 100% (maximum score based on all five dimensions, see Appendix One), the firms scored an average of 65%. This indicates that there is still much room for further international commitment. Larger and older firms have a somewhat higher score (70% and 69% respectively, significant at $p < 0,10$). Interestingly, this higher overall commitment does not coincide with a relatively higher export share by these firms.

The researchers that performed the different case studies were asked to give an assessment of the overall level of internationalisation of the firms sampled. Answers could range from low to high. Of the total number of firms sampled, 33% of the firms scored low, 42% scored medium and 25% scored high. There are no significant differences for any of the descriptive variables. Thus, although only internationally active firms were selected in our research, this subjective measure of internationalisation indicates that only a minority of the firms we included in our sample is 'highly' internationalised. This finding is indicative that SMEs that are 'really' internationalised are hard to find, something which makes the relevance of our research even more clear.

⁴ Please note however, that because the data of 64 cases are distributed among 5 country classes it is relatively difficult to find significant differences. In addition, it should be noted that the findings give a general description of the sample included in our study, and that our sample is *not* a cross-section of the population.

We also examined the *origin* of the export revenues of the firms in the sample. In more than 78% of the cases, the most important export region (in 2000) was 'Western Europe' (i.e. countries belonging to the European Union and Switzerland). For the mechanical engineering sector this percentage was 72% and for the software sector 84.6%. The higher percentage for the latter subgroup is again indicative that the firms in the software sector are still in the initial phases of the internationalisation process. Indicative of the importance of the US market for the European software sector is that of the four firms in the software sample that did not have Western Europe as main export destination, three firms indicated that their main export market were the US. Of the mechanical engineering firms that indicated that their main export destination was not Western Europe, six out of the seven indicated that, instead of Western Europe, their main destination were emerging markets in Europe or Asia. Most of these firms also had production performed in these countries. Based on the above figures it might be concluded that, even though most of the firms in our sample, are active in more regions than Western Europe, in export terms they still seem to be heavily anchored in Europe.

3.4 Changes in Internationalisation Strategies: An Empirical Perspective

In this section, we will examine whether firms indeed prefer to use the co-operative strategy instead of the autonomous strategy, as we predicted in section 3.2.1. In addition, we will examine the possible changes in internationalisation strategies used and examine whether our findings corroborate or refute the ideas as proposed by the establishment chain theory (cf. section 3.2.2).⁵

3.4.1 Current and Initial Foreign Markets Entered

The firms in our sample are *currently* active in three world regions on average, either by means of direct exporting, international strategic alliances, or sales or production subsidiaries. There is a difference between the two sectors in our sample: while the mechanical engineering firms are, on average, active in three world regions, the software firms are on average active in two regions. This is indicative that the software firms in our sample are still in the initial phases of internationalisation (cf. section 3.3).

Almost 88% of the firms in our sample entered geographically and culturally close markets (i.e. countries belonging to the EU and/or Switzerland) in the *initial stages* of internationalisation. There are no major differences between the two sectors: 89% of

⁵ To examine internationalisation strategies and patterns we constructed for each firm in the sample a 'time-ordered matrix' that gave a description of the markets that were entered, the mode(s) of entry and the rationale behind the entry mode choice and, when relevant, entry mode change, the pace of internationalisation, and the extent to which supportive network relationships stimulated or inhibited internationalisation (see Coviello and Munro (1997) who use a similar approach).

the mechanical engineering and 87% of the software firms in the sample first entered relatively close markets (the terms 'region' and 'market' are, in this chapter, interchangeable terms). This market entry in close markets allows the firms to start internationalising without much risk. As noted, for example, by the French firm FS-1: "The European market is not really like working on a international level". And the German firm GTS-2 that started to internationalise by selling in the neighbouring countries Austria and Switzerland considered this to be "virtually the same as selling to the German market".

Of the seven firms that initiated their internationalisation process in more far away countries, five firms erected *production* facilities (on their own or in co-operation with partners). The dominant factor for selecting a 'far away' country was being able to profit from low labour costs for four out of the five firms. Johanson and Wiedersheim-Paul (1975), the founders of the establishment chain theory, also noted and found that production establishments are in general not correlated with the distance factor (or market size), but with other factors.

The fact that most firms in our sample started the internationalisation process by entering relatively close markets and subsequently expanded into more far away foreign markets, corroborates establishment chain theory. Similar to Bell (1995), we did find, however, that cultural and geographical distance do not provide the only explanation of firms' initial and subsequent market selection decisions. '*Client followership*' - i.e. firms internationalise as a result of the international strategies of their clients - (Bell, 1995), also had a key influence on both the initial decision to internationalise and on the choice of the foreign market. These foreign markets could be 'close' but often were not. A clear example is the Italian firm IM-1. This firm was 'forced' to become active in Argentina by a large client. The firm considered the move to Argentina as 'high risk' since it did not have much international experience, but it could not refuse the wish of the large client without loosing this client. To reduce the risk and increase speed, it decided to erect a joint venture with a local firm in Argentina (for similar cases, see e.g. IM-5, IM-2; IS-7; GBM-2; GBM-4; GBM-5; NS-1; NM-2). Another important factor influencing market selection was '*market growth*': firms tended to target markets that were perceived to offer the best growth opportunities for their particular niches (see also findings of Bell, 1995; Crick and Jones, 2000).

3.4.2 Entry Mode Choice

As shown in table 3.2, 86% of the firms in our sample make simultaneous use of different modes of entry: 52% make use of two different modes of entry (direct exporting and ISAs, or direct exporting and subsidiaries, or ISAs and subsidiaries), while 34% make use of all the three basic modes of entry (direct exporting, ISAs, subsidiaries). However, in the majority of the cases, a dominant strategy (co-operative or autonomous) could be discerned.⁶

⁶ Firms that used only direct exporting, only foreign subsidiaries, or used both direct exporting and foreign subsidiaries were classified as using an autonomous strategy. Firms that used only ISAs were classified as using an co-operative strategy. In the case firms used both autonomous and co-operative entry modes, we determined which entry mode was the most dominant by assessing the contribution of each mode of entry to a firm's economic revenues. For example, firm FM-5, was engaged in both direct exporting and two non-equity alliances (NEAs) for

The current internationalisation strategy of 23% of the firms sampled can be described as predominantly 'co-operative', 56% as predominantly 'autonomous', and in 18% of the cases the strategy of firms was a balanced mixture of co-operative and autonomous modes of entry. Of all the firms having a predominantly autonomous strategy, 53% is from the software sector and 47% from the mechanical engineering sector. There is no difference between the tendency of software and mechanical engineering firms to choose the co-operative strategy (of all the firms opting for the co-operative strategy, 50% is from the software sector and 50% from the mechanical engineering sector). Overall, both software firms and mechanical engineering firms seem to have a slight preference for a go-it-alone strategy (59% of the software firms and 53% of the mechanical engineering firms).

The above results do not support our proposition that the co-operative strategy is the strategy that SMEs predominantly use when internationalising. However, we did find that 'supportive' networks play a crucial role in facilitating a firm's internationalisation process, both for firms using the co-operative strategy and those using the autonomous strategy (see section 3.4.4).

sales purposes; considering that its export percentage was 53%, and considering the relatively low importance of the NEAs for the firm's competitiveness, we decided the firm followed an autonomous strategy.

Table 3.2: Current entry modes of the firms in the sample

- a. Only direct export
 b. Only subsidiaries
 c. Only international strategic alliances
 d. Direct Exporting and international strategic alliances
 e. Direct Exporting and subsidiaries
 f. Direct exporting, international strategic alliances, and subsidiaries
 g. International strategic alliances and subsidiaries
 h. No entry modes

Country/ sector	a.	b.	c.	d.	e.	f.	g.	h.	Mostly co- operative	Mostly autonomous	Mix
France											
ME (n=8)	--	--	1	2	1	3	1	--	1	5	2
SW (n=8)	1	--	--	1	4	2	--	--	--	7 ^B	--
Subtotal	1	--	1	3	5	5	1	--	1	12	2
Germany											
ME (n=9)	--	--	--	3	1	5	--	--	2	4	3
SW (n=9)	--	1	1	3	2	1	--	1 ^A	3	3 ^C	2
Subtotal	--	1	1	6	3	6	--	1	5	7	5
Italy											
ME (n=6)	1	--	--	3	1	1	--	--	3	3	--
SW (n=7)	--	--	--	3	1	3	--	--	2	3	2
Subtotal	1	--	--	6	2	4	--	--	5	6	2
Netherlands											
ME (n=5)	--	--	--	2	1	2	--	--	1	2	2
SW (n=4)	--	--	2	1	--	1	--	--	2	2	--
Total	--	--	2	3	1	3	--	--	3	4	2
Austria											
ME (n=4)	1	--	--	--	1	2	--	--	--	3 ^D	--
SW (n=4)	--	--	--	--	1	2	1	--	--	4	--
Subtotal	1	--	--	--	2	4	1	--	--	7	--
Total	3	1	4	18	13	22	2	1	14	36	11

- a) This firm had used direct exporting and ISAs, but currently only is engaged in 'indirect exporting' (which we did not include as mode of entry in this study).
 b) We excluded FS-8 since this firm was only engaged in direct exporting in 2000
 c) We excluded GTS-1 since this firm was only engaged in indirect exporting in 2000

d) We excluded AM-3 since this firm was only engaged in direct exporting in 2000.

An important reason to enter into ISAs seems to be the ability to pool risk and resources. The German firm GTM-1, for example, follows predominantly a co-operative strategy because the risk of doing business abroad is considered 'too high' and the firm does not have employees that are willing to work abroad for extended periods of time. The Italian firm IS-1 decided to enter into a joint venture with an Indian partner where the firm would deliver the technological know how and the Indian partner would provide for human resources and 'contacts' in the financial world. The firm also indicated that it opted for a joint venture because it did not have the resources to erect a subsidiary by itself. The German firm GBM-5 considered the Asian market a high-risk market, but commercially also very attractive and therefore prefers to work with local partners, but it does not invest any equity (for similar examples see e.g. NM-1, NM-2, NM-3, NM-4, NM-5, NM-6, NS-5, NS-6; FM-4; GTM-1).

While the limited resources of the firms in our sample foster co-operative approaches, the firms are, in general, very anxious to maintain 'control' and not letting their strategy being dictated by alliance partners. Alliances of crucial importance (for example because these alliances are established in major growth markets) are thus designed in such a way that the partners can be 'controlled', for example by holding a majority of the shares.

3.4.3 Entry Modes and Changes in Entry Modes

As shown in table 3.3, of all the firms in the sample, 87.5% started their internationalisation process with low risk, low commitment entry modes, i.e. direct exporting and/or the establishment of NEAs with foreign partners.

Eight firms (12.5%) used higher risk, higher commitment entry modes. However, when looking at these cases more closely, the entry modes chosen seem less risky than assumed at first glance. For example, one French mechanical engineering firm (FM-4) erected a production joint venture in Brazil together with two other French firms. The firm considered this joint venture a 'low risk' mode of entry that allowed it to learn how to work abroad, and has subsequently shifted its attention to direct exporting, among other things by erecting a specific export division. A French software firm (FS-3), started to internationalise with the creation of a small subsidiary in the US that had to serve as 'technological look-out' and a small sales subsidiary in Germany. In both cases, the level of investment was limited. A German mechanical engineering firm (GTM-4) started its internationalisation process with a sales subsidiary in China. However, this subsidiary was 'inherited' from the firm's predecessor (a company that went bankrupt and on which the firm was subsequently built). A German software firm (GBS-1) started by erecting a production subsidiary in Canada. This high risk, high commitment mode of entry was motivated above all by lack of sufficient software specialists in Germany and was facilitated by the financial resources the firm received from external venture capitalists (these venture capitalists also put pressure of the firm to close down or reorganise its foreign subsidiaries when the IT market slumped). An Austrian software firm (AS-4) started its internationalisation process by erecting a

sales subsidiary in Germany, next to direct exporting. The erection of this German subsidiary was not considered risky since, as noted by the CEO, not much investment was involved and the subsidiary was located only 40 kilometers from the firm, in a country where people speak the same language as in Austria and have a very similar culture. Another Austrian software firm (AS-3) started to internationalise by erecting a sales subsidiary in the US within two months after it was founded. The founder had, however much international experience and had founded (and sold) other software firms before. Still the strategy proved to be too bold and the US subsidiaries were closed because the US market proved too difficult to handle.

Table 3.3: Entry modes of the firms in the sample at the start of their internationalisation process^a

Country/ sector	Export	Non-equity alliance	Joint venture	Subsidiary
France				
ME (n=8)	6	1	1	--
SW (n=8)	7	--	--	1
Subtotal	13	1	1	1
Germany				
ME (n=9)	8	--	--	1
SW (n=9)	6	1	1	1
Subtotal	14	1	1	2
Italy				
ME (n=6)	6	--	--	--
SW (n=7)	7	--	--	--
Subtotal	13	--	--	--
Netherlands				
ME (n=5)	5	--	--	--
SW (n=4)	2	1	--	1
subtotal	7	1	--	1
Austria				
ME (n=4)	4	--	--	--
SW (n=4)	2	--	--	2
Subtotal	7	--	--	1
Total	53	3	2	6

a. Since no firm in the sample indicated to have started their internationalisation process by an Equity Alliance (minority of majority participation), this category was left out of the table.

When comparing tables 3.2 and 3.3, we may thus conclude that the internationalisation path of most of the firms in our sample is consistent with the logic of the establishment

chain model: both the software and mechanical engineering firms show increasing commitment, as is manifest by their higher levels of investment in foreign markets over time. However, our findings also suggest that the process is much less deterministic than the establishment chain model implies, since the internationalisation path may not always be straight but may also turn backwards (see also e.g. findings of Bell, 1995; Calof and Beamish, 1995). Next to the above mentioned software firm AS-3, there were more examples of firms that regressed. A German software firm (GTS-2), for example, regressed by replacing its sales subsidiary in the US for direct exporting because the costs of the subsidiary did not outweigh the benefits. Another German software firm (GBS-1) shut down one of its foreign production/sales subsidiaries due to the economic downfall in the ICT market, and under pressure of external venture capitalists to 'rationalise'. The Italian software firm IS-6 closed down its sales subsidiary in the US and now has a NEA with some of the former employees of the subsidiary, because it proved difficult to control an organisation in a different cultural and managerial context, and because of a general decline of US market demand. In a similar vein, the Italian firm IM-6 erected a sales subsidiary in Brazil but because the market proved to be culturally too different, the firm is now considering to dissolve the subsidiary and setting up a joint venture with a Brazilian partner. One Dutch firm (NM-1) had a sales subsidiary in the US but because of lack of resources it was changed into a joint venture with a local partner.

Why do firms change from one entry mode to another? The above examples indicate that in the case of firms that *regress* from using a more high-risk, high commitment mode of entry to using a more low-risk, low commitment mode of entry, change is mainly due to resource constraints. But what about the motives of firms that *progress* from using more low-risk, low commitment mode of entry to using more high-risk, high commitment entry modes? We find that these motives mainly relate to managerial learning, the ineffectiveness of particular modes of entry, and market potential or market size.

In some instances it was very clear that firms changed into more high-risk, high commitment entry due to *managerial learning* – as the establishment chain theory would have it. The French firm FM-6 for example, had a production NEA with a Rumanian partner for two years and then transformed it into a joint venture after getting to know the market and its partner. The Italian firm IS-2 set up a joint venture with a local partner in China 'to get to know each other and build common ground'. In the near future this joint venture will be changed into a 'full blown' production facility (it is currently only used for final testing and assembly).

We found, however, also many instances in which a firm was 'forced' to change its strategy because of '*ineffective*' modes of entry. In particular ISAs were often cancelled or changed in the more high risk, high committed mode of entry of fully owned subsidiaries because of 'problems' in co-operation. These problems often had its roots in cultural differences. For example, the French firm FM-3 had created a production joint venture with an Indian partner to benefit from the low labour costs and highly qualified Indian personnel. However, the joint venture was eliminated because the Indian partner was not able to deliver the products in time. The German firm GBM-5 changed its production joint venture in the Czech Republic with a local partner into a fully owned production subsidiary because the 'Czech mentality' prevented efficient production. The French firm FM-8 had established a joint venture with a Taiwanese

partner in China. Because this partner did not want to expand, the firm decided to buy out the partner.

In other cases, the firm decided to switch to, or directly use, more committed forms of entry modes because *market potential* or *market size* made the firm more prone to take risks. The French firm FS-4, for example, took over its German distributor because of the importance of the German market. Sometimes a market has much potential but is difficult to penetrate, making that firms feel it is necessary to create a subsidiary. In particular the US market proved to be commercially very attractive but also very difficult for firms to penetrate, both in the case of software firms and mechanical engineering firms. As noted by the CEO of an Italian software firm (IS-7): "for US clients to buy Italian software would be like for an Italian firm buying software from Morocco." This explains why firms have decided to, or intend to, erect sales subsidiaries (see e.g. FS-3; FM-3; IM-9; GBM-1; GBM-3; GTS-3; NS-3) or production facilities (see e.g. GBS-2; GTS-3), or take over existing US firms with an established reputation and existing client portfolio (see e.g. IM-8) to overcome the 'not-invented-here syndrome' of the US clients and to be able to better serve these apparently very demanding clients.

Interestingly, we find some indications that, next to firms that either progress or regress in terms of level of internationalisation, there are also firms that remain 'locked' within the direct exporting stage. An example is the Austrian firm AM-4 that has a very high export rate (99%), but has used no other modes of entry than direct exporting, either in the past or in the present. This seems a result of the nature of the product: it is a niche product that has only a very limited number of clients in each country. Since internationalisation is done purely by direct exporting, internationalisation is not considered very expensive.

3.4.4 Supportive Networks

Linkages with regional or national institutions that promote and stimulate internationalisation help the firms in the sample above all in obtaining information regarding technical standards, regulations, or other country-specific information. However, the 'relational' and 'knowledge' assets of these institutions appear not (yet) equipped to help the firms in finding suitable, and/or trustworthy foreign partners or clients (see also the findings of Crick and Jones, 2000).

To fulfil their needs in the area of finding suitable partners, some firms in our sample rely heavily on the network of large domestic or international clients. In some instances the client may even 'force' a partner upon the firm (see e.g. IM-5). An example where a large domestic partner facilitated internationalisation is provided by the German firm GTM-2. This firm uses direct exporting as mode of entry, which is an autonomous strategy. However, her export efforts are aided by a NEA with a domestic partner that allows the firm to use the worldwide sales network of this partner. Another example is provided by the Austrian firm AS-2, where contacts with large, internationally active, clients from the region help the firm to adapt its products to the international market, facilitating direct exporting.

Not only linkages with large clients, but also the personal network of the owner/ managing director often plays a crucial role in finding suitable partners and countries. For

example, the CEO of the Dutch software firm NS-2 was born and raised in India, which facilitated the choice to erect and the realisation of a production facility in this country. And the French firm FS-6 opened up a subsidiary in Spain because the CEO was born in Spain and had Spanish family members that could easily scan the potential of the market. In Chapter Four a more extensive analysis of the role of these networks is provided for.

Finally, we found that the internationalisation process was not only facilitated by the personal network of the CEO and/or the network of large clients, but also by the firm's 'history'. When the firm could 'build on' the distribution networks of or foreign subsidiaries erected by 'predecessor' companies that went bankrupt, were privatised, or split up in separate parts, internationalisation was clearly aided. The German firm GTM-4 for example, 'inherited' a Chinese sales office from its predecessor (a firm that went bankrupt), and another German firm (GTM-1) inherited a network of distributors in Europe when it was privatised (see also e.g. GBM-3; AM-4).

3.5 Conclusions and Implications

In this chapter, we examined the internationalisation profiles of the firms in our sample. We found that the firms in our sample have, on average, more an offensive than a defensive strategy, use less than three different entry modes, are relatively committed in terms of entry modes used, and are internationally active in three different world regions, world regions that are, in cultural, economic, and geographic terms, located fairly far from home. We examined whether there were significant differences when analysing data on a subgroup level. We found, among other things, that the mechanical engineering sector uses a significantly higher number of entry modes and covers significantly more, and more distant, regions than the software sector. These results are indicative that the mechanical engineering firms in our sample have progressed further in terms of internationalisation than the software firms. We also found that the larger and older firms in our sample are on average more internationalised than the smaller and younger ones, a finding which is not very surprising. Between the countries included in our sample only the attitude towards internationalisation proved to vary significantly, which is indicative that the firms we sampled in the various countries are rather similar to each other as regards their internationalisation profile.

A large majority of the firms in our sample follow an evolutionary expansion path, demonstrating an increasing commitment to internationalisation over time. In this respect, the firms' behaviour is consistent with the logic of the establishment chain theory. However, our findings also show that progression to more committed forms of entry mode is not inevitable. There are examples of regression to less committed forms of entry mode. In other words, the internationalisation process is much less deterministic than the establishment chain theory implies. The resource situation of a particular firm at a particular moment, and how this firm can manipulate its resource situation, seems crucial in this respect. Resources have to be understood in the widest sense: financial resources due to the development of demand, profit margins, market value of shares or interest rates, but also managerial resources through well-performing and smoothly working relational contracts and contacts with clients, suppliers or other firms have to be considered. This situation encourages or discourages risks and com-

mitment. It is specifically through the handling of relational contracts and contacts that firms seem able to buffer and secure risks, to a greater or lesser extent.

We further found that the step-wise trajectory of internationalisation as followed by a large majority of the firms sampled is not only determined by managerial learning (as the logic of establishment chain theory would have it), but also by firm- and industry specific factors. The change from rapid growth to stagnation or decline in the Internet linked software industry is a case in point. Such industrial or trade cycle evolutions may catch individual firms by surprise and cannot be controlled by SMEs.

Our findings did not provide support for the notion that the co-operative strategy is the preferred way of internationalisation for SMEs. However, we did find that *supportive networks* play a very important role in facilitating both the co-operative and autonomous strategy. The world of networking is very variegated where different forms can serve very different purposes in internationalisation. First and foremost, as other chapters also show, networks in the form of 'relational contracting', i.e. specific and stable relations with suppliers, clients or even (semi-) competitors, seem crucial for internationalisation. The co-operative internationalisation strategy almost always arises from relational contracting or informal networking, which helps to assess and control risks and opportunities. Institutional networks (i.e. networks of institutions that provide more general facilities or services for internationalisation) on the other hand, may be helpful but are not crucial, and do not seem to determine a firm's internationalisation strategy.

Our study did not investigate long-term performance implications of the different internationalisation strategies. Since we do not have sufficient data on firm growth, we cannot determine whether growth is a result of the chosen internationalisation strategies, or vice versa. It should also be noted that our conclusions are drawn from a limited number of case studies. Some caution should thus be exercised concerning the generalisability of our findings. Even so, most of our findings seem consistent with previous empirical research relating to the internationalisation process of SMEs and open up a world of internationalisation strategy which is much more manifold than going evolutionary concepts suggest. Our findings indicate that internationalisation starts at home, and in a way, never leaves home: the size of the firm, its embeddedness in relational contracts and a domestic industry affects the internationalisation strategy the firm can and will adopt and sustain. Internationalisation is thus not a mechanistic development that everyone can follow, once a singular mechanism is known and understood. It is a very contingent and differentiated world of opportunities and risks. In this world, it is up to the firm to conduct internationalisation in tune with its relational contracts and contacts, and to hedge against risks.

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Appendix I: Measurement of Variables

Descriptive variables	
Sector	mechanical engineering sector, software sector
Country	Germany, France, Italy, Netherlands, Austria
Size of the firm	class I to IV: based on number of employees in home country ^a
Age of the firm	class I to IV based on quartiles per sector ^b
IP-dimensions	
Internationalisation Attitude	Defensive (value 0) or offensive (value 6)
No. of Entry Modes	Number ranging from 1 to 6 (different entry modes used) ^c
Entry Mode	Class ranging from I to IV (level of most committed entry mode used) ^d
No. of Regions Covered	Number ranging from 1 to 5 (different regions covered) ^e
Psychic Distance	Class I to VI: distance between home country and furthest country ^f
Other dependent variables:	
Export Share	% of annual turnover
Level of Internationalisation	subjective score 1 to 3 (low, medium, high)
Aggregate commitment	% of maximum scores of IP-dimensions ^g

a. Operationalisation: Class I: 1-50, Class II: 51-100, Class III: 101-250, Class IV: > 250 employees.

b. Quartile boundaries are: mechanical engineering sector: 18, 41, 89 years; software sector: 9, 12, 20 years.

c. Possible modes of entry are: 1. direct export, 2. minority participation, 3. non-equity alliance, 4. joint venture, 5. majority participation, 6. subsidiary.

d. Operationalisation: Class I: export, Class II: minority participation or non-equity alliance, Class III: joint venture or majority participation, Class IV: subsidiary.

e. We used the same categories as used by the 'Psychic Distance' variable but Class I and II are combined, and classes are renumbered.

f. Class I: neighbouring EU/FTA country, Class II: rest of EU/FTA; Class III: US and Canada; Class IV: Emerging countries Europe; Class V: Developed countries South America, East Asia, Middle East, other, Class VI: Emerging and underdeveloped countries in Asia, Middle and South America, Africa, other.

g. Calculated as: (SUM of standardised 6-point scores on dimensions 1 to 5)/(SUM of maximum scores).

The scales of the variables listed in the above table are all nominal or ordinal, with the exception of the age of the firm, the number of employees, and the export share which

are metric. The variables 'age of the firm' and 'number of employees' were recoded into ordinal variables for use in the IP-analysis.

In addition to the three recurrent descriptive variables (sector, country, and size), we were also interested in the age of the firms. We strived for a set of descriptive variables that are mutually independent because otherwise it would be difficult to interpret the results. First tests (two-tailed t-test and chi-square analysis) indicated that the variables sector and age are strongly related (sign. < 0.01). This is not surprising since the software sector is much younger than the mechanical engineering sector. We decided to recode the age variable by computing quartiles per sector.

The t-test for the variables sector and size was significant at a 0,05 level, but the absolute difference between the sectors' averages is not very large, so we decided to keep the size variable.

As regards the *dependent* variables we were interested in the five dimensions of our internationalisation profile (i.e. 'Internationalisation Attitude', 'Number of Entry Modes', 'Entry Modes', 'Number of Regions Covered', 'Psychic Distance'). All these variables range from less committed to more committed internationalisation (see section 4.3).

To gain insight in the 'overall' level of internationalisation of the sample firms we used three different variables: 1) actual export share, 2) subjective level of internationalisation as indicated by the interviewees, and 3) a constructed variable, i.e. aggregate internationalisation commitment.

4 Caught in the Net – The Role of Networks in the Internationalisation of SMEs

Katharina Bluhm and Bernd Teufel

4.1 Introduction

The lack of financial and managerial resources to control risks and uncertainty is one of the most important obstacles for the internationalisation of SMEs. Two terms – co-operation and networks – are often offered as solution for how SMEs can internationalise in spite of resource restrictions. Many observers and scholars advocate forms of co-operation such as international strategic alliances (ISA) as useful for the internationalisation of SMEs (Lewis, 1990). They usually see other SMEs as the most suitable partners for those alliances and collaborations, i.e. relationships among equals. Other studies stress the crucial role of relationships to large multinational companies (MNCs) for the internationalisation of SMEs which are described in terms of networks rather than co-operation. However, this research offers mainly one model: SMEs have little choice but to follow MNCs abroad. Although SMEs may attain an enviable degree of internationalisation they just remain a quasi-integrated sub-unit of large firms, with little autonomy in decision making.

In this chapter, we put a broader focus on the role of network relationships as a *supportive* resource or asset for internationalisation of SMEs. We argue that the position of SMEs in given networks, and their access to network resources, exert a major but non-deterministic influence on the way SMEs meet the challenges of internationalisation in spite of having limited resources of their own. In this way, we take up the perspective embraced in chapter 3, which sees internationalisation as being driven, facilitated or inhibited by ‘supportive’ linkages that do not involve explicit contractual exchange.

Network relationships are a driving force behind what sometimes looks like the “result of a fortuitous combination of events and circumstances” (OECD, 1998: 9). Networks provide opportunities and motivation for internationalisation, and reduce transaction costs (Coviello and Munro, 1997: 365). Networks of large MNCs play an especially crucial role. Yet, it would be a misperception to reduce the relationship between the SME and MNC to quasi-vertical integration designed by large companies. Instead, SMEs actively exploit the opportunities of supportive network relationships for their own purposes; this opens up spaces for strategic behaviour of SMEs and leads to a variety of different patterns of usage even of MNC networks. In this way, networks can be a *resource* for SMEs’ internationalisation efforts.

SMEs use network support for internationalisation as an alternative to formal co-operative arrangements like international strategic alliances. They can draw on resources of third parties without encountering the risks usually associated with co-operation, and without dilution of equity or losses in managerial control. Even if an SME prefers to internationalise in an autonomous way it can rely on network support.

And if strategic alliances are arranged, the partner does not necessarily have to be the same firm as that which was crucial in providing the contact.

The purpose of this chapter is to further our understanding how, and to what extent, internationalisation of SMEs is influenced by different types of network relationships - under the assumption that the SME is a decision maker in its own right. We will begin by outlining a typology of the kind of underlying networks which provide supportive resources for the internationalisation of SMEs. Based on this typology, we will summarise major empirical findings of our research. First, we will give a quantitative overview (section 4.3), followed by the qualitative analyses (section 4.4) of different network types and impacts on international activities of SMEs. Finally, we will take a look at the role of the internet within networks (section 4.5) and give a short summary (section 4.6).

4.2 Four Types of Supportive Networks

Based on the literature, our typology comprises four kinds of relationships which have in common the fact that they provide some sort of network advantage⁷:

Firstly, entrepreneurs and senior managers may exploit *personal relationships* they have established over the years such as family ties, school and university friendships, or former work relationships. Personal and inter-firm relationships are often intertwined since most repeated economic transactions are socially embedded (Granovetter, 1992). Focussing on personal networks as a separated type, we look at relationships where the fact of knowing the persons in question has been constitutive (rather than the personal tie being due to the existence of an inter-firm relationship or to some business interest in the organisation).

Secondly, SMEs can draw benefits from business relationships with other SMEs. *Small SME networks* are inter-organisational or inter-firm networks which can also be described as relationships among equals. Partners may be competitors (horizontal networks) as well as “friendly” companies with complementary products, or other SMEs within the vertical value-added chain.

Thirdly, SMEs can also rely on *networks of large multinational companies (MNCs)*. In these networks, SMEs are mostly vertically integrated or work together with large firms on a complementary basis. The way SMEs are integrated into large MNC networks has a major impact on how SMEs make use of the MNC networks for their own international activities. In spite of the power asymmetry characteristic of this type of network, MNC networks provide attractive opportunities for “exploitation” of the great by the small (Olsen, 1965: 3). We argue that chances for SMEs to make use of MNC networks for their own strategic effort is a major reason for the remarkable variety of ‘piggy-backing’ strategies among SMEs moving activities abroad.

⁷ The network literature usually differentiates types of relationships, as for example social and industrial relationships (Håkansson and Johanson, 1988), or personal and inter-organisational networks including interactions with non-private and non-economic actors (cf. Sydow, 1992; Lindberg, Campbell and Hollingsworth, 1991).

Fourthly, there are integrated *networks of intermediary institutions* (Cook and Morgan, 1996), comprising all kinds of state and public-private agencies and associations supporting internationalisation of SMEs. For these agencies, too, offer network advantages by mediating contacts in foreign markets, providing information and consulting. Most of the intermediary networks are regionally located, thus they are part of regional embeddedness (see chapter 5). Yet they also rely on programs at national and EU level. As part of our typology we look for the relative importance of intermediary networks in comparison to other network types.

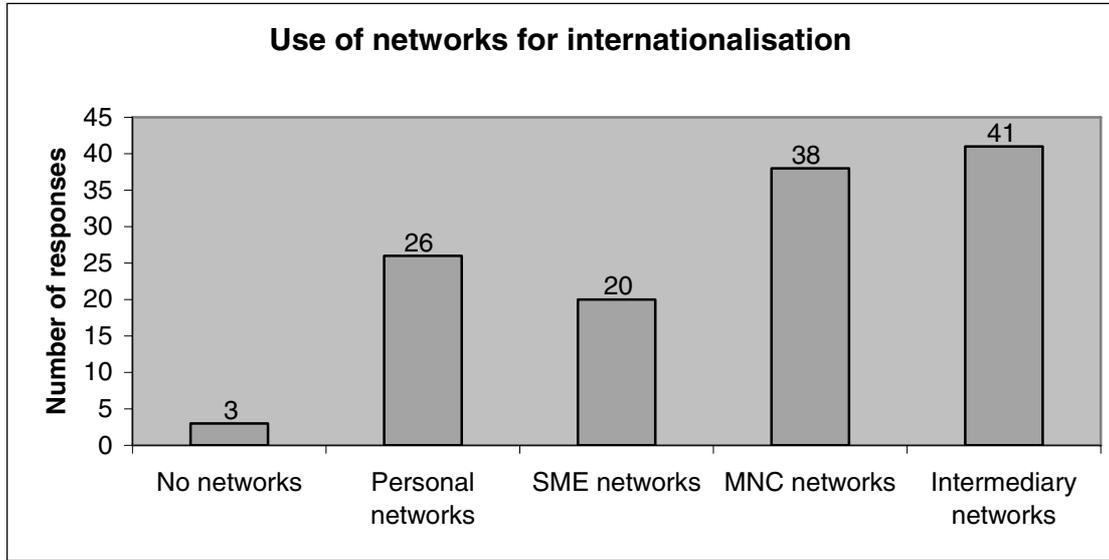
All four types of relationships provide supportive resources for SMEs moving activities abroad. Yet as we will see they do it differently and with different effects.

4.3 Use of Networks – Quantitative Overview

Our research shows that networks are indeed widely used by SMEs for own internationalisation activities. In the interviews we asked the CEOs of the 64 companies in our sample which kind of networks they relied on in their international activities. In all the following questions more than one response was possible. The result is the following.

As more than one response was possible we received a total number of 128 positive answers from 64 companies of our sample. Only three companies (4.7%) are not integrated in any kind of network that could have been exploited for internationalisation. This means that the great majority (61 companies) used at least one kind of network aiming at internationalisation at least once. In most cases (41 companies; 64.1% of all cases) intermediary networks were consulted. However, as we will see later, the outcome of this kind of network is rather low. This implies that MNC networks were the most decisive means for SMEs to internationalise their activities. More than half of all companies (38 companies; 59.4 %) had access to and made use of MNC networks being almost twice as much as with access to SME networks (20 companies; 31.3%).

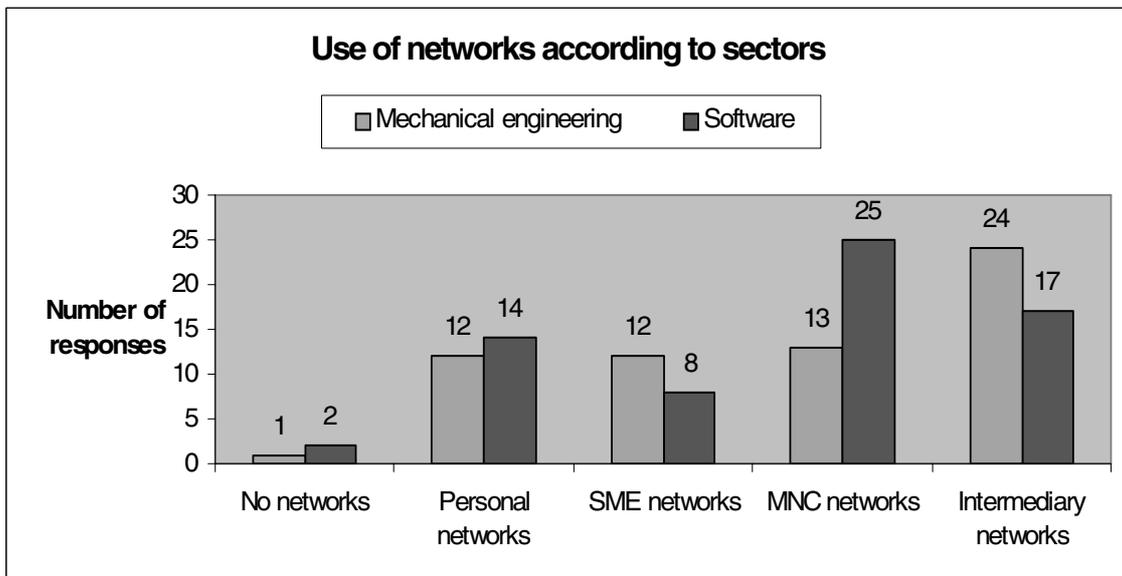
Figure 4.1: Making use of networks for internationalisation (more than one response possible)



4.3.1 Use of Networks by Industrial Sector

If we distinguish between the two sectors – mechanical engineering and software production – the result is the following.

Figure 4.2: Making use of networks for internationalisation (more than one response possible) by industrial sector



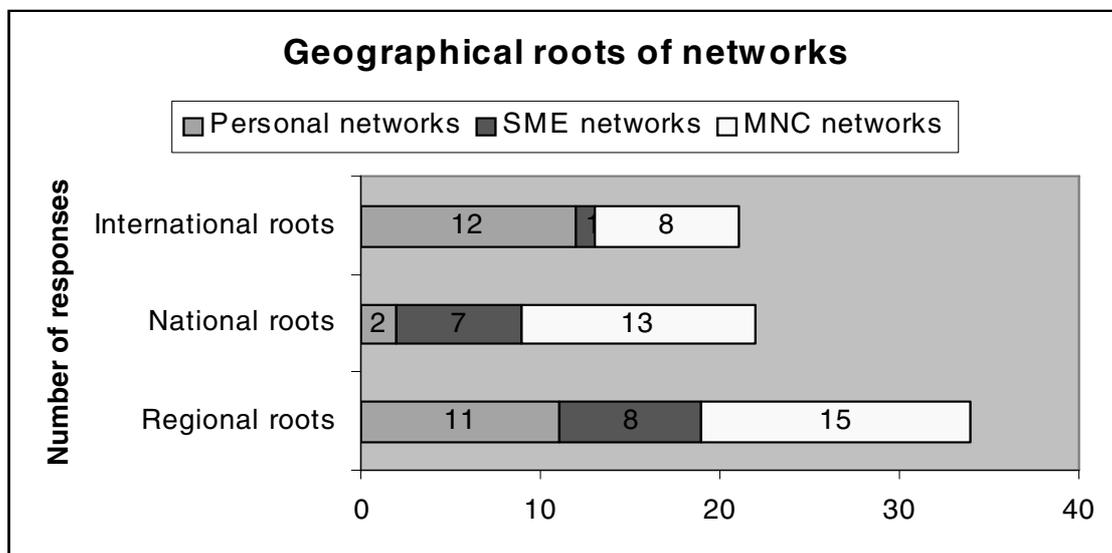
From 128 responses which asserted that networks were used for internationalisation, about half each came from the mechanical engineering firms (62 responses) and the software sector (66 responses). But at this point the more or less equal distribution between the sectors ends. With respect to making use of SME, MNC and intermediary networks the differences are significant. Out of 38 companies using MNC networks for

internationalisation, 25 belong to the software sector, as against only 13 from mechanical engineering. Almost 80% of the software companies are able to exploit this resource in contrast to only around 40% of the mechanical engineering companies. With respect to the use of intermediary or SME networks, things are the other way round. While exactly three fourths of the mechanical engineering enterprises (24 companies) approached intermediary networks for their internationalisation efforts, only about half of the software companies (17 companies; 53.1%) did so. Contrary to our expectations, it is also the mechanical engineering sector which makes more use of SME networks (12 companies (37.5%) versus eight companies (25%)).

4.3.2 Geographical Roots of Networks

Network relations may be established at regional, national or international level. To the regional roots of networks belong all relationships having their origin in the region of the SME (even if a globally active, multinational company is concerned). The same applies for relationships originating at the national level. So we define a network in accordance with where it has its roots, where the first contact was made. Thus “international roots” mean that the foundation for the network linkage was laid outside the SMEs home country. Often this happens at international trade fairs.

Figure 4.3: Geographical roots of networks



The majority of the network relationships in our sample had regional roots (34). This result backs the thesis that the existence of potent economic actors in the region plays an important role for the internationalisation process of SMEs. While MNC networks can be found on all levels, SME networks have their origin in the region (8) or the nation (7). This may be due to the difficulties SMEs face in searching for equal partners in foreign countries. Personal networks used for international activities display the opposite kind of pattern, for they have strong international roots (12) but rarely national origin (2). This amount of personal internationality is rather surprising and even more significant if we focus on the smaller countries in our sample – countries whose

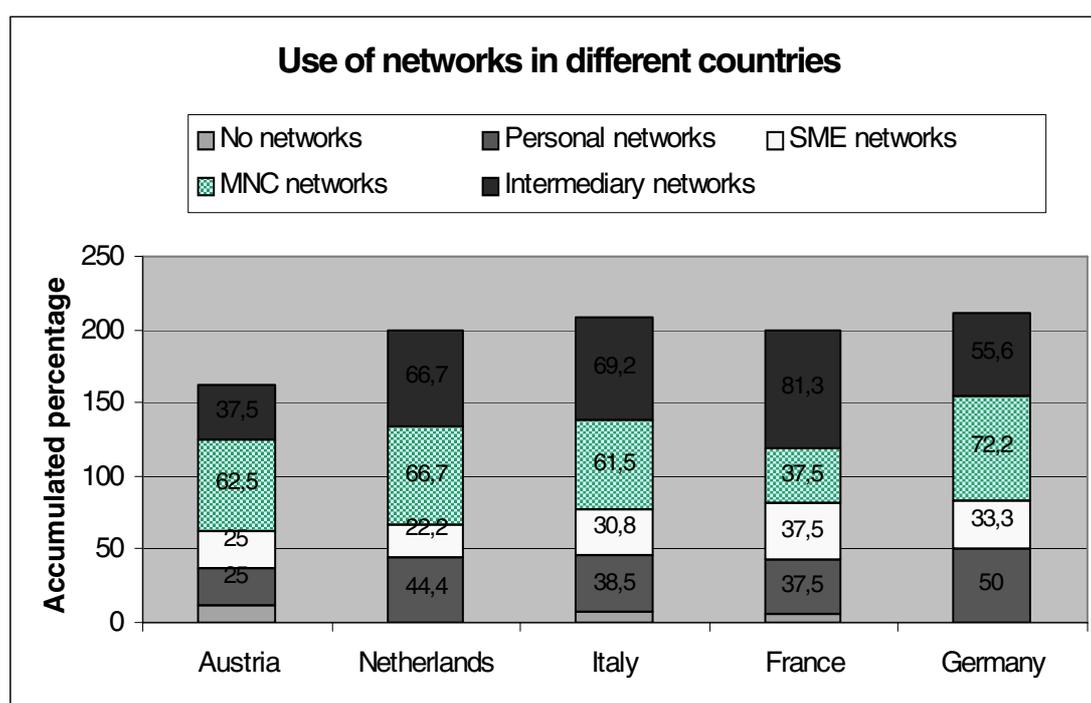
smaller home market requires an early international orientation also on a personal level.

Out of 21 responses declaring international roots, 15 (71%) belong to the software sector. Many of these (6) are indeed linked to MNC networks. This shows the decisive role MNC networks play for software companies. Many MNC network relationships with national or international roots are diverse (technology) partnerships and user-groups with mainly US-American software giants like Microsoft, Apple, Oracle, etc. How they influence the internationalisation activities of software companies will also be discussed below.

4.3.3 Use of Networks in the Different Countries

If we differentiate the access to networks as a resource for internationalisation by country we get the following picture.

Figure 4.4: Use of networks for internationalisation in the different countries

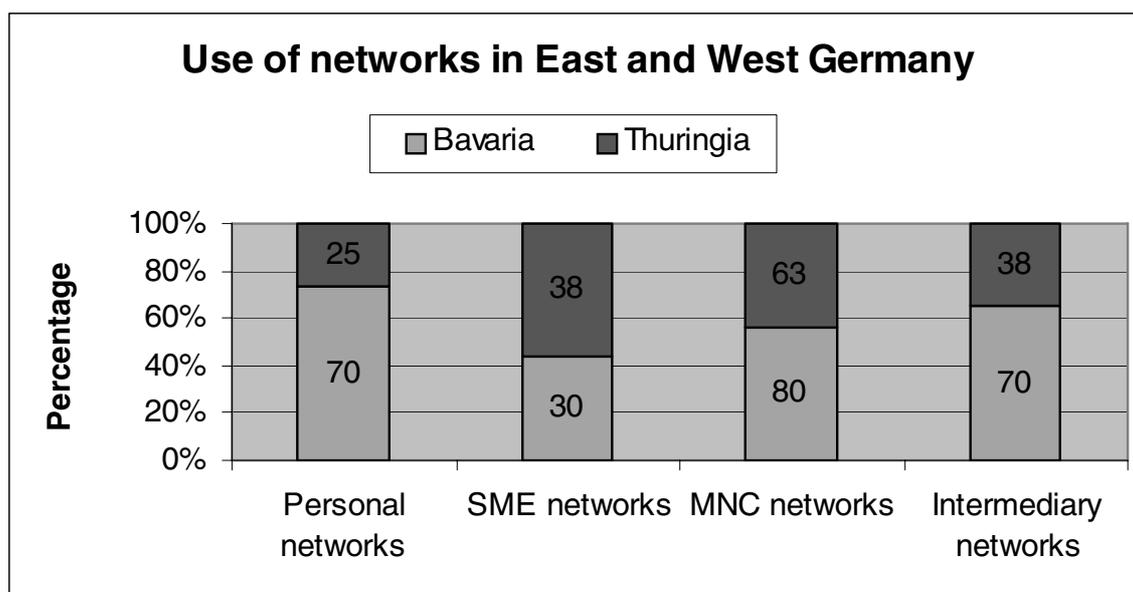


Explanation: As more than one response has been possible the 64 companies in our sample reported access to 128 networks altogether. This means that on average each company has access to two different kinds of networks (200%). Some companies make use of all kinds of networks while others have no access at all. In the table above we added together the percentages of different network types the companies had access to in a certain country. For example, in the German case half of the German companies (50%) has access to personal networks; at the same time one third of the companies (33.3%) uses SME networks, 72.2% MNC networks and 55.5% intermediary networks. Added up, this accumulates to a 'usage-percentage' of 211%. So the German

companies report making more use of networks for internationalisation than do the firms in the other countries.

With the exception of Austria, where the companies are especially weak with respect to personal and intermediary networks, the accumulated usage of networks in all other countries varies between about 200-210%. However, this does not mean that the different kinds of networks are used equally. While with regard to the usage of SME networks the differences are small (ranging from 22.2% of the companies using this kind of network in the Netherlands to 37.5% in France) they are significant concerning the other categories. In Germany personal networks (found in 50% of the companies) are used twice as much as in Austria (25%); Germany is also the country where most MNC networks are found: 72.2% compared to only 37.5% of the French firms. Differences in the usage of intermediary networks are even more dramatic. While in Austria only 37.5% of the companies rely on the help of intermediary institutions it is more than twice that (81.3%) in France, i.e. in Rhone-Alps where the service offered by state and para-public agencies seems particularly sophisticated (see chapter 5).

Figure 4.5: Use of networks in East and West Germany



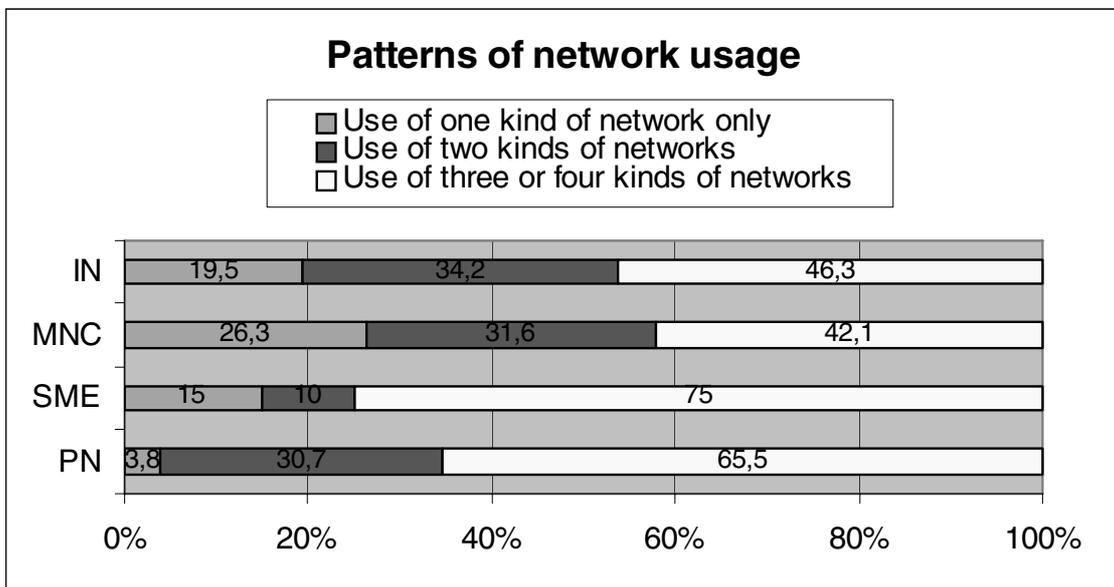
Even within Germany – between the regions of Bavaria in West and Thuringia in East Germany – the diversities are astounding. The companies in Bavaria have better access to personal networks (70% of the Bavarian versus 25% of the Thuringian companies), MNC networks (80% vs. 63%) and intermediary institutions (70% vs. 38%). Only with respect to SME networks do Bavarian companies come ‘behind’. Generally, Bavarian firms are economically much better embedded than their counterparts in Eastern Germany. Even eleven years after German reunification also the question of whether or not networks are used shows an economically strongly divided country.

4.3.4 Patterns of Network Usage

If we take a look at all possible combinations of network usage, we get the following picture.

Altogether, a majority of the companies studied (39 firms of 64) have benefited from more than one type of network. MNC networks appear to be those which are most “self-sufficient”. Ten companies studied (26.3%) are linked to MNC networks only, while the exclusive use of SME networks is negligible (3 firms; 15%). The same is true for personal networks. While they play an important supportive role in general, studied companies seldom solely rely on them (1 firm; 3.8%).

Figure 4.6: Patterns of network usage



Explanation: In figure 4.6 we try to picture the patterns of network usage by differentiating between companies using only one kind of network, firms with access to two kinds of networks and companies involved in three or four kinds of networks. In the table itself, however, the percentage does not refer to the companies but focuses on the question in which combinations the different kinds of networks can be found. From all companies with access to personal networks (26 firms), for example, only one company (3.8%) relies on personal networks alone, 8 companies (30.7%) combine it with access to one other kind of network and 17 companies (65.5%) with two or three other kinds of networks.

The eight companies which use only intermediary networks (19.5%) are often beginners in internationalisation using these institutions to obtain preliminary information or financial aid. They, in fact, lack access to inter-firm and to personal networks which they could exploit for internationalisation. However, the majority of companies approaching networks of intermediary institutions do this in addition to their usage of other network types (80.5%). Curiously, companies with MNC network links are most active here as well.

In our sample only one company combined SME networking with the use of intermediary networks. Even when we add personal networks, only five firms made use of this combination, while MNC networks are exploited most often in combinations (26 from 64 companies).

4.4 Network Influences on SMEs' Internationalisation

Network relationships can influence decision making of SMEs with respect to internationalisation in three dimensions: a) network relationships can influence the choice of location - where to establish, for example, distribution channels or production sites (in short: *localisation*); b) network relationships may affect the mode of activity established for foreign markets or locations (export, foreign direct investments (FDI), non-equity strategic alliances (NEA)) (as in chapter 3 we call this the *mode of entry*); c) finally, network relationships may exert influence on operations that will be shifted abroad – at least in case the firms' international engagement goes beyond plain exporting (we call this *mode of operation* in contrast to mode of entry⁸). In the following section we will analyse how the different types of networks do influence the decisions for internationalisation of SMEs.

4.4.1 Personal Networks

The quantitative analyses revealed that personal relationships are an important supportive relational resource for the internationalisation of SMEs. 26 of the 64 firms studied (about 40%) took advantage of networks rooted primarily in the social life of the owners and senior managers (rather than primarily in inter-firm relationships). Although these personal connections existed already before or beside the companies' consideration to internationalise, and sometimes are not even related to the kind of business the company does, their consequences for internationalisation are astonishingly far-reaching. In contrast to SME networks whose 'outcome' for internationalisation are often rather meagre, personal networks in our sample trigger FDI or NEA in countries such as Argentina, Belgium, Bolivia, Canada, China (twice), Germany, India, Italy (twice), Jordan (twice), Spain (three times), Turkey and the United States. From 26 companies almost half (12) revealed clear links between taking advantage of personal relationships and FDI, in four cases they promoted NEA and the rest helped to find distributors or agents, make further contacts, win new customers, etc.

In most of the cases these activities are not the result of rational decision making, market studies or thorough considerations of how to conquer a new market. Instead, the

⁸ "Mode of operation" refers to all activities being influenced by network relationships beyond localisation and the mode of entry. This includes decisions about the product, about organisational structures, or about the origin of management. In one case a German automobile supplier was not only 'asked' to follow to China and to establish their own production facilities; the SME's decision about the range of products and the organisational structure of the new production facility was also influenced. Besides, the SME had to guarantee German management in China in order to secure fluent communication with the MNC's German management there.

personal network offers opportunities which are seen as worth taking up even if it does not directly fit into the internationalisation plans of the company. The responsible managers in these cases seem to prefer directing their efforts to a person they have confidence in, rather than to an unknown and unstable environment in an economically more promising country. Through this preference internationalisation activities of this kind are often singular, accidental, disjointed and geographically far-reaching.

Our findings indicate two major ways in which personal networks influence the decision making process with respect to internationalisation. First, the CEO may address a trusted person with a certain objective in mind to win his or her support. Here, personal contacts are intentionally exploited to enter a certain market and to reduce transaction costs.

A second way is that the owners and CEOs are approached by a person they know as friend, employee or student with foreign background, for example, to become active in a certain country offering some sort of support. The reasons for this are mostly private plans such as moving to another country, searching for new challenges, etc. In this case the CEO often agrees to the unexpected opportunity in spite of the fact that they had not previously perceived any economic need to become active in the proposed country. However, such offers from a well-known person are rarely rejected.

In any case personal networks are very effective for internationalisation. Personal, trustful relationships by far seem to compensate risk and uncertainty. In opposite to all other kinds of networks CEOs seem to be prepared to co-operate or invest in foreign countries as long as it is connected to a person they trust.

To this extent rich personal relationships are strong promoters of internationalisation. Through the interpersonal relationship they determine localisation, and the mode of entry, while the mode of operation is primarily determined by the strategy of the SME.

4.4.2 SME Networks

In comparison to personal networks, the usage of SME networks is less effective for the internationalisation of SMEs. Although relationships between SMEs supply the companies with information or new contacts, or even provide synergy effects for internationalisation efforts, they rarely led to FDI or NEA as personal networks did. 20 (31.3%) out of 64 companies use SME networks for internationalisation. Six of them benefit also from large MNC networks.

The networks we found are mostly symmetrical, mutual relations that are rather informal. They are mainly established between companies which are close, not only geographically, but also in terms of product, market, etc. On the other hand, the companies asked to collaborate are rarely active in exactly the same market: they tend to sell related products. We differentiate between two types of SME network exploitation, which may be driven by chance as well as by strategic behaviour:

Type one primarily aims at reducing transaction costs by acquisition of information or new contacts (for finding distributors, agents, etc.), or at learning from the partner company's experience. Therefore SMEs chosen are contacted systematically to get

information, and in exchange the firm's own knowledge is offered. This exchange is based on trust and informality.

Type two involves joint efforts or attempts to obtain synergy effects when companies are making their first internationalisation steps (like organising joint visits to trade fairs, etc.). These forms of co-operation (which are once again prevalently informal) are often accompanied and assisted by intermediary institutions. Like type one they often have regional roots, but may be constructed between companies from different markets also and develop quite accidentally.

SME networks involve only a low level of risk as interdependence and commitment is kept low. Consequently, their effects for internationalisation are also rather low. In our research we found only one case which resembles the image of the classical SME co-operation. In addition, this is an exceptional case.

4.4.3 Networks of Intermediary Institutions

Networks of intermediary institutions like Chambers of Commerce, regional developmental agencies, associations, in addition to state programs at different levels are often considered to play a crucial role in promoting and mediating internationalisation of SMEs. According to our findings, there is a huge gap between the high percentage of companies approaching intermediary institutions for support (64.1%) and the low satisfaction of those companies with their service, which is also reflected in meagre outcomes. This refers especially to the information providing, contact mediating and consulting role of intermediary institutions. Less critical seems to be financial aid for internationalisation which is provided by each region to a certain extent often in connection with the EU regional policy.

Many of the companies studied reported that they have used intermediary institutions for the purpose of internationalisation just once. As analysed in chapter 5 in more detail, there is no lack of general information on foreign countries and markets provided by Chambers of Commerce and other mediating public institutions or regional development agencies. Yet, this kind of information is seen as useful only at a very early stage of internationalisation. What the companies frequently miss are answers to much more specific questions which arise when the companies actually enter foreign markets.

Moreover, the offers for brokering contacts have limited outcomes, i.e. mediated first contacts rarely turn into serious business relationships. Only some companies reported foreign business relationships which can be traced back to mediation by Chambers, developmental agencies or associations. This is the case even in France where more than 80% of all companies used the dense network of intermediary institutions in Rhone-Alps.

A few companies in each country were using systematically community partnerships, international trade missions and trade fairs organised by intermediary institutions as first steps in foreign markets or reduce transactions and travelling costs. These are usually high risk, geographically and cultural distanced markets like China or Russia. Often, this quite systematic exploitation of intermediary network is combined with active engagement of the firm's CEO in political and associational life of the region.

The most striking finding with respect to intermediary networks is the differences between the two industries across the countries and regions. From 41 companies making use of intermediary institutions 24 belong to the mechanical engineering sector, whereas just 17 are software companies. This may be correlated with the latter's more extended use of MNC networks. Yet the interviews also reveal greater distance in attitudes towards the service that intermediary institutions offer than in the case of the mechanical engineering companies. The responses indicate that the problem of unspecific and not up-to-date information is even more acute here (we should remember that nowadays the Internet provides another effective and powerful form of information collection). In addition, many software companies perceive the Chambers of Commerce as old-fashioned and see associations with obligatory membership (as in Austria and Germany) as outdated. However, this situation does not imply a general lack of associationalism in the software sector. The software firms studied clearly preferred sector-specific organisation to broader business associations, which are often highly regional and have usually little to do with internationalisation.

A third difference to the mechanical engineering sector is widespread involvement in EU-funded R&D projects. While participation in such European projects is rare in the mechanical engineering sector, at least four companies have participated in international research projects funded by the EU. Yet, here again harsh criticism was voiced. Some software firms argued that the bureaucratic demands of the application and realisation procedure are unbearable high, the process of submitting too complicated and too slow to meet the challenges of the high-speed innovation process in the whole IT-sector. Thus, SMEs with financial alternatives (enough resources of their own, or financing from the capital market) show little interest in this publicly aided European collaboration.

4.4.4 Patterns of Multinational Company Networking as a Resource for Internationalisation of SMEs

Multinational company networks are the most prominent source for the internationalisation of SMEs. How they support internationalisation of SMEs cannot be separated from the relationship SMEs have to MNCs. The positioning of the SME within the MNC networks influences the way MNCs foster internationalisation of SMEs, the scope of action for an active "exploitation" of the great by the small, and the risks involved. Based on our sample, we identified four patterns of how MNC networks become a source for the internationalisation of SMEs. Three of these can be summarised as different kinds of 'piggy-backing'. The SMEs studied rarely refer to different patterns at the same time, indicating that the four types of MNC networking as resource for internationalisation of SMEs tend to exclude each other.

4.4.4.1 MNC-driven Internationalisation

MNC-driven internationalisation of SMEs is widely known mainly from the automobile industry. In our sample this pattern is only found in three of the Italian and one of

the German mechanical engineering companies (the firms in question being suppliers for Fiat and for the German vehicle industry respectively).

The main criterion of MNC-driven internationalisation of SMEs is well known: SMEs are part of a quasi-integrated enterprise network controlled by the large final producer, which is globalising as a whole and under the direction of the MNC. SMEs do not only follow their big client to foreign production locations; they are – implicitly or explicitly – forced to do so. To ensure just-in-time production at the new foreign location, or to fulfil local content requirements of the host countries, also the mode of entry (in any case a form of FDI) and even the mode of operation (shift of production) is frequently determined by the MNC. For companies which were primarily local suppliers before, direct investment in production may be the first step toward internationalisation – even before they establish a significant export capacity of their own. The crucial point is that SMEs – in order to secure the network position they have – are forced to internationalise service and production alongside their larger partners. This process, however, is often guided or accompanied by the MNC. The larger partner may grant a certain amount of fixed orders or simply lower transaction costs by providing logistical help or making contact to potential partners. In this way the MNC puts pressure on the SME while offering support at the same time.

4.4.4.2 Exploitation of External MNC Networks

In the second pattern of SME internationalisation via MNC networks, the SME uses the network that links a large MNC to its clients (above all the distribution channels to final users or other companies). Internationalisation of SMEs is not “pushed” here by endeavours to keep a certain position within a MNC network which is becoming global. Rather, it is “pulled” by the wish of the SME to gain market access to foreign markets via the MNC network.

In this pattern, which we found in mechanical engineering as well as in the software sector, SMEs are more equal partners. They have something the MNCs are interested in, such as a certain technology or product. By offering it to the MNCs, the SMEs gain access to the large partners’ marketing and distribution channels.

The extreme variant of this pattern is conducting sales via the MNC in the context of Original Equipment Manufacturing (OEM) where the entire market side is left to the MNC. The original equipment manufacturer sells the product through its distribution channels and under its own brand name. According to the literature this kind of contract “manufacturing” is a prominent way of global networking in the IT-sector, giving smaller firms the chance to get plugged into the global net without many resources of their own (Lüthje, Schumm, Sproll, 2002; Ernst, 2001). Instead, small software companies can direct their activities on focussed product innovation which is not covered by the large partner. Eight software companies studied are using this form as a first step toward international sales. Most of them wish to proceed with internationalisation to be present on markets on their own.

Localisation, mode of entry and mode of operation are less determined by the MNC in this pattern than they are in the MNC-driven internationalisation. The major focus lies here on MNC networks as distribution channels and bridgeheads to new customers.

While MNC-driven internationalisation mostly includes FDI by the SME, the usage of external MNC networks rather relieves the smaller firm from the necessity of making their own foreign investment.

4.4.4.3 Networking within MNCs

Networking within MNCs refers to the usage of units, subsidiaries, and affiliates of large multinational companies as an internal network. This pattern can be found in the mechanical engineering sector as well as in the software sector (mainly in the sub-sector of embedded software and enterprise solutions). Here again the MNC is in the first place a customer for the SME. Starting points for this kind of network usage are often relationships to regional or national branches of the MNC sited near the SME in question. The access to these nearby affiliates is seen as an opportunity to make also other units of the MNC accessible as customers at an international level. This is fostered by the tendency of MNCs to standardise internal technologies (software and hardware) in order to achieve transparency and easy transfer of data and products. On the other hand the MNC for the SME has the function of a reference-, information- and communication system which can be highly informal.

Typical of exploiting MNCs as a network of their own is the SMEs explicitly incremental proceeding. To this extent, the risks are relatively low. Thus, FDI in the form of an own subsidiary for service or production is rather the end-product of a gradual development which partly is forced by the SME and partly can be described as exploitation of opportunity structures due to the coinciding of inter-organisational networks and personal relationships. Companies having access to this kind of networks either stand out for high innovativeness or have personal and/or regional relations to the MNC (or both). These personal relations (within the region), for example, may help SMEs to not only keep contact with the MNCs headquarters nearby but to several subsidiaries the MNC has world-wide. A whole range of founders of software companies in our sample (independently of the country they come from) even before the foundation of their company had management and/or sector experience which decisively contributed to the specialisation they chose and which often had been made in the environs of the MNC.

4.4.4.4 Partnerships Breed Partnerships

This kind of network internationalisation we only found in the software sector. Partnerships breed partnerships means that alliances and co-operations with other, mainly large IT-companies are stimulus for further alliances and co-operations. Stronger forms like joint ventures or subsidiaries near the larger partner are not typical in this pattern. The mode of entry is influenced by them, but only indirectly, while mode of localisation and mode of operation are not affected at all.

These kind of partnerships are rarely customer-supplier-relations but alliances along value-added chains (forward or backward) in order to produce a certain type of software (either for mass-markets or tailor-made for companies) product or internet service

and to establish it on the market. This is connected with the special characteristics of the IT-sector where, even for the production of many simple software products, partnerships with the huge American MNCs are indispensable in order to guarantee the compatibility of the product with standard software and for the usage of tools. On the other hand, these nets of partnerships of the large MNCs are potent enough to enforce technological standards. The large software companies like Microsoft or SAP have established global partnership programmes where the partners are qualified and supplied with all kinds of information (even about innovations which will soon come onto the market). In none of the software companies in our sample did these partnerships directly lead to active internationalisation. However, they are decisive network support for successful market appearance. In this way the software companies are often involved in international technology networks even before they internationalise actively on their own. In addition, the annual conferences of the European or world-wide user groups which the big software companies set up also acts as a kind of seed bed for new international contacts and exchange.

More important for the active internationalisation of SMEs are forward-alliances that provide market access: without alliances with providers, mostly telecommunication companies, access to the market is impossible. Without alliances the integration of software into larger software packages, and thus a broader form of distribution will most probably fail. Here, the network access supports the internationalisation of SMEs by appearing to be a reference for the SME.

Not all software companies are influenced by network requirements in the same way. SMEs producing embedded software (in electronic components for example) are less dependent on them because they still produce their software completely on their own. The prospects of success for software companies in the company-related sector, for the mass market or all companies with software for inter- and intranet, on the other hand, strongly depend upon these alliances. The most successful companies in our sample are also those which have most international alliances.

4.5 The Role of the Internet – Supporting or Replacing Networks?

The question remains whether ‘new’ communication media such as internet and e-mail have the capacity to either support or replace network activities. As media reducing transaction costs they seem suitable for facilitating first contacts, enhancing communication or maintaining far-distance relationships. Since e-mail has already conquered daily life it might seem reasonable to suppose that this type of communication has even developed into a kind of substitute for networks. Instead of visiting fairs or using chambers of commerce, associations, etc. for contact-making, it might seem that the internet was an adequate means to present oneself, and e-mail the tool for getting in touch with persons of one’s choice.

However, our research shows that networks are not becoming superfluous. As before, networks are the primary way to establish relationships. It is true that e-mail and internet facilitate the search for names and addresses, and are useful in keeping up communication as soon as a relationship is established. In that way they support networks activities. On the other hand, they are no alternative to networks in the course of having first personal contacts. These are the entry to decide about whether a relationship

comes into force or not. Before that, and also afterwards, internet and e-mail have a supportive function. However, they are no substitute for the establishment of personal relationships.

This is also reflected in our results: Relationships which are considered as trustful and longer-term came into force after personal meetings. Rarely, connections having been found via world wide web could be maintained without having this kind of face-to-face contact. Instead, networks are helpful to separate the wheat from the chaff with respect to all potential partners. To make contacts, the interviews in our research preferred to follow hints from within the network they belong to instead of using internet and e-mail for this kind of research.

Thus, networks are not replaced but complemented by electronic forms of communication.

4.6 Conclusion

As we have seen networks as resources play an important role in the internationalisation of SMEs. The network's effect on internationalisation is different according to the kind of network. Most effective for internationalisation are multinational company and personal networks, while intermediary and SME networks have rather an auxiliary accompanying character. Our research shows that SMEs find their own ways to internationalise beyond strong regional embeddedness and MNC networks. In other words, they often manage to exploit network resources for their purpose without being determined by them.

This focus on the usage of different kinds of networks for internationalisation has up to now been rather neglected. In our opinion it is necessary to fill this gap by concentrating especially on the role which personal networks and various forms of multinational company networks play in the internationalisation of SMEs – which still have mostly national (indeed, regional), seldom cross-European origin. We have seen both types of networks (personal and MNC-based) highly effective with regard to internationalisation, while the effects of intermediary networks revealed clear limits. Even if public and para-public institutions are good at channelling financial help and offering general information, they are neither in their knowledge nor in their assessment capable of providing the highly specific and customised information companies need and expect. Due to missing insider knowledge and a lack of trust they are usually not very efficient at customised mediating of individual international contacts, and even then they have disadvantages with respect to inter-firm and personal networks as they to a lesser extent exclude opportunistic behaviour.

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5 Are They Locally Rooted? The Importance of Territory in the Internationalisation of SMEs

Angelo Michelsons

5.1 Introduction

One of the main topics which this research wished to investigate was how important territorial differences were in affecting the strategies of SMEs vis-à-vis internationalisation, and the way they proceeded in practice. So we wanted to examine the weight of the variable “territory” in determining the internationalisation trajectories adopted by the SMEs studied and the existence of any differences between one local area and another which might explain different regional paths towards internationalisation, or alternatively the existence of any convergence in the behaviour of firms, notwithstanding the peculiarities of the regions where the firms were located.

The research showed that the firms examined were conditioned more by factors related to the industry they were working in, and to the nature of their product and market (for example depending on whether they were exploiting a specialist niche, with few competitors, or competing in a very price-competitive broader market) than by territorial peculiarities. This means that there was a good deal of convergence in the internationalisation strategies followed by the firms in the various regions and nations covered by the research: it seems plausible to see them as following similar paths towards internationalisation (cf. Chapter 3). At the same time, however, the variable “territory” was crucial for explaining the more general development and competitiveness of the firms studied. And in this sense the differences between the various regions were significant and a number of local specificities emerged.

For research purposes the following working definition of territory was adopted: a local set of a) relatively specialised and unique resources; b) networks of relationships – whether personal, political or industrial; c) associations, public bodies and programmes giving support to firms. As defined in this sense, the local area represents a set of constraints and opportunities for individual firms, and it is in the context of these that firms develop their strategies for growth – including internationalisation. SMEs are “dependent” on the resources, services and links they have available to them. At the same time, they can choose to use what is available locally to the full, either “valorising” these local resources or not. We call this interaction between firms and local area “regional embeddedness”.

The research was concerned with SMEs’ internationalisation in two senses: on the one hand their ability to establish bridgeheads abroad as part of their expansion into foreign markets, on the other hand their tendency to shift production facilities abroad as a way of reducing costs. What we tried to assess, therefore, was a) the role of regional embeddedness as providing a launching pad for expansion overseas, and b) the strength (or weakness) of regional embeddedness as holding firms to their local territory.

The kinds of local embeddedness which emerged from our interviews tended to differ from those described in the literature on the subject (cf. section 5.2). Our entrepreneurs

and managers spoke little of trusting relationships with other SMEs, support from local institutions to internationalisation, local identity and team spirit, the importance of local funds of specific knowledge which could only be obtained in the local area, etc. In some cases this was due to the difficulties of employers and managers in recognising their dependence on information and example which they tend to acquire accidentally, and which they tend to take for granted – so much for granted that they are not even aware of it. However, it is also probably true that many of our firms were not tied to a local system in the most fully-developed sense: as we will see, what regional embeddedness we found was not of the classic kind we at first expected. In addition, precisely because the firms we studied tended to be among the most dynamic and competitive of local firms, their “territory” quite often extended to the national level (especially in the smaller countries).

In some ways, therefore, the regional embeddedness of the SMEs interviewed seems relatively slight. Nonetheless, most have their core resources of knowledge and production capacity linked to their home territory. To this extent they are far from free-floating “global” enterprises ready to go anywhere in the world in the search of lower costs. There is some evidence that those firms, which are in the process of considering shifting production to low-cost countries, are those where the local or regional industrial (and institutional) fabric is weakest.

For example, several of the mechanical engineering companies interviewed in the Lyon area are considering, or have already undertaken, delocalisation to low-cost countries. It is significant that the industry locally seems to be suffering from fairly severe decline: the number of firms in several sub-sectors of the industry has declined very rapidly in recent years, and there have been many takeovers by foreign or national companies. At the same time, many firms appear to have been incapable of renewing their products or moving up-market. The lack of investment and slight capacity for renewal presumably do not date from yesterday, and they may also be the result of a lack of vitality in the local productive system as much as low-cost competition from abroad.

The situation seems similar in two engineering firms in Thuringia, which were considering shifting production abroad as a way of reducing costs (GTM-1, GTM-2). It may be significant that these two firms were not tied to skilled workers from a local *Kombinat*, as were other firms in the area. Here too, then, we have firms trying to go abroad for reasons of cost which are inserted in a local industrial fabric which is shaky. In this case, in addition, it is the institutional fabric which is also weak: it provides nothing like the networks which give access to research centres, highly active Chambers of Commerce, etc. which are prominent in Bavaria.

After a brief review of the literature, we examine four dimensions of regional embeddedness which emerged from the research: public and associational goods and services available locally; relationships with other SMEs; relationships with large customers located in the region; local supply of specialised resources and knowledge (industrial skills, highly qualified workers recruited from universities and elsewhere, co-operation with universities and research centres).

5.2 Embeddedness

In the years since Granovetter's 1985 article which popularised the term, the idea of embeddedness has been widely employed by economic sociologists and by economists interested in local development. In its most general form the idea of embeddedness simply states the irreducibly social nature of economic relationships and the necessity of studying the way in which contractual relationships are only possible because other kinds of relationships have previously been established between the partners in question – hence the need to broaden the scope of analysis beyond the strictly economic logic of individual firms and single transactions. It does not necessarily carry any reference to specifically local ties. However the idea has often been associated with the literature on Marshallian industrial districts, and more generally on the importance of local industrial networks (Brusco, 1989) and local economic systems, thus creating the notion of local or regional embeddedness.

The industrial district provides (Becattini, 1989; 1990) one important model of local embeddedness - that relatively "democratic" or "horizontal" model where there is no dominant large firm, and where a large number of medium-sized, small, and sometimes very small firms are linked together in a multiplex series of ties which go back a long way in time and which often go beyond the purely economic sphere. The classic examples of industrial districts studied in the "Third Italy" in the 1980s (Bagnasco, 1977; 1989), for example, emphasised the importance of social relationships which had their roots in associations, the Church and political activity as the bases for subsequent high-trust economic relations (Trigilia, 1988). More in general, the importance of community relations, detailed knowledge of the technical skills and capacity for hard work of local workers, the credit-worthiness and reliability of small business owners who are also neighbours and former school-fellows, members of the same associations, etc. has been shown to be the basis for a special form of local industrial organisation which exploits economies of scope and reduces transaction costs.

Apart from this "horizontal" pattern, local embeddedness may take a more "hierarchical" or "vertical" form. A classical example of this would be the durable relationships described in accounts of large Japanese firms and their favoured suppliers (Dore, 1987). More generally, many other geographical contexts provide examples of local industrial systems. In such systems the large firm may act in an oppressive way, putting pressure on suppliers to maintain low prices and a position of dependence and subordination. At the same time, however, so long as it continues to be committed to local suppliers it is a major pillar of a specifically local system, which to some extent guarantees a market, protecting local firms from external competition (Michelsons, 1989).

In addition to these "horizontal" and "vertical" patterns, there exist many local systems where there is no dominant large firm and no real industrial district but rather a less coherent conglomeration of small and medium-sized enterprises (with perhaps branches of large firms) which nonetheless form a local system.

In all these various contexts the notion of embeddedness stresses the inadequacy of perspectives, which concentrate on single firms and single entrepreneurs, and emphasises the interdependence of firms in a local network. In any case, the idea stresses, the relationships between firms cannot be understood simply by analysing the immediate interests at issue in single transactions. For firms are caught up in a configuration of

relationships, rooted in the past, and anticipated as continuing in the future, which condition behaviour in any single transaction. Where the network of interdependence is especially strong, firms thus often adopt a relatively long-term strategy, avoiding the pitfalls of “short-termism” and concentration on simple price advantage. In some cases, therefore, firms may avoid opportunistic behaviour: trust, reputation, and specialised knowledge thus provide important resources which can improve the competitiveness of all – or at least many – firms in the local area.

5.3 The Services and Programmes of Public Agencies and Associations in the Region

With the exception of Thuringia, the regions examined generally have a wide range of services offered by many organisations. There are, of course, significant differences between the various regions. Thus for example the Northern Netherlands is considered the Netherlands most backward region, while Turin is still classified by the European Union as an Objective 2 area. Nonetheless only Thuringia is structurally different, with a much less dense fabric of institutions and associations, and far fewer ties linking firms to these organisations.

This is not the place to undertake a detailed account of all the public bodies and associations in the various regions, and the various types of support they offer. National, regional and local bodies, Chambers of Commerce, employers’ associations and industry associations are present in all the regions studied.

In Rhone-Alps – a region which has a long history of being active in the field of “international economic policy” (Ganne, 1991) – we find, among others, the regional headquarters of ministerial bodies and of agencies, various bodies run by the Chambers, development agencies set up by the regional government (most prominently *ERAI, Entreprise Rhône-Alpes Internationale*), industrial associations (some of them rooted in strong territorial specialisations). These bodies offer a wide variety of forms of support – sometimes overlapping and competing with each other, with the result that some SMEs seeking advice or aid on a specific point feel rather disoriented. With regard to support for internationalisation, the specialised regional agency *ERAI* obviously deserves mention; however it was not used by any of the firms interviewed in the research – although it was used by one of our firms in Turin! Another important initiative helping firms go abroad is that of the Chambers of Commerce which organise clubs where enterprises can exchange information about the target markets they are interested in, and the way to access them.

In the western *Länder* of Germany there is an equally rich variety of public bodies, associations and programmes. At the regional level, however, it is the Chambers which are the prime referent for SMEs. With regard to services helping firms go abroad, the Chambers provide companies with information on foreign markets (strategies for entering the markets, addresses of lawyers and translators abroad, customs and legal regulations, etc.). It should be pointed out that this kind of aid is mainly useful for firms wishing to take their first steps in the internationalisation process. Foreign trade missions and business missions, and invitations to participate in international trade fairs can be useful first steps of this kind. In Bavaria a number of initiatives have been set up since the mid-1990s to support software companies – the objective being to cre-

ate networks of relations between large and small firms, public bodies, and trade unions. In 1996 Bavaria International was set up as a public-private partnership which aids firms to take their first steps abroad via consultancy, information and grants to cover some of the expenses of taking part in trade fairs or undertaking investment abroad.

In contrast to Central Franconia, and to Bavaria more in general, Thuringia seems to have fewer institutions and governmental support: apart from the Chamber of Commerce (which does not work as efficiently as that in the west) we only could find the TAF (*Thüringer Außenwirtschaftsförderungsgesellschaft*) as an intermediary institution which acts in the field of support for internationalisation. Overall, the differences between Franconia and Thuringia are immense. While Franconia gives the impression of being a lively economic region with a critical mass of enterprises, and a healthy balance between large and small enterprises, with (more or less) functioning chambers of commerce, a wide range of associations and institutions which constitute a rich pool for making contacts, and a range of institutions offering financial support, Thuringia is less well-developed on all these dimensions.

The Turin area in north-west Italy has a wide range of public bodies, associations and initiatives. The region's Chambers of commerce run a Foreign Trade Centre and there are various national provisions providing insurance, export guarantees and other forms of aid for firms going abroad. The main specificity of the Turin area (like other Italian regions) is, however, that private associational initiatives are often more important than the public programmes. The employers' association and the various industrial associations are therefore often more crucial than the Chambers or the local offices of national or regional bodies. This is the case for services for internationalisation – ranging from networking services to detailed accompaniment abroad – as for other kinds of services.

The situation in the Netherlands is more similar to that in Germany, in that it is the Chambers (alongside other public and private agencies) which play a key role. Experts interviewed in the Netherlands were positive about the availability of services and programmes to encourage internationalisation, judging these to be more than sufficient. As in Germany and elsewhere these services were used and useful mainly in the early exploratory stages of internationalisation. In addition to Chambers there is the Investment and Development Company for the Northern Netherlands (*NOM*) a body that provides investment and participation in firms but also regional intermediary services *NOM's* main focus is on IT: it acts as an intermediary organisation but also supports IT companies by financial participations and very recently it initiated a venture capital fund.

Austria, too, finally has a wide range of state and regional programmes alongside those provided by the Chambers of Commerce.

The extent to which these forms of aid are seriously used (apart from serving as a first contact point for initial information) varies between regions, as does the degree of satisfaction expressed. It is worth pointing out first of all that, according to the information given in the interviews, only 11 out of a total of 64 firms declared they had used public or associational services more than once (e.g. support to attend trade fairs, participation in trade missions, information regarding foreign markets) in their internationalisation trajectories: 5 French firms (FM-3, FM-4, FM-5, FM-7, FS-6), 4 Italian ones (IM-4, IS-1, IS-4, IS-6), one Dutch firm (NM-1) and one in Thuringia (GTM-3). Of these 11 firms, 7 were engineering companies and 4 in software. At the other ex-

treme, there are only 12 firms which openly express dissatisfaction with the services offered (and only 2 of these 12 had actually made use of the services). Seven of the twelve work in software, five in mechanical engineering; 6 are Italian (IM-3, IM-4, IM-6, IS-1, IS-2, IS-5), 3 in Thuringia (GTM-1, GTM-2, GTS-4), one in France (FS-7) and one in Austria (AS-1).

More than the negative opinions expressed in the interviews – which seem more the result of preconceptions than of personal experience – it is therefore the low number of firms making use of the services supplied by public bodies and associations which brings out the limits of these services. Criticism is more frequent in Piedmont and Thuringia. But the more fundamental problem which seems to affect all regions is that the generic services provided by chambers of commerce, public agencies and associations tend not to correspond to the tailor-made needs of individual firms.

No doubt it is not easy to distinguish perception from other aspects of reality. No doubt the efficiency of many public and collective bodies left much to be desired, but some of the demands made by firms seemed unrealistic. For the firms' overwhelming demand was for highly specific information and the facilitation of actual contacts: they wanted to be put in touch with a reliable lawyer or accountant in the place where they wished to operate, to be introduced to a partner in precisely their line of business, to have information on some highly specialised piece of legislation. However, as one or two entrepreneurs were willing to admit, it was far from easy for bodies representing local firms as a whole, or the local economy as a whole, to justify what would be heavy expenditure to obtain the kind of highly specific information needed, or the contacts desired.

This dilemma could be resolved when a substantial number of local firms, preferably in the same line of business, were interested in going to the same region abroad. This occurred in Turin when local suppliers of Fiat were requested to accompany the large firm to Argentina. In this context where there was a clear need for several local firms to move in the same direction, the local employers' association was able to provide very specific services, literally finding reliable accountants and lawyers in Argentina, fixing meetings with local companies which could become potential partners, organising consortia to buy land for factories at lower prices, etc. In this kind of case, the action of the large firm acted to stimulate a coordinated move of the local supply network to one specific place, and highly elaborate and tailor-made services were thus feasible. In most cases, however, the demand was, of course, far more scattered.

5.4 Relations with Local Public Agencies and Associations

Some entrepreneurs, however, were able to use associations and agencies in another way – not as a source of institutionally-provided services but as a kind of club which provided valuable information and contacts. It is in fact interesting that a small number of firms in all countries had owners or partners who were highly active in local associations.

A good example of this is the founder and owner of a small firm in Piedmont (IS-7) making software primarily for the control of industrial systems and transport flows. This man is the President of the local branch of the textile machinery association, in

spite of the fact that his firm does not make textile machinery. Having established itself as a trusted supplier of several local textile-machinery companies – companies which were themselves internationalised, setting-up new factories for textile firms outside Europe – the software firm was able to use a pool of contacts in these areas. But the relationships to the firms also allowed our software entrepreneur to become an esteemed honorary member of the textile-machinery fraternity, which made it possible to obtain in-depth knowledge and contacts from firms which were not direct competitors. This helped to make it possible to establish small branches (for sales and after-sales assistance) in Mexico, Brazil, Spain and elsewhere.

The owner of a German company (GBM-1) – the third generation of his family to head the firm – was particularly heavily involved in local civic and local economic policy-making, being the president of an important forum bringing together civic authorities and local Nuremberg firms, as well as a member of other consultative bodies and trade associations. No doubt this kind of deep rootedness provides an excellent network of contacts and a constant flow of up-to-date knowledge. Among the kind of knowledge which is available is also some of that knowledge of the international world which the entrepreneur in question says he values. The manager of a Thuringian firm (GTM-3) says she sits on the export committee of the local Chamber of Commerce because of the information and stimuli it provides. In 2001 the firm signed its first agreement with a Japanese company for sales during a trade mission of the local Chamber.

Another German entrepreneur (GBS-3) used ties with mayors and other politicians and a local development agency, as well as with the Chamber of Commerce, as the basis for ties: the civic ties established with particular regions in Eastern Europe turned up in the company's internationalisation trajectory. At the time of interview, the foreign operations were not profitable; nonetheless, one cannot understand the direction taken by the firm studied without understanding the links made via political and development bodies. Other firms in Germany and Austria also (AM-3, AM-4) used the personal ties built up in local organisations as a resource providing local information and contacts.

In more general terms, the degree to which firms are active in chambers and associations is an important indicator of their regional embeddedness. In our sample there is a clear difference between regions. Bavaria is the only region where some firms interviewed were overwhelmingly active in local public initiatives and/or employers' or industry associations. For our firms in the Northern Netherlands, in Austria and in Thuringia, active participation was a rarity. Whereas our Italian and French interviewees were more or less equally split between active participants and merely passive membership or none at all. (It should be noted that levels of participation are judged on the basis of what interviewees declared; membership of at least the Chamber of Commerce is a legal obligation in all the countries studied.)

Table 5.1: Level of participation in Chambers of Commerce and associations by country

	Active	Passive	None	Total
France	6	6	4	16
Netherlands	2	4	3	9
Italy	4	5	4	13
Germany/ Bavaria	8	1	1	10
Germany/ Thuringia	1	1	6	8
Austria	2	1	5	8
Total	23	18	23	64

If we break these figures down by industry rather than by country, it is clear that the mechanical engineering firms are those which are most involved in associations and institutions, the software firms being much less likely to be active.

Table 5.2: Level of participation in Chambers of Commerce and associations by industry

	Active	Passive	None	Total
Mechanical	16	7	9	32
Software	7	11	14	32
Total	23	18	23	64

Interpreting these figures in the light of statements made by those interviewed, two important themes emerge. Firstly, a major difference emerges between the various regions with regard to the type of organisations they make use of. The Italian and French firms are active especially in the associations. In Bavaria, on the other hand, and – to a lesser extent – in Austria and the Netherlands, activism is mainly channelled into the chambers of commerce. In the Rhone-Alps region of France, finally, the associations which are most used are industrial associations rather than cross-industry employers' associations or Chambers of Commerce.

Secondly, with regard to the large difference between the two industries studied, we should note that ITC is a relatively young industry, and its interests are as yet inadequately served by traditional representative bodies – which, in addition, often do not offer the kind of services the industry most needs. It is no accident, therefore, that (as we will see) some ITC firms (especially in France and Bavaria) are working to build associative structures which are able to provide services more suitable to their needs.

One final point which emerges from the interviews is worthy of note – the fact that much of the participation which is seen as useful in associations (but also sometimes in public or public-private initiatives) is a question of networking rather than a question of use of services. Although we are not able to provide comparisons between the level of participation provided by our interviewees and those for the general population of firms in the regions studied, the degree of activism in associations, chambers, public-private partnerships, etc. seems quite high. In addition, many firms carry on activities

of networking outside the institutionalised context. Apart from the French firms we have noted which are trying to set up associations to represent their industry (FS-2, FS-4, FS-7, FS-8), another 12 companies (FM-2, FM-6, FM-7, NS-1, NS-2, NM-3, IM-1, IS-7, GBM-1, AM-2, AM-3, AS-2) undertake networking with other firms with the aim of obtaining “club goods”, exchange and acquire information, establish contacts, etc. – which will be useful for the firms’ growth in general (rather than being used necessarily for internationalisation). Of these firms, 6 are also active in the formal bodies representing firms and offering services.

5.5 Relations with other SMEs

When we started our research we expected small and medium-sized firms to base their capacity for internationalisation on their local networks: that is, we expected the local network in which firms were embedded to enable small firms “to act like big firms” and extend their range of action outside the local and national ambit. On the whole, the firms we interviewed did not confirm this hypothesis: neither formal agreements between SMEs nor informal local networks of the “classical” kind (as described, for example, in the literature on industrial districts) seem to lie behind the internationalisation paths of the firms studied.

If we interpret “regional embeddedness” in the “classical” sense of multiple ties with large numbers of local firms in a functioning system, this seems, therefore, to have played a relatively modest role for our firms. In none of the regions studied have small firms put together their resources to enable them to go abroad together apart from one case in France (FM-4) where three firms co-operated in order to go to China together, by establishing a joint venture. In Turin there is another case (IM-1): an engineering firm getting together with another similar firm in a joint venture, but this is not an autonomous initiative but rather part of the internationalisation move virtually imposed on its suppliers by Fiat. As we saw in the previous section, the only form of co-operation between SMEs which seems to have been really significant (and this has only indirect effects on internationalisation) is that regarding attempts to set up new industrial associations to represent the interests of a new specialisation (especially in software), and less formalised attempts at networking between firms to exchange know-how and knowledge about markets.

In other words, the model of firms using their local network of other small firms as a base for international expansion is rare among the firms we interviewed. This fact that the firms interviewed did not use local small firms as direct partners in their internationalisation efforts does not mean of course that the relationships they had with other local SMEs are not important to their general functioning.

Obviously, for example, our firms do have relations with local suppliers. There are naturally, differences here according to the nature of the firm’s product. Many engineering firms tend to concentrate on the final assembly, testing and design stages. Only a few specialised parts are made in-house. Because they buy in many parts, to be assembled, they need a reliable network of suppliers. In general, quality and prompt delivery are more important for our firms, which tend to be niche operators with short production runs or custom-made products. For these niche firms, a close relationship with suppliers, who could be relied on to provide the right component at the right time

is usually the crucial thing. It may be for this reason that most of our firms preferred relationships with suppliers they knew and had worked with for several years. In many cases, the suppliers are local firms, in others are national ones.

Among our engineering firms, there is also a minority of companies making a less specialised product, more sensitive to cost. For these firms, too, some suppliers are inevitably local – possibly just out of inertia. But it is precisely these kinds of firms which are most tempted by reasons-for-cost-reasons. And some do already have suppliers in low-cost countries.

Some qualitative evidence of the importance of reliable suppliers emerges from the interviews. However, the degree of dependence of our firms on a system of local suppliers does not seem high in terms of numbers. So in mechanical engineering there are just 6 companies which say they have a prevalently local set of suppliers (FM-6, NM-1, IM-2, IM-5, IM-6, AM-2). The situation is similar for the software firms.

As expected, the software firms we interviewed buy in much of the standard and specialised software programmes they need, as well as hardware items like silicon chips, from the big international firms which dominate the market. Many software firms also need suppliers of hardware parts to integrate the software which constituted the main added value in their product. Here, the situation is similar to that of our engineering firms: the priority is reliability and a close working relationship with the supplier. It is also worth remembering that the number of suppliers an individual firm has for these hardware components is very small (rarely more than two or three).

In any case it is worth noting that for the software companies, too, reliance on local supply is limited in quantitative terms. Only 6 companies (4 of them German) said they had a mainly local supplier network (IS-6, AS-4, GBS-3, GBS-5, GTS-1, GTS-4). Most of this local supply concerned hardware components of our companies' products. For our software firms, what is much more important are exchanges of information and knowledge concerning market trends or technological developments – exchanges they are more likely to have with other firms in the ITC industry.

As we have implied, the network of local suppliers is not necessarily less important for software companies than for those in the engineering industry. It should not be imagined, incidentally, that software firms are necessarily less locally-rooted than engineering firms. The image of a new economy spanning the globe does not necessarily correspond to reality. Some software products are in fact heavily linked to specific national contexts (for example, a firm supplying software to banks is liable to be tied down to a mainly national market by the specificity of the way in which banks are organised in a particular nation; software for accounting may be limited in its international applicability by the peculiarities of national legislation on tax, etc., as well as by language). Vice versa many highly specialised engineering products inevitably seek an international market.

These relationships with suppliers obviously do not normally help firms to internationalise, but they constitute rootedness in the territory, making it less likely that the firm will consider de-localising production to a low-cost country. Even though interviewees tend to take it for granted that they have reliable suppliers locally (and/or nationally) and even though few have mainly local supply networks, we believe that the existence of reliable suppliers may constitute a factor keeping firms tied to a specific network – especially in the case of those which produce for highly specialised niche markets.

5.6 Ties to a Major Customer

Relationships with one or more large firms in the local area (analysed more in detail in the chapter 4) are those which are most directly linked to internationalisation of our SMEs. It is in fact connections made via large firms which gave most of the firms (38 out of 64) we interviewed the chance to go abroad. In some cases this was a “guided” form of reasons in which SMEs were following up a large firm (this pattern was especially clear in firms in the auto industry: IM-1, IM-3, IM-5); in others, the large firm – which appreciated the quality of a valued supplier – offered opportunities in a much less constraining way (and this pattern was especially diffused in the software industry). In addition to these patterns where much of the initiative came from the large firm, however, were many cases where our firms used the networks of the larger firm to construct an international trajectory without any specific impetus from its big customer.

In fact, throughout the research, and in all the nations and regions studied, the importance of ties with major customers – usually “global players” – emerged with clarity. This is worth discussing in the context of regional embeddedness in the sense that it is the fact that the large firm is *local* which has permitted the depth and constancy of the relationship, and (in some cases) involvement in relations with other firms and local institutions connected to the large firm. The SMEs interviewed tended to be tied to the large firm in so far as it constituted an obvious source of orders, and the SMEs had built themselves up anticipating the large firm as a customer.

This influence of large firms took varying forms however. The relationship differed considerably, for example, in terms of the dependence of the SME interviewed on the large firm. At one extreme, Fiat suppliers in Turin were given little choice but to go to South America: if they wished to remain Fiat suppliers, it was made more or less clear, they would have to take the risk. In most other cases, the large firm provided an opportunity but exercised little direct constraint. A Dutch company making pipe work for ships (NM-2) went abroad to Romania because the large industrial group which is its main customer bought a shipyard in Romania. Here the large company seems to have been less explicit than Fiat; nonetheless, the smaller company may have wished to avoid a new low-cost competitor stepping into the field, and felt somehow obliged to cover the demand of the large firm, wherever it went.

In other cases still, it is the international organisational network of a large firm which leads an SME abroad. A firm which works for Siemens, Lucent Technologies, Philips, etc. (many firms of our sample in Germany and the Netherlands), contributing a small part to a final product, or providing high value specialised services, is likely to find itself providing after-sales assistance to customers in many parts of the world. From there it is a short step to setting up a small office for sales and after-sales assistance.

In some cases, it is the contacts formed by actually working within a large firm which form the basis for reasons. An engineer or manager who goes abroad during the course of her/his career may make highly useful contacts as well as forming a precise idea of the opportunities available. A significant number of entrepreneurs and managers in all the countries studied attained their initial international experience in this way (for example, IS-2, IS-5, GBS-1, GBM-1).

Internationalisation may well help an SME to break away from initial reliance on the company which formed its dominant customer in its early years. Even those SMEs which are effectively forced to internationalise may end up benefiting from the process of course. Some of the companies in the Fiat supply network in Turin have obtained new contacts with other major car manufacturers in their South American plants, thus lessening their dependence on Fiat.

It is not surprising that it should be relationships with customers which are so crucial. After all, most of the firms studied produce for other firms – in many cases, only a limited number of firms – rather than for the general public. SMEs' networks are, therefore, to a large extent networks of other firms.

Even though large firms are not usually thought of as embedded, the geographical location of their bases – especially headquarters and bases with large numbers of staff able to make decisions regarding suppliers, consultants, etc. – may have a great influence in various ways on the fund of local opportunities available for small firms to internationalise. If we imagined a map of the location of SMEs, it may be that we would find localised clusters sited around large firms. As we have emphasised, this is not just a question of suppliers accompanying the large firm in its moves abroad. It is also a question of the accumulation of a series of contacts, knowledge, orientation to areas of development being established within a local industrial system. Local SMEs can draw upon this stock of awareness of opportunities, services, contacts in their autonomous projects for reasons.

5.7 The Pool of Local Knowledge and Expertise

One area where local resources were particularly crucial was that of the pool of local knowledge and expertise. In many, perhaps most, cases this enabled firms to operate efficiently in their local areas, providing them with resources to expand abroad, but at the same time making sure that they were tied to the local territory and not tempted to move production abroad.

Ties to a local workforce were often important. The workforces of the two industries covered by the research – software and mechanical engineering – were naturally very different. In the latter case, graduates were often a rarity (usually only the top management), but skilled workers and their tacit knowledge often provided an essential resource. In Thuringia, for example, skilled workers – perhaps personally known as good workers from their previous experience in a pre-1989 *Kombinat* – were clearly an important local resource (GMT-3, GMT-4). In France an entrepreneur who has set up a factory producing steel plates (FM-6) in a rural area where he himself has deep roots is no doubt using his detailed knowledge of the capacities and trustworthiness of people he has known for a long time, and with whom he has multiplex ties. Tacit skills and the ability to work effectively as a team may be crucial assets in this not-very-technologically-sophisticated kind of production.

In the case of the software firms, and also those engineering firms producing a hi-tech product, the majority of the workforce was naturally very different, being highly qualified, with a degree, or at least a specialist school qualification. The kinds of skill and knowledge in play are therefore different. Tacit skills continue to be important but ex-

licit skills are still more so. The founders of the firm were normally all graduates. In many cases the founders had got to know each other at their course at university: this was the most common source of acquaintanceship between co-founders, apart from contacts made by working alongside each other in a previous firm. The founding group then would often maintain some contacts with the university of origin—contacts with individual teachers and researchers. These might provide useful knowledge of recent advances in research and possible solutions, so they certainly constituted a valuable resource in an unsystematic sort of way as consultants one could ring up from time to time.

More systematic co-operation on the development of particular products was more episodic and often felt to be frustrating, since it was claimed that the interests of the firm and the academics were too different. More than one firm felt like the Austrian engineering firm (AM-3) which claimed that the university “had learnt more than they had” as a result of their co-operation efforts. Nonetheless, to the extent that our SMEs did take part in research networks (e.g. European programmes) or in sustained product development going beyond customisation and minor modifications, it tended to take place via a network which was locally rooted, and dated back to old ties with teachers, fellow-students, etc. That is to say, firms were able to take part in a programme which might involve several research centres at the national level and/or in several different countries precisely because they had long-standing and personal ties with a local university or research institute (FS-3, FS-8, IS-2, GBS-1, AM-2, NS-4 among the others).

Table 5.3: Relationships with universities and research centres by region

Country	Number of Companies
France	5
Netherlands	4
Italy	5
Germany/ Bavaria	8
Germany/ Thuringia	2
Austria	3
Total	27

Table 5.4: Relations with Universities and research centres by industry

Sector	Number of Companies
Mechanical	12
Software	15
Total	27

Independently of what they provided in terms of research and technical support, universities, polytechnics, *Fachhochschule* were crucial sources of recruitment both for engineers and software engineers. Arrangements here took a variety of forms. One French software firm (FS-2) was headed by a former university teacher, and this person maintained strong ties with the university. So his firm drew on the university for trainees, providing work experience for students, who might then be taken on as em-

ployees. The CEO of one Dutch firm (NS-4) was on the board of the local polytechnic, and the firm had several internships at the college. In one or two cases, involvement with a university might take the form of actively encouraging the development of software studies: one German firm (GBS-2) interviewed was one of several companies (including the large firms Lucent and Ericsson) which was involved in planning a new course in telecommunications science. One can imagine that this course in the future might serve as a base for recruits in the future.

More in general, it was common for a firm to have a traditional tie with one university, polytechnic or *Fachhochschule*. In many cases this was the institution which the founders of the firm themselves had attended, and where they had maintained links. Some firms encouraged links by offering topics for bachelor and master's theses, in order to attract good students into the firm. But the very fact of establishing a flow of recruitment with one particular institution no doubt established the firm as a possible employer in the eyes of students graduating and looking for work.

In this way, links to a particular engineering school, information science course, etc. provide a pool where trust, reputation, ability to work in a team, and other virtues associated with embeddedness may be established. This is probably a resource which is not lightly abandoned and represents one very major form of regional embeddedness.

Of course in some contexts, links with universities and spontaneous supply of qualified software engineers may not be enough. French and German software firms complained about their difficulties in recruitment (in Thuringia the situation was worsened of course by qualified people leaving the region for the west). In these circumstances, firms might try other avenues of recruitment. Thus firms in both Franconia and Thuringia drew on regional sources such as public institutions for re-training unemployed academics in software, and (in Nuremberg) an alliance for vocational training in ITC industries.

In spite of all these sources, some firms still suffer from shortages. It is interesting to consider one solution to these: four German firms interviewed had used the new "Green cards" to ask for contracts for software experts from abroad – mostly central and eastern Europe. It is interesting that these firms should have preferred this solution, which they saw as simpler and less risky than delocalisation.

All in all, therefore, the human resources of the software firms seemed fairly concentrated in the local region. Some firms even claimed that outsourcing was "unthinkable in current conditions" (the words of one Italian manager) due to the non-standardised nature of their operations. Nonetheless, some software firms in our national samples had outsourced part their work abroad. It should be noted first of all that in all cases, this was the least specialised and skilled work, and the core work was kept in-house. However, a number of firms had hired the services of software experts in India, Jordan, eastern Europe and elsewhere. Perhaps the most elaborate of these initiatives was that organised by a Piedmontese firm (IS-4) which was founded by three men, one of whom was Jordanian. Under the initiative of this man the firm set up a new small company in Jordan, run by the partner's brother. This company, although formally independent, works exclusively for the Italian company which set it up.

It is worth remembering in this context that delocalisation of production is far from a simple matter, even where skills in the lower-cost country are at a high level. A company (IS-7) producing software for textile machinery talked about the need for an intimate knowledge of the machinery and the production context. This kind of knowledge

of the technological and social context in which software will be used is often to a significant degree tacit knowledge, which is not easy to transmit. Many SMEs in software production, in addition, produce products for specific national users who may have specific needs: for example, a firm producing software for a bank or for accounting (IS-6, FS-6) may need to know something about national accounting practices, legislation, etc.

Another form of local expertise which sometimes discourages delocalisation is that linked to knowledge of industrial processes, commercial practice, etc. Detailed knowledge of the applications to which IT programmes will be put is in fact indispensable for a high-quality and reliable product. This fund of what is often highly implicit knowledge constitutes a significant brake on transfer of production abroad. Such knowledge may be simply knowledge of how, e.g. a bank is organised physically and managerially, legally in a country. A highly competent software engineer in Bangalore may not have this implicit cultural knowledge, and this may lead to major problems. In addition, feedback from customers – and in the case of engineering, also from suppliers – may be crucial in maintaining quality. But this means that the firm's workers have to work in close and constant contact with the final user – which often means locally.

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6 Toward a Capital-Oriented Growth Model? Institutional Changes in Europe and its Implications for SMEs' Strategic Behaviour

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6.1 Introduction

Globalisation, deregulation, and the integration of markets increase the competitive pressure on national systems in Europe, one aspect of which is the question of corporate governance and financing. In continental Europe, stakeholder oriented systems are gravitating towards the Anglo-Saxon, shareholder oriented system rising the role of capital markets for industrial financing and the power of shareholders. By definition, these changes mainly have consequences for large multinational companies (MNCs), but small and medium-sized enterprises (SMEs) are affected as well, since their scope of action is altered considerably.

While the financing of continental European SMEs relied on retained earnings and bank credits until very recently, with the (de-)regulations of the financing systems new actors enter the stage. These new options for corporate financing imply a concept of control, growth and entrepreneurship different to the traditional family business in European industrial sectors. Software companies appear privileged here in a double sense: On the one hand, they benefited most from the tech-stock boom from 1993 to 2000 pushing them to the forefront of the movement. On the other hand, as a young and innovative industry they enjoy a public image that sharply contrasts with the constitution and culture of a family business.

The following chapter analyses to what extent and how the macro-level changes affect small and medium sized software companies, and to what extent this makes them differ from the mechanical engineering companies of our sample. We will show that the changing attitude and institutions for SMEs' financing in continental Europe is reflected in the legal and ownership structure and strategic behaviour of firms, moving them away from what we call the owner-oriented growth model that is usually associated with family business. In spite of the backlash after the tech-stock crash of spring 2000, this process does not seem likely to be reversed. At the same time, however, our micro-level analysis also reveals internal hurdles and constraints to adopt this new way of growth. Thus, the capital-oriented growth model is far from being *the model* of the software sector.

The chapter outlines first what makes us speak of an owner-oriented growth model in spite of important institutional differences in each country (section 6.2). To highlight the differences we will contrast this model with the ideal type of a capital-oriented growth model for SMEs (section 6.3). Based on this analytical framework we will examine the legal structure (section 6.4) and ownership identity in our sample (section 6.5). We will try to explain our findings by referring to the strategic behaviour (section 6.6) and international activities of the SMEs studied in the two sectors (section 6.7). The chapter ends with a brief conclusion (section 6.8).

6.2 The Owner-Oriented Growth Model

In the broader discussion of corporate governance⁹ within the social sciences a distinction is made between relation-based and insider systems such as those prevailing in continental Europe and Japan, and market-based systems such as those dominant in the U.S. and Great Britain (OECD, 1998a; Matthes, 2000). Beyond this common feature, huge differences exist in individual nations. For example, typical for France has been the interlocking share ownership among groups of financial and non-financial companies, while powerful families, inter-firm coalitions and the practice of 'pyramiding' or grouping companies characterise the system in Italy (OECD, 1998a: 18). Until 1993 Italian banks were not allowed to hold equity in companies (Bianchi et al., 1997). Italian banks had mostly been state-owned, they also were heavily regulated, which limited effectiveness (Carpenter and Rondi, 2000: 368) Thus, companies often relied on family and inter-group sources for long-lasting industrial financing instead (Bianchi et al., 1997; OECD, 1998a). In Germany and Austria the sector of bank financed industrial investments is traditionally well-developed where the house-bank system is based on commercial banks, co-operatives and savings banks in the region which are specialised on SMEs.¹⁰ Yet, even between Germany and Austria major differences exist. While in Germany inter-company share ownership is an important feature of the corporate governance system of large firms in which commercial banks play a leading role, such networks hardly exist in Austria (OECD, 1998a: 18; Gugler et al., 1997).

In spite of institutional and cultural differences, each of the countries studied has a significant proportion of SMEs in the industrial sector¹¹, which have important features in common. These features we have stylised to what we call an owner-controlled growth model.

⁹ Schmidt defines the term "corporate governance" as follows (taking into consideration its influence on decision-making): "Corporate governance is the totality of the institutional and organizational mechanisms, and the corresponding decision-making, intervention and control rights, which serve to resolve conflicts of interest between the various groups which have a stake in a firm and which, either in isolation or in their interaction, determine how important decisions are taken in a firm, and ultimately also determine which decisions are taken" (Schmidt, 1997).

¹⁰ However, even in the German case scholars dispute how strong the influence of banks actually is, as retained earnings play a major role even for German SMEs, being a mode of finance which allows them to keep control over their business (cf. Hellwig, 2000).

¹¹ See e.g. European Corporate Network, 1997: Preliminary Report: The Separation of Ownership and Control: A Survey of 7 European Countries, Vol.3. Thurow, for example, argued that the continental European systems have excellent industrial small and medium sized companies which do not grow to large firms but remain small (Thurow, 1996).

Table 6.1: Owner-oriented growth model for SMEs

Dimensions	Owner-oriented growth model
Financing of investments	Retained earnings, family sources, bank loans
Ownership and corporate control	Major owner and executive director are the same person; unshared corporate control by the family; independence is given high priority. There is little readiness to give up equity and corporate control even for growth
Management style	Personalised and informal, centred on the person of the owner
Market strategy	Moving/staying in protected niches with moderate growth prospects
Concept of entrepreneurship	Firm is considered as life-long professional and social <i>Existenz</i> (secure living) of the owner and the family (often including the next generation)

Ownership in SMEs is traditionally highly concentrated. Often one can find a sole owner or a major owner and a companion who are running the business personally. A few managing owners (and their family) exert unshared corporate control. Investments are financed by retained earnings, bank loans or family sources (here institutional differences of the countries, in fact, matter). A consequence of the identity of owner and executive director (CEO) is often a highly personalised and informal style that was often seen as source for competitive advantages of small firms as it makes them much more flexible than large ones.

Company owners who control and run their business personally give a high priority to independence (see e.g. Weber, 1997: 239; OECD, 1998b: 9). The fear of losing corporate control is an important impediment to co-operative internationalisation strategies. It also has major impacts on growth. Many owners even tend to prefer keeping the enterprise under their unshared control to growth options if it implies risks of dilution of autonomy and equity. Though this attitude does not exclude growth, it erects clear limits. The idea of 'organic' growth, i.e. moderate growth controlled by the individual owner is widespread.

The mode of financing and the mode of corporate control correspond to a market strategy which looks for focused niches with competitive advantages in quality, service and innovativeness (Porter, 1990). The moderate growth option of niche strategies protects SMEs from the competition of larger companies. At the same time it does also allow a firm to be successful without challenging the desire for autonomy and unshared corporate control by the owner.

There is also a common notion of creating and running an enterprise as a life-long project to which the owner is linked professionally and socially, and which may be given to the next generation afterwards. In German there is a term for this concept of entrepreneurship which does not exist in English: founders do not just set up an enterprise for business, they build up an *Existenz* for themselves ("a secure living"), they are *Existenzgründer*. The enterprise is less a business than a property.

6.3 Rise of the Capital-Oriented Growth Model

Since the mid-1990s, a new growth model for SMEs has pushed ahead across the countries, though at varying speeds. Banks set up venture capital companies, and foreign institutional investors gain importance. The implementation of the new transparency directions of the EU Commission on behalf of shareholders lead to a broad discussion on a new corporate governance codex in each country (besides Austria). Among the “big three” France has been frontrunner in this respect. In Paris (1996), Frankfurt (1997), Milan (1999), and Amsterdam (1996) new stock markets were established for high-tech, high growth potential smaller firms, focusing primarily on the IT sector – at least until the end of 2000.¹² In 2000 Europe’s first integrated stock exchange (*Euro.nm*) was established by a merger of stock markets from Paris, Amsterdam and Brussels¹³. To ease capitalisation of small companies, the German stock corporations law was reformed in 1994 and the so called “small stock corporation” (*kleine Aktiengesellschaft*) was introduced. The reform lowered the bureaucratic hurdles for founding an *AG*, and freed *AGs* with less than 500 employees from the demanding German co-determination law (Weitnauer, 2001: 35). The Italian government privatised the stock exchange, and gave financial incentives in 1995 and 1996 by which “a relatively large number of medium sized companies was listed” (Bianchi et al., 1997: 33).

With respect to the smaller countries of our sample, Austria is lagging behind this development, since political endeavours in this direction are less decisive.¹⁴ In the Netherlands the process of strengthening the capital market and establishing sufficient transparency rules began much earlier. While the *Euro.NM* Amsterdam was the smallest in the net of the European New Market in 1999/2000 also bypassed by Italy in 2000 (O’Sullivan, 2001: 27), the Netherlands is a leader with respect to the proportion of new investment (of all investment companies in a country) capital to GDP, followed by France and Germany.¹⁵

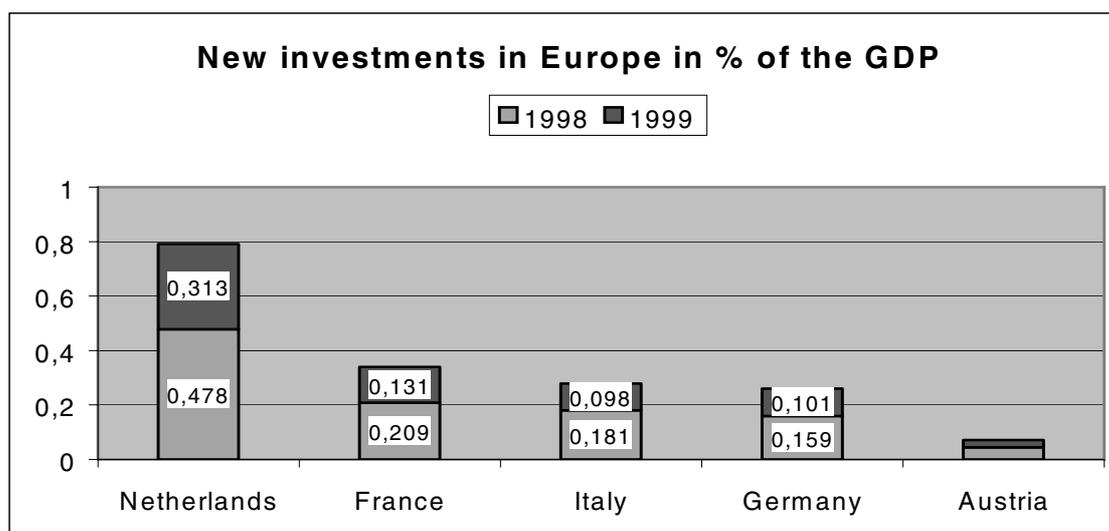
¹² Until 2000, the German *Neuer Markt* had been the most rapidly growing market, pursued by the France’s *Nouveau Marché* and the Italian *Nuovo Mercato*. At the end of 2000 the most heavily represented industries on *Neuer Markt* were internet (69 firms), software (53), media and entertainment (43), and IT services (38). On the *Nouveau Marché* software (22 firms) and IT services (21) have been the two most important sources of listings (O’Sullivan, 2001: 27-28).

¹³ Before the merger, Amsterdam had its own New Market, called NMAX. At this moment only six companies are listed on the *Euro,nm* in Amsterdam.

¹⁴ See Gugler et al., 1997, and the Report on the Situation of SMEs in Trade and Industry 1998/1999 of the *Bundesministerium für wirtschaftliche Angelegenheiten Österreichs*.

¹⁵ The years 1998 and 1999 compared, already reveal a decline in new investments in each of the studied countries. Taken into consideration other variables, as for example the total venture capital invested in a certain country, the figures are similar (cf. KfW, 2001: 18).

Figure 6.1: New investments in Europe in percent of the GDP



The growth of new sources for financing SMEs also implies a different approach to ownership and corporate control, market strategies, and even to management style and the concept of entrepreneurship. Basically the capital-oriented growth model rests on trading off corporate control and equity for investments in order to achieve fast growth. Fast growth can only be based on market strategies targeting a broader range of customers and industries, i.e. choosing a wider product differentiation rather than niche strategies as a way of gaining competitive advantage (see table 6.2).

This “deal” does not only lead to more dispersed ownership but also requires formal arrangements for regular monitoring and reporting to third parties. Though the efficiency of shareholder control might be disputed, the shift raises issues of transparency which are almost absent in traditional SMEs. Reporting and monitoring also increase the formalisation of managerial processes, which conflicts with the highly personalised and informal management style of traditional SMEs. With the involvement of external capital along with a more risky growth strategy, owners cannot conceive the firm as a life-long *Existenz* as easily as they can in the owner-oriented growth model. The founder of the firm has even to be aware that he can fail as manager, and face the possibility that investors may press him to retire from management positions, whereas traditionally management failures of the owner very often meant failure of the firm as well. The high risks also alter the terms of the question of who should be the successor (in a family business this is supposed to be the next generation). In the capital-oriented model we find a concept of entrepreneurship that stresses the company as a business, and entrepreneurship as beginning of something new. In sum, the capital-oriented growth model implies attitudes and decisions that deeply contradict the cultural implications of the traditional growth model of SMEs.

Table 6.2: Capital-oriented growth model for SMEs

Dimensions	Capital-oriented growth model
Financing of investments	Retained earnings and capital market
Ownership and corporate control	Ownership is more dispersed and opened to external financial investors (mainly institutional and anonymous investors); independence is not a value per se. Willingness to share control if growth is an option
Management style	Managerial processes are formalised as there are mandatory procedures of reporting to and monitoring by shareholders
Market strategy	Seeking for specialisation in general that allows long-standing growth prospects
Concept of entrepreneurship	Entrepreneurship means doing business. If the entrepreneur fails, he/she sets up a new business

In the next section, we will inquire to what extent the companies studied come close to the two growth models and to whether these two models distinguish the two industrial sectors we chose.

6.4 Legal Status of the Companies Studied

The legal status of the companies studied is equally split between the two most common forms of limited liability companies in each country, the public and private limited liability company. As table 6.3 shows, the country differences are more important than sector differences here.

The high percentage of stock corporations in the software sector as well as in the mechanical engineering sector in France (81.1%) and Italy (69.2%) compared to Germany (44.4%), Austria (25%) and the Netherlands does reflect different legal traditions. In both countries the public limited liability company is the most important legal form for large companies as well as medium size enterprises.¹⁶ Conversely, for German, Austrian and Dutch small and medium sized companies the public limited company has been rare. Dutch SMEs in our sample are usually private limited companies, *besloten vennootschap (BV)*, which was introduced in 1971. Shares cannot be publicly traded but they can sold to outsiders such as institutional investors or VCs.¹⁷

¹⁶ In France 56% of small firms and 83% of medium-sized firms are public limited companies – *sociétés anonymes (SA)*; while 31% of the small and 10% of the medium companies are *sociétés à responsabilité limitée (SARL)* (Duchéneaut, 1995). In Italy too the *società per azioni (SA)* represents the most important type of limited liability companies. Bianchi et al. (1997: 4-5) refer this to the fact that the minimum capital required is quite low, but also to preferences of the Italian banks for giving more credit to firms with SA status; in addition, the tighter regulation by law provides private parties with more certainty about their rights and duties.

¹⁷ In the Netherlands public limited companies, *naamloze vennootschappen (NV)*, accounted for just 2042 firms in 1995, and these were, on average, the largest firms in the country. With the legal reform

Table 6.3: Legal status (n=64)

Countries	Total	Number of stock corporations	In software sector	In mechanical engineering sector	Number of private limited liability companies	In software sector	In mechanical engineering sector
France	16	13	5	8	3	3	--
Italy	13	9	5	4	4	2	2
Germany	18	8	7	1	10	2	8
Austria	8	2	1	1	6	3	3
Netherlands	9	0	--	--	9	4	5
Total	64	32	18	14	32	14	18

Germany is the only country where the growing importance of the legal form of a stock corporation as such indicates that the SMEs are willing to move toward market-based financing of growth which was, in fact, intended by the stock corporation reform of 1994. This does not necessarily imply listings on stock markets because it can also refer to issuing shares for investment companies/ venture capital and other types of investors from outside the firm. The strong link between *AG* status and orientation toward the capital market also explains the remarkable differences between the two German sectors. While just one of our mechanical engineering companies in Germany has become an *AG*; seven of the nine software companies are *AGs*. All software *AGs* studied, along with the only mechanical engineering firm which was an *AG*, converted to stock corporations after the mid 1990s, mostly around 1999/2000. Seven firms converted in order to be ready for venture capital participations if growth expectations demand this, four also envisioned going public, one targeted a strategic investor, and two wanted to attract a wider range of individual investors with family&friends stocks.

6.5 Identity of the Owners in the Two Sectors

More important than the legal status is the ownership structure. In the first step we inquired to what extent the companies in our samples are family businesses in a strict sense. We assumed that there will be significant differences between the two sectors. An enterprise was assessed as a family firm if at least two of the following criteria are fulfilled: a) the CEO is 'second generation'; b) 50% or more of the shares are in the hands of the family; c) the CEO is member of the family and, next to this CEO, there are other family members working in the firm who have a considerable impact on the (performance of) the firm.¹⁸ Table 6.4 confirms our hypothesis: About half of the mechanical engineering firms are family businesses in this sense, while in the software

in 1971 the *NVs* were first obliged by law to publish their annual accounts. 90% of the approximately 50.000 companies with *NV* status at that time converted to *BV* status (Jong et al., 1997: 2-7).

¹⁸ Many surveys identify family-owned firms with firms owned by individuals – assuming that families are behind those firms. Yet this is not necessarily the case.

sector this relates only to about 15% of the firms. Our data show no difference between the various regions.

Table 6.4: Family business in the two sectors (n=64)

Sector	Family businesses		Total
	Yes	No	
Mechanical engineering	17 53.1%	15 46.9%	32 100%
Software production	5 15.6%	27 84.4%	32 100%
Total	22 34.4%	42 65.6%	64 100%

At first glance, the small number of family businesses in the software sector (mostly older firms which have developed out of other industries) can be traced back to the age of firms. The average year of foundation of the mechanical engineering firms studied is 1959 (median), the average year of foundation of software firms is 1990 (median). This implies that if the software companies grew older the number of family businesses would increase. Yet the differences in concentration of ownership and in the identity of the owners question this kind of automatism.

In the second step we analysed the ownership concentration in our sample as the most decisive indicator to what kind of growth model companies might incline. To compare the SMEs in the two sectors with respect to ownership concentration, four categories were created: As a first group we counted all firms with 100% ownership of one to three owners. This usually implies one major owner who runs the business as CEO (and of close family members), and one or two companions with minor shares. They together often constitute the board of managers. A second category consists of firms in which at least half of shares (50% to 99%) are in the hands of the CEOs or founders and a few close family members. The rest of the shares may be split among employees, individual investors, other companies or even investment companies. From this we distinguish insider majorities¹⁹, i.e. firms in which less than 50% of the shares are concentrated on CEOs or founders but together with other stakes from senior managers, employees and their families they hold at least 50%. Finally, we grouped firms together in which the shares of the insiders do not add to more than 49% but no other

¹⁹ We use the term 'insider' differently from the corporate governance literature. We just mean staff members (and family), i.e. stakeholders who do not exert any kind of control from the outside of the company.

single non-financial company holds more than 25% of the stocks and interferes in the business.²⁰

²⁰ See the definition for SMEs of the EU Commission.

Table 6.5: Ownership concentration (n=62)*

Sectors	100% CEO/ Founder Ownership	50-99% CEO/ Foun- der owner- ship	Insider Majorities	Insider Minorities	Total
ME	20	9	--	2	31
SW	11	11	5	4	31
Total	31	20	5	6	62

* One companies in each sector did not provide sufficient information to classify them.

As table 6.5 shows, in the overwhelming majority of our cases across the two sectors, the corporate control of the SME is in the hands of a few people, who usually own and run the business at the same time. 20 mechanical engineering and 11 software companies have a highly concentrated ownership. Though most of the family business in our sample can be found in column 1 of table 6.5, also companies without family background are inclined to a concept of unshared corporate control. In these cases one could, in fact, assume that the absence of a family business is just a question of age (of the company or the owner).

Table 6.5 also reveals, however, that our software companies have more dispersed ownership than do those in mechanical engineering. There are more participating senior managers involved and there is also a relatively high percentage of stakeholders among the employees – almost absent in the mechanical engineering sector. The more extended participation of staff members can be traced back to two reasons: First, many software firms started their business as a project of friends and fellows, who get some shares even when two or three major founders dominate; the sole founder is relatively rare. Second, many software firms have developed stock option plans for their employees as a new method of remuneration. Eleven of the 32 software firms issued some shares to at least parts of the staff, two other companies planned to install stock option plans, another two (French) software companies are co-operatives; while only three mechanical engineering companies used these incentives.²¹ By this structure of a more dispersed insider ownership the studied software companies substantially deviate from a traditional family business.

In the third step we asked to what extent participations of external investors, especially of investment companies and by listings on stock market, took place in our sample. Here we found that in spite of the high insider ownership, the software companies studied are clearly opening toward the capital market. One third of the software companies have either participations of private investment companies (9), are listed on the stock markets (New Markets) (1) or both (2), whereas this was true of only three mechanical engineering companies (two of whom had investment companies involved, while one was listed). The participation ranged from majority participations to minor

²¹ The concepts behind these offers are quite different, however. Some software firms have issued stocks only for the first generation of staff members. Others grant stock options only for parent firm staff, or pursue seniority principles. Most of the companies grant below 5% of the stocks; in one French company however the staff shareholding accounts to as much as 37%.

shares below 10%.²² In addition, two Dutch software companies had participations of a *public* investment company established by the regional developmental agency *NOM* to support software companies. Thus, we counted them to the category public financial investors comprising all kinds of shareholding by public institutions (in the whole sample we have four companies with public participations) in contrast to private investments

The companies which have sold shares to private investment companies or have gone public are distributed among the countries as follows:

Table 6.6: Companies with participations of one or more investment companies and/or listed at stock market according to countries and sectors (more than one response possible) (n=62)*

Countries	Number of companies with investment company participation	In software sector	In mechanical engineering sector	Number of companies that are (also) listed	In software sector	In mechanical engineering sector
France	6	3	3	1	1	--
Italy	2	2	--	2	2	--
Germany	4	4	--	--	--	--
Austria	2	2	--	--	--	--
Netherlands	--	--	-	--	--	--
Total	14	11	3	3	3	--

* Two companies did not provide sufficient information to classify them.

In sum, the majority of software entrepreneurs in our sample are quite cautious about keeping corporate control. Yet by doing this, they rely less on family background than on insider majorities – though there, too, small groups of shareholders dominate. At the same time, a process of opening up toward capital market financing is underway. This process started in the mid 1990s and has developed a dynamic of its own. The end of the tech-stock boom in 2000 clearly slowed down the listings on stock markets. Before that six further software companies in Germany and Austria intended to go public but they postponed their decision after the tech-stock crash and were uncertain when and how to resume their course. However, the process of opening up toward investment companies and other external investors is far from being stopped. Instead of going public, companies raised shares of investment companies to finance further growth. At the time of interviews, several firms had already obtained, or intended, a second or third round of capital raising. Two other software companies were thinking about tak-

²² Furthermore, four software companies and two mechanical engineering companies sold shares to non-financial companies (strategic investors). Individual investors beyond family are playing a minor role. One software company has extensively used family&friends stock to raise capital, two mechanical engineering companies have sold shares to a “third party” owned by a set of the firm’s business partners.

ing in investment companies for the first time, while a few also took greater involvement of strategic investors into consideration.

6.6 Market Strategy and the Concept of Entrepreneurship

Companies which issue shares to raise capital do it for growth. In the boom time of high technology stocks the software industry was often equated with high growth prospects – a view which ignored the extreme heterogeneity of this sector. In this section we will inquire in more detail who the software companies with capital-market orientation are. First, we will confirm that there is a kind of strategic fit between the way of financing and the market strategy though the financing does not determine the market strategy. Second we see that the movement toward the new growth model is not just the business of start-ups or seed-ups as the literature on the tech-stock boom suggests. Most of our software companies with capital market participation (CMP) are “mature” in so far as they turned to raise capital after, or in connection with, their move toward the business of software products (which usually takes time). Third, asking about new concepts of entrepreneurship, we learn that there is no general “modern” attitude of software entrepreneurs as such. Rather we find a change that companies run through if they start to deal corporate control for capital-based fast growth.

Looking at the market strategies, we have to note again remarkable differences between the software companies and the mechanical engineering companies. Software companies are clustered higher on the two poles of differentiation strategies outlined by Porter (1990).²³ 13 software companies have become highly specialised in focus niches with a narrow range of customers looking for differentiation from competitors by quality, service, innovativeness, etc., while another 15 companies moved to a differentiation strategy in general targeting a larger range of customers. Cost strategies play a minor role (see table 6.7). In the mechanical engineering sector the strategies are more dispersed with a clear preference for high-quality differentiation niches.

Companies with capital market participation (CMP) are less committed to focus niches with moderate growth options. Just three of the eleven software companies with CMP (27.3%) belong to the narrow specialised niche players. Six companies (54%) are searching their fortune with differentiation in general, the rest are looking for advantages with cost strategies, one of them has failed with this strategy and tried to move to a differentiation strategy in general.

In contrast, software niche players demonstrate little interest in external financing. They can be found especially in software segments close to manufacturing industries as mechanical engineering, automobile industry, production of electronic components,

²³ Focus strategy or niche strategy is targeting a particular buyer group, segment of the product line, or geographic market. It focuses on a specific niche in the market place and develops its competitive advantage by offering products and service especially made for that niche and excluding others. The focus can be on cost advantages as well as on advantages in quality, service, technology, and innovativeness, i.e. via differentiation (differentiation niche). Differentiation strategies in general and cost strategies in general seek a broader range of customers and customers across industries (Porter, 1990: 39).

etc. A successful Thuringian entrepreneur whose company produces high-tech testing systems for the electronic industry put it as follows:

Table 6.7: Market strategies according to the two sectors (n=64)

Sector	Market strategies				Total
	Differentiation niche	Cost niche	Differentiation strategy in general	Cost strategy in general	
ME	15 46.9%	5 15.6%	6 18.8%	6 18.8%	32 100%
SW	13 40.6%	3 9.4%	15 46.9%	1 3.1%	32 100%
Total	28 43.8%	8 12.5%	21 32.8%	7 10.9%	64 100%

“We are constantly being wooed by banks, who, as lead manager (*Konsortialführer*), would like to launch us into the stock market. But being of sound mind, I have to ask myself, ‘What would I do with all that money?’ This is question number one. I would have no idea where to invest that money, and now, the stock market, or rather ‘new investors,’ are overwhelming me with their millions of (German) Marks. What am I to do? This doesn’t automatically broaden my market” (GTS-3; February 2001).

But he also left little doubt that he was not ready to take this step because of his concept of entrepreneurship:

“When I go to the market, I am selling the company which I actually built, in order to own it, to establish a secure living (in German he said *Existenz*).”

Almost all the companies (except one) in our sample with capital market participation (CMP) have moved into software product market segments. The high costs of market penetration and the high speed of innovation in the sector have driven them to look out for opportunities for raising external capital. The majority of these companies have developed standardised or semi-standardised products²⁴ specialised in enterprise solutions like ERP, personal and time management, front-office/back-office solutions, B2B, software for e-commerce of companies, and the financial sector. We have only one firm in our sample producing software for the mass consumer market.²⁵ In contrast, just ten of the 21 companies without CMP started to develop their own products.

Only three of the companies with capital-market participation are start-ups or seed-ups financing their take off and growth through the capital market without retained earn-

²⁴ Semi-standardised products are based on tool sets of standardised “components” that will be combined to a tailor-made product. But even standardised products very often need tailor-made applications and system integrations and cannot be sold in warehouses.

²⁵ The absence of producers of software programs for consumers is less random than it might appear. As analysed, for example, for Germany in detail, the strength of the industrial base in the country and the situation as latecomers on the software market drives companies to look for comparative advantages in enterprise solutions (Fraunhofer, 2000).

ings to invest (AS-3, GBS-1, GTS-2). All three were founded at the end of the 1990s combining internet business as well as software product development. They were already founded with venture capital and grew rapidly at home and abroad without making much profit in the early stage. Two of them got into deep water after the devaluation of tech stocks on the markets.

The reasons why the start-up type pushing the new growth model from scratch is rare in our sample is first of all randomly: being a start-up was not one of our criteria for selection. On the contrary, as we were looking for companies with higher commitment to international activities, the companies are older, i.e. they were founded before the institutional changes at the macro level went into effect. Yet we should also note that the development of one's own products which was identified as a major reason for raising capital does indicate a different approach to external financing: Here we are not dealing with knock-on financing with little more than an innovative idea but with people who have already been in the business for a while. On their way through assembling, service or software application, they have gathered management as well as market experience, and most of the firm reached that stage of software development with conventional methods of financing (retained earnings, banks or state subsidies for R&D).

In spite of the strategic fit between financing and market strategy, and the fact that software companies with product development feel the urgency for raising external capital most, there is no determinism. We also have high professional niche players with CMP in the sample as well as companies with products but without CMP. Here in fact, personal attitudes matter. For example, one Italian company bought the shares back that it had sold to an international investment company because the financial investor was thought to put on too much influence on the firm's strategy. In another company the major shareholder and CEO hesitated to raise external capital because he did not want to give up control. His companion attributes the failure of their new software standard program on the market to this reluctance and not to the product.

Do the companies that opened up to capital markets have a different concept of entrepreneurship? First of all there is no general perception of this kind. Many of our interview partners expressed similar understanding as the Thuringian CEO just mentioned put it. However, if companies have opened up to capital markets, the concept of company as *Existenz* is losing its importance. Another German entrepreneur with CMP points to the conflicts that may be involved as he stated:

“Nobody shares this attitude with me on the board of directors, I dare say. Maybe I am thinking ... more like an entrepreneur... I have been doing this job for the past twelve years now. It was fun and I want to continue doing it, but if you strive to go ahead or wish to be successful, you have to start taking a new path, someday” (GBS-2).

For four software companies we found out that founders of the companies were forced to retire from management positions and leave the firm (keeping their shares). They were replaced by professional management. The reason was mostly management failures by not meeting the demands of a fast growing company.

Taken together, promoters of the new growth model in our sample are companies who grew out of hardware assembling, services or tailor-made applications mostly based on retained earnings. The switch to capital market occurred in the second half of the 1990s based on the institutional changes outlined above but also heavily motivated by the process of “maturing” of the small European software sector toward software

products. The high investment demands and high speed of the innovative cycle in the software product market opened the companies for capital markets – an opening that implies a change in company’s culture.

6.7 Style of Decision Making and Strategic Planning

Analysing the two growth models we assumed that a high concentration of ownership in the hands of a few managing owners and their family implies an informal, heavily personalised management style, while with the opening up toward capital market agents formalisation and professionalisation will grow. In the following section we have operationalised this hypothesis in two dimensions – style of decision making and strategic planning. Here we can, in fact, identify striking differences between the two sectors and the companies with capital market participation (CMP) and without CMP.

If we look at the influence of the sector differences with respect to strategic behaviour a correlation occurs between ownership structure and decision-making. For table 6.8 we asked who is usually involved in decision making in your company. While almost two thirds of the mechanical engineering companies responded that the owners/CEOs (sometimes including close family members) act as sole strategic decision makers, less than 20% of the management of the software companies indicated the same.

All software companies except one with CMP belong either to the second and third column on table 6.8. Yet this concentration in these two columns does not explain the differences between the two sectors sufficiently. This finding also indicates that the more dispersed ownership structure of our software companies is what is most responsible for the important differences from the mechanical engineering companies.

Table 6.8: Style of decision making in the two sectors (n=64)

Sector	Decision making			Total
	CEO/family	Senior managers	Other staff	
ME	19 59.4%	11 34.4%	2 6.3%	32 100%
SW	6 18.8%	17 53.1%	9 28.1%	32 100%
Total	25 39.1%	28 43.8%	11 17.2%	64 100%

If we take the sample as a whole (combining software and engineering), and compare the companies with CMP and without CMP, we also find that important differences emerge: Companies without CMP have a more centralised and personalized style of decision making (see table 6.9).

Table 6.9: Decision making in firms with capital market participation (CMP) and without (n=64)

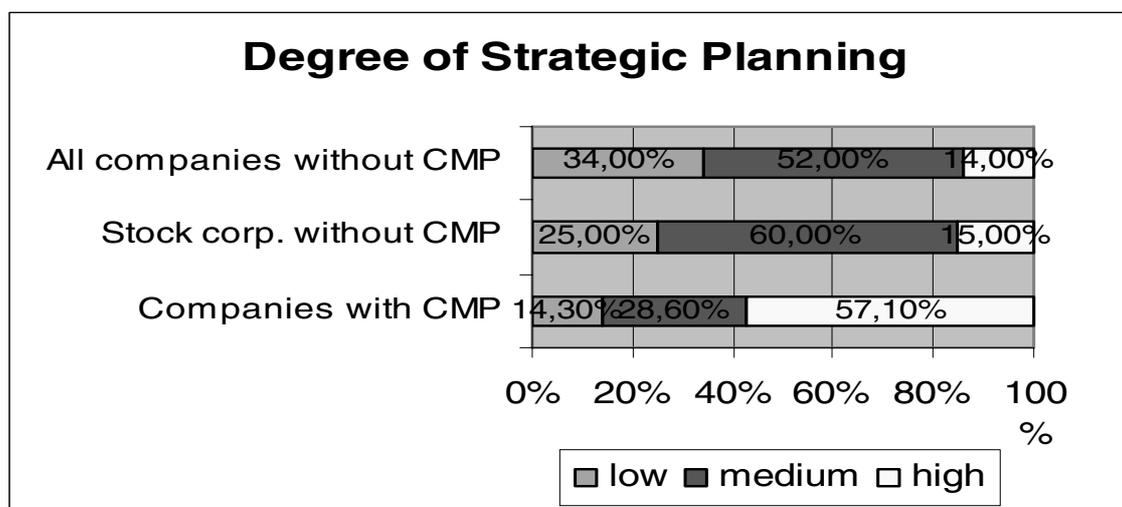
Companies	Decision making			Total
	CEO/family	Senior managers	Other staff	
With CMP	2 14.3%	9 64.3%	3 21.4%	14 100%
Without CMP	23 46%	19 38%	8 16%	50 100%
Total	25 %	28 %	11 %	64 100%

Most entrepreneurs in our sample who decided for participations of investment companies reported no direct influence of the shareholders on business strategies. Only a few investment companies offered systematic consulting in business strategies. And even the control through the supervisory boards are handled quite differently by different firms. For example, following German law, the venture capital companies of a software firm we studied appointed a fund manager to its supervisory board. However, when this manager left the venture capital company he was not replaced by the investor. After a while, the two founders appointed a new person of their own choice. The company now has a supervisory board with a business consultant, an expert for marketing specialised in high-tech companies and an expert of the industry for which the firm provides enterprise solutions. Investment companies often only become proactive in a situation of stagnating or declining turnovers.

However the differences with respect to the efficiency of monitoring does not imply that CMP exerts no influence on the strategic behaviour of the companies at all. On the contrary, if we compare the strategic planning of the SMEs studied, a general difference emerges between companies with CMP and those without.²⁶ While almost 60% of the companies with CMP ranked high in their strategic planning capabilities, only 15% of the stock corporations without CMP and 14% of all other companies without CMP reached that level. We also asked whether the legal form of a stock corporation in itself raises the level of strategic planning. The result is only slightly better than the average (see figure 6.2).

²⁶ Strategic planning is measured by the researchers. We define *strategic planning* as *high* when firms develop three or five year plans in addition to an annual business plan, and we got the impression that those long-term plans are a strong guideline for the daily work of the management; when market entry and expansion is based on the use of experts, market analysis, and other kinds of formalized information), and the gathering of information occurs systematically. Shifts in strategy are based on systematic analysis of the data. We call the degree of *strategic planning* “*medium*” when firms deal with annual business plans, and a three or five year planning, but the more long-term planning is less underlined by an elaborated program of how to reach the goals step by step. There is less use of elaborated and formalized method, consulting, and analysis. Strategic shifts are more ad hoc, and by chance than by systematic analysis of data. The degree of *strategic planning* is *low* when important strategic decisions and shifts come more from entrepreneurial intuition, and informal, ad-hoc information gathering (for example from customers) than from the company’s own endeavours in strategic planning and systematic analysis. Three or four years plans may exist, but do not really guide the daily work of the management.

Figure 6.2: Degree of strategic planning



As table 6.10 shows sector differences are less important here. The strategic planning of all 32 software companies (including the 11 software companies with CMP) is not much higher than of the mechanical engineering firms.

Table 6.10: Strategic planning in the two sectors (n=64)

Sector	Strategic planning			Total
	Low	medium	High	
ME	11 34.4%	14 43.8%	7 21.9%	32 100%
SW	8 25%	16 50%	8 25%	32 100%
Total	19 29.7%	30 46.9%	15 23.4%	64 100%

To examine this finding further, we next investigated whether company size provides an explanation of the significant differences between companies with CMP and without. Larger companies are in general more bureaucratic, have a greater staff of professional management, and are perceived as acting more strategically in general. Yet, a closer look at the number of employees revealed no relevant relations between size and capital market participation (table 6.11).

Table 6.11: Type of company and number of employees (in home country) (n=64)

Companies	Employment at home			Total
	<50	51-100	>101	
Without CMP	17 34%	13 26%	20 40%	50 100%
Stock corp. without CMP	5 26.3%	5 26.3%	9 47.4%	19 100%
With CMP	3 21.4%	4 28.6%	7 50%	14 100%

The finding indicates that the reporting to and monitoring of capital market agents is the most efficient method to raise professionalism in management of SMEs and to establish a long-term planning process within SMEs. This might not be caused by a highly efficient supervising of business but just by implementing new management routines and procedures. While a more decentralised, less personalised style of decision making does not necessarily imply a higher degree of professionalism, the degree of strategic planning indicates quite well a more formalised and structured management style. The foundation of a stock corporation as such does not raise the strategic planning much. One explanation may be that many companies do not care sufficiently about professional monitoring in their supervisory boards.

6.8 Impacts on Internationalisation Activities

Most companies in our sample financed their international activities from retained earnings. A few, mainly German and Austrian, companies said that they had also used bank credits for the purpose (table 6.12). In the Austrian case ERP credits and public subsidies for export also played a significant, but not the most important role. Less than the half of the 14 companies with CMP use these funds for internationalisation activities.

The mixed picture in terms of direct financing of internationalisation which emerges for companies with CMP indicates two things. First, besides internationalisation, innovation of new products is a second major reason for raising capital. Second, our sample contains companies at quite different stages in terms of development and financing. While some companies have raised capital very recently and for the first time, others have been on this way for a couple of years and already much more committed to international activities. Besides these differences, the qualitative analysis confirmed as a general tendency that capital market participation pushes internationalisation ahead. As a German CEO put it:

Table 6.12: Major financial source for internationalisation by country (n=64)

Country	Financing of internationalisation					Total
	Retained earnings	bank loan	private/ public investment comp.	stock market	Other	
Germany	9	5	3	--	1	18
France	13	1	--	1	1	16
Italy	10	1	--	2	--	13
Netherlands	8	--	1	--	--	9
Austria	5	1	2	--	--	8
Total	45	8	6	3	2	64

“If one is searching for venture capital, there is no time to build up for the front door as the company has to become a profit making enterprise in the near future. The only chance to achieve this goal is a broad approach. That means, we went to the German speaking markets, but we also launched our activities internationally at the same time. [...] It is obvious that one only gets credit if there is a prospect of giving a return on investment in a given time. And that means one has to go to the world market” (GBS-2).

However, we cannot confirm that the companies with CMP started with internationalisation much earlier than all the others. In our sample most of the software companies took a while before they started with international engagement. The same is true for software companies with CMP which have developed from some other line of production towards software. So in general it is not the date of birth of a firm (as for example Coviello and Munro (1997) assumed) but the move towards a product which is the starting point for internationalisation. The move from hardware assembler or service/application company toward a company producing their own software product took – at least in the early stage of the 1980s and 1990s – three to six years before the companies began to think about internationalisation seriously. The matter changes once the companies have developed their own software products. For many software products there is not even a clear borderline between home and foreign markets, i.e. companies consider market penetration as cross-border project.

Starting internationalisation from scratch was the case only in the three start-ups with venture capital already mentioned in the previous section. These three companies started, in fact, right after foundation and were financed by venture capital to internationalise their business, i.e. to erect subsidiaries abroad. In two cases the result was a dramatic growth in employment at home and abroad in less than one year. For example, an Austrian start-up for B2B-solutions and internet portals (AS-3) was founded in 1999, and one year later the company was employing 35 people at home, and about 100 abroad, while the turnover reached just three million Euro. Meanwhile it even shifted its Headquarters out of Austria. The plan of the venture capital company to list the company in the fall of 2000 was postponed.

However, these firms could also cut back their engagement as quick as they launched it as another example shows. A German counterpart (GBS-1) of AS-3 – a company for e-commerce software for the financial sector – was also established in 1998 with venture

capital. At the end of 1999, the company started setting up subsidiaries in Canada, Spain, Italy, and Rumania. At the end of 2000 the staff increased to 170 employees at home and 60 abroad, while turnover was 14 million Euro. Yet, three of the four subsidiaries only lived on German orders. After the devaluation of tech stocks in 2000, and the subsequent decline of German home market orders, the subsidiaries proved they were not ready to penetrate the guest market sufficiently. As the listing was planned for 2002, the venture capital company forced the management into a harsh rationalisation process in which except for the subsidiary in Rumania the foreign subsidiaries were all shut down at the end of 2001. The company switched from FDI to a strategy of non-equity international strategic alliances.²⁷

What we can say, however, is that companies with CMP do try to grow international more aggressively than other software companies. Evidence for this comes from whether the firms act offensively or rather defensively in their international proceedings. An internationalisation strategy is defensive if the firm's activities are mainly a response to a challenge or threat. An offensive strategy implies an active seeking of opportunities which can be offered by chances or by strategic behaviour of the firm. As table 6.13 shows, almost all companies with CMP pursued an offensive strategy. The two shifts from offensive to defensive were caused by the crisis due to the end of the tech-stock boom.

Table 6.13: Type of company and type of strategy (n=64)

Companies	Type of strategies				Total
	Defensive	Offensive	From defensive to offensive	From offensive to defensive	
With CMP	--	12 85.7	--	2 14.3%	14 100%
Without CMP	15 23.4%	30 65.6%	3 4.7%	2 4%	50 100%

Again sector differences play a role, confirming that our software companies in general are more inclined to offensive strategies (see table 6.14).

²⁷ The third company failed to take off due to management failures of the founder (who was replaced but the company had not yet recovered at the time of interview).

Table 6.14: Type of strategy in the two sectors (n=64)

Sector	Type of strategies				Total
	Defensive	Offensive	From defensive to offensive	From offensive to defensive	
ME	11 34.4%	18 56.3%	2 6.3%	1 3%	32 100%
SW	4 12.5%	24 75.0%	1 3.1%	3 9.4%	32 100%
Total	15 23.4%	42 65.6%	3 4.7%	4 6.3%	64 100%

Our analysis also confirms the assumption that raising external capital leads to a preference for foreign direct investment (FDI) rather than non-equity strategic alliances. Companies with CMP decided more often on FDI as a way of entering foreign markets than did companies without CMP. This does not imply they refrain from the use of alliances or supportive networks at all. Yet they often started in an early stage of internationalisation with FDI – not because they followed a big client abroad but because FDI is the fastest way to raise the degree of internationalisation. 64.3% of the companies with CMP have established subsidiaries²⁸ abroad, while only 46% of the companies without CMP did so as table 6.15 shows.

Table 6.15: Type of companies and foreign direct investment (n=64)*

Companies	Yes	No	Total
Companies with CMP	9 64.3%	5 35.7%	14 100%
Stock Corp. without CMP	10 50%	10 50%	20 100%
Companies without CMP	23 46%	27 54%	50 100%
Total	32 50%	32 50%	64 100%

* The table does not contain sales offices or representations which employ one person at best and bring relatively few costs. What are counted are larger subsidiaries for sales, often combined with service, service stations, production, equity-based joint ventures, and majority and minority participations.

Most of the firms chose green field investments; just one larger French company (FS-3) realised the strategy of acquisition, in order to overcome the hurdles of entering the U.S.-market, which for all software companies were huge. This French company was founded in 1985 and set up its first sales office in the U.S. in 1991 that failed as in many other cases (see Chapter 3). Yet, different to the others and based on an early

²⁸ Excluded are one-man sales offices.

decisive capital market participation (venture capital and stock market), the company had the funds to take a big step forward: it bought an American software firm with compatible products. At the end of 2000 the company grew to about 170 employees abroad and 80 in France. Along with the Austrian firm mentioned above, this company has the most internationalised board of directors and supervisory board. Besides, this is one of the companies in which one of the two founders retired from his management position and left the company due to pressure from the other shareholders.

In sum, opening up for capital markets does have remarkable influence on SMEs internationalisation by pushing them in this direction. We cannot confirm, however, that companies with CMP are in general very early beginners of internationalisation as they, too, need a certain time span between firms' birth, product development and start of internationalisation. This time span can amount to five or six years depending how early in the 1990s and 1980s the company was founded. Once opened to capital markets, the firms turn toward internationalisation quickly and decisively, backed by strategic planning capabilities which are above average. With respect to international activities we could show a clear preference for FDI as the fastest way to get internationalised. This does not necessarily imply that the firms with CMP are less embedded in supportive networks which they use as resources for their own active internationalisation strategy. But it gives a clear indication of their preferences with respect to the mode of entering foreign markets.

6.9 Conclusion

This chapter provides an analysis of our sample focusing on to what extent and how institutional changes at the macro level in the 1990s influenced structure, concept and behaviour of firms on the micro level, and investigated how much the software companies in our sample differ from the mechanical engineering companies in this respect. We argued that these institutional changes do not just open up new opportunities for financing for continental European SMEs. They also imply major shifts toward a new capital-oriented growth model which has a marked tendency to alter the concept of control and growth, the style of management and market strategy, and even the concept of entrepreneurship. We have seen that in all countries – in spite of different stages in institutional change – software companies move away from the owner-oriented growth model which is often combined with family business to the capital-oriented growth model. Yet the micro-level inquiry of individual companies also provided a differentiated picture:

First, although family business in a strict sense does play only a minor role in the software companies, ownership concentration is very high. Often a few founders dominate the business. Relying more on insider majorities than on sole ownership, this establishes a different situation for decision making. This may reflect a transition stage in some companies, in others however it clearly indicates that the model of owner-oriented control is still alive even among the software companies.

Second, the software sector is much more heterogeneous (a fact which was reflected in the tech-stock boom). Our sample consists of a significant number of companies which are little attracted to capital market financing or even other forms of external invest-

ment. These firms are mostly niche players close to the manufacturing industry which see moderate growth as the most suitable approach for their business.

Third, while public attention has focused almost undividedly on the start-ups and seed-ups fed with venture capital to grow, we have identified a typical group of software companies opening up for capital markets that has more to do with the maturing process of the European software industry toward product development (as late comers in this industry) – a typology which has obtained less attention so far. These companies had usually developed without external investment based often even on scant resources first. They approached the new growth model rather cautiously and were less driven by modish attitudes than by the demands of the software product markets. If we believe Andreas Kochhäuser, CEO of the leading British venture capital company 3i Germany, then this group may obtain in the future even more attention from the financial investors. He wrote: “For us the IT world is still of interest [...] However, we have shifted the major focus a bit away from knock-on financing of start-ups. We are not looking for solitary puzzle freaks (*einzelgängerischen Tüftlern*) but for companies and partners with professional structures. Precisely for this reason, the *Mittelstand* is of increasing interest to us” (Tagesspiegel 12.3.2002: B15).

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7 Organisational Learning in SMEs – Feedback Effects of Growing International Commitment

Michèle Dupré

7.1 Introduction

In internationalisation theory, organisational learning is the most important feedback effect of internationalisation of SMEs in the step-wise trajectory from low to progressively more committed activities abroad (e.g. Johanson and Vahlne, 1977).²⁹ However, analyses of what really happens when SMEs move activities abroad are rare. Organisational learning from internationalisation therefore often seems to be a black box rather than a fully-developed concept. The focus has been mainly on gathering experience in managing international activities; but this is in reality only one aspect of the question, albeit an important one. Literature on internationalisation tends to reduce the analyses of learning processes to individual and managerial learning in particular, while organisational changes remain outside the picture. Some authors, in contrast, consider internationalisation as a process in which SMEs just become “big companies in miniature” (Torres, 1999: 100). Here the focus on feedback effects does turn to organisational aspects, but internationalisation appears only as the external agent which pushes SMEs toward another category of firm. Moreover, it tends to ignore the peculiarity of the way SMEs deal with internationalisation.

In this chapter we take a broader perspective on organisational changes and learning, as far as this can be traced to the internationalisation of SMEs – something which is often not easy due to the multiple influences companies have to deal with. After a brief definition of how we define feedback effects (part 7.2.), we focus on three major aspects of organisational change and learning: impacts of growing international commitment on a company’s employment (part 7.3.), processes of professionalisation and formalisation (part 7.4.), and adjustment in strategies (part 7.5.). The chapter ends with a short conclusion (7.6.).

7.2 Definition

In organisational theory feedback effects are closely linked to the interaction of an organisation with its environment. Adaptation and organisational learning are the most important categories in which organisational change is reflected. While adaptation mostly refers to reaction to new threats and challenges coming from the environment, organisational learning points to a reflexive response in terms of organisational change and strategy. Typical reactions to external threats or challenges include, for example, the shift of employment abroad - a reaction which has been widely discussed with respect to internationalisation. Organisational learning in contrast describes what March

²⁹ See more about this concept and critics in chapter 3 of this report.

calls an “experiential learning cycle”, which includes individual learning through experience and organisational change: “The basic idea of experiential learning is that rules are modified on the basis of direct experience. Social systems create, suspend, and refine their rules in response to their own experience. In that way, rules capture the past” (March, 1994: 80). However it is not only rules which get created, suspended, and refined, but also organisational structures. As we will see in the following sections, the increase in skills, and changes in the rules and structures of SMEs are the most important feedbacks as active responses to growing international commitment. Direct employment effects, in contrast, are much harder to identify.

7.3 Employment Adaptation

Discussion of the pros and cons of the employment effects of internationalisation has mostly focused on large multinational companies (MNCs). SMEs on the other hand have often been perceived as guarantees that employment in the home country will grow. The increasing commitment of SMEs to international activities, however, raises new concerns about whether this is still true. Yet, little empirical research on this issue has been done so far. The few studies dealing with internationalisation on the level of employment and organisational change mostly look at the impacts of the investments in the host countries - but not in the small and medium sized parent companies themselves (Fujita, 1998).

Considering possible adaptive effects on home country employment of internationalising SMEs three scenarios are possible:

Scenario 1: The employment level increases in the home country because of dynamic development of the firm at home and abroad. Market expansion abroad could lead to increasing production at home, or to increasing intra-company exchange in cases where production sites abroad exist. Home country employment may also benefit from this latter type of exchange.

Scenario 2: The number of employees decrease in the home country via production shifts abroad (de-localisation), mainly to low-cost-countries.

Scenario 3: The number of employees only increases abroad while it stagnates at home because of re-localisation effects of *future* production and because new orders come mainly from other world regions and has to be satisfied there. Another possibility is growth abroad by mergers and acquisitions. In any case, the employment at home is not affected in a short-term perspective, but new jobs are established abroad rather than at home and lead to stagnation of employment at home.

What are our findings with respect to the three scenarios? First, we have to note that no company in our sample registered a decrease in employment due to internationalisation in the 1990s. The few reductions we found were mainly caused by other factors like decline in orders and failures in market penetration which forced, for example, some software companies to reduce their personnel as turnover grew much less than had been expected (see especially GBS-1 and GTS-2). Most of our companies fit either Scenario 1 (above all the software companies) and Scenario 3 (more often observed in mechanical engineering companies).

One indicator for employment development is how the companies assess their growth perspectives. In the next three to five years, 38 of the companies in our sample (59.4%) believe they will grow in terms of both turnover and employment. 20 companies (31.2%) see further growth perspectives mainly in turnover and want to keep their employment stable. Six companies (9.4%) see little growth perspectives in either turnover or employment. These latter companies are highly uncertain about the future perspectives of their market segments and/or have gone into a period of consolidation after a period of growth.

As the software sector is a young industry, it is not astonishing that the software companies studied tend to grow more both in terms of employment and turnover than the mechanical engineering companies (see table 7.1). Moreover, a closer analysis of the responses to growth perspectives show that mechanical engineering companies often envision only slight employment increase at home or expect stagnation at home, while they plan to grow abroad. In contrast, most of the software companies envisage growth also in the home country.

Table 7.1: Growth perspectives according to the sectors (n=64)

	Growth in terms of turnover and employment for the next 3 to 5 years	Only in turnover	No growth options	Total
ME	16 (50.7%)	12 (37.5%)	4 (11.8%)	32 (100%)
SW	22 (68.8%)	8 (25%)	2 (6.2%)	32 (100%)
Total	38 (59.4%)	20 (31.2%)	6 (9.4%)	64 (100%)

In the literature the question of employment is strongly linked to production shifts for cost-cutting reasons. As already noted elsewhere, market expansion is the major motive for internationalising activities of the companies studied across all our five countries. This is the case for non-equity ISA but also for all kinds of foreign direct investments (FDI) of which the major form in our sample are wholly-owned subsidiaries. Our sample accounted for 72 foreign subsidiaries of 32 companies³⁰ of which 54 (75%) pursued sales motives, and just 12.8% were established for cost motives (the rest are other motives). Of the 21 foreign participations 11 (52.3%) participations were set up for sales motives, and just one for cost motives. Considering all equity-based joint ventures (JV) in our sample: of the 12 JVs, eight were set up to increase sales in foreign markets, while just two JVs were mainly established to reduce costs. Even then cost motives are often intertwined with market motives, sometimes right at the beginning, sometimes in an evolutionary process.

For example, FM-8, founded in 1947, had been strongly export-oriented since the early 1980s. Its first step beyond export occurred in 1992 as they decided for a JV with a Taiwanese company for producing scissors in China. The major goal for erecting the JV was off-shore production with low-cost wages making it possible to re-export to Europe. The joint venture failed as FM-8 also decided to produce for the Chinese mar-

³⁰ We excluded one-man sales offices which represent little foreign direct investment.

ket – a strategic shift to which the partner did not agree. FM-8 also bought the shares of its former partner and established a wholly-owned subsidiary conducted by the CEO of the former JV, who had studied in France. This also caused rapid growth in China (from 150 employees to 1000 in 2000). FM-8 is one of the four companies in which employment abroad exceeds employment at home. But all key functions remained centred in France.³¹ The employment growth in France mainly occurred in high-skilled areas. As about 20 new products were designed for the Chinese markets by the parent company, new staff members were hired in the R&D, in the marketing and in the sales departments. In 1997, the company decided to build a new dynamic warehouse in France to concentrate sales and logistics in one place. In this context, the management also established new high skill jobs in France – such as one for a special engineer for packaging systems in the R&D department.

Another example is GBM-4. This company grew in the 1990s from 120 (plus 40 employees abroad) to 240 employees at home and about 100 employees abroad in 2000. GMB-4 is one of the companies that mainly followed big clients abroad but once there it started to conquer the local markets. The most important subsidiary is in Turkey, an assembly plant founded in 1984, first as a German-Turkish joint venture, later as a wholly-owned subsidiary. 10% to 15% of the subsidiary's turnover stems from re-export to Germany, while most of the turnover is made by local production for the regional Middle East market. As the big clients need construction and application locally, there is also a small engineering department today. Following big clients led to an increase in inter-firm trade and caused growth also at home, as just described. However, the more value is added abroad rather than at home the more the parent company expects growth in employment only abroad. This does not imply decline at home but rather a continuation of the dramatic change in the qualification structure of the parent company in favour of highly qualified, non-production operations.

In the software companies of our sample off-shore production is even rarer than in the mechanical engineering companies, and if they have established off-shore production - as for example GBS-1, GBS-3 and NS-2 - this often did not work very well, due to lack of profitability and to communication problems. While GBS-1 and GBS-3 see in their off-shore production also a foothold in newly emerging markets, NS-2 tried just off-shore production, without any market options. The company owned by a man of Indian origin set up off-shore software production in Bangalore (it was the only company which set up a subsidiary in India's Silicon Valley). Big European clients of NS-2 welcomed the outsourcing for lower production prices. The division of labour was as follows: NS-2 acquired projects in the Netherlands, undertook the analysis and design of the product (based on extensive communication with the clients) and developed the instructions on the basis of which the Indian software specialists developed the product. However, after four years the Dutch company gave up the subsidiary (which became an independent spin-off) because it had not become profitable and because the cultural differences could not be bridged. Today the company produces *all* of its software with 58 employees plus temporary workers at two locations domestically.

A more successful case of collaboration appears to be the off-shore software production of AS-3 in Jordan, which is - with its 30 employees – the company's second largest

³¹ Two software companies (AS-3 and FS-3), and two mechanical engineering companies (AM-4 and FM-8) have more employees abroad than at home.

location, after the original company in Austria (35 employees), and the only one which is for off-shore production and which is not located where it is for reasons of being close to customers. The subsidiary was set up as off-shore software development, but there were also big hopes in the market in the long-run. As already mentioned, AS-3 is the only case in our sample where the headquarters were also moved out of the country of the company's origin. With 140 employees in Europe and Jordan, AS-3 can be called a truly transnational company. The other transnational SME in our sample is the French frontrunner in terms of internationalisation, FS-3; but this company established its high percentage of employment abroad by acquisition of another company in the U.S., while continuing to grow in France.

7.4 Individual and Organisational Learning

While employment effects are often difficult to identify, most companies in our sample showed learning processes as response to internationalisation efforts. These responses occur mainly in two ways: as individual learning (raising of skills) or organisational change by an increase of differentiation, professionalisation and formalisation of the organisation. When companies shift activities abroad, they have to deal with a set of questions. New dimensions of action have to be taken into account: legal rules and regulations they are not familiar with, different technical norms used in the different countries, regular communication with foreigners, etc. To meet the new challenges SMEs often rely on external support but they often demand an increase in skills, further professionalisation in key operations such as marketing or logistics, and a deepening of the division of organisational labour. In the qualitative analysis of our sample it is clear that those changes did not occur while preparing for the internationalisation process, as a kind of precondition. They are rather outcomes of “experiential learning” (March) occurring during the internationalisation process, and as such they can be perceived as feedback effects. In the following section, we will give first a short description of how the companies in our sample cope with the demands for new skills created by international activities - especially language skills (7.4.1). In the next step, we will outline major organisational changes that can be directly linked to internationalisation (7.4.2).

7.4.1 The Raising of Skill

Language skills are one of the most crucial skills needed for internationalisation which beginners in internationalisation usually have problems with. The literature regularly points out the fact that above all training of existing staff is crucial to increase the level of skills. But off-the-job training causes extra costs. Thus many CEOs first prefer to invest in regions where the language barriers are lower or non-existent, because the targeted country is culturally close or linked to the home country of the company. The CEO of GBS-4, for example, stressed “that Switzerland and Austria had been his first thoughts anyway because of the common language.”

Another strategy to overcome language barriers quickly is to recruit personnel for managing positions abroad (via the labour market or via personal networks) who speak the language of the investing company. Thus the CEO of the German company's subsidiary (GBM-5) located in the Czech Republic speaks fluent German, while the CEO of the Brazilian plant which is a joint venture of three French companies (FM-4), speaks French. In addition, recruitment of local managers and staff helps to overcome cultural distance. It is therefore significant that this strategy is also quite common for subsidiaries being set up in China. However, cultural distance has little to do with the distance in kilometres: for some German companies such as GBS-2 France was so different that they felt the need of a translator, and hired "a son of a German diplomatic staff member who grew up in Paris" because of "the importance of his language skills and knowledge of the French culture".

For improving the language skills of their employees 20 companies in our sample invested in special training of already employed personnel off-the-job. There are big differences between the companies in this regard. History plays a crucial role here. French companies in particular feel the necessity to do something in this regard as France – due to its dominant political and economic role in the past – has not sufficiently emphasised the need for language training. East German companies, especially those of the mechanical sector, complain much more about the lack of language skills than western SMEs which developed this competencies a long time ago. The lack of international exchange that pushed people to learn foreign languages before the fall of the Berlin wall is still an obstacle for East German companies.

Language training mainly focuses on English (even though some companies, like NM-5, learnt that speaking English for approaching the French market can be an hindrance.) Just one company in our sample, the Italian company IS-7, provided training programs in languages other than English, namely Portuguese and Spanish, in order to achieve better collaboration with their foreign partners – even in spite of the fact that they can already rely on understanding via a "lingua franca" (Poche, 1996).

To what extent the SMEs provide language training to staff members is an indicator of how the companies organise internationalisation internally. While in most of the 20 companies training is only offered to the managers and a few specialists who are in charge of international activities, in some companies the learning of new skills is a demand for almost all the employees of the company (IM-5, AS-1, GBM-1, GBS-5, FS-2, FS-7). For example, the German Company GBM-1 offered language courses in English to all employees. To increase the number of persons taking advantage of this chance, the company covers the whole costs for the courses during working time.

Another outstanding example of training is the offer to whole departments. One example is a highly internationalised German mechanical engineering company (GBM-5) in which the "despatch department got language lessons recently because of the high export rates that involve more contacts to international transportation companies".

The involvement of a broader range of employees in the internationalisation process could be intensified by the use of ICT.³² Some researchers underline the ambivalence

³² In our sample, the mechanical and the software sector can be clearly differentiated according to the use of ICT: while in the mechanical sector, ICT was seen as important for technology (8 firms), for management and administration (17), for commerce (13), it was noticed as important by a wider range of firms in the software sector, respectively: 23, 26, 26.

of this: “This common cognitive model can be an asset reducing the distances between the different cognitive sources but also a risk of the meaning’s standardisation and the loss of non ‘digitisable’ cultural differences” (Gadrey, 2000: 80).

7.4.2 Differentiation, Professionalisation, and Formalisation

SMEs are often compared with large companies in terms of competitiveness and innovativeness. The flexibility needed to adapt to a rapidly changing and volatile economy is often seen as SMEs’ “innate qualities that were superior to large companies” (Sengenberger, 1990). Some authors also point to typical organisational features of SMEs as “flatter management structure (or even the absence of echelons in very small companies) and the frequent identity of owners and managers” (Fujita, 1998: 37). While in large companies a well established separation of different departments for different operations exists, in many SMEs different management functions are often unified in the hand of the owner who is the managing director in one person. The flexibility of SMEs leads to more efficiency and makes the company able to overcome the lack of resources. The internationalisation process relies on such qualities, but flexibility also presents a good precondition for experiential learning due to internationalisation.

Increasing international commitment leads to important organisational changes in the SMEs we studied. 27 companies explicitly mentioned internal organisational changes as a consequence of internationalisation. These changes can be qualified as growing professionalisation of the management due to internationalisation processes and an increase in differentiation or organisational specialisation, which also includes a shift from a highly informal management style to a more formalised one. Several processes can be observed here:

First, at the beginning of internationalisation in most cases the owners and managing directors were the only persons involved in this process. They exploited their networks, travelled around to contact potential markets and partners, etc. However, when international activities grows to higher risk commitment, the CEO started to delegate responsibility by establishing new operations and departments linked to internationalisation - which usually did not exist before they started to internationalise. First of all an international market and sales department and/or, in some cases, an international sales company, was usually set up. But there are also other new tasks organised in a specialised structure - like logistics.

Second, the construction of new operations and departments leads to an increase in management positions within the company. These are usually filled by external recruitment of personnel with suitable qualifications. Thus we also speak of a professionalisation effect of internationalisation. As consequence the CEO and owner may loose his role as major decision maker and *the* “inspiring person” of the enterprise (NM-3).

Third, in companies with high international commitment differentiation also raises new organisational questions of interdepartmental cooperation which did not exist before when the specialisation of management was less developed. A common consequence is greater formalisation of managerial processes. A few companies had already reached a stage of internationalisation in which they were beginning to think of re-

inventing flexibility via new organisational concepts. With those concepts they were reacting to the limits of differentiation, professionalisation and formalisation which they feared would lead them to lose their flexibility. In that way they, in fact, they are starting to behave like large companies.

A good example for both raising formalisation and searching for new organisational solutions is FS-2. FS-2 is a software company producing business solutions for corporate libraries, information departments and other departments involved in the document knowledge share. Founded in 1990 by four persons, the company is leader on the French market today with 180 employees at home, 250 abroad. Internationalisation started relatively late - only in 1997 - targeting Germany, Spain and North America as markets.³³ In order to be quick on these markets, the company bought up other enterprises. "The goal wasn't to buy new products, but a location, a competitor with a good local market positioning" (CEO). For example, the German company taken over by the French enterprise had 60 customers among the German 100 largest companies. The same strategy has been followed in France for acquiring systems or services missing in the company. The integration of those new subsidiaries has led to a clear push towards formalisation of managerial processes. As sales and marketing remained centralised in France, FS-2 established highly formalised procedures of control and interaction with their subsidiaries giving the parent transparency on the business of its units at home and abroad. Yet as interdependence between the units is also increasing, the organisation is getting more and more complex. In reaction to this, FS-2 decided to implement a new organisation, which was still in progress at the time of interviews. This new organisation will rely on horizontal exchange of information through formal or informal meetings in order to increase the involvement of all employees.

Another example for organisational modernisation pushed by internationalisation is the German company GBM-5 (157 employees at home and 78 abroad). Producing filter equipment, this firm has initiated a dynamic internationalisation process covering different entry modes: export, licences, creation of a production unit in the Czech Republic, creation of sales offices in China and in the USA. The reorganisation of the activities has led to a model that abandoned vertical organisation of departments in favour of a horizontal structure, envisioned as a circle in which the different departments are all contributing to the same goal, having different tasks to achieve - sometimes alone, sometimes in collaboration with other departments. This re-organisation has made it possible to improve cross-department working capacity.

In a few cases in our sample in the mechanical engineering sector with high international commitments even the character of the parent company is changing from a pure manufacturing company to an headquarters with specialised production. An example for this tendency is GBM-4. The company was founded in 1957 and produces air conditioning systems for different vehicles. It has an ambitious internationalisation strategy which leads to growth at home and abroad (180 at home and 155 abroad), following big clients all over the world as already mentioned above. It has four assembly plants (100% owned) in Turkey³⁴, in Argentina³⁵, in Indonesia³⁶, and most recently in

³³ 1,5% of the turnover was realised abroad in 1997, 8% in 1998, 15% in 1999.

³⁴ Production and construction, founded 1984, in 2000, 120 employees, more than 12 Mio. Euro turnover.

³⁵ Production, founded 1998, in 2000 20 employees, 1,5 million Euro.

China. It also has local sales offices and service stations all over the world (a few wholly owned, most of them owned jointly with legally independent partners). The company established a sales department³⁷ and a department for after-sales service and the product delivery inspection too.³⁸ Some people are also working for the coordination between the foreign partners and the sales department in Germany. While in the 1990s the production department also benefited from the growing internationalisation, this changed at the end of the decade. Only administration, R&D and departments dealing with internationalisation grew significantly in later years, so the parent changed from being a classic manufacturer into a headquarters with a small knowledge-intensive productive core: “That means we here are becoming more and more a holding responsible for sales and marketing, technique and construction, research and development, controlling of the subsidiaries and financing of the subsidiaries, etc.”

In sum, the professionalisation of managers including the employees in some cases and the formalisation of the organisation are reactions to the internationalisation process. While the small size of SMEs producing in just one country allows them to have an overlook over the whole activity because of a lean flexible structure, the managing and control of internationalisation with rising commitment and complexity introduce a new scale of action – especially when different foreign markets and regions are targeted.

7.5 Strategic Shifts by Experiential Learning

A subsequent question linked to what we, with March, call “experiential learning circles” are strategic shifts caused by experiences with internationalisation activities. The step-by-step-trajectories of internationalisation typical in our sample are partly the result of such learning curves. Consequently some aspects have already been mentioned in chapter 3 of our report, focusing on trajectories on internationalisation. Two important outcomes of our research should be noted here: First, there are upward movements from exporting to establishing a sales office, from a net of distributors to production, etc. Second, learning processes of the companies, however, are highly individual, which make best practice advice frequently difficult. The kind of individual failure experienced in the past does play a crucial role. One typical learning example was the conclusion drawn from failed partnerships with local managers – the conclusion that, in the future only expatriates should run subsidiaries. Failures in joint ventures (see also chapter 3) are one of the most common failures in our sample, and they lead mostly to the consequence to stress autonomous strategies, while failures in approaching foreign markets alone quite often provided the lesson to look for a strong partner (mostly a big customer in order to follow him).

In the following section I will focus on two narrow questions. First, to what extent there is a link between organisational development and strategic shifts (7.5.1); secondly I will try to illustrate typical failures and their role in the learning process (7.5.2.).

³⁶ Assembling, founded 1998, in 2000, 15 employees, 1 million Euro.

³⁷ An export manager with three staff members.

³⁸ 10-12 people travelling all the time.

7.5.1 Do Organisational Changes Cause Changes in Strategies?

Strategy and structure are often closely linked. Focusing on feedback we looked on organisational learning as result of internationalisation strategies. But we can also turn the question around and ask to what extent structure changes strategies. Following my line of argument above the answer is predictable: organisational differentiation, professionalisation and formalisation lead to a more systematic approach to internationalisation. This implies that internationalisation shifts from a more ad hoc approach driven by opportunity toward a systematically planned process. GBS-4 is typical for this shift: Founded in 1992, the firm started to market a software product of its own in 1994. Between 1994 and 1997 internationalisation was mainly driven by chances and was the exclusive affair of one of the founders (who is of course not a sales manager). After first steps, the founder set up the post of an international sales manager in order to systematise the approach. To this extent one can say the professionalisation of international management in SMEs is a significant element in the evolutionary trajectory of SMEs' internationalisation.

7.5.2 Learning from Failures

The internationalisation process does not always succeed, and there are some failures registered in the internationalisation histories of the companies we observed. In 14 cases, the managers interviewed spoke explicitly about failure which had occurred in the last few years. Seven of these are German companies. The failure may have different consequences: the management may conclude in retrospect that another entry mode would have been much more suitable for achieving the desired goal, but the company doesn't see the way to change the entry mode once it has been chosen. Three companies can be classed here. When failure appears, a learning effect may lead to a new orientation of strategy (6 companies). In five cases the acknowledgment of failure even led to cutting back international activities.

Locked-In to Chosen Entry Modes

An example for lock-in effects is the Italian company IM-1 which set up a subsidiary in Argentina making an "enormous investment for a company of this size", i.e. a green-field production plant with brand new metal presses to manufacture high-quality metal components. The choice of a 50% - 50% joint venture in order to maintain the independence of both companies is now seen as a disadvantage because it tends to paralyse decision-making at a time when conflicts are inevitable (due to highly adverse market conditions). At an important moment of its life where the company could be more independent from its client (see above), it would be easier to have "a clear relationship of dominance" which allows one company to impose its decisions. The lack of financial resources and the Argentinean crisis made it impossible to change the capital relations between the two partners.

The second Italian company IS-4 produces virtual mechanical prototypes. In 1997 this company set up a French subsidiary (100% owned by IS-4), with four employees. The initial French ties in the automobile industry did not develop in the way hoped. The result is the expression of regret without expectation that a new strategy could replace the first: “If we had to set up a company in France now, we would do things differently, and would willingly join a French company, which we feel would facilitate our penetration of the French market.”

The third Italian case IS-7 is already a mixed one: regret/trial and error. They have set up foreign companies in South America to provide after-sales service and information. The Italian managing director feels that local personnel have not been sufficiently proactive, and have tended to simply manage existing business. It has now been decided that an Italian manager will in the future remain head of each foreign company.

Failure as Learning Opportunity

To try to avoid to repeat a former decision is the first learning effect. The six enterprises ranged here have all tried a certain strategy, stated that they can't succeed by doing things that way and decided to change the strategy. In contrast to the former group of companies, these companies have enough resources to make the strategic shift they perceived as necessary or have invested so little in an entry mode that lock-in effects did not occur.

For example, the Dutch company NM-3 produces machines for the recycling industry. The internationalisation strategy is elaborated very seriously because the company “likes to settle the relationships with partners properly”. They like to have control over their international activities and to limit risk through all kinds of preventive measures. But among all the relationships they have established now, one failed: a joint venture with an English partner, a service engineer, caused a conflict of interests over service and turnover. The same occurred with an American partner. These two failures led the company to follow an autonomous strategy instead.

The German company GBS-4 (180 employees only at home) just mentioned produces personnel resource management programs for enterprises. Starting with internationalisation they were looking for small partners (with 2 to 5 employees) to establish an international net for sales, application and service. Small companies GBS-4 hoped would be easy to control. After “painful experiences” with the capabilities and reliability of those partners, the company shifted its search for partners to larger companies, but also established an elaborate set of measures which GBS-4 managers describe as the result of their learning curve (contracts with an easy exit-option, clear goal setting and close monitoring, regular qualification that are part of a “partner-development plan”).

The Thuringian company GTS-1 produces a “platform” integrating all software necessary for customer relationship management and sales information systems. The first steps in going abroad were made too early. The company had planned to co-operate with a U.S software-consulting house since they were looking for a “re-seller” who could “penetrate” the U.S. market in its own right. As a second step GTS-1 planned to buy a small U.S. company well established on the American market. In practice only the ISA with the American consulting house mentioned above failed. The failure to

enter the American market and the earning crises at home pushed the company to adopt a new strategy following big German customers abroad.

So we see that the trajectories of a company's internationalisation often changes as it is constructed by the different actors involved in the process. Some companies have enough resources in terms of finance or of human resources to elaborate a new internationalisation strategy. But others are obliged when they don't succeed abroad to reconsider the whole process.

7.6 Conclusion

This chapter has tried to provide an overview of different feedback effects which occur in relation to the internationalisation process. First, I have tried to show the impact on employment due to growing international commitment. Concern over the negative employment effects of internationalisation does not find support in our sample. In the sectors considered and the regions observed, no employment problem were noticed in the home country as a consequence of the internationalisation process. This is certainly a result of the fact that market expansion was the dominant motive for internationalisation in our sample, and even though some companies in our sample are searching for low cost countries in order to remain competitive, this did not imply any decrease in employment in the home country, at least for the moment.

Secondly, I have outlined important individual and organisational learning processes caused by internationalisation in terms of raising the skills of organisation members by training and recruitment and by structural changes. These learning processes do not only affect the narrow circle of top managers but also other staff members, and more in general they change the organisational design of the whole company. Thus learning within international processes cannot be reduced to individual learning of managers. On the contrary, such an account would be misleading as major internal challenges and changes are left out of view. CEOs especially, in most companies which are successful and advanced in terms of internationalisation, are well aware that successful internationalisation cannot rest on just a few people, but needs widespread commitment from their employees.

The delegation of power, the changing position of the CEO and a rise in professional management as result of organisational learning leads also to a more systematic approach in the international strategy which is important to overcome the more ad-hoc and opportunity driven strategy at the beginning of most internationalisation processes and to systematise experiential learning circles.

Another important effect which should not be forgotten, but which is hard to grasp as it concerns intangible symbolic factors, was mentioned in many of the interviews. First, as in IS-4, in several companies it was stated that successful internationalisation had raised self-confidence: "Internationalisation has helped the company to become much more self-confident." This is an important feedback effect which can evidently have an influence on the relations with other companies at home or in foreign countries. The second one concerns human resources. Various companies underlined a greater open-mindedness of employees as an important factor which then contributes to the development of the company. An example of this is the German company GBM-1 where the

CEO pointed out that the company with its internationalisation activities opens up a window to the world. "Being in contact with the world" is important and an obvious effect of internationalisation. He seemed to be convinced that his employees look beyond the church steeple of their town and are steadily becoming more open-minded.

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8 Policy Implications

Angelo Michelsons

8.1 Public Policies Directly Supporting Internationalisation

If we presume that European, national and regional institutions and agencies should be supporting local SMEs to internationalise, what policies are appropriate then? As stated in the previous chapters, for the firms studied in the present research, services explicitly oriented towards internationalisation were of relatively slight importance, in spite of the wide range of support offered by public bodies, associations and agencies helping firms to internationalise via financial aid, information services or mediation of contacts. Although many firms made some sort of contact with the services concerned (especially in their initial search for information), only eleven of our firms declared that such aid formed a real part of their internationalisation trajectory. The other firms financed their own move abroad, acted on the basis of information they had discovered through mainly non-institutional channels, and formed relationships with partners and contacts they themselves had found (rather than, for example, via trade missions organised by Chambers of Commerce or other bodies, or through joining forces with other SMEs).

With the partial exception of research and development activity (not explicitly oriented towards internationalisation), firms claimed that information services and contact mediation provided by public bodies and associations had been either of small importance or of no importance. Many firms were critical of the services offered by local Chambers of Commerce, trade associations, development agencies, Foreign Ministries trade departments of Foreign Ministries, etc. – sometimes imagining that local institutions were far less efficient and comprehensive than those available in other European countries. This was especially true in some countries, such as Italy, whereas expressed satisfaction with internationalisation services provided by Chambers in Germany, Austria and the Netherlands was much higher. These differences in satisfaction reflect national differences in the legitimacy of public institutions, but probably also real differences in efficiency.

Beyond the question of efficiencies and inefficiencies of local and national institutions, however, there appears to be a basic misfit between what is requested by firms and what public bodies and associations offer – or even could offer. Firms complain that the information they receive (regarding laws, markets, contacts with potential partners, etc.) is too general. What they really need, they say, is someone who will give them a list of all the firms in a given local area specialising in one precise product, but also knowledge of the reputation, reliability, etc. of such firms. They need a contact with a reliable local accountant or engineer who is able to provide them with detailed knowledge regarding national tax laws or regulations regarding health and safety or the technical standards applicable locally. This kind of highly specific information – plus close accompaniment – contrasts with the kind of information provided by Chambers, employers' and trade associations, development agencies, consulates, etc., which are more likely to provide, say, information on the general economic conjuncture in a country

rather than highly specific information on one specific local area and sector (let alone reliable and relevant contacts in this area).

Nonetheless, beyond and above problems of efficiency there are also objective problems in marshalling such precise services for one small enterprise: unless there is a certain number of companies wanting information of a certain type, it may be difficult for public institutions or associations to justify the considerable outlay of time and money which obtaining "really useful information" (and, *a fortiori*, "really useful contacts") may require. Where there is a critical mass of small firms working in one specific sector and/or interested in one particular country (or local area within the country), such services can be easily provided and can be very effective. However, this presupposes some sort of coordination. Such coordination may be provided in various ways – by the actions of large firms, by the existence of regional specialisations, by the direct and indirect action of associations and public institutions. In the absence of such forms of coordination, the density of internationalised small firms is at present insufficient to serve as the basis for economic provision of precisely targeted services. It should be remembered at this point that internationalisation (beyond the level of simple exporting) is still a relatively rare phenomenon among SMEs – at least if we go beyond the confines of a few industries.

What forms of coordination to provide a critical mass of SMEs which justifies use of collective resources are imaginable? First of all, it should be pointed out that such coordination is quite often provided by a large firm, which effectively directs the activities of its suppliers. Thus, automobile manufacturers which move abroad may ask suppliers to establish plant or at least offices in the same area. In this way, a whole series of SMEs forming part of the local supply network in the big manufacturer's home base need to go to the same location. In this kind of coordinated movement, it is highly feasible to create collective services. In Turin the local employers' association (*Unione industriale*) provided services for Fiat suppliers going to Argentina which were widely appreciated by the SMEs concerned. In this situation, there was a critical mass sufficient to provide very close accompaniment – for example, finding reliable accountants and tax consultants, possible sites for offices and plant, etc.

In other cases, coordination may be lacking but public agencies may still be able to provide useful general services by deciding to focus on one particular area, and by making the decision to invest in the hope that SMEs will make use of facilities provided. *Entreprise Rhône-Alpes Internationale (ERAI)*, for example, has provided a kind of mini industrial park in China, which has attracted a number of firms (although none among those we interviewed). The Bavarian Federal government has set up "German Centres" in China to provide German SMEs with infra structure and other support. Widespread interest in the Chinese market, combined with relatively vague preferences as to where exactly in China to go may make this kind of initiative feasible. There may be more scope for this kind of initiative also elsewhere: for the logic of industrial parks – providing collective services, but also support, co-operation and a flow of information among firms in the park – would seem to apply with particular force when SMEs are operating in an unfamiliar environment. Obviously, a firm operating in China has a particularly intense need for information on the most diverse subjects (often quite banal), from dealing with bureaucracy to employees' problems.

When considering policies which may encourage internationalisation among SMEs it is probably wrong to think purely in terms of policies *directly* encouraging the shift

abroad. Policy aiming at encouraging internationalisation is often thought of in terms of the kind of services of information and accompaniment which comes directly under this label - foreign counters at Chambers of Commerce, trade departments of national consulates, trade fairs, visits, etc. We will suggest that at least as important as such direct services may be a series of effects deriving from policies intended for more general purposes. Demonstrating this involves some understanding of how the firms studied in the research achieved internationalisation. The misfit between offer and demand means, however, that they did not draw on local resources and on resources provided by other firms, large and small. As we will see, their moves abroad cannot be understood at all without taking into account such supportive resources. It is possible, therefore, that one major way in which policies may be able to encourage healthy forms of internationalisation is indirectly, by fostering conditions which encourage the growth of the kinds of supporting networks and synergies we describe.

8.2 Networks of Firms

As we have implied, current reflection on internationalisation among SMEs has tended to imagine firms acting singly. In reality, it is often chains and clusters of firms which move abroad together, or one after another. This does not usually occur as part of any formal organised plan but simply because informal flows of information and networks tend to create this kind of pattern. And both large firms and medium-sized firms which already have a well-established network of international contacts and substantial experience are key links in the networks which internationalising SMEs establish.

It might seem paradoxical that one firm might act to encourage other firms to develop. However, the idea that it is in a firm's interest to encourage development among the pool of firms which form its suppliers or, in case of software companies, customers of their products seems to have been gaining influence in many large firms in recent years. This attitude treating a supplying firm as a totally separate individual unit in which the larger firm cannot and will not interfere has given way in recent years to a slightly different attitude, which recognises the interdependence of a large firm and at least its main suppliers. Many larger firms have thus been willing to share their technical expertise and managerial experience more widely, organise training courses, etc.

Initiatives of this kind have been most explicit in the areas of quality and technology transfer, and such explicit recognition in the area of internationalisation seems less common. However, as we have pointed out, similar kinds of interdependence do exist, and there are many cases where large firms have explicitly encouraged (even pushed) suppliers to follow them abroad. In other words it seems clear that there are "club goods" in play – goods which can be enjoyed if not by an undifferentiated public (so not necessarily public goods) by a more restricted set of actors (in this case a set of firms). Improved quality and technological level in a network of suppliers would seem to constitute such a club good, but so also may increased knowledge and competence regarding international operations.

The extension of the interdependence argument is that it can sometimes be in a firm's interest to develop something shading off into a public good, that is to say the quality of a local business environment in general. However, this normally goes beyond what any individual firm can do on its own.

Few firms among those we studied had formal links with other SMEs which helped them to internationalise, and aid coming from trade or employers' associations, development agencies, national or EU bodies was also generally of limited importance. In this sense, as entrepreneurs themselves tended to stress, most firms had constructed their paths alone. However, behind this level of individual action lay a background of supportive networks and local context which was essential in explaining the capacity to marshal the considerable amount of information and contacts needed for any successful internationalisation even of modest scale.

As the case studies show, firms build on their networks in order to construct a viable basis for internationalisation. In some cases such networks are very much individual (for example, a firm in which one of the partners comes from a non-European country, and uses this partner's personal networks of kin and friendship in the home country to construct a reliable team of workers and easy, trusted communication). In other cases, they depended much on the previous careers of the firms' founders or principal managers. An engineer who had worked in the United States as part of his career in a large firm with American branches might use the contacts he had made in the US, telephoning personnel in the buying department of a potential client in order to obtain the chance to present a product from a little-known and foreign company; in addition he could draw on more general knowledge of American markets, technical requirements, and so on.

8.3 The Role of Big Customers

Another pattern by which SMEs laid down networks which were later useful in internationalisation was through a big client at *home*. An SME acting as supplier to a large firm which was sited in the SME's local area, but operating internationally, could gradually attain a stock of information and expertise by working alongside the larger firm, talking over a long period with personnel of the latter about their international experience, and above all accompanying the larger firm in its operations abroad, seeing at first hand the problems and opportunities of working in another country. It is significant, therefore, that one of the most common patterns among the firms we studied was that of establishing a small office to provide after-sales assistance – plus sales, if possible. – in a country where connections with a larger firm had taken them.

The ways in which large customers affected SME suppliers' tendency to go abroad were quite diverse. These might vary from situations in which the large firm guided the action of their suppliers very explicitly: thus cases in which the small firm is simply fitted into the strategy of the larger one (for example an automobile manufacturer which requests certain key suppliers to set up a plant in a country where it itself is establishing itself, as a way of sharing the expense and risk of internationalisation) to others in which the initiative of the smaller firm is much more pro-active. Even cases of the first type may not be as simple as might at first appear, for some of the firms we studied used their initial establishment in a new country at the behest of a multinational firm as an opportunity for broadening their customer base more generally (for example, obtaining contracts in the new country with another auto manufacturer operating there, with whom they had previously had no relationship). However, cases directed by the larger firm were the exception among our case studies; most of our SMEs made use

of the network of contacts furnished via their contacts with the large firm, or on their activities abroad undertaken in supplying installation assistance, after-sales maintenance, etc. to companies abroad buying the larger firm's final product, on their own account. "Following" a big customer in its operations abroad, making contacts with this customer's clients, learning about the local business environment, was for these firms a crucial step.

One major policy implication of our research would seem, therefore, that it would be worth seeking ways of encouraging fruitful interaction between large and smaller firms. In other words, it might be possible for policy to stimulate and channel the self-interest which a large (or sometimes a medium-sized) firm has. As is well known, in some cases the self-interest of individual economic actors can be harnessed to be made into a public good. Or at least into a "club good", benefiting a small circle of local firms.

It would be wrong, obviously, to use public funds to encourage large firms to do what they would do in any case. What does seem feasible, however, is to spread awareness of the pattern, so that both larger and smaller firms can more consciously orient their actions accordingly.

8.4 Indirect Support to SMEs

The networks which were necessary to establish a trustworthy, reliable base of collaborators in a new country were certainly not always built up on the basis of contacts with large firms. In very many cases the resources came from a range of actors in the SMEs local area. The kind of resources might vary from technical skills to experience of working abroad to specific knowledge of a particular country and the ability to provide contacts to foreign markets.

It is interesting to note that the form of public aid which was most frequently mentioned by the firms interviewed was research and development programmes. Although difficulties were naturally encountered (in particular concerning the differing interests of researchers and companies – for example, researchers wanting to publish the results of their research as soon as possible, the firms sometimes wanting to wait until a patent was ready), these programmes were in general widely appreciated.

It might be thought that partnerships in these research programmes were put together on the basis of purely anonymous criteria. In reality, however, they tend to spring out of previous projects of collaboration between universities/research institutes and firms. These pre-existing contacts did not always have a local basis, but this was easily the most common pattern. In very many cases, the initial contacts seem, in fact, to grow out of personal acquaintance: an engineer who has founded his own firm goes back to the polytechnic or university institute where he was trained, contacts a former teacher or a former college friend to ask how to resolve a particular problem, or to ask them for the name of someone who might be able to help. The number and quality of such links may be important in helping a firm to develop its product. This may be thought of as one form of local "social capital".

This is important for the quality of a firm's product, obviously, but it also has implications for internationalisation. Firstly, because many internationalised SMEs work in a

niche product and are heavily reliant on keeping up or ahead technologically. But also because the kinds of international links formed via international research programmes are themselves international experience which may bear fruit later.

Another way in which the networks between firms and universities grew up was through the movement of personnel. A researcher working on a particular product might set up their own firm (perhaps with some help from a teacher or university friends). Or a researcher starting out on their career might work for a time in a firm before moving back into academic life. Now this kind of exchange is important not only for itself but also because it often seems to establish a tie between the firm and the university in question which gives rise to other initiatives and continuing links.

This kind of exchange of personnel between industry and academe is more common in some European states than in others – it is institutionalised in Germany, for example, but rare in Italy. This depends in part on the career structures of university staff. In a country like Italy where entry into a permanent post at university is such a long and difficult process that few people are willing to take the risk of leaving a post once they have obtained one, few people are prepared to take the risk of trying out a career in industry. In other words, the rigidity of the intellectual labour market makes it difficult to have careers crossing the boundaries of industry and academe^[1].

Tackling these kinds of rigidities seems an example of an area of policy (in this case national policy) which is apparently distant from internationalisation but in reality may be crucial in encouraging the growth of what Le Galès and Voelzkov (2001: 4) have called a “local collective competition good”, that is a good “available to companies regardless of whether or not they themselves may have contributed to providing it”. It is resources such as these which may be crucial in helping small firms to internationalise. We would argue, therefore, that the kind of external resources which SMEs can draw upon are crucial in determining their ability to operate abroad. Such resources are not necessarily local, for most firms also have non-local elements to their networks. Nonetheless, it may be the case that even these non-local ties depend on their existence on a solid network in a firm's home base.

8.5 Conclusion

In these comments on possible policies encouraging internationalisation among SMEs, we have emphasised the importance of networks created by the various actors concerned. It is probably unrealistic to imagine that policies can consciously “create networks” of this kind. However, it may be possible to create environments which encourage the growth of ties. As we have already mentioned, this has always been one of the ideas behind projects of technology parks, industrial parks, etc. More in general, it seems reasonable to imagine that a series of policies, whose primary aim is to improve the quality of life in cities, for example, or communication between firms and local authorities, might also have effects on encouraging the kinds of links which may subsequently be used in internationalisation.

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9. Exploitation and Dissemination of Results

Conferences and Workshops

Dissemination of findings in workshops and conferences makes up a major share of our project deliverables. Altogether 14 national/regional conferences and feedback workshops were organised by the national teams (cf. the 30-month Periodic Progress Report and Annex 1 of the Final Report). The project was also involved in the preparation of the Dialogue Workshop of the EU Commission, entitled "The internationalisation of European SMEs: culture, entrepreneurship and competitiveness", on 28 June 2002 in Brussels. Two presentations were provided by team members. In addition, the Dutch and the Jena group presented papers at academic conferences in the course of the project (see Annex 1).

Although concepts and foci of the national/regional conferences and feedback workshops varied from country to country, the input given by the project presentations raised a set of similar questions and topics in the discussions – especially in those with practitioners:

Why is an autonomous strategy the preferred path of internationalisation for SMEs (in contrast to co-operation)?

The lack of strategic planning of SMEs;

The role of the entrepreneur/CEO in the internationalisation process of SMEs;

The role and performance of networks – regional networks in particular – for internationalisation of SMEs;

The performance of intermediary institutions concerning the internationalisation of SMEs, especially in terms of contact making, information and consultation (i.e., the mismatch of "generic supply" and "highly-specialised demand")

In general, the mechanisms and patterns identified in the research report were considered to be correct. Many discussants also stressed that the situation of individual firms is very heterogeneous. Thus it is hard to determine patterns and best practices how to go international. Especially in the workshops of the Dutch and of the German colleagues, reasons were discussed why SMEs prefer autonomous entry modes when going international. Beside the fear of spill-over effects and control problems, the following attitude of the entrepreneurs was underscored by many discussants: "If co-operation doesn't fit the entrepreneur, it doesn't take place."

Many practitioners pointed out that active internationalisation is an option only for few SMEs in the regions, even now. This refers not only to products and markets but to the attitudes entrepreneurs have as well. Many discussants even argued that the attitude of the entrepreneurs toward internationalisation is crucial for the opening of the enterprises to active internationalisation. Attitudes might even be more important than the human resources a company possesses for business abroad, as we have seen in our case studies in which human resource development often appears to be an outcome of internationalisation, and not vice versa. How entrepreneurs can be made more open to international activities was widely discussed, especially in the Italian workshops. In this context, many participants also stressed the importance of informal contacts, networks, co-

operation with other companies for moving toward internationalisation. The method of networking preferred depends on the position of the SMEs in the value chain and varies widely across sectors. Several speakers also recognised the importance of personal networks in forming the basis for later internationalisation and agreed that the internationalisation of personnel might have significant effects. Taken together, it was widely agreed that international exchange in the region in which SMEs are located is one of the major factors pushing them to go international. The discussion stressed several dimensions of this exchange:

The presence of big clients in the region;

Quality of the human resources within the region;

The flow of information to other firms, personnel, and institutions.

One can certainly conclude that the extent to which a region already is international, the more opportunities SMEs have to become international themselves. However, less internationalised regions also can take measures to increase the degree of internationalisation of the local area, for example, by attracting international students, offering incarcerations in companies and study trips for students from the region, by creating a good import and export climate, and building active working relationships with other regions outside their own country.

Another general topic of the conferences and workshops had been the role of intermediary institutions for SMEs' internationalisation. Here more pros and cons appeared. Some entrepreneurs in Germany stressed that especially in far-away regions or high-risk countries, the facilities of the German Foreign Chambers abroad are of major importance. Dutch entrepreneurs also pointed out the importance of institutional and organisational resources for SMEs' international activities. Representatives of some intermediary institutions like the Bavarian Chamber of Commerce did not perceive themselves as provider of specialised consulting. For this task, the Bavarian Chambers have assigned independent consultants who are much closer to the markets. Italian discussants tended to stress that intermediary institutions provide a diffuse flow of information which is important as background knowledge of opportunities to SMEs. It was also suggested (as the research itself stressed) that ties made with other firms at association activities might be useful elsewhere. And associations might bring firms together which subsequently co-operate together in various formal and informal ways. In this respect, Italian practitioners stressed the Italian export consortia as a successful co-operative arrangement.

Lively discussion took place on the issue of duplication and redundancy among the services offered by the various business associations and agencies. Some criticised the redundancy which existed; others defended redundancy itself as a good thing, since it was only through redundancy that particular client groups could ever be reached and an adequately wide range of solutions achieved.

There was discussion about the respective merits of concentrating resources on a small number of firms, who are intentionally given significant support, as against the strategy of sprinkling support over a large number of firms. Opinions were very divided on the ethics and political justifiability of concentrating support, as well as on its effects on other firms and local development.

With respects to policy implications five arguments arising from the discussions with practitioners and academics might be summarised:

Stimulate the internationalisation of the regions. A region has to radiate an international attitude. This can be accomplished, for instance, by foreign students working or volunteering in regional firms, exchange programs and study trips. Regions should create a good import and export climate, and they should build active and lively relationships with other regions outside the own country .

Mediation of contacts to foreign companies by intermediary institutions works better when actors are involved who are closer to markets and have greater incentive to develop specialised professional knowledge. Chambers often have the problem of developing sufficient expertise. This may be one reason why, for example, the Bavarian foreign market-consulting program relies on professional consultants hired as free-lancers.

A more promising way than the general trade missions and business trips are product presentations by SMEs of a certain highly specialised sub-sector. This kind of approach corresponds to the high specialisation which is typical for SMEs in industries, and it appears to better guarantee that potential customers for these specialised products may actually come to such meetings. Vice versa, events which cover many different sectors and branches in presentations of all the industry of a particular region at fairs are often rather useless. It is highly uncommon that they bring companies together with matching interests.

Fewer and less complex programs at the EU level with a clear minimum set of preconditions to fulfil are better than establishing more and more specialised programs which makes it necessary to set up new institutions for program searching and consulting. SMEs already need professional help to get through the programs offered at different levels of the European political system.

Intermediary organisation should be aware that they have clear limits in initiating inter-firm co-operation and should be more careful when dealing with this instrument. However, their role in providing facilities and infrastructure for small firms in far-away countries are highly appreciated.

Teaching Films

Part of the project had been three teaching films and an integrated version focusing on internationalising enterprises. The films were delivered to the Commission at the end of month 24. They are all made by Bernard Ganne and Jean-Paul Pénard from Lyon. The film team had chosen the enterprises based on the interviews the national teams had done before. The single version titles are:

Herding (Germany) – The many paths to foreign markets;

Ever (France) – Thinking international from the start;

Fidia (Italy) – Innovation and internationalisation: a way of life.

The integrated teaching video-film which was handed in together with the research report at the end of month 26, April 2002, is called *Going International – Paths Taken by European SMEs*. The three companies portrayed in the film are also presented as best practice cases in the handbook for practising business people which was handed in at the end of month 31, September 2002. The presentation and analysis of the participating companies' experiences in visual form was made not only for the passive absorption of information but also provides a basis for introducing reflective and brainstorming events

at the company and regional levels. Especially in France and Italy, the films were introduced as a useful tool at feedback workshops and regional conferences. The Piedmont Region agreed to finance the translation and diffusion of the Italian film *Fidia (Italy) – Innovation and internationalisation: a way of life*.

Handbook and Publication Prospects

At the end of September 2002, the English version of the handbook "How to go international? Risks and chances for European SMEs" was handed to the Commission. The book is targeting practising business people in SMEs in the countries involved. It is already translated into German (by German and Austrian project members), into French (by a French project member) and into Italian. For the Italian translation extra money was raised from the Centro Studi Artigiano in Turin. It will be published on Quaderni di indagine sul Nord-ovest per l'artigianato e la PMI. The German version will be published with a new layout in 2003.

In addition to the handbook and individual publishing plans of the national teams, there are plans to extend the results published in the research report and to compile an international publication (probably published by a British publisher) about the internationalisation of European SMEs.

Further Research Prospects

SMEs are an important pillar of the European economy but they have come under a new kind of pressure: globalisation (and with it a new quality of fierce competition) and the Europeanisation and globalisation of the financial system. There is still little comparative research done focussing on small and medium-sized companies in Europe. Facing the ongoing process of changes in market and financial terms, it is necessary to continue this research on a wider scale. This will become even more necessary in the next years, with the entering of Central and Eastern European countries into the EU.

In addition, the European integration of the financial systems in the next future will bring up major changes also for SMEs. Basel II is changing access to credits dramatically, while going public on stock markets remains a limited alternative. Thus, it seems necessary to accompany these institutional changes on European level with research on consequences of these changes for SMEs in particular.

Evaluation of the performance of intermediary institutions for internationalising European SMEs had not been the major focus of our project. Nevertheless, the research revealed astonishing similarities in appreciation and critique of the performance of such institutions. We would like to argue that to do more research in this respect on a comparative scale is worth doing in order to improve the performance of regional supply-side policy at European level.

Annexes

Annex 1: List of conferences and workshops

1. International workshops

Dialogue Workshop of the EU Commission titled "The internationalisation of European SMEs: culture, entrepreneurship and competitiveness", at 28 June 2002 in Brussels (by all project members). The project presented two papers Gerda Gemser, Maryse Brand, Arndt Sorge and Delano Maccow reported about "Evolution of Strategy in the Internationalisation Process of European SMEs: An Intricate Phenomenon". Katharina Bluhm, Michele Dupré, Angelo Michelsons and Bernd Teufel asked "Do Regional Roots matter? The Importance of Networks and Territory for Internationalising SMEs".

G. Gemser, M. Brand, A.M. Sorge and D. Maccow presented the paper "The use of exploration and exploitation strategies for internationalization by old and new economy SMEs" at the 2002 Babson College Kauffman Foundation Entrepreneurship Research Conference in Boulder, USA, 6-8 June 2002.

G. Gemser, M. Brand, A.M. Sorge and D. Maccow represented the paper: "Internationalization Patterns: Exploring the role of international strategic alliances for old and new economy SMEs" at the International Council for Small Business 47th World Conference in Porto Rico, 17-19 June 2002.

2. National and regional workshops organised by the project teams

Germany

20 June 2002, workshop on "Networks, internationalisation of SMEs, and regional economic support" at the University Jena (Thuringia/Germany). Two papers of the project were presented by Katharina Bluhm and Bernd Teufel ("Internationalisation strategies of SMEs – mechanical engineering and software sector compared" and "The performance of corporate networks and intermediary organisations for internationalisation – Thuringian enterprises in European comparison").

19 September 2002, conference on „Chances and Challenges of internationalisation for SMEs in Europe" at the Sozialwissenschaftliches Forschungszentrum in Nuremberg, B. Teufel and K. Bluhm presented: "The role of networks in the internationalisation process of SMEs" (Franconia/Germany).

France

13 June 2002, feedback workshop on "Internationalisation of European SMEs" for participating companies at in the GLYSI ISH in Lyon.

18 July 2002, workshop for business people and regional actors at the ERAI in Charbonnières Les Bains focussing on the internationalisation of SMEs in Rhones-Alpes in particular

05 September 2002, workshop for business people and regional actors at the Chambre Regionale de Commerce et d'Industrie in Lyon.

15 July 2002, presentations of research findings to regional newspapers/journals specialised on economic development and business in Rhône-Alpes at Limonest.

12 November 2002, in Lyon, national conference with representatives from associations, state-run institutions for promoting the economy and know-how-transfer organisations.

Italy

July 1st 2002, workshop on "Internationalisation of SMEs in Europe" at Centro Studi per l'Artigianato di Torino.

July 17th 2002, national conference on internationalisation of SMEs in Europe at Centro Studi per l'Artigianato di Torino.

Netherlands

19 September 2002, academic conference on "Internationalisation of SMEs" at the University of Groningen. A. Sorge presented the paper on "Evolution of strategy in the internationalisation process of European SMES: an intricate phenomenon",

19 September 2002 (afternoon), workshop for business people and policy makers at the University of Groningen. M. Brand outlined major findings of the project.

Austria

26 June 2002, conference at "Internationalisation strategies of Austrian SMEs" at the Economic Chamber of Austria (Wirtschaftskammer Österreich, WKÖ) in Vienna. Franz Traxler outlined the project and Georg Adam presented major findings.

26 June 2002 (afternoon), workshop for business people and regional actors (at the same location). G. Adam presented findings of the Austrian team in particular.

24 September 2002, regional workshop "Internationalisation – the challenge for European SMEs" at the Economic Chamber of Upper Austria (Wirtschaftskammer Oberösterreich, WKÖÖ) in Linz. G. Adam presented a paper on "Internationalisation strategies of European SMEs – old and new economy compared".

3. Participation in other national conferences during the project period

K. Bluhm, B. Teufel and R. Schmidt presented the paper: "Co-operation and building of networks for the internationalisation of SMEs – report from a comparative EU-project" at the workshop "International networks of SMEs" in Dortmund at 26/27 September, organised by Prof. Dr. Hirsch-Kreinsen, Lehrstuhl Technik und Gesellschaft, Wirtschafts- und Sozialwissenschaftliche Fakultät at University Dortmund. The paper will be published in a volume of the conference by Edition Sigma in 2003.

Annex 2: List of project deliverables

Table 2: Planned and realised project deliverables so far (including the reported period)

No	Title and description of deliverables	Month of planned delivery	Status	Month of delivery
1	State of the art Complete and critical review of the main currents of thought on the main issues of the project. Comparison in the different countries	2	Draft	3
2	Survey-tools I Guidelines for the focused interviews with experts form associations, state-run institutions and know-how-transfer organisations	2	Final	3
3	Analysis of economic structure Report on the evaluation of relevant economic statistics	2	Draft	2
4	Summary of the expert interviews Short report (per region) on the findings of the first stage of inquiry	6	Final	6
5	Survey-tools II Guidelines for the interviews with leading executive managers and employee representatives	6	Final	8
6	Interview protocols and transcripts Short transcriptions of the interviews	13	Final	14
7	64 company profiles 64 company profiles with summaries of the results from the evaluations of the individual interviews	20	Draft	18
8	Teaching and demonstration films	20	Draft	Two cases were filmed in month

	Three short documentary films (each 26 min) of case studies in three different countries			16 and at the beginning of month 19: the field for the third film is prepared and planned for month 21
9	Research Report Drawing up the research report on the basis of the company profiles	25	Final	26
10	Teaching and demonstration films Summary documentary film of 52 min in the languages concerned, with, for each 1 dub copy in Beta SP, and 2 in VHS	25	Final	26
11	<i>International congress</i>	26	Final	28
12	<i>Conference journal</i>	27	Final	See 30-months report
13	<i>National congresses</i> 5 national congresses with representatives from associations, state run institutions, know-how-transfer points and from government	29	Final	28-31
14	<i>Regional conferences</i> 2 conferences per region for practising people	29	Final	28-31
15	"Feedback workshops" with practicing companies	29	Final	28-31
16	<i>Handbook for practising business people</i>	30	Final	31
17	<i>Final report</i>	31	Final	31

Annex 3: Updated lists of partners

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