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Exploring the Internationalisation Process of Small Businesses: a Study of Dutch Old and New Economy Firms

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Abstract

The focus of this paper is on the internationalisation process of small businesses. We investigate if, how and why small firms use a cooperative or autonomous strategy to internationalise their activities and the possible changes in this use of strategy over time. We assume that, because of unique resource constraints, small firms opt for a cooperative internationalisation strategy. We examine not only the impact of firm- but also of industry characteristics. The empirical investigation uses a sample of Dutch firms from two different sectors: one that can be labelled as typically 'old economy' (i.e. mechanical engineering) and one that can be described as 'new economy' (i.e. computer software).

Key Results

Results show that small firms follow an evolutionary internationalisation path (with incidental setbacks), while a majority prefer a cooperative internationalisation strategy. In contrast with expectations, type of industry does not matter.

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Introduction

The phenomenon of globalisation puts pressure on small- and medium-sized firms (SMEs) to develop strategies for internationalisation. Currently, SMEs are not yet represented in the international economy as much as large firms are (Fujita 1998), even though their internationalisation activities are increasing (Lamb/Liesch 2002). In particular limited resources (financial, managerial, information, etc.) seem to frustrate the efforts of SMEs to internationalise (Baird et al. 1994, Buckley 1989, Burpitt/Rondinelli 2000, Fujita 1998). By means of inter-firm cooperation, SMEs may, however, gain access to additional resources and enter markets or enhance revenues in a manner not possible for each firm alone (Contractor/Lorange 1988, Burgel/Murray 2000, Fujita 1998, Hoffmann/ Schaper-Rinkel 2001). With some notable exceptions (e.g., Bell 1995, Coviello/Munro 1997, Holmlund/ Kock 1988, Korhonen et al. 1996), empirical research on the internationalisation process of SMEs has, however, tended to ignore inter-firm cooperation.

In this paper we argue that an SME may either choose for the strategic option of 'go-it-alone' (by direct exporting and/or creating fully owned foreign subsidiaries) or for a cooperative strategy, allying with partners up, down, or at the same level of the value chain. We thus conceptualise entry modes choices as 'binary' (for a similar approach see e.g. Burgel/Murray 2000, Erramilli/Rao 1993). In our study, we will not only describe and explain the use of a cooperative or autonomous internationalisation strategy, but also examine changes over time.

Recent empirical research has indicated that the internationalisation process of small high-technology firms differs from the process of firms operating in more traditional, mature industries (e.g. Burgel/Murray 2000, Bell 1995, Coviello/Munro 1997, Crick/Jones 2000), among other things, with regard to the time frame in which the internationalisation process occurs. Based on these findings, we posit that the choice between go-it-alone vs. collaboration (or autonomy vs. cooperation) is not only a function of structural characteristics of the firm (see e.g. Burgel/Murray 2000, Erramilli/Rao 1993), but also of industry-specific characteristics. More specific, we will examine whether there are differences in the extent to which firms operating in the 'New Economy' and those in the 'Old Economy' make use of the cooperative or the autonomous strategy.

To examine the issues raised above, our qualitative study focuses on the internationalisation trajectories of Dutch SMEs from two different sectors: one which can be labelled as typically 'Old Economy', namely the mature mechanical engineering sector, and one 'New Economy' sector, that is the more recently emerged computer software sector. By including firms from the service-

intensive computer software sector in our sample and contrasting their way of internationalising with that of firms from a manufacturing-intensive industry, we contribute to the relatively under-developed stream of research on the internationalisation process of service firms (Coviello/McAuley 1999, Domke-Damonte 2000). As we will explain in due course, we narrow our focus to the smaller SMEs, as these epitomize the resource scarcity predicament of SMEs and thereby facilitate a very focused and substantively sharp test.

In the next section, we present a concise overview of relevant literature relating to (changes in) internationalisation strategies and describe the two basic internationalisation strategies firms may choose from, i.e. the autonomous and cooperative strategy, more in-depth. We subsequently discuss our research method and our findings in the third and fourth section. In the last section of the paper, we provide conclusions and some suggestions for future empirical research.

Conceptual Framework

In this paper, internationalisation will be defined as "the process of adapting exchange transaction modality to international markets" (Andersen 1997). This definition expresses the idea of internationalisation as dynamic and includes the dimensions entry mode strategy and international market selection (Andersen 1997). These two dimensions represent the key strategic decisions in connection with a firm's internationalisation (Bradley 1995) and will be the focus of our paper. An entry mode will be defined as a way of organizing and conducting international business transactions (Calof/Beamish 1995; Root 1987). Mode forms include, for example, direct export, contractual transfers, joint ventures, and wholly owned subsidiaries.

There is a wealth of studies on the internationalisation concept and process. These studies have been reviewed elsewhere (e.g., Andersen 1997, Andersen 1993, Coviello/McAuley 1999, Leonidou/Katsikeas 1996; Melin 1992; Reid 1983; Johanson/Vahlne 1990). An extensive discussion of all the major approaches is thus considered not necessary. We will, instead, briefly discuss three research approaches that are considered most relevant in the context of this paper, namely the Uppsala internationalisation process model, transaction cost economics, and the network perspective.

In the context of this paper, the internationalisation process model by Johanson and Weidersheim-Paul (1975) and further developed by Johanson and Vahlne (1977) (the 'Uppsala model'), is of particular significance, since this is one of the few models that tries to explain changes in entry modes. This model claims that firms expand internationally through various 'stages': internationalisation begins with low risk, low-commitment modes of entry - direct exporting - to high risk, high-commitment modes of entry - the erection of foreign sales and manufacturing subsidiaries - (Johanson/Wiedersheim-Paul 1975, Johanson/Vahlne 1977). This sequence of stages represents an increased commitment in the market as a result of managerial

learning about internationalisation (Johanson/Vahlne 1977). A second pattern predicted by this theory is that firms first search for similar 'psychically close' markets and over time and through experience, expand into more distant markets (Johanson/Vahlne 1977). Internationalisation is thus considered to be a cumulative, path-dependent process, where "the pattern of behaviour of firms is contingent upon and a function of its past international experience" (Eriksson et al. 2000). The Uppsala model has received considerable empirical support (e.g. Eriksson et al. 2000, Kwon/Hu 1995). However, the underlying assumptions of step-wise progression and forward motion of the Uppsala model and the other behavioural internationalisation models have been criticised as being too deterministic (e.g. Andersen 1997; Cannon/Willis 1983, Reid 1983, Root 1987). This argument is supported by recent empirical findings that show that firms that are in a particular 'state' of internationalisation, can be subject to both backward and forward momentum, instead of progressing in an incremental fashion through stages (e.g. Calof/Beamish 1995, Bell 1995, Burgel/Murrey 2000, Lamb/ Liesch 2002). The Uppsala model does not only fail to account for the phenomenon of 'de-internationalisation' (Benito/ Welch 1997) and/or the leapfrogging of stages, it also does not include cooperative modes of entry (Anderson 1997) - which is a considerable weakness considering the frequent use of such entry modes. Furthermore, it has been found that different entry modes do not so much represent distinct levels of commitment determined by past experiences (as the logic of the Uppsala model would have it) but rather distinct managerial choices determined by product- and firm- specific considerations (Burgel/Murray 2000, Bell 1995).

Transaction cost economics (TCE) has been frequently used in studies on foreign market entry (see e.g. Shrader 2001 and his references). TCE is concerned with finding the most efficient arrangement for an economic transaction where the basic choice for a firm consists of carrying out the transaction itself ('internalisation') or to engage in an externalised transaction, collaborating with a third party. Essentially, firms that follow one of the two internationalisation strategies central in this paper, i.e. the autonomous and the cooperative strategy, thereby have made a choice for 'internalisation' or 'collaboration'. While, according to TCE logic, firms are expected to choose the entry mode that minimizes the costs of carrying out a particular economic transaction, empirical research has shown that minimizing transaction costs is often not of overriding importance for managers when making entry mode choices (Shrader 2001; Tallman/Shenkar 1994). Another limitation of TCE is that it does not distinguish well between different degrees of externalisation or partnership (Anderson and Gatignon 1986), and does not account for the important role and influence of 'social' relationships in business transactions (Johanson and Mattsson 1988).

Social relationships do play a central role in a third area of internationalisation research, referred to as the 'network approach'. This approach is rooted in social exchange theory and focuses on firm behaviour in the context of business and social network relationships (e.g. Johanson/Mattsson 1988, Håkansson/Johanson 1988, Håkansson/Johanson 1992, Anderson et al. 1994). The network

approach suggests that a firm's internationalisation strategy emerges as a, sometimes erratic, pattern of behaviour influenced by a multitude of formal and informal relationships with not only business partners up, down, or at the same stage of the value chain, but also with family, friends, and so on. Internationalisation is thus a result of interaction, and the development and management of (trusting) relationships over time. The empirical results of Coviello and Munro (1997) corroborate this view by showing that the internationalisation process of small software firms is strongly driven and facilitated by a set of formal and informal network relationships.

Based on the literature discussed above, we identify two basic internationalisation strategies that SMEs may follow: i.e. the cooperative and the autonomous strategy. Many firms will probably use both strategies at the same time, but we expect that one of these types of strategies will be dominant in most of the firms, and that this dominance may shift over time. These two different types of internationalisation strategies represent different degrees of resource commitment and therefore risk to the firm. Since small firms are generally characterized by limited resources, it seems reasonable to posit that they tend to use the cooperative strategy instead of adopting the classic autonomous strategy.

Firms that use an *autonomous* internationalisation strategy act, as the term already indicates, in an independent way. Firms that are engaged in direct exporting using their own export sales staff or independent intermediaries operate in an autonomous fashion. Firms that have their own foreign sales offices and/or their own production facilities in foreign markets also operate in an autonomous fashion. The autonomous strategy may be referred to as the 'classic' strategy of cross-border activities, which was typical for larger firms for a long time. It is likely that, in an ideal world, any firm would prefer to be in charge of its own destiny and would choose a go-it-alone strategy. Yet the latter is most probably often outside the reach of small firms because of resource constraints.

Firms that use the *cooperative* internationalisation strategy partly and deliberately give up their autonomy for the purpose of cooperating in order to facilitate internationalisation. Inter-firm relationships may overcome resource constraints (Fujita 1998, Burgel/Murray 2000). These relationships do, however, create costs, such as the creation of incentives and monitoring mechanisms, while revenues are typically shared between the partners.

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

participate in an ISA preserve their legal independence and, outside the field of the cooperation, their economic autonomy (Hoffmann/ Schaper-Rinkel 2001). Next to ISAs that involve an explicit contractual agreement (i.e. the provision of goods, services, or information in return for financial or other types of compensation), the small firm may also receive 'soft' support, for example in terms of being given contacts and foreign market information, without this support being embedded in a contractual arrangement. We would then classify this as tapping into one's 'supportive network' (see below).

ISAs can come in various forms. We discern three basic types. The first type is the *non-equity strategic alliance* (NESA), an alliance that is formed through contractual agreements with a company to supply, produce, or distribute a firm's goods or services without equity sharing. Other types of cooperative contractual alliances concern marketing and information sharing. They include, e.g., licensing or franchising agreements. Because they do not involve the forming of a separate venture or equity investments, non-equity alliances are less formal and demand fewer commitments from partners than joint ventures and equity strategic alliances (Hitt et al. 2001). The second basic type is the *equity strategic alliance* (ESA) which is an alliance in which partners own different percentages of equity in a new venture or project, or an existing firm. An example is a firm with a majority or minority participation in a foreign partner. The third basic type is the *joint venture* where two or more firms create a separate corporation whose stock is shared by the partners. The above-described 'operationalisations' of the two types of internationalisation strategy (i.e. autonomous and cooperative) may be ranked in order of increasing resource commitment and risk. Direct exporting and NESAs imply the lowest degree of commitment and risk, ESAs and joint ventures imply a medium degree of commitment and risk, and wholly owned subsidiaries provide the highest degree of commitment and risk.

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

To sum up, there is a growing body of literature that highlights the influence of network relationships on internationalisation patterns of SMEs. However, little empirical work has been done in this field. Since SMEs are generally characterized by limited resources, it seems reasonable to posit that they tend to use the cooperative strategy instead of adopting the classic autonomous strategy. The purpose of this research is to empirically examine this proposition, paying particular attention to industry influences and changes in adopted internationalisation strategies.

Methodology

The empirical study, using a multiple case comparison methodology, involved conducting a series of in-depth interviews with senior managers about the internationalisation process of their company. A case study approach was considered most appropriate to gain in-depth insight into the 'how' and 'why' of internationalisation strategies (Eisenhardt 1989, Yin 1989). In each firm we tried to have interviews with at least two or three informants to ascertain internal validity. These informants were owners/managing directors, and/or senior managers responsible for marketing or production with extensive knowledge of the firm's internationalisation developments. In total, 26 in-depth interviews were conducted in 12 firms, each of on average one to two hours. The interviews were tape-recorded and later transcribed to ensure accuracy. Based on the interviews we constructed case descriptions that were returned to the interviewees for possible revision and consent. To gather the needed data from the managers, a semi-structured questionnaire was developed that contained open-ended and closed questions. The questionnaire resulted from an examination of the literature on internationalisation processes and was refined through discussions with experts and academics. The interviews concentrated on the following main areas: 1) company and industry context; 2) internationalisation strategies/steps and changes in these strategies over time; 3) the stimuli, barriers and impediments facing these firms in their internationalisation process.

We were particularly interested in how firms experience the transition to more committed forms of internationalisation, as they cross the threshold beyond which resource scarcity gets more virulent. This led us to focus on firms that do more than direct exporting, in the sense that they have invested into equity abroad and/or have international strategic alliances. Our sample thus includes particularly resource-scarce, small enterprises confronting more far-reaching internationalisation challenges. We hypothesized that internationalisation patterns very much depend on industry characteristics. This led to a selection of companies in both a more traditional (older established), manufacturing intensive industry, and a more recently emerging, professional service intensive industry.

We selected the Dutch firms from the commercial database of MarktSelect that contains one million enterprises in the Netherlands. In order to be selected, a firm had to be an indigenous and independent entity (i.e. not belonging to a larger corporate group), had to have no more than 250 employees, and had to operate in the computer software or mechanical engineering sector. Selection was restricted to the Northern Netherlands, as a less populated area with below-average domestic product that was likely to have firms with greater resource constraints in all respects. From the firms that could be retained, we examined which firms had gone beyond 'plain' exporting. We did this by examining different information sources, amongst others, the website of the firms (if present), membership lists of relevant organisations in the internationalisation field, interviews with experts, and sector reports. Based on this information we made a list of the firms that complied with all of our criteria. From this list, we interviewed informants from 12 firms using a random sampling process stratified by sector. Because all firms were randomly selected from a list of firms sharing a similar profile, we have little reason to believe that the responses of those firms contacted differ from those not contacted. In the following discussion, the names of the firms have been disguised but no other data are altered.

A summary of selected characteristics of the firms in our sample is presented in Table 1.

INSERT TABLE 1 ABOUT HERE

Our sample of 12 firms is equally divided between the mechanical engineering and the software sector. The mechanical engineering firms are on average 45 years old and the software firms eight years. Both mechanical engineering and software firms in the selection typically target 'niche' markets. The mechanical engineering firms spend, on average, less of their annual sales revenue on R&D than the software firms, which reflects the average industry trends. The software firms have an export percentage of 33 percent and for the mechanical engineering firms this is 58 percent. On average, the mechanical engineering firms have 89 employees with an annual turnover of less than 13 million Euro. The software firms had on average 34 employees and an annual turnover of less than 3 million Euro. The average personnel size of the firms in our sample is thus comparatively low. This is a consequence of the composition of the Dutch business system: it has a 'waisted' structure, with a great deal of employment in both large and small companies (van Iterson/Olie 1994: 98). This means that the distribution of firms across employment size classes in the Netherlands is uniquely characterized by very few very large enterprises on the one hand, and lots of very small enterprises on the other. In comparison with other countries, the mid-field of larger SMEs and smaller large companies is sparsely populated. This yields a polarized distribution of employment called 'waisted' by van Iterson and Olie (1994), looking like an hour-glass, the waist

being the sparsely populated segment in the midfield of the size spectrum, between 100 and about 600 employees per firm. A sampling of Dutch enterprises thus necessarily leads to relatively many firms with 100 employees or less since these are prevalent. Our whole study design and natural selection bias is therefore geared to shed light on what small firms do and experience, for which internationalisation beyond direct exporting seems attractive, but which at the same time face resource scarcity in a more acute way. Through this selective and purposeful focus, the exploratory design of the study is geared to furnish more interesting findings.

Findings

Internationalisation Profile

In this section, we examine the degree of internationalisation of the firms in our sample. To measure the degree of internationalisation of the firms sampled, we constructed an IP-profile that consists of five dimensions. These five dimensions are based on the work of Daniels and Radebaugh (1998)¹ and express the growing commitment idea as advocated by the Uppsala model. The first dimension of our IP-profile measures the attitude of firms towards internationalisation activities, and ranges from a defensive to an offensive attitude. Our second dimension is 'foreign entry mode' and ranges from the adoption of a low risk, low commitment entry mode (i.e. exporting) towards a high risk, high commitment entry mode (fully owned foreign subsidiaries). The third dimension is 'number of entry modes' and ranges from one to many. Our fourth dimension is the number of world regions covered by the firm's internationalisation efforts, ranging from one to many. A highly internationalised firm will have operations in many countries and in many forms. Our fifth dimension, finally, measures 'market similarity', in this paper defined as the economic and cultural similarity between the firm's domestic country and the foreign countries entered, which may range from quite similar to very dissimilar.

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

We use the IP-profile described above to analyse the level of internationalisation of the total sample and relevant subgroups, i.e. subgroups based on sector, firm size, and firm age. Appendix

One gives details on the measurement of the different dimensions of the IP-profile and other relevant variables. The results of our analysis are presented in Table 2.

INSERT TABLE 2 AROUND HERE

As shown in Table 2, the firms in our sample have, on average, more a defensive than an offensive strategy (a score of 2.5 on a 6-point scale), use less than three different entry modes, are moderately committed in terms of entry modes used (a score of almost 3 on a 4-point scale), are internationally active in two to three different world regions; world regions that are, in cultural and economic terms, located relatively far from home (4.25 on a 6-point scale).

Departing from a classification based on *sectors*, we find that the mechanical engineering sector is in general less offensive, but uses more different and more committed entry modes, and works in more different and more distant regions. The differences on the variables 'internationalisation attitude', 'entry mode', and 'number of entry modes' are statistically significant between the mechanical engineering and software sector. These results are indicative that the mechanical engineering firms in our sample have progressed further in terms of internationalisation than the software firms, but mostly out of defensive motives. This may also seem 'logical' since most of the mechanical engineering firms are much older than the software firms and, in absolute terms, started their internationalisation process at an earlier date, while their markets are older and in later stages of the life cycle.

When we group our firms based on *age*, we find that young firms score lower on all IP-dimensions and significantly so on two of them. The youngest companies cover less regions and more similar markets than their larger counterparts. These findings corroborate Uppsala theory since most of these firms started to internationalise by low risk, low commitment modes of entry.

When we finally group our firms based on *size*, we find that small firms score higher on three IP-dimensions, namely internationalisation attitude, number of regions covered, and market similarity. Only the difference in internationalisation attitude is significant, which can be explained by the fact that the smallest firms in our sample are mostly software firms that (as we just described) have a more offensive attitude than the mechanical engineering firms. The large, although not significant, difference as regards market similarity can be explained by the fact that *all* small mechanical engineering firms and 50 percent of the small software firms have the highest score on this variable, i.e. they are involved in Non-European emerging countries and/or underdeveloped regions. Our findings contradict the general idea that smaller SMEs would be less internationalised than larger SMEs.

Changes in Internationalisation Strategies: an Empirical Perspective

In this section, we will examine whether small firms indeed prefer to use the cooperative strategy instead of the autonomous strategy, as we predicted. In addition, we will examine the possible changes in internationalisation strategies used and examine whether our findings corroborate or refute the ideas as proposed by the various research approaches discussed earlier.²

As can be seen in Table 3, eleven out of the twelve firms in our sample entered geographically and culturally close markets in the *initial stages* of internationalisation (the terms 'region' and 'market' are, in this paper, interchangeable terms). This market entry in close markets allows the firms to start internationalising without much risk. As noted, for example, by the software firm S6: "We want to enlarge our market and Germany is pleasantly close, also in terms of market demands." The only firm that initiated its internationalisation process in a more far away country (S2), erected a production facility in India (see below). The firms in our sample *currently* serve two to three world regions on average, either by means of direct exporting, international strategic alliances, and/or sales or production subsidiaries. However, ten out of the eleven firms that currently serve foreign markets, still generate most of their foreign income from the European Economic Area (European Union plus EFTA) countries, and are thus still heavily anchored in Europe with regard to sales.

INSERT TABLE 3 AROUND HERE

The fact that most firms in our sample started their internationalisation process by entering relatively close markets and subsequently expanded into more far away foreign markets, corroborates the Uppsala model. Similar to Bell (1995), we did find, however, that cultural and economic distance does not provide the only explanation of firms' initial and subsequent market selection decisions. 'Client followership' - i.e. firms internationalise as a result of the international strategies of their clients (Bell, 1995)-, also had a key influence on market selection decisions in two cases (M2, S1). In one case, the market happened to be 'psychically close' (S1), in the other it was not (M2). Another important factor influencing market selection was 'market growth': firms tended to target markets that were perceived to offer the best growth opportunities for their particular niches (see also findings of Bell 1995, Crick/Jones 2000).

All but one firm started their internationalisation process with low risk, low commitment entry modes, i.e. direct exporting and/or the establishment of NESAs. The one exception was a software

firm (S2) that started with a high-risk, high commitment entry mode, namely the establishment of a production subsidiary in India. In time, however, this firm has 'regressed' from using a high-risk, high commitment entry mode to using a very low-risk, low commitment mode of entry (i.e. indirect exporting). This regression was mainly due to an underestimation by senior management of the cultural and geographic distance of the foreign market (i.e. India, the country of origin of one of the firm's CEOs); this made the costs supersede the returns.

Currently, all but one firm make simultaneous use of two or more modes of entry. For example, three firms (S3, M1, M5) use direct exporting, strategic alliances, and subsidiaries as modes of entry. However, in general, a dominant strategy (cooperative or autonomous) could be discerned.³ The current internationalisation strategy of eight of the twelve firms in the sample can be described as predominantly 'cooperative'. There is no difference between the tendency of software and mechanical engineering firms to choose this type of strategy (in each sector, four out of six firms follow the cooperative way). Human and financial resource constraints proved to be an important reason for firms to engage in strategic alliances, in particular for the mechanical engineering firms (M1, M2, M3, M5, M6, S2, S5, S6). Resource constraints did not only have an impact on entry mode choice, but often also had an effect on the number of countries firms were able to serve (see also findings of Bell 1995). Our findings thus provide tentative support for our hypothesis that the cooperative strategy is the preferred choice for SMEs that internationalise. However, our findings also indicate that the choice between go-it-alone vs. collaboration is not a function of industry.

While the limited resources of the firms in our sample foster cooperative approaches, the firms are, in general, very anxious to maintain 'control' and not let their strategy be dictated by alliance partners. Alliances of crucial importance (for example because established in major growth markets) are thus designed in such a way that the partners can be 'controlled', for example by holding a majority of the shares. The strategy of the mechanical engineering firm M3 is a clear example of this. This firm has erected several joint ventures with foreign partners but its management always makes sure to hold at least 51 percent of the shares so that it has control over the venture. The only exception is a venture with a partner operating in the US/ Canada, where it owns only five percent of the shares. Although this partnership works well, the fact that the firm does not hold a majority of the shares is considered to be "the biggest mistake made by the CEO". Another example is mechanical engineering firm M6 that is currently setting up a joint venture in Vietnam with a local partner. M6 is striving to obtain the majority of shares of this joint venture "to protect the knowledge we provide them." A manager from software firm S1 indicated that, whenever it had to cooperate with a foreign firm, it made sure that it would be pulling the strings and that, should this foreign firm be really important, it preferred to buy it whenever the resource position of the firm allowed this. In fact, the internationalisation strategy of the firms in our sample

can be described as balancing and rebalancing cooperation and hierarchical or unilateral corporate control.

Next to the ability to pool resources, an important reason for firms to enter strategic alliances is the 'ability to learn' from partners (M1, S1, S2, S3, S4, S5). Here, the type of industry involved seems to be a major determinant. Internationalisation actions can be of an explorative or exploitative nature. While exploitation is primarily related to refinement and improvement in efficiency of existing activities, exploration is related to search and innovation activities, and development of capabilities (March 1991). Madhok (1997) suggests that exploration or development tend to be a larger component of firm activities in dynamic environments than in more stable ones. However, our findings do not corroborate this suggestion. The 'new economy' firms in our sample tend to follow strategies that exploit their capabilities and resources to the full, while they also try to upgrade and innovate by means of 'learning' alliances (i.e. collaborations with the primary goal of acquiring knowledge). They thus seem to follow an internationalisation path of (balanced) exploration and exploitation. The strategies of the 'old economy firms', which are confronted with more stable environments than the new economy firms, are predominantly of an explorative nature. These explorations are typically aimed at developing competences and less at technical innovation.

Only in the case of two firms, a 'radical' change of strategy from autonomous to cooperative can be expected in the near future. Software firm S1 will adopt an autonomous strategy by substituting its NESA in Belgium and Germany for the establishment of its own subsidiaries in those countries (although, due to the IT crisis, these plans of S1 are postponed, see below). This change is mainly driven by the acquisition of knowledge of Belgium and German market conditions and how to conduct business in a foreign country. Software firm S2 indicated that it intends to follow an autonomous strategy in the near future, by substituting indirect exporting for its own sales subsidiaries. This change is mainly driven by the fact that in the near future the firm expects to have the resources to erect such subsidiaries, resources that are lacking at present (something that is also due to the failure of its production subsidiary in India). Software firm S2 is thus an example of a firm that 'de-internationalised' but will possibly re-internationalise considering its international aspirations (for a similar case, see e.g. Lamb/Liesch 2002). In three other cases, the strategy of the firms shifted somewhat, namely from a dominantly autonomous or cooperative strategy, to a strategy in which both autonomous and cooperative elements could be found (M3, M4, and M6). The mechanical engineering firm M4 for example, shifted towards a more cooperative strategy. The main driver of this change was a perceived market opportunity in the US market that the firm could not exploit on its own due to limited resources and know-how of the target market. A firm that shifted its strategy from a cooperative to a more autonomous strategy is M3: this firm intends to erect wholly owned sales subsidiaries in its core markets.

The internationalisation path of most of the firms in our sample is thus consistent with the logic of the international process models: both the software and mechanical engineering firms show increasing commitment and involvement, as is manifest by their expansion into new foreign markets and higher levels of investment in foreign markets. However, our findings also suggest that the process is less constrained than many interpretations of the process models imply. The internationalisation path may not always be forward but may also turn backwards, as is demonstrated by, for example, the de-internationalisation of software firm S2 (see above), and the partial de-internationalisation of mechanical engineering firm M1 that had a sales subsidiary in the USA but, because of lack of resources, had to change it into a joint venture with a local partner (see also e.g. findings of Bell 1995, Calof/Beamish 1995). Another example is provided by software firm S1. The management of this firm intended to open up subsidiaries in Germany and Belgium within two to three years and had undertaken different initiatives to execute its plans. However, due to the oncoming crisis in the worldwide ICT sector, the firm was forced to postpone its plans and focus itself instead on the domestic market. The management of this firm also pointed out that several of its competitors that had already erected foreign subsidiaries, were forced to close them down due to the ICT crisis.

Why do firms change from one entry mode to another? The above examples indicate that in the case of firms that regress from using a more high-risk, high commitment mode of entry to using a more low-risk, low commitment mode of entry, change is mainly due to resources constraints or 'ineffective' modes of entry (see S1, S2, M1, M4). The motives of firms that progress from using more low-risk, low-commitment modes of entry to using more high-risk, high-commitment modes of entry can be roughly classified into 'behavioural' and 'economic' reasons. In some instances it was very clear that firms changed their modes of entry due to managerial learning - as the Uppsala model would have it. The mechanical engineering firm M5, for example, intends to change its sales NESAs in China into a production and sales joint venture since it has got to know the Chinese market and had established a trusting relationship with its partner. And the software firm S6 intends to invest equity in the NESAs it has with a local supplier from Romania "to create a stronger tie" since the cooperation is going smoothly. In other cases, the firms decide to switch to more committed modes of entry because market potential or market size made them more prone to take risk. The mechanical engineering firm M3 for example, will erect wholly owned sales subsidiaries in its core EU markets instead of relying on cooperative ventures, since market size justifies a more risk-prone strategy.

Even though the majority of both the software and mechanical engineering firms show increasing commitment and involvement over time, the moment when the software firms start to internationalise is, in absolute terms, much earlier than in the case of mechanical engineering firms. A major explanation for this seems to be the mindset of the CEO, which tends to be more

opportunity seeking and offensive in the case of new economy firms and more risk averse and defensive in the case of old economy firms. The software firms in our sample can, however, not be classified as 'international new ventures' -firms that are international from inception- if we apply the operationalisation as suggested by Oviatt and Phillips McDougall (1997), since none of our firms has made significant foreign commitments (e.g. sales efforts, investments) within six years after its formation. An exception is the software firm S2, but, as noted above, this firm has sold-off its subsidiary in India and has currently withdrawn itself from international operations almost altogether.

Earlier we noted that internationalisation may be driven or facilitated by supportive linkages. This indeed seems to be the case with the firms we sampled. Linkages with regional or national institutions that promote and stimulate internationalisation help the firms in the sample above all in obtaining funding and/or information regarding technical standards, regulations, or other country-specific information. A minority of the sampled firms use financial support programs intensively (S5, S6, M1, M4). Overall, the institutions seem, however, less useful for the software firms than for the mechanical engineering firms because of their apparent lack of knowledge of the products and markets serviced by software firms. As pointed out by a manager of software firm S2: "Most of the institutions and financial programs [erected to provide help for internationalisation] are very focussed on companies making physical, hard industrial products and not on companies predominantly providing services". Furthermore, the 'relational' and 'knowledge' assets of these institutions appear not (yet) equipped to help the firms in finding suitable, and/or trustworthy foreign partners or clients (see also the findings of Crick/Jones 2000). The mechanical engineering firm M5, for example, participated several times in meetings organized by the local Chamber of Commerce on doing business in foreign markets, but stopped doing this because: "making a copy of the yellow pages is something we can do ourselves too". To fulfil their needs in the area of finding suitable partners, or suitable managers to manage foreign ventures, some firms in our sample rely heavily on the network of large domestic or international clients or suppliers (e.g. M2, M5, M6, S1, S4, S5). An example is provided by the mechanical engineering firm M2, which has a strong, trusting relationship with a large domestic client who provides one third of its contracts and is the main 'linking pin' for any internationalisation activity. Another example is mechanical engineering firm M5, which has a large US client that provides M5 with information on the local customs in the US, thereby facilitating entry in this market.

Not only linkages with large clients or suppliers, but also the personal network of the owner/managing director often plays a crucial role in finding suitable partners, or suitable managers to manage a foreign venture. For example, the CEO of the Dutch software firm S2 was born and raised in India, which facilitated the choice to erect and the realisation of a production facility in this country. Similarly, the English founder and CEO of S4 had worked in international settings

since the start of his career, facilitating the set-up of a network of exclusive and non-exclusive distributors in different countries. Interestingly, 'new media' like the worldwide web do not appear to play an important part in the search of a suitable partner or client abroad for most of the mechanical engineering and software firms, and thus, contrary to what is often said, do not seem to be able to replace the supportive networks as 'match makers'. New communication technology does, however, play an important role in facilitating the communication with existing clients and suppliers.

Finally, we found that not only the personal network of the CEO and /or large clients or suppliers facilitated the internationalisation process, but so did the firm's 'history'. When the firms could build on the experience from 'predecessor' companies that went bankrupt, were privatised, or split up in separate parts, internationalisation was clearly aided. The mechanical engineering firm M5, for example, emerged after a management buy out and - after more than 15 years - is still using the international contacts its 'mother company' has with agents worldwide. Also the software firm S1, a spin-off from a large telecommunications firm, is using the business links of this 'mother company' to acquire clients domestically and in foreign countries.

Even though informal linkages appear to play an important and stimulating role in internationalisation, the 'regional embeddedness' of most of the sampled firms is low: with the exception of software firm S5, none of the sampled firms have strong linkages with local firms from the region that help them to improve their competitiveness domestically and/or on foreign markets. A majority of the firms (S1, S2, S3, S4, S6, M1, M3, M5, M6) do, however, have relatively strong linkages with local or regional colleges and universities. By establishing tight relationships with these educational institutions, the firms try to acquire state-of-the-art knowledge in their particular field of interest and try to secure a good first choice and ample access to talented graduates.

Conclusion

Our findings provide support for the notion that the cooperative strategy is the preferred way of internationalisation for SMEs. Our proposition that the choice between go-it-alone vs. collaboration is a function of industry is not supported: in both sectors two thirds of the case firms clearly prefer a cooperative strategy. However, while the mechanical engineering firms seem to opt for the cooperative strategy above all due to resource constraints that inhibit a go-it-alone strategy, for the software firms, the choice for the cooperative strategy is also largely motivated by capability development for the generation and realization of future value. This puts the choice for autonomy

or cooperation into perspective: it is influenced by the assessment of possibilities of acquiring a resource base, which may vary from technical expertise and local market knowledge to more tangible assets.

Internationalisation profiles of the firms in our sample, were on average characterised by: a defensive rather than offensive strategy, less than three different entry modes, moderate commitment of entry modes used, and international extension over two to three different world regions; regions that are culturally and economically distant. We examined whether there were significant differences when analysing data at a subgroup level. We found, among other things, that the mechanical engineering firms use a significantly higher number of entry modes and more committed entry modes than the software sector. These results indicate that the mechanical engineering firms in our sample have progressed further in internationalisation than the software firms, but mostly out of defensive motives. The managerial intent for internationalisation is clearly stronger in the software firms.

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

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

Parallel to the importance of a cooperative approach, supportive networks play a very important role in facilitating both the cooperative and autonomous strategy. Supportive relational networks of course support both autonomous and cooperative internationalisation, but they fit the cooperative

picture that comes out of our study. The world of networking is very variegated; different forms can serve very different purposes in internationalisation. First and foremost, networks in the form of 'relational contracting', i.e. specific and stable relations with suppliers, clients or even (semi-) competitors, seem crucial for internationalisation. The cooperative internationalisation strategy almost always arises from relational contracting supplemented with informal networking, which helps to assess and control risks and opportunities. Relationships with institutions that provide more general facilities or services for internationalisation, on the other hand, may be helpful but are not as crucial, and do not seem to determine a firm's internationalisation strategy as interpersonal relationships and relationships in the value chain do.

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

Additional research is necessary in two directions. First, the impact of organisational size merits additional research effort. As discussed in our methodology sector, the Dutch 'waisted' business system causes our sample firms to be relatively small, even for SMEs. Our analysis of the IP-profiles indicated that size is an important factor: contrary to theoretical expectations, the smallest firms in our sample show a higher commitment to internationalisation than the somewhat larger firms. What happens if similar issues are studied in somewhat larger SMEs, i.e. between 100 and 250 employees? A more extended comparison is thus called for, allowing analysis of both larger and smaller SMEs, and possibly even large firms. Second, it would be worthwhile to further delineate the internationalisation trajectories of SMEs and to differentiate these trajectories according to sector type. A particularly interesting topic is whether new economy firms have a higher tendency to engage in cooperative relationships that allow them to 'innovate' than old economy firms, as is suggested by our findings. And perhaps even more intriguing, what will

happen in the course of the industry life cycle when the software industry develops into a more mature market (cf. Gemser et al. 1996)? Another interesting issue for future research is whether the corporate culture of new economy firms fosters or hinders internationalisation of their activities, and whether this corporate culture is put under pressure due to internationalisation.⁴

Endnotes

1. The original dimensions of Daniels and Radebaugh (1998) are: (1) Impetus for internationalisation: from passive to active expansion; (2) Internal versus external handling of foreign operations: from external handling of foreign operations to the company handling its own foreign operations; (3) Mode of operations, ranging from limited foreign functions (usually export/import) to extensive production abroad with FDI and all functions; (4) Number of foreign countries in which a firm does business: from one to many (5) Degree of similarity between home and foreign country: from quite similar to very dissimilar.
2. To examine internationalisation strategies and patterns we constructed for each firm in the sample a 'time-ordered matrix' that gave a description of the markets that were entered, the mode(s) of entry and the rationale behind the entry mode choice and, when relevant, entry mode change, the pace of internationalisation, and the extent to which supportive network relationships stimulated internationalisation (see Coviello/Munro 1997, who use a similar approach).
3. Firms that used only direct exporting, only foreign subsidiaries, or used both direct exporting and foreign subsidiaries were classified as using an autonomous strategy. Firms that used only ISAs were classified as using a cooperative strategy. In the case firms used both autonomous and cooperative entry modes, we determined which entry mode was the most dominant by assessing the contribution of each mode of entry to a firm's economic revenues.
4. Although not of principal concern here, the study presented in this paper is part of an ongoing research project that addresses some of these issues, using a larger sample size and a cross-national perspective by including cases from the Netherlands, Germany, Austria, France and Italy.

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Table 1: Characteristics of the Firms in the Sample

Mechanical engineering	Empl.^a	Turnover EURO^b	Founded	Description Products	Export intensity	R&D intensity
M1	160 (180)	25	1960	Purification systems	95%	6%
M2	80 (80)	15	1988	Pipework for ships	10%	1%
M3	90 (107)	15,7	1961	Machines for the recycling industry	90%	high ^c
M4	50 (51)	5	1883	Equipment/systems for starch production	70%	5%
M5	32 (34)	4,8	1985	Hydraulic systems	25%	high ^c
M6	80 (80)	7,5	1957	(Stainless steel) pressure vessels and heat exchangers	60%	2%
Software	Empl.^a	Turnover EURO^b	Founded	Description Products	Export intensity	R&D intensity
S1	75 (75)	4,5	1998	Development of web design and web consulting	5%	25%
S2	58 (58)	3,8	1995	Software for better internet and intranet use	0%	5%
S3	27 (29)	n.a.	1990	Development of Information management solutions (software) for financial institutions	70%	very high ^c
S4	25	1,7	1986	Software and hardware for industrial control systems	50%	17%
S5	5 (5)	n.a.	1988	Software solutions for information management	65%	high ^c
S6	14 (14)	1,4	1999	Total (digital) media software consulting and production	5%	10%

a. In bold: employees in home country; between parentheses: employees in total.

b. Average turnover of 1998-2000, in millions of Euro

c. Relative to industry average

Table 2: Means of the IP-scores of the Total Sample and Relevant Subgroups^a

Maximum score, total sample, and total sample per sector				
	Maximum Score	Total Sample	Mechanical Engineering	Software
Internat. Attitude	6	2.50	1.00*	4.00*
No. of Entry Modes	6	2.75	3.50**	2.00**
Entry Mode	4	2.83	3.33*	2.33*
No. of Regions Covered	5	2.67	2.83	2.50
Market similarity	6	4.25	5.17	3.33
N		12	6	6
Total sample per age class (tested for 2 classes)			Total sample per size class (tested for 2 classes)	
	Age class I and II	Age class III and IV	Size class I and II	Size class III and IV
Internat. Attitude	2.00	3.00	4.00*	1.00*
No. of Entry Modes	2.50	3.00	2.67	2.83
Entry Mode	2.50	3.17	2.83	2.83
No. of Regions Covered	1.67**	3.67**	3.17	2.17
Market similarity	3.00**	5.50**	5.17	3.33
N	6	6	6	6

* $p < .10$; ** $p < .05$ (Mann-Whitney)

- a. For the variables ‘number of entry modes’ and the ‘number of world regions covered’ the reported scores reflect actual numbers. For the other three dimensions (‘international attitude’, ‘entry mode’ and ‘market similarity’) the scores represent ordinal classes, ranging from low to high scores. We realise that the average of an ordinal variable is not easily interpreted. However, our only goal here is to present a pattern, and for this purpose it is clearer to present the dimensions with similar score ranges.

Table 3: Foreign regions served

Region I:	EU/EFTA country;
Region II:	US and Canada;
Region III:	Emerging countries Europe;
Region IV:	Developed countries other than EU/EFTA and US/Canada;
Region V:	Emerging and underdeveloped countries other than Europe.

Firm	First foreign region (t-1)	Current foreign region (t)^a
Mechanical engineering		
M1	I	I , II, III, IV, V
M2	I	I , III
M3	I	I , II
M4	I	I , V
M5	I	I , II, V
M6	I	I , III, V
Software		
S1	I	I
S2	V	-
S3	I	I , II
S4	I	I , II, III, IV, V
S5	I	I , II, III, IV, V
S6	I	I , III

a. Dominant region is printed in bold.

Appendix I: Measurement of Variables^a

<i>Descriptive variables:</i>	
Sector	mechanical engineering sector, computer software sector
Size of the firm	class I to IV: based on number of employees in home country ^b
Age of the firm	class I to IV based on quartiles per sector ^c
<i>Dependent variables</i>	
<i>IP-dimensions:</i>	
Internationalisation Attitude	Defensive (value 0) or offensive (value 6)
No. of Entry Modes	Number ranging from 1 to 6 (different entry modes used) ^d
Entry Mode	Class ranging from I to IV (level of most committed entry mode used) ^e
No. of Regions Covered	Number ranging from 1 to 5 (different regions covered) ^f
Market similarity	Class I to VI: similarity between home country and furthest country ^g

- a. The scales of the variables listed in the table are all nominal or ordinal, with the exception of the 'age of the firm', the 'size of the firm', and the export share which are metric. The variables 'age of the firm' and 'size of the firm' were recoded into ordinal variables for use in the IP-analysis.
- b. Operationalisation: Class I: 1-20, Class II: 21-50, Class III: 51-100, Class IV: 101-250 employees.
- c. Because of the large difference in age between the two sectors (which is not surprising since the software sector is much younger than the mechanical engineering sector), we recoded age based on quartiles per sector; in this way the oldest mechanical engineering firms and the oldest software firms are, for example both in ageclass IV. Quartile boundaries are: mechanical engineering sector: 16, 40, 44 years; software sector: 3, 9, 14 years.
- d. Possible modes of entry are: 1. direct export, 2. minority participation, 3. non-equity alliance, 4. joint venture, 5. majority participation, 6. subsidiary.
- e. Operationalisation: Class I: export, Class II: minority participation or non-equity alliance, Class III: joint venture or majority participation, Class IV: subsidiary.
- f. We used the same categories as used by the 'Market similarity' variable but Class I and II are combined, and classes are renumbered.
- g. Class I: neighbouring EU/EFTA country, Class II: rest of EU/EFTA; Class III: US and Canada; Class IV: Emerging countries Europe; Class V: Developed countries other than EU/EFTA and USA/Canada, Class VI: Emerging and underdeveloped countries other than Europe.