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Kiel Working Papers

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

by
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January 1996

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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,

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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.² 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

² 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

Dimensions	Mass Production	Lean Manufacturing
	<i>Transfer lines, specialization, and economies of scale</i>	<i>Flexibility, rapid response, and economies of scope</i>
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 hierarchic planning	Local information and self-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 communications	Make-to-order, extensive 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-

³ 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.

tion sharing. As early as 1984 Root argued that globalization also favours long-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

	Fordist organization	Flexible specialization organization	Local-global scenario
Industrial organization	Economies of scale	Economies of scope	New equilibrium between economies of scale and scope
Micro	Mass production	Small batch production	Diversified mass production
Macro	Hard automation	Soft automation	Systems automation
	Vertically integrated systems	Vertically disintegrated systems	Quasi-vertical integration
	Large firms dominated	Firms network	Asymmetrical but stable linkage arrangements between producers and suppliers
Spatial organization	Spatial division of labour within multilocal enterprises	Spatial clustering	New management of territory (same geography of the economic space of the firm with different functional locations)
Transport and communications patterns	Long distance intermediate product movement to assembly sites	Long distance final product movement to markets	New logistical platforms
	Regional functional specialization	Short distance intermediate product movement	Long distance movement of both intermediate and final products
Infrastructure requirements	Reliable long distance goods transport of standard quantity predictable in advance	Frequent face-to-face contacts	Increase in horizontal intercorporate information flows
	Reliable long distance communications	Long distance flexible final product movements	Long distance air-freight and other long distance goods movements coupled with short distance frequent delivery road based on local systems
		Increased short distance frequent intermediate transport system	Long distance computer networks
Policy options and priorities		Development of regional transport and digitalized local networks	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

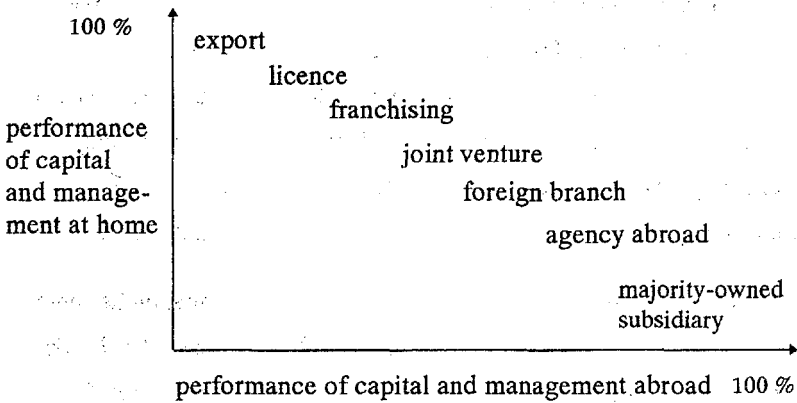
Even economists which hold the view that globalization is due to foster deep integration within MNEs rather than among independent firms would concede that the strategies for organizing cross-border activities can be different with regard to the economic, technological and policy environment. Possible 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

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 Transactions	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 integration	strong in some stages of the value-added chain, weak in some others		licensing and sub-contracting, price mechanism	flows of materials, technology, capital and management	
		intra-firm trade	intra-firm hierarchies, transfer pricing	all functions	OLI advantages
complex integration	strong				

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

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.

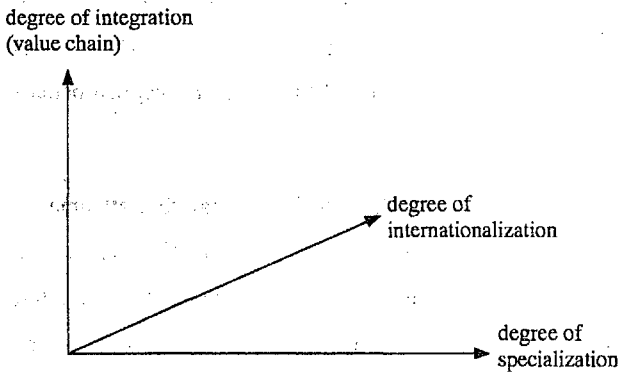
From a global perspective, one can assume that SMEs' comparative advantages originate in the periphery rather than in the core of production. With respect to vertical integration, they may carry out some stages of manufacturing as supplier, assembler, refiner or customizer, or they may fulfil some functions 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]

⁵ 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].

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 (psychologically close) foreign markets involved. 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 <i>"domestic"</i>	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 <i>"mainly domestic"</i>	<10 % of inputs sourced across borders, and <10 % revenue from across borders, usually within 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 competitors) are significant and amount to more than 50 % of costs
3	Major globalization <i>"internationalized"</i>	>10 %, but <40 % of inputs sourced internationally, 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 <i>"globalized"</i>	>40 % of inputs sourced internationally, >40 % of revenue from outputs traded across borders, across all major international regions	Establishments or close affiliates in at least one country in all three major international 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 <i>"fully globalized"</i>	Majority of inputs of any establishment sourced across borders, large majority of outputs traded across borders	Multiple establishments 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:

- "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' domestic activities	Statistics on SMEs' international activities	Case studies	Survey	Prior research	Data bases
Australia	*	na	*	*	*	*
Belgium	*	*			*	*
Canada	*	na		*	*	
Denmark	*	na	*		*	*
Finland	*	*	*		*	*
France	*	*			*	
Germany	*	na			*	
Greece	*	*			*	
Ireland	*	na			*	
Italy	*	*			*	
Japan	*	na	*	*	*	
Netherlands	*	*	*	*	*	*
Portugal	*	na	*	*	*	
Spain	*	*			*	
Sweden	*	na	*	*	*	
Switzerland	*	na		*	*	*
UK	*	na	*	*	*	
USA	*	na			*	*

na = not available.

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

	Occasionally engaged		Consistently engaged	Fully globalized	Note: Globalized SMEs in % of all SMEs
	Manufacturing	Services ^a			
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	

^aServices includes all non-agricultural, non-mining, and non-manufacturing activities.

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.

⁶ Strategic orientations of small and medium sized enterprises.

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

	Share of exporting SMEs compared to total SMEs	Share of SMEs' exports compared to total exports	Notes
	Percent		
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	na	14	<300 direct
	na	30-35	<300 indirect
Netherlands	na	26	<100 indirect + direct
	17	na	0-9 employees
	43	na	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	
UK	16-20	na	
USA	12*	11*	
PR China	na	40-60	
Korea	na	40	
Indonesia	na	11	
Taiwan	na	56	
Thailand	na	10	
Malaysia	na	15	
Singapore	na	16	
Vietnam	na	20	
Note: Weighted contribution			
OECD		26	
Non-OECD		35	

* = manufacturing. - na = 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	

^aSample of 1 135 firms in three industries in eight West-European countries from the 1980s.

Source: Bamberger, Evers [1994].

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

Number of employees	Percentage of total sales
0 – 24	60.7
25 – 50	20.1
51 – 74	8.7
75 – 100	10.5
Total	100.0

^aSample 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 compa-

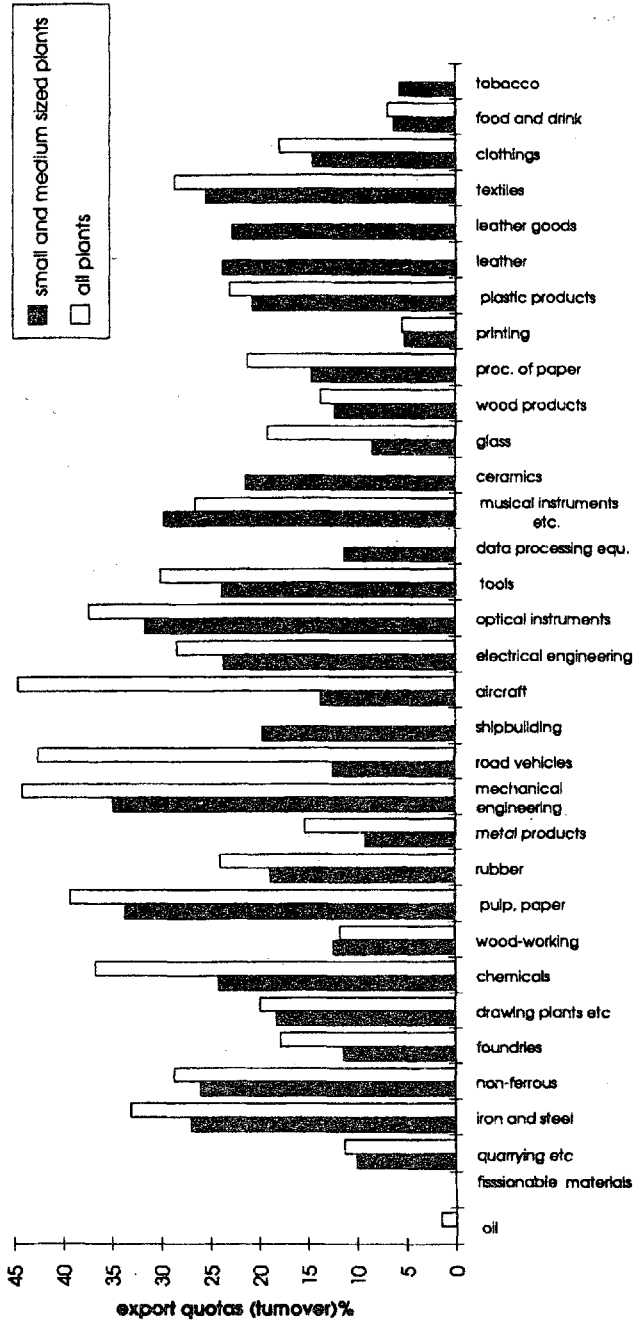
rability considerably.⁷ Accordingly, firms' size and export intensity are positively correlated. But there does not exist any polarization whatsoever: at the one end, the small firms mainly selling on the domestic markets, and at the other end the large firms selling on the foreign markets. The pattern 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).

⁷ 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].

⁸ Based on data for five *Länder*.

Chart 1 -- Export Quotas in West German Manufacturing by Industries and Plant Size^a 1990



^aBased on data for five Länder.

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	50-99	>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
	Q	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 firms	of which 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

^aFirms with 25 and more employees in manufacturing.

Source: Lemoine [1994].

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

Sales 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

^aSample of 1,135 firms in three industries in eight West-European countries from the eighties.

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

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

^aOf those firms that reached the stage (in brackets: of total firms).

Source: Bamberger, Evers [1994].

But acknowledgement of an enhanced role for SMEs in the internationalization process is not to be confused with propositions 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	34
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	4
Co-production	4	3
Subsidiary operations sales	9	40
Subsidiary operations manufacture	4	34
Subsidiary operations service	2	8

^aBased on 317 small and 185 medium sized firms.

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

Industry	Share of SMEs	Index of internationalization ^b	Trend of internationalization	Import share	Technology trend	Organizational affiliation
Food	83 %	extensive but varying I: 7-8 M: 6	increasing: retail chains decisive EC/GATT	national supply dominant	process efficiency	high degree of mergers & acquisitions
Chemical industry	87 %	major I: 6 M: 7	increasing: environmental regulation	decisive impact	knowledge intensive	high degree of mergers & acquisitions
Iron, metal, machinery	90 %	major I: 4-6 M: 7	increasing: value chain based	fundamental	machinery intensive	high but varying degree of subsidiary formation
Textile, clothing	97 %	major I: 6 M: 10	intensifying: GATT; multi-fibre agreement decisive	international subcontracts	automation but strong variation	networks and co-operation
Furniture	97 %	extensive I: 7 M: 6	increasing: fashion dependent	fashion dependent	mechanical craftsmanship	networks and co-operation
Paper, printing	93 %	limited I: 3-4 M: 7	soaring: scale dependent	increasing dependence	strong variation, rapid development	international wave of mergers
Business services	97 %	limited I: 3 M: 6	increasing: follower	none	knowledge based	international acquisitions & alliances

^aFirms with less than 200 employees. – ^bI = 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.⁹ 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

⁹ 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.

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

Rank		Importance Mean	Standard 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 internationalization		
	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 Management resources and time	Finance Management resources and time Transport, communications Firm size Product adaptability	Reliability of partner Finance Firm size Product adaptability

^aBased 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-

control 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?

- 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.

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