

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Schmidt, Klaus-Dieter

Working Paper — Digitized Version
Small and medium sized enterprises (SMEs) in international business: A survey of recent literature

Kiel Working Paper, No. 721

Provided in Cooperation with:

Kiel Institute for the World Economy – Leibniz Center for Research on Global Economic Challenges

Suggested Citation: Schmidt, Klaus-Dieter (1996): Small and medium sized enterprises (SMEs) in international business: A survey of recent literature, Kiel Working Paper, No. 721, Kiel Institute of World Economics (IfW), Kiel

This Version is available at: https://hdl.handle.net/10419/46821

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



Kieler Arbeitspapiere Kiel Working Papers

Kiel Working Paper No. 721

Small and Medium Sized Enterprises (SMEs) in International Business: A Survey of Recent Literature

by Klaus-Dieter Schmidt



Institut für Weltwirtschaft an der Universität Kiel
The Kiel Institute of World Economics

Kiel Institute of World Economics 24100 Kiel Federal Republic of Germany

Kiel Working Paper No. 721

Small and Medium Sized Enterprises (SMEs) in International Business: A Survey of Recent Literature

by Klaus-Dieter Schmidt

January 1996

655057

The author himself, not the Kiel Institute of World Economics, is solely responsible for the contents and distribution of each Kiel Working Paper.

Since the series involves manuscripts in a preliminary form, interested readers are requested to direct criticisms and suggestions directly to the author and to clear any quotations with him.

Contents

I	Introduction: Globalization and International Enterprise Networks	1
II	Theoretical Framework: Defining the Role of SMEs in a Global Economy	.8
	1 SMEs between Markets and Hierarchies	8
	2 SMEs' Comparative Deficiencies and Advantages in Internationalization	12
	3 SMEs' Strategic Behaviour in Global Markets	14
Ш	Empirical Evidence: Accounting the Involvements of SMEs in International Business	17
	1 Forms and Extent of SMEs' Internationalization	19
	2 Factors Sustaining and Impeding SMEs' Internationalization	32
IV	Outlook: Defining a Research Agenda	36
Ref	erences	39
Anr	nex: SMEs and Internationalization: Selected Publications	45

Abstract

It is often argued that the process of globalization has mainly favoured large-scale multinational companies which are able to organize their business efficiently within internal hierarchies. However, globalization has not only pushed cross-border intra-firm transactions but also other arrangements among firms such as licensing or subcontracting that fall short of ownership involvements. This opens up new opportunities for small and medium sized enterprises, too.

The paper provides a general introduction to small and medium sized enterprises' international business. It reviews the more recent theoretical discussion and presents the results of several empirical studies. Finally, it explores the implications for further research (F2, L2).

I Introduction: Globalization and International Enterprise Networks¹

Over the past two decades a large body of theoretical and empirical research has focused on the growing globalization of production and markets [McGraw, Lewis 1992; Dunning 1993; UNCTAD 1993, 1994; Nunnenkamp, Gundlach, Agarwal 1994]. International economists have become aware that more and more enterprises are organizing all parts of their business globally: their trading, producing, sourcing, marketing and financing. Globalization brings a new quality into the complex pattern of cross-border activities. It increasingly erodes national boundaries.

In a recent paper Dunning [1995] has defined globalization — as compared to earlier forms of internationalization — as a process that "integrates the international value added activities of firms ... in such a way that the prosperity of one firm is inextricably bound up with that of its foreign production and marketing activities" [p. 125]. In principle, international integration can occur in two forms

- as shallow integration, largely through international trade (IT) in goods and services and/or
- as deep integration, largely through international production (IP) of goods and services.

Historically, the pattern of cross-border activities has been determined by IT rather than by IP. For more than a hundred years, from the mid 19th century,

Research for this paper was undertaken with support from the European Commission's Phare ACE Programme 1995 "Integrating Small and Medium Sized Enterprises in Transformation Countries into the European Trade Flows and Co-operation Schemes", project no. 94-0724-R. It was prepared for a workshop of the research group to be held in June 1996 in Gdynia. I wish to thank Birgit Sander and Wolfgang Winkler for valuable assistance.

erese provide a

arm's-length trade in goods and services had been the main vehicle of integrating the world economy. But as Krugman [1995] recently conjectured, the share of world trade in world output has obviously reached or even passed its peak. Since the early 1980s world investment and other forms of non-equity involvements such as contracting or licensing have increased much faster than world output. As a result, the modalities of integration have changed from shallow to deep [Dunning 1995].

The driving forces for these alterations have been - and still are -

- growing cross-national convergence in consumer preferences which makes it possible to sell products of identical or similar design in different markets;
- growing use of automation, information and telecommunication technologies which enables firms to decompose the production process, to exercise rigorous quality control and to co-ordinate foreign activities;
- growing liberalization of markets which eases the cross-border movements
 of capital and technology; and last but not least
- growing competition faced by firms in international markets which tends to
 reduce profit margins and gives an impetus to re-organize business organizations.

The most important organizational response to these pressures is that firms are optimizing their value chain globally. There is a growing trend to slice up the firms' value chains by producing goods and services in a number of separate stages and to perform them at a number of separate locations, adding a bit of value at each stage and each location. The most recent wave in reorganizing the value chain in such a way has started in the early eighties under the label of 'lean manufacturing' which mainly emphasizes flexibility, rapid response and economies of scope. 'Lean manufacturing' differs in some respects from 'mass production' which is mainly based on rigid transfer lines, specialization and economies of scale [Milgrom, Roberts 1995]. The following synopsis portrays the major dimensions of both types of manufacturing (Table 1).

The key idea of the new paradigm is that a firm has two basic options in organizing its value chain efficiently: make or buy. Whether it is cheaper to make or buy depends on the transaction costs of in-house compared to those of out-house production. As the widespread introduction of new production, information and transportation technologies has lowered relative transaction costs for out-house production, more and more firms have 'flattened' their net value added by extending their outsourcing. In the automobile industry, e.g., which has been a leader in establishing lean manufacturing, the value of purchased goods and services has

The following illustration of a value chain given by the 1993 UNCTAD World Investment Report is perhaps one of the best: "A value chain describes how a firm organizes and performs the discrete activities that add value to the goods and services it produces and sells. Some of those activities are linked together vertically and sequentially; others occur at any and all points and are linked horizontally ... vertically linked activities include inbound logistics (for example, site elections), operations (for example, assembly in manufacturing), outbound logistics (for example, advertising and sales) and after-sales services. Horizontally linked activities include human resource management, research and development, procurement, finance, accounting and other management functions, sometimes called firm-wide infrastructural functions. Although every firm performs all of those activities, their importance varies across companies and products. ... The ability of a firm to identify and exploit those activities and linkages that matter most of its performance is frequently seen as a source of success" [p. 116].

risen from less than 60 percent to more than 75 percent of gross value added in one decade.

Table 1 - Mass Production versus Lean Manufacturing

	Mass Production	Lean Manufacturing
Dimensions	Transfer lines,	Flexibility, rapid response,
	specialization, and	and economies of scope
	economies of scale	
Capital equipment	Specialised	Flexible (low set-up costs)
Production runs	Long runs, large lot sizes	Short runs, small lot sizes
Product changes	Infrequent	Frequent
Markets	Mass markets	Targeted markets
Worker skills	Low or specialised	High, with cross-training
Decision making	Central expertise and	Local information and self-
	hierarchic planning	regulation
Communications	Primarily vertical	Primarily horizontal
Product development	Sequential	Cross-functional teams
Operational focus	Static optimization	Continuous improvement
Day-to-day emphasis	Accent on volume	Accent on quality
Inventories	High	Low
Managing uncertainty	Supply management	Demand management
Customer relations	Make-to-stock, limited	Make-to-order, extensive
·	communications	communications
Supplier relations	Short-term, price-based	Long-term, competency-
		based
Vertical integration	High	Low
Employee relations:	Low commitment,	High commitment,
Factory workers	confrontational	co-operative

Source: Milgrom and Roberts, 1995.

However, lean manufacturing is not a panacea. The gains from out-house production may be outweighed by co-ordination costs. In lean manufacturing all firms linked into the value chain must operate in precise co-ordination. They must form a swiftly working network of bilateral and multilateral activities in order to capture the benefits which cannot be achieved by 'stand-alone' firms. In delivery relations, e.g., buyers have to monitor the suppliers' production floor in order to check product quality, and suppliers require exact information from the buyers'

internal planning and production process in order to guarantee just-in-time deliveries. A strong value producing chain must not have one single weak link.³

It is always a big challenge for firms to co-ordinate network activities globally—in order to achieve benefits from deep integration. Coase [1937], Williamson [1975, 1985], Akoi et al. [1990] and others have taught us that markets and hierarchies represent two alternative institutions of co-ordinating transactions. The decision to conduct a transaction through the market or the hierarchy is a function of relative efficiency. Mainstream economists have focused the large-scale enterprise as a major vehicle for conducting international economic activities. They have argued that transaction costs may make co-ordination through external markets more costly than internal activities within the firm [Hymer 1976; Buckley, Casson 1976; Dunning 1979]. In fact, a large proportion of international economic activities is organized by large multinationals. According to Bonturi and Fukasaka [1993] more than two fifths of exports of US and Japanese multinational companies in manufacturing industries are shipped to foreign affiliates.

A closer look at the evidence, however, suggests that this story is at best incomplete, because it attaches too much importance to equity-based control of international operations by large multinationals. Globalization has pushed up not only intra-firm trade transactions but also other forms of contracted trade arrangements that fell short of majority ownership such as licensing, subcontracting or produc-

To give an example: in a recent paper Abernathy, Dunlop, Hammond and Weil [1995] have analyzed how firms have reorganized the long apparel channel reaching from cotton growers and sheep rangers at the beginning to retail stores at the end. Historically, wholesale and retail sellers were supplied by independent firms of the apparel industry which were supplied by independent firms of the textile industry. The three segments were linked by arm's-length trade transactions. Within the segments there were only jobber-contractor relations. Over the years, however, several firms have extended their operations forward and backward. Especially so-called lean-retailers have been the major catalysts for linking apparel suppliers into their sourcing networks. To a great extent these networks of apparel production have been meshed internationally.

term contractual arrangements among several legally independent, often small and medium sized enterprises rather than control by one multinational enterprise. He conjectured that "... firms will move away from 'internalization' and toward 'externalization'". A recent study by Blaine [1994] favourably supports this hypothesis. Examining new forms of inter-firm co-operation in international business Blaine arrived at the conclusion that "the model of the MNE ..., based on the internalization of markets, vertical and/or horizontal integration, and the central control of an international network of subsidiaries is being replaced by a new paradigm which stresses 'externalization', co-operation ... with other firms, and the co-ordination of activities through contractual agreements between independent companies" [p. 18].

Capello and Gillespie [1994] generally questioned whether the two opposite alternatives of co-ordination — internal or external — can describe a realistic scenario. They criticized the concept of lean manufacturing (which they called 'flexible specialization organization') as an overly idealistic one. They argued that it would be impossible to develop a completely different organizational structure with features totally at variance with those of mass production (which they called Fordist organization). They took the view that a third scenario has to be envisaged which lies between these two extreme scenarios. "There are various intermediate forms of 'quasi-organizations'. ... These intermediate forms of organizations will arise besides the alternative of 'make or buy', and can be described as the 'make-together alternative'" [p. 183]. In a third scenario Capello and Gillespie combined the large vertically integrated company and the small, independent single-phase firm to form a new type which they called the 'network firm' operating in integrated local as well as global areas. This local-global scenario (Table 2) is a generalization of the 'network firm'. In this scenario mainly contractual but nevertheless stable linkages exist between larger and smaller firms.

Table 2 — Fordist Organization, Flexible Specialization Organization and Local-Global Scenario

	T	I 11 4	
,	Fordist organization	Flexible specialization organization	Local-global scenario
Industrial organization	Economies of scale	Economies of scope	New equilibrium be- tween economies of scale and scope
Micro	Mass production	Small batch production	Diversified mass production
Масго	Hard automation Vertically integrated	Soft automation Vertically disintegrat-	Systems automation Quasi-vertical
· .	systems Large firms dominated	ed systems	integration Asymmetrical but stable linkage arrange- ments between pro- ducers and suppliers
Spatial organization	Spatial division of labour within multilocational enterprises	Spatial clustering	New management of territory (same geo- graphy of the eco- nomic space of the firm with different
3 •			functional locations) New logistical platforms
Transport and	Long distance inter-	Long distance final	Long distance move-
communications	mediate product	product movement to	ment of both interme-
patterns	movement to assembly sites	markets	diate and final pro- ducts
	Regional functional specialization	Short distance intermediate product movement	Increase in horizontal intercorporate information flows
Infrastructure requirements	Reliable long distance goods transport of standard quantity predictable in advance	Frequent face-to-face contacts	Long distance air- freight and other long distance goods move- ments coupled with short distance fre-
	Reliable long distance communications	Long distance flexible final product movements	quent delivery road based on local systems
		Increased short distance frequent intermediate transport system	Long distance computer networks
Policy options and priorities		Development of re- gional transport and digitalized local net- works	Development of long distance transport and computer networks

Source: Capello, Gillespie [1994].

To put it in a nutshell: it is perhaps still correct to say that the majority of SMEs are local players which mainly operate in domestic markets. And within the wide range of international activities SMEs are mainly engaged in arm's-length trade, particularly in export. Unlike large MNEs, they have only limited possibilities of organizing their economic environment by themselves. However, the tendencies towards deeper international integration and the shift from equity to contractual control may strengthen the position of SMEs in international business for the time to come. Linked to cross-border networks they have much better facilities to cope with the problem.

II Theoretical Framework: Defining the Role of SMEs in a Global Economy

The increase in globalization and international economic integration is an enormous challenge for SMEs: on the one side, they face fiercer competition by foreign rivals in local markets, but on the other side, they may get attractive opportunities to do business in global markets. How can SMEs respond to this challenge? What kind of strategic options can be pursued by them? Which are the segments of the value chain principally most suitable for linking in? Those are the main questions which should be answered in the following from a theoretical point of view.

1 SMEs between Markets and Hierarchies

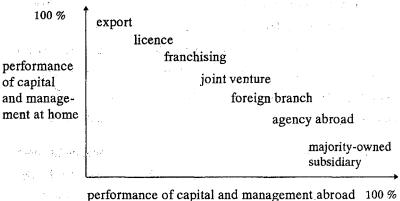
Even economists which hold the view that globalization is due to foster deep integration within MNEs rather than among independent firms would concede that the strategies for organizing cross-border activities can be different with regard to the economic, technological and policy environment. Possible forms of interactions can range from arm's-length transactions among stand-alone firms to fully integrated production lines under the strict governance of a parent company. Fre-

quently, intermediate forms are preferred such as licensing, franchising or other forms of contracting. Subcontractors, e.g., do not operate alone nor are they subject to ownership relations. They are integrated into an MNE's value chain by backward and forward linkages. There is some evidence that globalization often favours contractual control of cross-border activities instead of equity control in a network of foreign-based subsidiaries. Contractual control and intermediate forms of co-ordination seem to smooth the way for SMEs in international business.

Degree and form of internationalization of a firm depend, inter alia, on its competence on domestic and foreign markets [Dunning 1979]. Kumar [1989], Bamberger, Bonacker [1994] and others argued that there is a strong correlation between a firm's performance in each of these markets and its strategy (Table 3). For SMEs which demonstrate their competence on domestic rather than foreign markets export of goods and services is the most preferred and often the only form of internationalization. For MNEs, on the opposite, production in foreign-based subsidiaries is often a profitable alternative to serving foreign markets by exports. However, there are many intermediate forms of structuring economic relationships such as licensing, franchising, minority joint ventures, production sharing contracts and strategic alliances. These intermediate forms are based on contractual control which can be considered as a new form of investment [Blaine 1994].⁴

The use of contractual control as an alternative to equity control has been discussed, e.g., by Perlmutter and Heenan [1986], Johnston and Lawrence [1988] or Thoburn and Takashima [1992]. In these studies often other terms have been used such as value added chain management, value adding partnership or global strategic partnership.

Table 3 - Forms of Internationalization by Modus of Co-ordination.



Source: Kumar [1989], Bamberger, Bonacker [1994].

However, SMEs are seldom completely free in choosing their internationalization strategy. There is still a great number of operations in which the need for complex integration requires the use of hierarchical control (Table 4). As a rough guideline Nunnenkamp, Gundlach and Agarwal [1994] suggested distinguishing three categories of industries with different patterns of operations:

- For highly complex manufactures where transactions involve intangible assets or R&D intensive goods and services, an equity arrangement and, as a consequence, a high share in intra-firm trade is likely to occur.
- For less complex manufactures the form of international co-operation is open and hence a high share both in intra-firm trade and in arm's-length trade is possible.
- For manufacturers of standardized goods a non-equity involvement can be expected. The resulting trade flows are more likely to be of an inter-industry type than of an intra-firm type.

Table 4 - Corporate Strategies Adopted in Integrated Network Production

Form	Degree of Integration	Type of Trans- actions	Forms of Mechanism of Co-ordination	Type of Linkages	Forms of Comparative Advantages
stand- alone	weak	inter-firm trade	inter-firm negotiations, price mechanism	no linkages	locational advantages according to factor endowment
simple integra- tion	strong in some stages of the value- added chain,		licensing and sub-contracting, price mechanism	flows of materials, technology, capital and management	
complex integra- tion	weak in some others	intra-firm trade	intra-firm hierarchies, transfer pricing	all functions	OLI advantages
		·	·		·

Source: Naujoks, Schmidt [1995], based on Dunning, Norman [1984]; UNCTAD [1993, 1994].

This classification comes close to earlier findings by Caves [1971], who approached the question of the appropriate internationalization strategy adopted by the firm concerned from the perspective of horizontal and vertical integration. Caves argued that the firm's choice between arm's-length trade and foreign production is determined by comparative advantages, transport costs, tariffs, and risk

aversion to supply uncertainty on the part of customers in foreign countries. The choice between production at foreign affiliates' sites and at unrelated firms' locations depends on the nature of the technology, the size of the firms and the importance of research and development in the particular industry. Very profitable new technology is mostly reserved for affiliates, whereas marginally profitable, older technology is often made available via contractual arrangements to unrelated firms [Naujoks, Schmidt 1994].

From this we have to conclude that within the wide range of international activities SMEs tend to concentrate on those operations which require weak or simple rather than complex integration. A feature of simple integration is that the value chain comprises a network of legally independent firms rather than a hierarchy of affiliated firms, although it may be often difficult to determine the boundaries.

2 SMEs' Comparative Deficiencies and Advantages in Internationalization

Participation in international business requires specific competence of firms. In this respect, SMEs suffer from some critical deficiencies vis-à-vis large MNEs such as the absence of economies of scale due to small plant size, restricted access to information and to financial credit or limited sales promotion and branding capabilities. SMEs face higher transaction costs than MNEs when operating in foreign markets. However, these may be outweighed by lower costs for co-ordination and controlling. Independent SMEs can gain from their flexibility and adaptability. According to Scherer [1988] the important strength of SMEs is first, "that they are less bureaucratic, without layers of 'abominable no-men' who block daring ventures in a more highly structured organization. Second, and sometimes this is overlooked, many advances in technology accumulate upon a myriad of detailed inventions involving individual components, materials and fabrication techniques. The sales possibilities for making such narrow, detailed advances are often too modest to interest giant corporations. An individual entrepreneur's juices

BIBliothek des Instituts für Weltwirtschaft

will flow over a new product or process with sales prospects in the millions of dollars per year, whereas few large corporations can work up much excitement over such small fish, nor can they accommodate small ventures easily into their organizational structures. Third, it is easier to sustain a fever pitch of excitement in small organizations, where the links between challenges, staff and potential rewards are tight" [cited from Audretsch 1992].

Generally speaking, SMEs' advantages extend to being able to respond rapidly and often efficiently to changes in the markets round the world. By that, they can find a profitable niche somewhere in a value chain. While the strength of large firms heavily relies on economies of scale, SMEs, if linked to groups, can benefit from economies of scope.

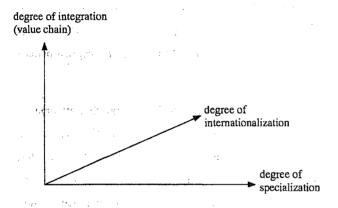
From a global perspective, one can assume that SMEs' comparative advantages originate in the periphery rather than in the core of production. With respect to vertical integration, they may carry out some stages of manufacturing as supplier, assembler, refiner or customizer, or they may fulfil some functions in the distribution system. With respect to horizontal integration they may demonstrate their competence in research and development, in marketing, financing and insurance or other service activities. It is important to note that SMEs not directly involved in cross-border operations can also be an integral part of an export chain.⁵

In order to operate successfully in the context of an export chain, SMEs have to define the scope of their activities. According to Bamberger and Bonacker [1994]

It turns out that 'internationalization' is a fuzzy concept. It does not necessarily imply that firms must "put their goods for sale into the shipping container". Internationalization covers a wide range of activities, including indirect exporting. Applying the concept of a value chain to SMEs means that also firms which carry out operations in local markets may nevertheless be inevitably linked to international markets by indirect exports. Monnoyer, Leo and Philippe [1994], e.g., pointed to services like transportation and information which are usually provided locally by SMEs.

they have to decide upon three strategic dimensions: the degree of integration, the degree of specialization and the degree of internationalization (Table 5). Usually a high level of vertical integration also requires a high level of specialization in order to create competence. And a high level of internationalization is frequently attainable for SMEs only by a high level of integration.

Table 5 - Strategic Dimensions for SMEs in the Export Chain



Source: Bamberger, Bonacker [1994].

10 - 10 DOM: 1

3 SMEs' Strategic Behaviour in Global Markets

As a rule, SMEs start their operations in national markets. Only in the process of growth and expansion they begin to operate internationally, too. A large number of studies suggest that internationalization is a stepwise process in which the firms pass different stages [Johanson, Vahlne 1977; Bilkey, Tesar 1977].

In a recent study Bamberger and Evers [1994] developed a five-stage model of internationalization which describes an SME's development from a non-exporter to a heavily committed exporter (Table 6). In this model the international involvement begins with some reactive or experimental exports: the SME offers

goods in foreign markets primarily produced for the home market. Gradually, it becomes an active exporter and starts other kinds of operations in foreign markets. In the final stage international activities are an integral and permanent part of its business. "In the long run, the management finds itself in a position of constantly making choices about the allocation of limited resources between domestic and foreign markets. The proportion of turnover generated abroad has become an essential pillar of total turnover. Hence competence in managing the elements of the marketing mix in foreign markets becomes a major determinant of the firm's long-term success." [Bamberger, Evers 1994, p. 321].

Table 6 - Five-Stage Internationalization Model for SMEs

Stage	Degree of involvement	Type of exporter	Characteristic indications
1	No involvement abroad	Home market oriented non-exporters	No export and no thought of exporting
2	Pre-involvement	Non-exporters interested in markets abroad	No export but ready to start exporting in the near future
3	Reactive involvement	Reactive or experimental exporters with some potential exports	Products offered primarily on the home market. Only a few (psycho- logically close) foreign markets in- volved. Few foreign operations other than export
4	Active involvement	Active exporters	Increasing number of foreign markets involved with various kinds of foreign operations
5	Committed involvement	Heavily committed exporters	Many foreign markets involved. Alternative forms of foreign operation normal business practice

Source: Bamberger, Evers [1994].

Table 7 - Index of Globalization for SMEs

Index	Degree of involvement	Traded inputs and outputs	Establishments and affiliations	Market opportunities and competition
1,	No globalization "domestic"	All inputs sourced from local area, all outputs sold in local area	Single establishment, no establishments or affiliations outside local area	No market outside local area, no potential competition from outside local area
2	Limited globalization "mainly domestic"	<10 % of inputs sourced across bor- ders, and <10 % re- venue from across borders, usually with- in a limited span of nations	At least one establishment or affiliate outside local area and outside national area	Barriers to entry to outside markets and to local market (for com- petitors) are signifi- cant and amount to more than 50 % of costs
3	Major globalization "internationalized"	>10 %, but <40 % of inputs sourced inter- nationally, and >10 % but <40 % of revenue from across borders, usually across two major international regions	Establishments or close affiliates in at least 4 different nations and in two major international regions (e.g. Europe, North America, Asia)	Barriers to entry are noticeable, make up to 10 % cost disadvantage, but can be overcome fairly easily
4	Extensive "globalized"	>40 % of inputs sourced internation- ally, >40 % of revenue from outputs traded across borders, across all major inter- national regions	Establishments or close affiliates in at least one country in all three major inter- national regions	Barriers to entry to international markets are not a significant impediment for firm or competitors, make up less than 5 % cost disadvantage
5	Complete "fully globalized"	Majority of inputs of any establishment sourced across borders, large majority of outputs traded across borders	Multiple establish- ments or affiliates in many countries and in all major international regions	Markets in all major international regions, competition likely to be present or come from any international region

Source: OECD [1995].

Another approach to gauge the extent to which SMEs are internationalized or globalized was made by a Working Party of the Industry Committee on Small and Medium Sized Enterprises of the OECD [1995]. The approach, which uses a 5-point scale, includes three dimensions which seem relevant for measuring the global activities of SMEs: the proportion of outputs and inputs that are traded across boundaries (either directly or indirectly); the number of establishments in

foreign countries; the number and range of regions which the firm regards as its markets and the competitive threats (Table 7). Once again, the basic assumption is that the typical SME tends to first internationalize via trade in a few countries and later on, when that has proved successful, to establish further operations in other countries and in other kinds of operations. As a rule, it is a long distance for an SME to become fully globalized.

However, there are also some studies which challenge any type of stage-model. Millington and Bayliss [1990], e.g., argue that firms' internationalization is seldom an incremental but often a volatile process. In particular, by integrating in existing export chains, SMEs can make a big jump on the ladder of internationalization.

III Empirical Evidence: Accounting the Involvements of SMEs in International Business

It should be clear from the discussion conducted thus far that the traditional view assuming that SMEs be only local players, does not hold. However, few researchers have actually conducted empirical studies in order to analyze SMEs' global behaviour. Those who have done so using a comprehensive data base are even smaller in number. In addition, most studies have focused only on direct exports within the wide range of cross-border activities, in particular such as granting licences or franchising or establishing joint ventures abroad [Bilkey 1978; Brooks, Rosson 1982; Miesenbock 1988; Bamberger, Evers 1994].

The crucial point is the lack of hard data. Internationalization and globalization are difficult to measure because they imply several dimensions. The Working Party on SMEs of the OECD [1995], which evaluated 18 detailed country studies elaborated by national teams, came to a shattering result:

Carlo de la Carlo

- "few countries keep statistics on exports and imports broken down by firm size;
- "even fewer countries monitor foreign direct investment by SMEs;
- "some SME export activity is carried out indirectly through an intermediary, such as a larger firm or trading house, which makes it difficult to monitor statistically;
- "similarly, some SME international activity is in the form of intangible transactions taking place in alliances, networks, joint ventures and other organizational structures which also makes it hard to monitor; and
- "where statistics are gathered, they are sometimes difficult to compare. For example, measures of SME export activity based on the proportion of SMEs engaged in trade cannot readily be compared with measures of the proportion of trade attributable to SMEs." [p. 51].

To put it briefly: for the time being any judgement about forms and extent of SMEs' internationalization can only be preliminary. It must be derived as a mosaic from different, incomplete, and mostly inconsistent sources (Table 8).

Table 8 - Available Data Covering SMEs' Global Activities

	Statistics on SMEs'	Statistics on SMEs'	Case	Survey	Prior	Data bases
	domestic activities	internation- al activities	studies		research	
Australia	*	na	*	*	*	* "
Belgium	*	*			*	*
Canada	*	na		*	*	• .
Denmark	*	na	*		*	*
Finland	*	*	*		*	*
France	*	*			*	
Germany	*	na		" ,	*	
Greece	*	*			*	
Ireland ²	, *	na			*	
Italy	*	*			*	
Japan	*.	na	*	*	*	
Netherlands	*	*	*	*	*	*
Portugal	*	na	*	*	*	
Spain	*	*			*	***
Sweden	*	na	*	*	*	10 ⁴⁵
Switzerland	*	na		*	*	***
UK	*	na	*	*	*	
USA	*	na			*	*
na = not avai	lable.					

Source: OECD [1995].

1 Forms and Extent of SMEs' Internationalization

Because it is difficult to measure international business, most calculations tend to underestimate the number of SMEs operating globally. Where statistics are available, they usually refer to exporters of goods. The bulk of SMEs, however, exports services. In very broad terms, the OECD Working Group on SMEs [1995] estimated that in OECD about 3 million manufacturing SMEs, but 20 million service SMEs are occasionally engaged in international business (Table 9). Only a relatively small number — less than 1 million — are consistently operating in international markets, less than 40,000 are fully globalized, that means extensively present in global business.

Table 9 - Estimates of the Number of SMEs Engaged in International Business

	Occasiona	lly engaged			Note:
	1.1		Consistently	Fully	Globalized
	Manufac-	Services ^a	engaged	globalized	SMEs in %
	turing				of all SMEs
Australia	46,000	485,000	4,500	500	1 %
Belgium	49,000	144,000	40,000	3,400	7 %
Canada	54,000	755,000	10,000	1,000	2 %
Denmark	38,000	250,000		1,100	2 % - 4 %
Finland	6,000	120,000	6,000	60	1 %
France	267,000	2,023,000		3,000	1 %
Germany	418,000	1,083,000		4,000	1 %
Greece	8,000	6,000		80	1 %
Ireland	5,000	8,000	1,250	50	1 %
Italy	527,000	640,000	250,000	8,000	1.5 %
Japan	856,000	5,600,000	214,000	6,000	<1 %
Netherlands	27,000	52,000	50,000	270	1 %
Portugal	14,000	16,000		100	<1 %
Spain	229,000	1,563,000	73,000	1,000	<1 %
Sweden	43,000	187,000	48,000	400	1 %
Switzerland	72,000	209,000	4,000	700	1 %
UK	251,000	2,189,000	92,000	6,200	2.5 %
USA	322,000	4,500,00	100,000	3,220	1 %
Total OECD	3,232,000	19,830,000	892,750	39,080	
^a Services inclu	des all non-agric	ultural, non-min	ing, and non-ma	nufacturing activ	rities.

Source: OECD [1995].

The overwhelming majority of SMEs in international business are exclusively engaged in exports. Three forms of exportation are possible, namely directly selling abroad to foreign customers, indirectly selling abroad by intermediates (e.g., export merchants), and indirectly selling abroad within a domestic based vertically or horizontally integrated export chain.

Available data mostly refer to direct exporters only and suggest that the share of exporting SMEs as compared to total SMEs varies widely among countries. According to calculations of the OECD Working Party on SMEs [1995] it is the highest in Italy, the Netherlands and Spain and the lowest in Australia, the United States and Canada (Table 10). Obviously, the internationalization opportunities for SMEs are much better in relatively small countries with a flourishing border

economy than in 'isolated' large countries. And the same is true for the share of SMEs' exports as against total exports. In Italy or Denmark this share is many times higher than in the USA. Even despite all statistical difficulties it is clear that SMEs all over the world make a major contribution to exports: for the weighted average of OECD countries SMEs held a share of roughly one quarter.

However, there are only few systematic investigations about the export behaviour of SMEs. The best empirical material stems perhaps from the STRATOS⁶ group, a network of researchers from eight European countries established in the late seventies [Bamberger 1986]. According to them, more than half of a sample of firms in three selected industries were active exporters: among very small sized enterprises (1–10 employees) about 34 percent were exporters, among medium sized enterprises about 80 percent (Table 11). Export orientation increased steadily with firm size. The most export-intensive industry was the electronic industry, the least export-intensive was food-processing.

However, the intensity of export varied considerably within the sample: 60 percent of firms derived less than 25 percent of their sales from exports, only 10 percent attained more than 75 percent (Table 12). Export activities ranged from occasional low-scale deliveries to permanent business up to 95 percent of total sales.

Strategic orientations of small and medium sized enterprises.

Table 10 – Estimates of the Extent of SMEs' Internationalization in OECD Countries

· · · · · · · · · · · · · · · · · · ·			·
	Share of exporting	Share of SMEs'	
	SMEs compared to	exports compared to	Notes
	total SMEs total exports		
to .		cent	
Australia	5 to 10*	na	0-100 employees
Belgium	20*	na	0-500 employees
Canada	14*	na	5-200 employees
Denmark	na	46*	<500 employees
Finland	na	23*	
France	na	26*	
Germany	na	na	SME exports as % of
_			industry turnover
*** · · · · · ·			15 % – 20 %
Greece	na	19	
Ireland	25	na	
Italy	na	53	<500 employees
	68 .	na	51-100 employees
	80	na	101-300 employees
	83	na	301-500 employees
Japan	па	14	<300 direct
By Mary Server	na	30–35	<300 indirect
Netherlands	na	26	<100 indirect + direct
	17	na .	0-9 employees
	43	па	10-99 employees
	67	na	100+ employees
Portugal	na	na	
Spain	18	na	<20 employees
	50	na	51–100 employees
	70	na	101–200 employees
Sweden	na	36	<200 employees
Switzerland	na	40	1200 0
UK	16–20	па	
USA	12*	11*	Sept. Sec.
DD CI			
PR China	na	4060	
Korea	na	40	
Indonesia	na	11	
Taiwan	na	56	
Thailand	na	10	
Malaysia	na	15	
Singapore	na	16	
Vietnam	na	20	
Note: Weighted			
contribution		0.0	
OECD		26	
Non-OECD		35	
* = manufacturing n	a = not available.		

Source: OECD [1995].

Table 11 – Exporters and Non-Exporters among STRATOS Firms^a by Size of Firms and Industry

	Total	of which Exporter
	(Number)	(in percent)
Firm size		
Very small	348	33.6
Small	396	53.3
Fairly small	208	71.6
Medium	104	79.8
Missing	79	•
Industry		
Clothing	379	58.6
Food processing	380	39.5
Electronics	317	63.1
Missing	59	
^a Sample of 1 135 firms in three i	ndustries in eight West-Europ	pean countries from the 1980s.

Source: Bamberger, Evers [1994].

Table 12 – Sales from Exports among Exporting STRATOS Firms^a by Size of Employment

Numbe	Number of employees		Percentage of total sales
0	0 - 24		60.7
25		50	20.1
51	51 – 74		8.7
75		100	10.5
Total			100.0
^a Sample of 1,135 firms in three industries in eight West-European countries from the 1980s			

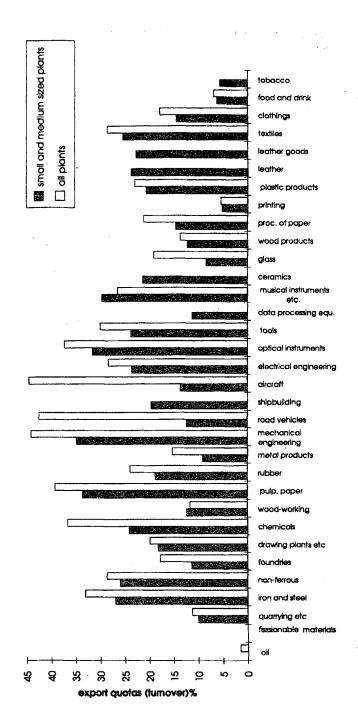
Source: STRATOS Group [1994].

The results achieved by the STRATOS group are fully in line with those provided by various previous studies, although different operationalization reduces comparability considerably. Accordingly, firms' size and export intensity are positively correlated. But there does not exist any polarization whatsoever: at the one end, the small firms mainly selling on the domestic markets, and at the other end the large firms selling on the foreign markets. The pattern is much more complex. Obviously, the contribution of SMEs to total exports varies considerably across industries. Krakowski et al. [1993] presented a calculation of export quotas by plant size (not firm size) in west German manufacturing (Chart 1).8 Accordingly. significant deviations from the rule were observed in typical large scale industries such as road vehicles, aircraft, metal products and chemicals, where export quotas in small and medium sized plants were much lower than in large sized plants; but deviations were also observed in industries such as quarrying, drawing plants, printing, food and beverages, woodworking or musical instruments, where export quotas of small and medium sized plants were close to or even above the average of the industry concerned. By and large, the extent of internationalization of small and medium sized plants as measured by their export quotas corresponds to that of large sized plants of the respective industry.

However, data from a Dutch research project [van Elk, de Lind van Wijngaarden, Moonen 1994] shows that the picture is relatively clear in manufacturing, but not so in construction, wholesale, transport and business services. In wholesale, e.g., the share of exporting firms as well as the export quota do not differ very much; in the size class with less than 10 employees the export quota is even higher than in the other classes (Table 13).

Firm size is a crucial indicator. Some authors used total turnover as a measure [Cavusgil 1984; Yaprak 1985], others the amount of capital in operation [Tesar, Tarleton 1982], others current or long-term plant's or firm's employment [Burton, Schlegelmilch 1987; Lorenzo, Calvo, de las Heras 1993; Bamberger, Evers 1994] or firm's employment in full-time equivalents [van Elk, de Lind van Wijngaarden, Moonen 1994].

Based on data for five Länder.



^aBased on data for five *Lander*.

Source: Krakowski et al. [1993]

Table 13 – Share of Exporting Firms (S) and Export Quota (Q) by Firm Size and Industries in the Netherlands 1992

			Employees per firm				
		<10	10-19	20-49	5099	>100	
Manufacturing	S	16	43	61	76	87	
	Q	29	28	32	43	59	
Construction	S	3	6 -	. 8	15	19	
	Q	20	14	17	14	13	
Wholesale	S	39	52	59	60	61	
	\mathbf{Q}_{\smile}	41	36	37	35	36	
Transport	S	21.	35	45	52	40	
•	Q	52	60	54	57	69	
Business services	S	11	21	27	26	47	
	Q	21	24	13	19	30	
Total	S	18	40	42	53	63	
	Q	38	35	35	40	54	

Source: Van Elk, de Lind van Wijngaarden, Moonen [1994].

The overwhelming majority of studies only described the export profile of SMEs in western countries. In a recent paper Lemoine [1994] examined the export networks of firms in the Czech Republic and in Hungary. The result stressed the importance of SMEs among exporting firms: in 1992 half of the recorded Czech firms employing from 25 to 500 persons were exporters (Table 14). Surely, the bulk of firms was in the category with an export ratio under 20 percent, but a considerable part reported an export ratio above 50 percent (Table 15). SMEs accounted for about 10 percent of total Czech exports.

Table 14 – Exporting Firms in the Czech Republic by Firm Size 1992^a

	Total	of which
	firms	Exporters
	(Number)	(in percent)
Small and medium sized		
(25-500 employees)	1,191	50.6
Large (>500 employees)	568	80.1
Total (>25 employees)	1,759	60.1
*Firms with 25 and more employees in manufa	acturing.	

Source: Lemoine [1994].

Table 15 – Percentage of Sales from Export among Small and Medium Sized Firms in the Czech Republic 1992^a

Sales from ex	les from export compared to total sales (in percent)		Exporting firms (in percent)
5	_	20	44.3
20	_	40	25.0
40	_	50	10.1
50	_	100	20.6
Total			100.0

Source: Lemoine [1994].

Little is known about cross-border activities of SMEs other than exports. The few surveys available confirm the widely held view that most SMEs are deeply rooted in the domestic environment and hesitate to get into far-reaching internationalization activities such as contracting or licensing: according to the STRATOS research, only 7 percent of total exporting and non-exporting firms established marketing subsidiaries and 3 percent production plants abroad, 6 percent granted licenses and franchises to foreign partners, and 5 percent concluded management contracts or set up joint ventures with them. This supports the view that internationalization is a sequential process which starts with experimental exports and is followed by active exports and by other activities. For instance, among those STRATOS firms which reached the highest level of internationalization (heavily committed exporters) 26 percent had foreign marketing subsidiaries and 17 percent granted licences or franchises (Table 16). There is some evidence that foreign investment and international licensing and franchising are based on export activities. If this is true it would be very similar to the features of MNEs' foreign activities [Bamberger, Evers 1994]. However, other studies do not find a systematic relationship [Withey 1980]. Obviously, the reality is much more complex than it can be described in such a simple model.

Table 16 – Foreign Non-Export Activities of STRATOS Firms by Stages of Internationalization — Shares in percent —^a

	Stages of internationalization				
Activities	Experimental exporters	Active exporters	Heavily committed exporters		
Marketing subsidiaries	4.5	16.4	26.6		
	(0.8)	(3.0)	(3.6)		
Production plants	2.5	7.1	9.8		
	(0.4)	(1.3)	(1.3)		
Licences and franchises	7.0	12.2	16.2		
	(1.2)	(2.3)	(2.2)		
Management contracts and	6.5	11.8	15.0		
joint ventures	(1.1)	(2.2)	(2.0)		

Source: Bamberger, Evers [1994].

But acknowledgement of an enhanced role for SMEs in the internationalization process is not to be confused with prepositions such as "small is beautiful" or "small is the vital sector in global markets". The general lesson which can be drawn from these findings is that many SMEs are overcommitted in international business — due to their limited resources. A survey of internationally active Danish SMEs suggests that only a minority of firms (below 10 percent) reached a high degree of internationalization — with sales or production subsidiaries abroad (Table 17). The overwhelming majority were occasional, sporadic, country-oriented or niche exporters mainly dealing with partners in neighbouring countries (Sweden, Norway, Germany).

Results from surveying some hundred Finnish SMEs [OECD 1995] indicate once again that the main strategy used by firms has been export: the majority of SMEs were selling goods to foreign markets, either directly or via agents; and almost 50 percent were indirectly exporting by delivering intermediate goods to a local but internationalized firm (Table 18). A relatively high proportion of them also utilizes subsidiary operations, mostly for sales activities. Only a small proportion,

and this is a surprise, was engaged in contracting. Typically, contracting is considered to be the vehicle to export markets.

Table 17 - Type of Internationalization Activities of Danish SMEs

	Percent of total internationally active SMEs
Low degree of internationalization	·
Occasional exports	16
Indirect exports	3
Subcontractors	2
Average degree of internationalization Sporadic exporters	100 100 1 34 34 4 4 4 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Country-oriented exporters	. 18
Niche exporters	16
High degree of internationalization Committed exporters with sales subsidiaries	
abroad	4
Specialized exporters with some subsidiaries	2
Firms with production abroad	2

Source: OECD [1995].

Table 18 - Type of Internationalization Activities of Finnish SMEs^a

	Percentage of all SMEs			
	Small sized firms	Medium sized firms		
Direct exporting	56	64		
Exporting by foreign middleman	50	65		
Indirect exporting	45	46		
Service operations (supervising, planning,				
installation)	16	16		
Contract manufacture abroad	6	7 .		
Contract manufacture in Finland	2	4		
Know-how operations (licensing, etc.)	3	<u>.</u> 4		
Co-production	4	3		
Subsidiary operations sales	9	40		
Subsidiary operations manufacture	4	34		
Subsidiary operations service	2	8		
^a Based on 317 small and 185 medium sized firm	ns.			

Source: OECD [1995].

In contrast to these findings, there is, in fact, some evidence that a large proportion of SMEs tends to combine internationalization with subcontracting. Other studies show that 35–45 percent of internationally operating SMEs maintain subcontracting activities [Imrie 1986; Glasmeier, Sugiura 1991; Thoburn, Takashima 1992]. The research of the STRATOS Group [1994] concluded that in most countries the share of sub-contracting SMEs is on average about 40 percent (Table 19). Interestingly though, subcontracting is to be found most frequently in electronics, but it is not in evidence in food or clothing, in small sized firms below 100 employees nor in the medium sized firms between 100 and 500 employees. These results suggest that, in principle, sub-contracting is carried out by firms in almost all industries — provided the firms are sufficiently flexible.

Table 19 – STRATOS Firm Sub-Contracting by Countries, Industries and Firm Size

	Percentage of total firms	
Country		
Austria	43.0	
Belgium	40.0	
Finland	32.8	
France	36.1	
West Germany	46.0	
United Kingdom	59.1	
Industry		
Clothing	38.4	
Food	35.7	
Electronics	56.9	
Firm Size		
1 - 10	39.0	
10 – 19	40.3	
20 – 49	47.7	
50 - 99	44.7	
100 < employees	35.1	
All firms	41.4	

Source: STRATOS [1994].

Table 20 - Degree of Internationalization of Danish SMEs^a in Selected Industries in 1992

	Share	Index of	Trend of		Technology	Organiza-
Industry	of	international-	international-	Import share	trend	tional
	SMEs	ization ^b	ization			affiliation
Food	83 %	extensive but	increasing:	national	process	high degree of
		varying	retail chains	supply	efficiency	mergers &
		I: 7–8	decisive	dominant	-	acquisitions
		M: 6	EC/GATT			•
Chemical	87 %	major	increasing:	decisive	knowledge	high degree of
industry		I: 6	environmental	impact	intensive	mergers &
		M: 7	regulation	an faste de l	- (21)	acquisitions
Iron, metal,	90 %	major	increasing:	fundamental	machinery	high but vary-
machinery		I: 4-6	value chain		intensive	ing degree of
]	M: 7	based			subsidiary
	1					formation
Textile,	97 %	major	intensifying:	international	automation	networks and
clothing	1	I: 6	GATT; multi-	subcontracts	but strong	co-operation
		M: 10	fibre agree-		variation	
			ment decisive			
Furniture	97 %	extensive	increasing:	fashion	mechanical	networks and
		I: 7	fashion	dependent	craftsman-	co-operation
		M: 6	dependent		ship	
Paper,	93 %	limited	soaring: scale	increasing	strong varia-	international
printing	1	I: 3-4	dependent	dependence	tion, rapid	wave of
·	1	M: 7		121	development	mergers
Business	97 %	limited	increasing:	none	knowledge	international
services	1	I: 3	follower		based	acquisitions &
		M: 6				alliances

*Firms with less than 200 employees. - ^{b}I = degree of internationalization of the given Danish industry. M = degree of internationalization of the international market.

Source: Pederson [1994].

Pederson et al. [1994] described the overall internationalization of Danish SMEs in selected industries and the forces which have influenced it in the past (Table 20). They calculated an index which gives a first impression of whether Danish SMEs have been leaders or laggards in the internationalization of their industries. Firms in the food industry, e.g., have reached a high level of international orientation compared to the degree of internationalization in world markets. In the textile and clothing industry, in contrast, the degree of internationalization

Their calculations took also into account the degree of competition by imports.

is lower than in international markets. Nevertheless, the firms in these industries account for a substantial share of Danish total exports and re-exports. Interestingly enough, internationalization in most industries is characterized by a network of co-operation schemes, agency agreements, and mergers and acquisitions. The Danish furniture industry, e.g., is increasingly being dominated by large assortment-building firms such as IKEA which bought between 10 and 15 percent of total Danish furniture production for exporting.

2 Factors Sustaining and Impeding SMEs' Internationalization

The perspective of SMEs in international markets can be assumed to be strongly dependent on their capability in developing competitive advantages. This issue has been intensively discussed in theoretical as well as in empirical research. The conclusion is that there are a large number of different factors which can define competitive advantages. The importance of those factors varies within different markets and industries, but some of them are obviously decisive in a global context: according to the STRATOS study [1994] firms considered product quality the key factor, followed by reliability of delivery (Table 21). Low cost position and pricing policy ranked significantly lower, marketing activities were paid even less attention. However, these results need some qualification. The high variance of low-ranking factors reveals large differences between and within industries. For instance, advanced production technology and engineering capacity are very important in electronics, because they are indispensable for high product quality. They are less important in clothing where product quality depends on skills rather than on technology. 4.8 12.6

Table 21 – Factors Used by STRATOS Firms in Getting Comparative Advantages

Rank		Importance	Standard
ł.		Mean	Deviation
1	Product quality	4.53	0.68
2	Reliability of delivery	4.41	0.76
3	Reputation of the firm	4.30	0.74
4	Competence of workers (skills)	4.22	0.88
5	Flexibility of the firm	4.14	0.83
6	Quality of management	4.09	0.89
7	Good local image and personal contacts	4.02	0.97
8	Financial capability	3.96	0.89
9	Purchasing	3.85	1.06
10	Social climate	3.85	1.03
11	Low cost position	3.81	0.98
12	Creativity	3.80	1.12
13	Brand image	3.74	1.22
14	Personal selling	3.73	1.20
15	Payment conditions	3.67	1.08
16	Pricing policy	3.64	1.08
17	Advanced production technology	3.57	1.14
18	Market share	3.52	1.12
19	Product design	3.51	1.34
20	Engineering capacity	3.45	1.33
21	Distribution channels	3.43	1.18
22	Service after delivery	3.42	1.44
23	Variety within product groups	3.31	1.10
24	Advertising/sales promotion	3.16	1.19
25	Technical assistance before delivery	2.82	1.40
26	Size of sales force	2.73	1.19

Source: STRATOS Group [1994].

The factors sustaining and impeding internationalization of SMEs do not differ much from those of large firms, although their impact is perhaps more pronounced. Potential exporters, e.g., often do not reach a minimum scale of production in order to get a significant market share in foreign markets. Co-operation with other firms is frequently necessary to organize sales abroad. The OECD Working Group on SMEs [1995] listed some key factors which were found in almost all the country studies prepared for the group's Synthesis Report. The fol-

lowing listing was provided by the French country report. The main factors liable to provide success are:

- "the amount of experience gained in exporting the more experience an SME has got, the more likely it is to be successful;
- "the extent of use made of public assistance programmes the main factor here seems to be that more dynamic and entrepreneurial managers are more successful, and are more adept and persistent at acquiring whatever forms of assistance are available;
- "high levels of non-physical investment SMEs which are more innovative and more heavily involved in technologically advanced products are more likely to be successful in international markets;
- "subcontracting relations to large firms assist SMEs to develop international experience and contacts; and
- "subsidiaries of foreign enterprises tend to be more dynamic when it comes to exporting, perhaps because they have a less insular approach than some indigenous French managers."

The main factors liable to prevent success are:

- "less than critical size needed for sustained international activity medium sized exporters perform better than small ones;
- "time constraints on management of smaller enterprises;
- "lack of longer term vision and long term commitment necessary for export in smaller firms;

- "lack of finance and financial breadth SMEs generally pay more for credit and have to accept longer payment periods;
- "higher levels of social security payments required of French SMEs relative to competitors in other parts of Europe; and
- "SME managers' lack of knowledge of foreign languages and their lack of willingness to work in other countries." [OECD 1995: 89].

In some respect, sustaining and impeding factors are just two sides of the coin. But their relevance may be different — e.g., depending on the type of internationalization adopted. For instance, international experience is important to firms which are active exporters or which run a subsidiary or a joint venture abroad. But it is less important to firms which manufacture under license or under other contractual forms. What matters in that case is to find a reliable foreign partner. According to a Dutch survey [van Elk, de Lind van Wijngaarden, Moonen 1994], firm size was considered an impediment only for SMEs more globalized, not for those which simply export (Table 22).

It should also be remembered that almost all of these results refer to surveys made in western developed market economies. Trade and other forms of cross-border operations among firms in these countries may be expected to be of intra-industry type rather than of inter-industry type. Intra-industry transactions are mainly determined by attributes of goods and services such as quality, utility value or design. They are less sensitive to the selling price. In this respect, the situation for SMEs in Central East European reform countries may be different. They are still heavily involved in inter-industry transactions for which count, inter alia, low costs and low prices.

Table 22 – Main Factors Sustaining and Impeding Internationalization by Dutch SMEs^a

Forms of interna			tionalization	
A sindle of	Export	Subsidiary or joint venture	Cooperative or licensing	
Sustaining	International experience Personal contacts with foreign clients Well positioned in home market Trade liberalization	Product adaptability International experience Management resources and time	Reliable partner Product adaptability Management resources and time	
Impeding	Cashflow, problems in providing trade credit Finance	Finance Management resources and time	Reliability of partner Finance Firm size	
	Management resources and time	Transport, communica- tions	Product adaptability	
		Firm size Product adaptability		
*Based on responses of 118 export agents and advisors.				

Source: van Elk, de Lind van Wijngaarden, Moonen [1994].

IV Outlook: Defining a Research Agenda

Although there is a wide range of fragmented evidence that SMEs play an important role in the internationalization process — empirical results are not conclusive but puzzling:

- The first puzzle is to define SMEs' position in the globalization process. The arguments developed in this paper suggest that SMEs can rank among the winners rather than being condemned to be the losers. This view challenges the conventional wisdom that SMEs are usually operating at a suboptimal scale in global markets.
- The second puzzle is that frequently arm's-length transactions or contractual control can be more efficient in organizing cross-border activities than other forms of internationalization. In the literature, in contrast, hierarchical con-

- trol and intra-firm transactions are the standard model for internationalization. In this model there is less scope for SMEs.
- The third puzzle is the route to internationalization. The predominant conclusion from the literature is that SMEs usually pass through a sequence of different stages of internationalization, starting with some experimental export in one or a few countries. But empirical evidence suggests that most of the typical operations at each stage complement each other rather than being substitutes. Especially SMEs which intend to enter a foreign market often need a joint venture partner there.

The following questions should be put on top of the research agenda:

- What is the role of SMEs in a global economy? In which way and to what extent do they become internationalized?
- What does it mean to apply the concept of an export chain to the mechanism of inter-firm co-ordination among SMEs? How are the chains organized by equity based control or by flexible contractual arrangements between independent firms?
- What are typical operations carried out by SMEs within an export chain? Where are these operations located — in the core or at the periphery of the value chain? Where and how do SMEs develop competitive advantages?
- How important is physical distance for SMEs' internationalization? What are the consequences of opening up internal European frontiers and simplifying export procedures? What can SMEs contribute to the development of peripheral border regions?
- How does the pattern of SMEs' internationalization differ with regard to industries, regions and firm size? How does it differ from that of MNCs?

asset in

- What factors allow SMEs to become internationalized or what kind of SMEs are actually involved in international operations? What does flexible specialization imply for SMEs?
- What are the main impediments to SMEs' internationalization? How can SMEs overcome them?
- And last but not least: what policy measures have been adopted or should be taken into consideration for steering SMEs' internationalization?

In its own small way, this paper has tried to sketch the route for such type of research.

References

- Abernathy, F. H., J. T. Dunlop, J. H. Hammond, D. Weil (1995). The Information-Integrated Channel: A Study of the U.S. Apparel Industry in Transition. Brooking Papers on Economic Activity. Microeconomics: 175-246.
- Aoki, M., B. Gustafsson, and O. Williamson (1990). The Firm as a Nexus of Treaties. London.
- Audretsch, D. B. (1992). Small Business in Industrial Economics: The New Learning. WZB Discussion Papers FS IV 92–16.
- Bamberger, I. (1986). The STRATOS Project: Frame of Reference and Methodology. Cahiers Stratégie et Organisation, (18). Rennes.
- Bamberger, I., and R. Bonacker (1994). Strategies of Small and Medium Sized Enterprises in their Measurement. In I. Bamberger (ed.), *Product/Market Strategies of Small and Medium Sized Enterprises*. Aldershot.
- Bamberger, I., and M. Evers (1994). Internationalization Behaviour of Small and Medium-Sized Enterprises Empirical Results. In I. Bamberger (ed.), Product/Market Strategies of Small and Medium-Sized Enterprises. Aldershot.
- Bilkey, J. J. (1978). An Attempted Integration of the Literature on the Export Behaviour of Firms. *Journal of International Business Studies*, 9(1): 33–46.
- Bilkey, W. J., and G. Tesar (1977). The Export Behaviour of Smaller Sized Wisconsin Manufacturing Firms. *Journal of International Business Studies*, 18: 93–98.
- Blaine, M. J. (1994). Co-operation in International Business: The Use of Limited Equity Arrangements. Aldershot: Avebury.
- Bonturi, M., and K. Fukasaka (1993). Globalization and Intra-Firm Trade: An Empirical Note. OECD Economic Studies No. 20: 145–157.

- Brooks, M. R., and P. J. Rosson (1982). A Study of Export Behaviour of Small and Medium Sized Manufacturing Firms in Three Canadian Provinces. In M. R. Czinkota and G. Tesar (eds.), Export Management: An International Context. New York: 39-54.
- Buckley, P., and M. Casson (1976). The Future of the Multinational Enterprise. London.
- Burton, F. N., and B. B. Schlegelmilch (1987). Profile Analyses of Non-Exporters versus Exporters Grouped by Export Involvement. *Management International Review*, 27(1): 38–49.
- Capello, R., and A. Gillespie (1994). Communication Infrastructure and Possible Future Spatial Scenarios. In J. R. Cuadrado-Roura, P. Nijkamp and P. Salva (eds.), Moving Frontiers: Economic Restructuring, Regional Development and Emerging Networks. Aldershot: Avebury: 167–191.
- Caves, R. (1971). International Corporations: The Industrial Economics of Foreign Investment. *Economica*, N.S., 28: 1–27.
- Cavusgil, S. T. (1984). Differences among Exporting Firms Based on their Degree of Internationalization. *Journal of Business Review*, 12(2): 195–208.
- Coase, R. (1937). The Nature of the Firm. Economica, N.S., 4: 386-405.
- Dunning, J. H. (1979). Explaining Changing Patterns of International Production: In Defense of the Eclectic Theory. Oxford Bulletin of Economics and Statistics: 269–295.
- (1993). Globalization of Business: The Challenge of the 1990s. London and New York.
- (1995). The Role of Foreign Direct Investment in a Globalizing Economy. Banca Nazionale de Lavoro Quarterly Review, Vol. XLVIII, No. 193, June: 155-244.

- Dunning, J. H., and G. Norman (1984). Intra-Industry Foreign Direct Investments: Its Rationale and Trade Effects. Weltwirtschaftliches Archiv, 120: 522-540.
- Elk, K. van, K. de Lind van Wijngaarden and B. Moonen (1994). Globalization of Economic Activities and Small and Medium-Sized Enterprise Development. Economisch Instituut voor het Midden- en Kleinbedrijf, Zoetermeer.
- Glasmeier, A., and N. Sugiura (1991). Japan's Manufacturing System: Small Business Subcontracting and Regional Complex Formation. *International Journal of Urban and Regional Research*, September.
- Hymer, S. (1976). The International Operations of National Firms. Cambridge, Mass.
- Imrie, R. F. (1986). Work Decentralization from Large to Small Firms: A Preliminary Analysis of Subcontracting. Environment and Planning, 18: 949-965.
- Johanson, I., and I.-E. Vahlne (1977). The Internationalization Process of the Firm A Model of Knowledge Development and Increasing Market Commitments. *Journal of International Business Studies*, 8(1): 23-32.
- Johnston, R., and P. Lawrence (1988). Beyond Vertical Integration. The Rise of Value Adding Partnership. Harvard Business Review, July-August: 94-101.
- Krakowski, Michael, Dietmar Keller, Diana Winkler-Büttner, Cora Wacker-Theodorakopoulos, Andreas Lux (1993). The Globalization of Economic Activities and the Development of Small and Medium Sized Enterprises in Germany. HWWA-Report 132, Hamburg.
- Krugman, P. (1995). Growing World Trade: Causes and Consequences. Brookings Papers on Economic Activity, 1: 327–377.

- Kumar, N. B. (1989). Formen der internationalen Unternehmenstätigkeit. In K. Macharzina und M. K. Welge (eds.), Handwörterbuch Export und internationale Unternehmen. Stuttgart: 175–190.
- Lemoine, F. (1994). The Network of Exporting Firms in the Czech Republic and Hungary 1991–1992. Paper prepared for the workshop "Corporate Restructuring, Foreign Trade Performance and Economic Policy". ACE-Research Program, Vienna, 17–20 November, (mimeo).
- Lorenzo, M. J., J. L. Calvo, S. de las Heras (1993). Globalization of Economic Activities and SMEs' Economic Development. Interim Report Spain. Instituto de la Pequeña y Mediana Empresa Industrial (IMPI), Madrid.
- McGraw, A. G., and P. G. Lewis (eds.) (1992). Global Politics: Globalization and the Nation State. Cambridge.
- McMillan, J. (1995). Reorganizing Vertical Supply Relationships. In H. Siebert (ed.), Trends in Business Organization: Do Participation and Cooperation Increase Competitiveness?. Tübingen: 202–222.
- Miesenbock, K. J. (1988). Small Businesses and Exporting: A Literature Review. International Small Business Journal, (2): 42-61.
- Milgrom, R., J. Roberts (1995). Continuous Adjustment and Fundamental Change in Business Strategy and Organization. In H. Siebert (ed.), Trends in Business Organization: Do Participation and Cooperation Increase Competitiveness?. Tübingen.
- Millington, A. I., and B. T. Bayliss (1990). The Process of Internationalization: UK Companies in the EC. Management International Review, 30(2): 151–161.

- Monoyer, M. C., P. Leo, J. Philippe (1994). The Partnership between Small Firms and Metropolitan Areas. The Response to the Challenge of Internationalization. In J. R. Cuadrado-Roura, P. Nijkamp, P. Salva (eds.), Moving Frontiers: Economic Restructuring, Regional Development and Emerging Networks. Aldershot: 79-98.
- Naujoks, P., and K.-D. Schmidt (1994). Outward Processing in Central and East European Transition Countries: Issues and Results from German Statistics. Kiel Working Paper No. 631.
- Naujoks, P., and K.-D. Schmidt (1995). Foreign Direct Investment and Trade in Transition Countries: Tracing Links. A Sequel. Kiel Working Paper No. 704.
- Nunnenkamp, P., E. Gundlach, and P. Agarwal (1994). Globalization of Production and Markets. Kieler Studien 263. Tübingen.
- Pederson, K. (ed.) (1994). Globalization of SMEs. Country Report Denmark.

 Department of International Business. The Aarhus School of Business.
- Perlmutter, H., and D. Heenan (1986). Cooperate to Compete Globally. *Harvard Business Review*, March–April: 136–152.
- OECD (1995). Globalisation of Economic Activities and the Development of SMEs. Synthesis Report of the Working Party of the Industry Committee on Small and Medium Sized Enterprises (SMEs). Paris, mimeo.
- Root, F. (1984). Some Trends in the World Economy and Their Implications for International Business. *Journal for International Business Studies*, Spring/ Summer: 13-21.
- Scherer, F. M. (1988). Testimony before the Subcommittee on Monopolies and Commercial Law. Committee on the Judiciary, US House of Representatives.

- Stratos Group (1990). Strategic Orientation of Small European Businesses. Aldershot.
- Tesar, G., and J. S. Tarleton (1982). Comparison of Wisconsin and Virginia Small and Medium-Sized Exporters: Aggressive and Passive Exporters. In M. R. Czinkota, G. Tesar (eds.), Export Management: An International Context. New York: 85-112.
- Thoburn, J. T., and M. Takashima (1992). Industrial Subcontracting in the UK and Japan. Aldershot.
- UNCTAD (1993). World Investment Report 1993. Transnational Corporations and Integrated International Production. New York.
- UNCTAD (1994). World Investment Report 1994. Transnational Corporations, Employment and the Workplace. New York and Geneva.
- Williamson, O. E. (1975). Markets and Hierarchies: Analysis and Anti-Trust Implications. New York.
- (1985). The Economic Institutions of Capitalism. New York.
- Withey, J. J. (1980). Differences Between Exporters and Non-Exporters: Some Hypotheses Concerning Small Manufacturing Business. *American Journal of Small Business*, 4(3): 29–37.
- Yaprak, A. (1985). Empirical Study of Differences Between Small Exporting and Non-Exporting US Firms. *International Marketing Review*, 2(2): 72–83.

Annex:

SMEs and Internationalization: Selected Publications

- ABN Amro Bank (1991). Met kracht naar het buitenland: exportmogelijkheden van het Nederlandse MKB (Full speed abroad: export opportunities for Dutch SME). Amsterdam.
- Acs, Zoltan J., and David B. Audretsch (1987). Innovation, Market Structure and Firm Size. Review of Economics and Statistics, 69(4), November: 567–575.
- (1988). R&D and Small Firms. Testimony before the Subcommittee on Monopolies and Commercial Law, Committee on the Judiciary, U.S. House of Representatives, February 24.
- (1988). Innovation in Large and Small Firms: An Empirical Analysis. *American Economic Review*, 78(4), September: 678–690.
- Acs, Zoltan J., David B. Audretsch and Maryann P. Feldman (1993). R&D Spillovers and Recipient Firm Size. *Review of Economics and Statistics*, 99.
- Ali, A., and P. M. Swiercs (1991). Firm Size and Export Behaviour: Lessons from the Midwest. *Journal of Small Business Management*, 29(2): 71-78.
- Amin, A. (1989a). Specialization without Growth: Small Footwear Firms in Naples. In E. Goodman (ed.)., Small Firms and Industrial Districts in Italy. London: Routledge.
- (1989b). Flexible Specialization and Small Firms in Italy: Myths and Realities. Antipode, 21(1): 13–34.
- Amro Bank/KNOV (1983). Betere exportkansen voor midden- en kleinbedrijf (Improved export opportunities for SMEs).

- Aoki, Masahiko, B. Gustafsson and Oliver E. Williamson (eds.) (1990). The Firm as a Nexus of Treaties. London.
- Audretsch, David B. (1992). Small Business in Industrial Economics: The New Learning. WZB Discussion Papers FS IV 92–16, September.
- Auquier, A. A. (1980). Sizes of Firms, Exporting Behaviour, and the Structure of French Industry. *The Journal of Industrial Economics*, 29(2): 203–219.
- Bamberger, Ingolf (1981). Strategies of Small and Medium-sized Firms and their Measurement. Cahiers Strategie et Organisation, (7B). Rennes.
- (1983). Value Systems, Strategies and the Performance of Small and Medium-sized Firms. European Small Business Journal, (1), Summer: 25–39.
- (1986). The STRATOS Project: Frame of Reference and Methodology. Cahiers Stratégie et Organisation, (18). Rennes.
- (1989). Developing Competitive Advantage in Small and Medium-sized Firms. Long Range Planning, (5): 80-88.
- (1989). Strategies of Small and Medium-sized Firms in Globalizing Markets.

 Maastricht.
- (ed.) (1994). Product/Market Strategies of Small and Medium Sized Enterprises. Aldershot.
- Bannasch, Hans-Gerd (1990). The Role of Small Firms in East Germany. Small Business Economics, 2(4): 307-312.
- (1993). The Evolution of Small Firms in East Germany. In Zoltan J. Acs and David B. Audretsch (eds.), Small Firms and Entrepreneurship: An East-West Perspective. Cambridge, England.
- Bannock, G. (1981). The Economics of Small Firms. Oxford: Basil Blackwell.

- Bannock, G., and A. Doran (1980). The promotion of small business: a 7-country study.
- Bartlett, Will (1995). Employment Growth and Small Firms Policy in South East Europe. Paper prepared for the Fourth Freiberg Symposium on Economics, Microeconomics of Transition and Growth, (mimeo).
- Bellini, Nicola (1987). Intermediaries and Structural Change in Small Firm Areas. The Italian Experience. Stanford, June.
- Berg, Th. J. J. M. van den, et al. (1986). Exporterend MKB in industrie en groothandel (Exporting SME in industry and wholesale trade). Zoetermeer.
- Bianchi, P. (1993). The Promotion of Small-Firms Clusters and Industrial Districts: European Policy Perspectives. *Journal of Industrial Studies*, 1: 16–29.
- Bilkey, J. J. (1978). An Attempted Integration of the Literature on the Export Behaviour of Firms. *Journal of International Business Studies*, 9(1):33–46.
- Bilkey, W. J., and G. Tesar (1977). The Export Behaviour of Smaller Sized Wisconsin Manufacturing Firms. *Journal of International Business Studies*, 18: 93–98.
- Birley, S., and P. Westhead (1990). The Growth and Performance Contrasts between "Types" of Small Firms. Strategic Management Journal, 11: 535ff.
- Bradley, John, and John Fitz Gerald (1990). Production Structure in a Small Open Economy with Mobile and Indigenous Investment. *European Economic Review*, 34: 364–74.
- Brock, William A., and David S. Evans (1989). Small Business Economics. Small Business Economics, 1(1): 7-20.

- Brooks, M. R., and P. J. Rosson (1982). A Study of Export Behaviour of Small and Medium-sized Manufacturing Firms in Three Canadian Provinces. In M. R. Czinkota and G. Tesar (eds.), Export Management: An International Context. New York: 39-54.
- Brusco, S. (1992). Small Firms and the Provision of Real Services. In F. Pyke and W. Sengenberger (eds.), *Industrial Districts and Local Economic Regeneration*. ILO, Geneva: 177–196.
- Bryson, J., P. Wood, and D. Keeble (1993). Business Networks, Small Firm Flexibility and Regional Development in UK Business Services. *Entrepreneurship and Regional Development*, 5: 265–277.
- Buckley, P. J. (1989). Foreign Direct Investment by Small and Medium-Sized Enterprises. *Small Business Economics*, 1: 89–100.
- Buckley, P. J., et al. (1988). Foreign Direct Investment by Smaller UK Firms.

 London: Macmillan.
- Bulstra, R. S. (1988). Exportondersteuning voor het MKB: een analyse van de knelpunten (SME export support: an analysis of the bottlenecks). EVD/University of Twente.
- Burns, P., and J. Dewhurst (1986). Small Business in Europe. In P. Burns and J. Dewhurst (eds.), Small Business in Europe. London: Macmillan.
- Burns, P., and Ch. Choisne (1991). High Performance SMEs; A Two Country Study, 21st European Small Business Seminar. Barcelona, September 18-20.
- Burton, F. N., and B. B. Schlegelmilch (1987). Profile Analyses of Non-Exporters versus Exporters Grouped by Export Involvement. *Management International Review*, 27(1): 38–49.

- Butler, J. E., and G. S. Hansen (1991). Network Evolution, Entrepreneurial Success, and Regional Development. *Entrepreneurship and Regional Development*, 3: 1–16.
- Cannon, T. (1980). The Smaller Firm in the Environment. In A. Gibb and T. Webb (eds.), *Policy Issues in Small Business Research*, Westmead et al.: 140-154.
- Cappelin, R. (1990). The European Internal Market and the Internationalization of Small and Medium-Size Enterprises. *Built Environment*, 16(1): 69–84.
- Carland, J. W. et al. (1984). Differentiating Entrepreneurs from Small Business Owners. A Conceptualisation. Academy of Management Review, (9): 354-359.
- Carlsson, B. (1990). Small Scale Industry at a Crossroad: U.S. Machine Tools in Global Perspective. In Z. J. Acs and D. B. Audretsch (eds.), The Economics of Small Firms: A European Challenge. Doredrecht: Kluwer Academic Publishers.
- Castro, Alberto de (ed.) (1994). Globalization of Economic Activities and Small and Medium Sized Development. Country Study Portugal. Centro de Estudos de Gestao e Economico Aplicada, Universidade Católica Portuguesa, Porto.
- Cavusgil, S. T. (1980). On the Internationalization Process of Firms. European Research, 8(6): 273-281.
- Cavusgil, S. T. (1984). Differences Among Exporting Firms Based on Their Degree of Internationalization. *Journal of Business Review*, 12(2): 195–208.
- (1984). Organizational Characteristics Associated with Export Activity. *Journal of Management Studies*, 21(1).

- Central Bank of the Association of Commerce and Industry (1977). Shitauke chuushou kigyou no genkyou—antei seichou keizai ka ni ikiru michi (Present state of medium and small firms which subcontract—a means of living under a stale growth economy). Yaesu shoukou.
- Charreaux, G. (1985). Le dilemme des PME: ouvrir son capital on s'endetter. Revue Française de Gestion, January-February: 59-72.
- Chicha, J., and P.A. Julien (1981). La stratégie des PME face au changement, Phase I. Cahiers de recherche, No. 81–04, LAPEDIM, Université du Québec à Trois-Rivières.
- (1983). La stratégie des PME face au changement, Phase II. Cahiers de recherche, No. 83–06, LAPEDIM, Université Trois-Rivières.
- Christensen, P. R., and L. Lindmark (1993). Location and Internationalization of Small Firms. In L. Lundqvist and L. O. Persson (eds.), Visions and Strategies in European Integration —A North European Perspective. Springer-Verlag, Heidelberg: 131-151.
- Churchill, N. C., and V. L. Lewis (1983). The Five Stages of Small Business Growth. *Harvard Business Review*, (5–6): 30ff.
- Clarke, J. M., and J. Bell (1991). Exporting as a Growth Strategy for SMEs located in the Peripheral Region of the EC. Paper presented at the 21st European Small Business Seminar: Entrepreneurship and Growth. Barcelona.
- Cohen, Wesley M., and Steven Klepper (1991). Firm Size Versus Diversity in the Achievement of Technological Advance. In Zoltan J. Acs and David B. Audretsch (eds.), Innovation and Technological Change: An International Comparison. Ann Arbor, Michigan: 183–203.
- (1992). The Tradeoff between Firm Size and Diversity in the Pursuit of Technological Progress. Small Business Economics, 4(1), March: 1–14.

- Commission of the European Communities, DG XXIII (1992). The Market for Transnational Cooperation Among Small and Medium-Sized Enterprises, Summary Report. Brussels.
- Cuadrado-Roura, Juan R., Peter Nijkamp, Pere Salva (1994) (eds.). Moving Frontiers: Economic Restructuring, Regional Development and Emerging Networks. Aldershot.
- Culpan, R. (1989). Export Behaviour of Firms: Relevance of Firm Size. *Journal of Business Research*, 18: 207–218.
- Curran, J. et al. (1993). Networks and Small Firms: Constructs, Methodological Strategies and Some Findings. *International Small Business Journal*, 11(2): 12-26.
- Curran, J., and R. Blackburn (1994). Small Firms and Local Economic Networks. London: Paul Chapman Publishing.
- Dailey, R. et al. (1977). The Family-owned Business. Capital Funding. American Journal of Small Business, (2): 30-39.
- Davig, W. (1986). Business Strategies in Smaller Manufacturing Firms. *Journal of Small Business Management*, January: 38–46.
- Dembinski, P. H., in collaboration with H. Unterlerchner (1994). L'internationalisation des PME suisses à l'horizon de l'an 2000. Genf
- Dichtl, E., M. Leibold, H. G. Köglmayr, and S. Müller (1984). The Export Decision of Small and Medium-sized Firms: A Review. *Management International Review*, 24(2): 49-60.
- Diwan, R. (1989). Small Business and the Economics of Flexible Manufacturing. Small Business Economics, 1: 101–109.
- Donckels, R. et al. (1987). Politique financière et financement des PME en Belgique. Louvain.

- Donckels, R., and R. Aerts (1992). *KMO's en internationalisering* (SMEs and Internationalization). King Boudain Foundation. Brussels.
- Dörnberg, E.-A. Freiherr von (1982). Die Internationalisierung mittelständischer Industrieunternehmungen: Auswirkungen auf Organisationsstruktur und Führungsstil. Göttingen.
- Droucopoulos, V., Stravros B. Thomadakis, with the assistance of D. Seremetis (1994). Globalization of Economic Activities and Small and Medium Sized Enterprises Development. Country Study Greece. University Athens. Athens.
- Economisch Instituut voor het Midden- en Kleinbedrijf (1989). The Participation of SME in Exporting Outside the Community; Volume 1, Summary and Recommendations; Volume 2, Literature Survey; Volume 3, Sample Survey. Zoetermeer.
- Elk, J. W. van (1992). SME Export: Scope, Potential and Beyond. Economisch Instituut voor het Midden- en Kleinbedrijf, Zoetermeer.
- Elk, Koos van, Karin de Lind van Wijngaarden, Bram Moonen (1994). Globalisation of Economic Activities and Small and Medium-Sized Enterprise Development. Economisch Instituut voor het Midden- en Kleinbedrijf, Zoetermeer.
- Eskelinen, H., T. Lautanen, and B. Forsström (1994). The Internationalization of SMEs in Four Finnish Regions: Some Tentative Observations. In L. Lundqvist and L. O. Persson (eds.), Northern Perspectives on European Integration. NordREFO, 1: 115–133.
- European Network for SME Research (1993). The European Observatory for SMEs. First Annual Report. Zoetermeer.

- Fitzroy, Felix R. (1989). Firm Size, Efficiency and Employment: A Review Article. Small Business Economics, 1(1): 75–80.
- Ganier, G. (1982). Comparative Export Behaviour of Small Canadian Firms in the Printing and Electrical Industries. In M. R. Czinkota and G. Tesar (eds.), Export Management: An International Context. New York: 113-131.
- Gankema, H. G. J., and P. S. Zwart (1993). The Relationship between Firm Characteristics and Export Involvement of Small Firms. University of Groningen.
- Germidis, Dimitri (ed.) (1980). International Subcontracting: A New Form of Investment. Organization for Economic Cooperation and Development, Paris.
- Glasmeier, Amy, and Noriuki Sugiura (1991). Japan's Manufacturing System: Small Business, Subcontracting and Regional Complex Formation. *International Journal of Urban and Regional Research*, September.
- Goodman, E. et al. (Eds.) (1989). Small Firms and Industrial Districts in Italy. London: Routledge.
- Graham Bannock & Partners LTD (1994). Globalization of Economic Activity and SME Development. United Kingdom, London (mimeo).
- Hall, Bronwyn H. (1987). The Relationship Between Firm Size and Firm Growth in the U.S. Manufacturing Sector. *Journal of Industrial Economics*, 35, June: 583-605.
- Hitchens, D. M. W. N., and P. N. O'Farrell (1988). Comparative Performance of Small Manufacturing Firms in Northern Ireland and S E England. *Regional Studies*, (6): 543ff.

- Hughes, Alan (1993). Industrial Concentration and the Small Business Sector in the U.K.: The 1980's in Historical Perspective. In Zoltan J. Acs and David B. Audretsch (eds.), Small Firms and Entrepreneurship: An East-West Perspective. Cambridge, England.
- Imrie, R.F. (1986). Work Decentralization from Large to Small Firms: A Preliminary Analysis of Subcontracting. *Environment and Planning*, 18: 949–965.
- Invernizzi, B., and Riccardo Revelli (1993). Small Firms in the Italian Economy: Structural Changes and Evidence of Turbulence. In Zoltan J. Acs and David B. Audretsch (eds.), Small Firms and Entrepreneurship: An East-West Perspective. Cambridge, England.
- Jannik, J. (1993). Naar en international MKB (To an International SME). Economische Statistische Berichten, January 20: 62–64.
- Johanson, J., and F. Wiedersheim-Paul (1975). The Internationalization Process of the Firm Four Swedish Cases. *The Journal of Management Studies*, 12, October: 305–322.
- Johanson, J., and J.-E. Vahlne (1977). The Internationalization Process of the Firm A Model of Knowledge Development and Increasing Market Commitments. *Journal of International Business Studies*, 8(1): 23–32.
- Johns, Brian L. (1987). Erfolgreiche Diversifikationsstrategien kleiner und mittlerer Unternehmen in Australien. Internationales Gewerbearchiv, 3: 169– 177.
- Johns, Brian L., W. C. Dunlop, and W. J. Sheehan (1983). Small Business in Australia, Problems and Prospects. 2nd Edition.
- Joynt, P., and L.A. Welch (1985). Strategy for Small Business Internationalization. *International Marketing Review*, 3: 64–73.

- Kao, R. W. Y. (1987). Small Business Management. A Strategic Emphasis. Toronto.
- Kaufmann, F., L. Kokalij, E. May-Strobl (1990). EG-Binnenmarkt: Die grenzüberschreitende Kooperation mittelständischer Unternehmen. Schriften zur Mittelstandsforschung, 34. Stuttgart.
- Kaynak, E., and V. Kothari (1984). Export Behaviour of Small and Mediumsized Manufacturers: Some Policy Guidelines for International Marketers. Management International Review, 24(2): 61-69.
- KMO-Studiecentrum (1994). Globalisation and SME. Country Study Belgium. Brussels.
- Koning, A. C. P. de, and J. A. H. Snijders (1991). Policy on Small and Medium-Sized Enterprises in Countries of the European Community. Economisch Instituut voor het Midden- en Kleinbedrijf, Zoetermeer.
- Krakowski, Michael, Dietmar Keller, Diana Winkler-Büttner, Cora Wacker-Theodorakopoulos, Andreas Lux (1993). The Globalization of Economic Activities and the Development of Small and Medium Sized Enterprises in Germany. HWWA-Report 132, Hamburg.
- Kulhavy, E., K. Nöhmayer, L. Schadenhover, and H. J. Schelling (1982). Exportprobleme von Klein- und Mittelbetrieben: Eine empirische Untersuchung. Linz.
- Lehtimäki, Allan (1992). Product-Market Strategy Changes, Internationalization and Performance of European Small and Medium-sized Enterprises. Tampere University of Technology, Publications 105, Tampere.
- Lindmark, Leif (1994). Internationalization of Swedish SMEs. (Forthcoming).

1 1 th 2 1 1

- Lindmark, Leif, and Heikki Eskelinen (1994). Internationalization of Nordic SMEs from an EU Perspective. Umeå Business School, Umeå, and Karelian Institute, University of Joensuu, Joensuu (mimeo).
- Lindmark, Leif, Lars Lindbergh and Niklas Palm (1994). Globalization of Economic Activities and SME Development. Sweden. Umeå Business School. Umeå (mimeo).
- Lindquist, M. (1991). Infant Multinationals. The Internationalization of Young Technology Based Swedish Firms. Stockholm.
- Link, Albert N., and Barry Bozeman (1991). Innovative Behaviour in Small-Sized Firms. *Small Business Economics*, 3(3), September: 179–184.
- Loiseau, B., and C. Dupont (1981). Facteurs de succès et d'échecs dans les PME. Revue Française de Gestion, September-October: 19-30.
- Lorenzo, M. J., J. L. Calvo, S. de las Heras (1993). Globalization of Economic Activities and SMEs' Economic Development. Interim Report Spain. Instituto de la Pequeña y Mediana Empresa Industrial (IMPI), Madrid.
- Louter, P. J. (1989). Exportproblemen van het midden- en kleinbedrijf (SME Export Problems). Economische Statistische Berichten, 74, March 15: 266–268.
- Loyeman, Gary, and Werner Sengenberger (1991). The Re-emergence of Small-Scale Production: An International Perspective. Small Business Economics, 3(1), March: 1-38.
- Luostarinen, Reijo, and Harri Hellman (1993). Internationalization Process and Strategies of Finnish Family Firms. Helsinki.
- Luostarinen, Reijo, and Harri Hellman (1994). The Internationalization Process and Strategies of Finnish Family Firms. CIBR Research Papers, Helsinki School of Economics, Helsinki (forthcoming).

- Luostarinen, Reijo, Heli Korhonen, Jukka Jokinen, and Timo Pelkonen (1994).

 Globalisation and SME. Ministry of Trade and Industry, *Studies and Reports* 59. Finland.
- Lynn, M. L., and N. L. Reinsch (1990). Diversification Patterns Among Small Businesses. *Journal of Small Business Management*, (4), October: 60-70.
- Lyons, Bruce R., and Susan Bailey (1991). Small Subcontractors in UK Engineering: Competitiveness, Dependence and Problems. University of East Anglia, Norwich, mimeo.
- Mason, C. M. (1987). The Small Firm Sector. In William F. Lever (ed.), *Industrial Change in the United Kingdom*. Harlow.
- Mata, J. (1993). Small Firms in Portuguese Manufacturing Industries. In Z. Acs and D. B. Audretsch (eds.), Small Firms and Entrepreneurship: An East-West Perspective. Cambridge: Cambridge University Press.
- McCormick, K. (1988). Small Firms, New Technology and the Division of Labour in Japan. New Technology, Work and Employment, 3(2).
- Meissner, H. G. (1984). Auslandsaktivitäten mittelständischer Unternehmen (Foreign Activities of SMEs). Dortmund.
- Miesenbock, K. J. (1988). Small Businesses and Exporting: A Literature Review. International Small Business Journal, 2: 42-61.
- Millington, A. I., and B. T. Bayliss (1990). The Process of Internationalization: UK Companies in the EC. *Management International Review*, 30(2): 151–161.
- Moliver, D. M. (1983). The Small Business Dilemma: Can Cooperation Help? American Journal of Small Business, 3: 51–58.

- Monnoyer, M. C., P. Leo, J. Philippe (1994). The Partnership between Small Firms and Metropolitan Areas: The Response to the Challenge of Internationalization. In J. R. Cuadrado, P. Nijkamp, P. Salva (eds.), Moving Frontiers: Economic Restructuring, Regional Development and Emerging Networks. Aldershot: 79-98.
- Mugler, J., and K. J. Miesenbock (1989). Determinants of Increasing Export Involvement of Small Firms. Proceedings of the 34th World Conference of the International Council for Small Business, Québec.
- Mytelka, L. (ed.) (1992). Strategic Partnership, States, Firms and International Competition. Rutherford, NY.
- Newbould, Gerald D., Peter J. Buckley, and Jane C. Thurwell (1978). Going International: The Experience of Smaller Companies Overseas. London.
- Nijkamp, P. et al. (1988). Evaluation of Regional Incubator Profiles for Small and Medium Sized Enterprises. *Regional Studies*, 22(2): 95–105.
- O'Rourke, A. D. (1985). Differences in Export Practices, Attitudes and Problems by Size of Firm. American Journal of Small Business, 9(3): 25–29.
- Özcan, Gül Berna (1995). Small Firms and Local Economic Development: Entrepreneurship in Southern Europe and Turkey. Aldershot: Avebury.
- Öztunali, I. et al. (1989). AT'a Girerken Türkiye Makina Imalat Sanayinde Küçük Isletmelerin Kalite Sorunlari (Quality Problems of Small Manufacturers of Machinery in the Turkey's Integration Process to EC). Ankara: Milli Prodüktivite Merkezi (MPO).
- Ogram, E. W. Jr. (1982). A Profile of Small Manufacturing Firms in Georgia. In M. R. Czinkota and G. Tesar (eds.), Export Management: An International Context. New York: 70-84.

- Ong, C. H., and A. W. Pearson (1982). The Impact of Technical Characteristics on Export Activity A Study of Small and Medium-sized UK Electronic Firms. *R&D-Management*, 12(4): 189–196.
- Organization for Economic Co-operation and Development (OECD), Working Party of the Industry Committee on Small and Medium Sized Enterprises (SMEs). Globalisation of Economic Activities and the Development of SMEs. Synthesis Report. Paris (mimeo).
- Pederson, Kurt (ed.) (1994). Globalization of SMEs. Country Report Denmark. Department of International Business. The Aarhus School of Business.
- Peters, J. (1990). Internationalization of Small Business in a Microeconomic Perspective. Göttingen.
- Phillips, Bruce D., and Bruce A. Kirchhoff (1989). Formation, Growth and Survival: Small Firm Dynamics in the U.S. Economy. *Small Business Economics*, 1(1): 65–74.
- Pietikäinen, Marita, and Pia Tynnilä (1989). Obstacles to the Internationalization of the Finnish Service Companies. FIBO/Helsinki School of Economics, Helsinki.
- Piore, Michael J., and Charles F. Sabel (1983). Italian Small Business Development: Lessons for U.S. Industrial Policy. In John Zysman and Laura Tyson (eds.), American Industry in International Competition. Ithaca, NY: 391–421.
- Powell, W. W. (1990). Neither Market nor Hierarchy: Network Forms of Organizations. Research in Organizations, 12: 293–336.
- Pratten, C. (1991). *The Competitiveness of Small Firms*. Cambridge: Cambridge University Press.

- Rabino, S. (1980). An Examination of Barriers of Exporting Encountered by Small Manufacturing Companies. *Management International Review*, 20(1): 63-73.
- Reid, S. D. (1982). The Impact of Size on Export Behaviour in Small Firms. In M. R. Czinkota and G. Tesar, Export Management: An International Context. New York: 18-39.
- Reuss, C. (1986). PME et fonds propres: aspects concrets de leur financement en capital à risque. Brussels.
- Robson, G., C. Gallagher, and M. Daly (1992). Diversification Strategy and Practice in Small Firms. *International Small Business Journal*, (2): 37–53.
- Rothwell, Roy (1989). Small Firms, Innovation and Industrial Change. Small Business Economics, 1(1), January: 51-64.
- Roy, D. A., and C. L. Simpson (1981). Export Attitudes of Business Executives in the Smaller Manufacturing Firm. *Journal of Small Business Manage*ment, 19(2): 16-22.
- Sako, M. (1988). Partnership between Small and Large Firms: The Case of Japan. In *Partnership between Small and Large Firms*, proceedings of the conference held in Brussels, 13–14 June 1988, edited by D. G. XXIII-Directorate for Enterprise of the Commission of the European Communities and European Association for the Transfer of Technologies, Innovation and Industrial Information, London.
- (1990). Buyer-Supplier Relationships and Economic Performance: Evidence from Britain and Japan. University of London Ph. D. thesis.

- Sato, Y. (1984). Nihon chuushou kigyou mondai no toutatsuten to kenkyuukadai' (Research themes on the problem of small and medium enterprises in Japan). In Japan medium and small business society (ed.), Medium and small enterprises problems—understanding of their present state and view point—Collected papers of Japan medium and small enterprises society, (3), Douyuukan.
- (1985). Shitaukesi mondai no henbou to shitauke chuushou kigyou taisaku (Changes in the problems of the subcontracting system and measures for medium and small firms which subcontract). In Machinery Industry Promoting Association, Nihon no kikai sangyou no kouzou henka to shitauke bungyou kouzou (Structural change in Japan's machinery industry and subcontracting division-of-work structure).
- Schmitz, Hubert (1989). Flexible Specialization a New Paradigm of Small-scale Industrialization? Institute of Development Studies Discussion Paper No. 261, Sussex.
- Schwarting, J., and M. Wittstock (1982). Exportreserven mittelständischer Unternehmen 1981: Eine empirische Untersuchung in Zusammenarbeit mit der Industrie- und Handelskammer zu Koblenz (SME Export Potential 1981: An Empirical Research in Cooperation with the Chamber of Commerce in Koblenz). Forschungsgruppe Bonn, Heft 28, Göttingen.
- Sengenberger, Werner, Gary W. Loveman, and Michael J. Piore (1990). The Reemergence of Small Enterprises: Industrial Restructuring in Industrialised Countries. International Labour Organisation (International Institute for Labour Studies), Geneva.
- Shuman, J. C., J. J. Shaw, and G. Sussman (1985). Strategic Planning in Smaller Rapid Growth Companies. Long Range Planning, 6: 48ff.

- Small and Medium Enterprise Agency (1978, 1989, 1990, 1991). White Paper on Small and Medium Enterprises in Japan. Tokyo.
- (1989, 1990). Small Business in Japan (English translation of shortened version of SMEA, 1989 and 1990). Tokyo.
- Snijders, Jacqueline, and Aad de Koning (1992). Policy on Small and Medium-Sized Enterprises in Countries of the European Community. *International* Small Business Journal, 10(3).
- Sögüt, A. (1989). SME's Role and Development and SME related Policies in Turkey. Representative Paper of the SIDO for UNIDI/UNDP Forum in Poznan, Poland.
- Steinmann, H., B. Kumar, and A. Wasner (1977). Internationalisierung von Mittelbetrieben Eine empirische Untersuchung in Mittelfranken. Wiesbaden.
- (1978). Internationalisierungsstrategien Von Mittelbetrieben. In H. Jacob (ed.), Betriebswirtschaftliche Forschungsergebnisse. Wiesbaden: 89–101.
- (1980). Conceptualising the Internationalisation Process of Medium-sized Firms: Some Preliminary Considerations for a Research Design. *Management International Review*, 20(1): 50-66.
- Storey, David J. (1990). Firm Performance and Size: Explanations from the Small Firm Sectors. In Zoltan J. Acs and David B. Audretsch (eds.), *The Economics of Small Firms: A European Challenge*. Boston: 43-50.
- Stratos Group (1994). Strategic Orientation of Small European Businesses. Aldershot.
- Sullivan, D., and A. Bauerschmidt (1990). Incremental Internationalization: A Test of Johanson and Vahlne's Thesis. Management International Review, 1: 19-30.

- Szarka, Joseph (1990). Networking and Small Firms. *International Small Business Journal*, January–March, 8(2): 10–21.
- Tamari, M. (1984). Effects of Changes in the Business Cycle on Small firms in the United States. *International Small Business Journal*, 2–3: 42ff.
- Taylor, J., and H. Williams (1991). The Networked Firm. In B. Williams and B. Spaul (eds.), IT and Accounting. Chapman Hall, London.
- Tesar, G. (1975). Empirical Study of Export Operations Among Small and Medium-sized Manufacturing Firms. Ph.D. Diss., University of Wisconsin-Madison.
- Tesar, G., and J. S. Tarleton (1982). Comparison of Wisconsin and Virginia Small and Medium-Sized Exporters: Aggressive and Passive Exporters. In M. R. Czinkota and G. Tesar, Export Management: An International Context. New York: 85-113.
- Thoburn, John T., and Makoto Takashima (1992). *Industrial Subcontracting in the UK and Japan*. Aldershot.
- Thorelli, H. B. (1986). Networks: Between Markets and Hierarchies. *Strategic Management Journal*, 7: 37–51.
- Trabold, H. (1995). On the Fallacy of Neglecting Firm Size in Assessing Export Marketing Strategies. DIW-Discussion Paper No. 109. Berlin.
- Trigilia, C. (1989). Small-Firm Development and Political Subcultures in Italy. InE. Goodman et al. (eds.), Small Firms and Industrial Districts in Italy.London: Routledge.

- Tuulenmäki, Heli (1993). Internationalization of Industrial Enterprises in Eastern Finland. Proceedings of Conference on 'The Development and the Strategies of SMEs in 1990s' edited by Markku Virtanen, Helsinki School of Economics and Business Administration, The Small Business Center, August 26–28, Mikkeli: 214–219.
- Tuulenmäki, Heli, and Markku Virtanen (1990a). Adaptation of Finnish Small and Medium-Sized Enterprises to the European Integration. Helsinki School of Economics S-4, Mikkeli.
- —, (1990b). Export Barriers and Attitudes Towards European Integration in Finnish Firms. In Proceedings of the Conference on 'SME's and the Challenges of 1992' edited by Markku Virtanen, Helsinki School of Economics and Business Administration Publications M-47, The Small Business Center, Mikkeli: 272–282.
- University of Piraeus (1992). Small and Medium Sized Enterprises' Export Potential: A Survey of Present Situation, Assessment of Prospects and Policy Recommendations. Piraeus.
- Valtonen, Maarit (1992). Internationalization of Medium-Sized Finnish Industrial Firms. FIBO/Helsinki School of Economics, Helsinki.
- Verhoeven, W. H. J. (1985). Het exportgedrag van het midden- en kleinbedrijf (SME export behaviour). Economisch Instituut voor het Midden- en Kleinbedrijf, Zoetermeer.
- (1988). The Export Performance of Small- and Medium-Sized Enterprises in the Netherlands. *International Small Business Journal*, 6(2): 20–33.
- Welsh, J. A., and J. F. White (1981). A Small Business is not a Little Big Business. *Harvard Business Review*, July-August: 18–32.

- White, Lawrence J. (1982). The Determinants of the Relative Importance of Small Business. *Review of Economics and Statistics*, 64(1), February: 42–49.
- Wood, P. (1990). Small Firms, Business Services and Flexibility. Small Business Research Centre, University of Cambridge, Working Paper No. 3. Cambridge.
- Wood, P., D. Keeble, and J. Bryson (1991). Regional Patterns of Small Firm Development in the Business Services: Preliminary Evidence from the UK. Small Business Research Centre, University of Cambridge, Working Paper No. 14. Cambridge.
- Yaprak, A. (1985). Empirical Study of the Differences Between Small Exporting and Non-exporting US Firms. *International Marketing Review*, 2(2): 72–83.