CHANGE IN SME INTERNATIONALISATION

A Network Perspective

Niina Nummela
Turku School of Economics and Business Administration
Rehtorinpellonkatu 3, 20500 Turku, Finland
Telephone +358-2-338311, Fax +358-2-3382280, E-mail: niina.nummela@tukkk.fi

28th EIBA Conference

December 8-10, 2002

Athens, Greece

Revised version, dated 4 November 2002

ABSTRACT

The number of small firms operating on international markets has been growing, and simultaneously the process of internationalisation has been accelerating. However, it remains yet unclear how the key business operations change during internationalisation, and what kind of resources and skills – on both the organisational and the individual level – are needed to manage the internationalisation process successfully. The objective of this study is to shed some light on this topical issue by describing and analysing change in internationalising SMEs, particularly from the perspective of SME network.

A framework based on earlier literature is created and used to analyse the changes due to internationalisation in selected case companies. The findings indicate that change in internationalisation is a more multidimensional and complex concept than anticipated. The framework facilitated the identification and classification of different levels of change. The paper ends with some propositions, suggestions for further research and a discussion on the limitations of the study.

Keywords: internationalisation, SME, small firm, change, network

1. INTRODUCTION

The number of small firms operating on international markets has been growing, and simultaneously the process of internationalisation has been accelerating. During the last decade, small and medium-sized enterprises[i] (SMEs) have been the object of increasing interest. Politicians, governmental bodies and academics have re-evaluated the significance of this group of firms, and currently regard them as significant sources of wealth and employment. On the other hand, due to improved communication systems and the deregulation of tariff barriers, “the world is getting smaller”. Consequently, SMEs are pushed towards and pulled away from international markets. The number of small firms operating internationally has been growing, slowly but steadily. Some researchers have also discovered that the time lag for SME internationalisation[ii] (i.e., the time from the establishment of the firm to the first export delivery) has become shorter (for empirical evidence, see, e.g., Hurmerinta-Peltomäki 2001; Christensen 1991). This kind of acceleration requires that small firms also acquire the resources and skills needed for international operations more quickly than earlier.

What does this mean from the perspective of the internationalising company? On the company level, internationalisation seems to be a growth process that is tightly intertwined with the company’s other activities (cf. Jones 1999). Moreover, internationalisation on the individual level has become a crucial factor, particularly because experience and learning are considered key features. However, it remains unclear how the key business operations change during internationalisation, and what kind of resources and skills – on both the organisational and the individual level – are needed to manage the internationalisation process successfully.

The objective of this study is to shed some light on this topical issue by describing and analysing change in internationalising SMEs. This objective can be divided further into the following sub-objectives:

- to describe changes in internationalising SMEs
- to identify changes in the network of internationalising SMEs
- to analyse the significance of networks in SME internationalisation

The study combines the analysis of change both on the company and on the network level but the emphasis is on the latter. Although existing research does not offer much empirical evidence, it is assumed here that existing business networks can offer small firms assistance in internationalisation. Unfortunately SMEs are not aware of all the potential partners in their network and, on the other hand, they do not know how to exploit it (Bell et al 1992, Rothwell & Dodgson 1991). Such ignorance probably means that very few small firms exploit their networks effectively. This study concentrates on the change in the network, which is due to internationalisation. In this study the actors, activities and resources in SME network are in focus and their change is analysed. First, the relevant actors in the network are identified, then their activities are examined and finally, the resources acquired through these contacts are analysed.

A framework based on earlier literature is created and it is used to analyse the changes due to internationalisation in selected case companies. Each case offers a rich description of the changes, and the cross-case analysis reveals the common and differentiating features. The findings indicate that change in internationalisation is a more multidimensional and complex concept than anticipated. The framework facilitated the identification and classification of different levels of change. The paper ends with some propositions, suggestions for further research and a discussion on the limitations of the study.

2. CHANGE IN INTERNATIONALISATION

2.1 What is change?

This study focuses on change in internationalisation, and thus the concept of change has to be defined. There is a vast amount of literature on organisational change and this study does not attempt to review it all. Instead, some selected concepts are borrowed from earlier research on organisational change and embedded in the context of small-business internationalisation. This follows the tradition in organisational-change research in general, as there seem to be no original concepts and most of the research has adopted concepts, metaphors and theories from other disciplines (Van de Ven & Poole 1995).

The emphasis of earlier research on organisational change has been on the incremental, cumulative change process, which has been used to explain almost everything (Gersick 1991). The dominant approach – the configuration school – assumes that organisations evolve mainly through periods of stability, which are interrupted by occasional discontinuities (Miller & Friesen 1984). These revolutionary changes are usually driven by external events, such as changes in technology, in the competitive situation or in the political conditions (Tushman & O'Reilly 1996), but they may also be a result of internal factors (Gersick 1991). Organisational changes range from slight adaptations to dramatic shifts in organisational structure, strategy and culture (Schuh 2001). The theoretical explanation of this development – the punctuated equilibrium paradigm – is based on the assumption that incremental change during the stable periods develops through adjustments to the existing system, with the activity patterns remaining the same, whereas during revolutionary periods the deep underlying structures in the system also change (Gersick 1991).

However, this study is an exception to mainstream research because the focus is not on the process on how and why organisations change. In other words, process theory is not at its core. Instead, the interest lies in the *content of change*, i.e., what actually changes. Thus, change is defined here as the difference in form, quality or state in an organisation over a selected time period (cf. Van de Ven & Poole 1995, 512). This change is studied on the level of one company function, internationalisation, when the company extends its activities from domestic to foreign markets (cf. Havnes 1998). Although changes may be studied on many organisational levels, including those of the individual, group and the organisation (Van de Ven & Poole 1995), in small firms the emphasis should be on the owner-manager, who is often at the core of the change processes. Correspondingly, and following Hohenthal (2001), the interest of this study is in understanding the individual action and the manager's perception of change.

Change as such can be further classified into various types. For example, Watzlawick et al (1974) distinguished between *first- and second-order* changes in organisations (for a thorough overview on first- and second-order change, see also Chapman 2002). First-order change indicates an incremental change with gradual modifications within the existing system, whereas second-order change refers to a more fundamental change, which results in differences in the basic governing rules and alterations of the system (Chapman 2002). Different types of change can be further divided to *alpha, beta and gamma change*

(Golembiewski et al. 1976). According to this system, a change can be described as an alpha-level change if the actors only extend their current activities, while on the beta level the change can also be observed in the standards by which the behaviour of the actors is assessed, and finally, on the gamma level a fundamental shift occurs in the system. This classification resembles the earlier description of revolutionary change processes, and it may be assumed that gamma-level changes are the outcomes of these revolutionary development periods. The classification of alpha, beta and gamma changes is applied in this study; alpha and beta changes indicating two levels of a first-order change, and gamma change a second-order change in the company.

Traditionally, organisational change has been studied within frameworks reflecting incremental, first-order change (Chapman 2002). This system is also valid in reviewing earlier research on small-business internationalisation: the traditional approaches follow the path of incremental change, at least implicitly (Havnes 1998). However, as it seems that the cliché about the increasing pace of change in the globalising business environment is true (Tushman & O'Reilly 1996), it could also be assumed that the changes related to internationalisation are increasing in number and importance, as well as becoming faster. As a result of this development, success in international business calls for managements and organisations that are able to cope with both incremental and discontinuous change (cf. Tushman & O'Reilly 1996). Consequently, from the managerial perspective, understanding changes due to internationalisation is also crucial.

2.2 Change in SME internationalisation

It has been argued that change in company internationalisation has not been a major area of interest in international business research (Schuh 2001). This is rather surprising because internationalisation is generally understood as an evolutionary process during which a company adapts to the international environment (e.g., Calof & Beamish 1995). The aspect of progressive change in this process has been emphasised by several researchers. The importance of the strategic perspective has also been underlined: expansion to international markets requires changes in the company strategy in order for it to fit into the novel environment (Schuh, 2001; Lam & White 1999; McDougall & Oviatt 1996). Strategic fit is particularly important for rapidly internationalising companies, which need internationally fit strategies, policies and procedures from inception (McDougall et al 1994).

As stated earlier, the models for describing and analysing small-business internationalisation are dominated by the incremental-change paradigm (Lam & White 1999; Havnes 1998). These stage models, starting from the Uppsala school (Johanson & Vahlne 1977), are tempting because of their simplicity and logic. However, despite their popularity, they have also been strongly criticised (e.g., Clark et al. 1997; Madsen & Servais 1997; Petersen & Pedersen 1997; Andersen, 1993). The majority of internationalisation models have followed the most common theory in management literature: the life-cycle-process theory (for a discussion on process theories, see Van de Ven 1992). Affected by certain stimuli, a firm will proceed from one stage to another, and all firms will follow a similar pattern. These models are quite deterministic, and are based on an objectivist interpretation of reality and human nature: internationalisation is seen as a response to a stimulus, either internal or external to the firm.

As a response to the increasing criticism, researchers with a more subjectivist approach later developed other process models that aim at understanding the internationalisation process instead of explaining it. The underlying thought behind these process models is internationalisation through increasing experience and learning. However, despite their voluntaristic approach to internationalisation, most of them still use the traditional life-cycle process theory as their starting point. Only in a few recent studies have researchers applied a more teleological interpretation of the process, according to which a company may take multiple routes in order to achieve the desired end state (e.g., Andersen et al. 1997; Madsen & Servais 1997). To sum up, literature on small-firm internationalisation concentrates on describing an evolutionary process of slow-moving change.

2.3 Change on the network level

Earlier research on networks and internationalisation has been quite modest (Sadler & Chetty 2000, Coviello & Munro 1995), and it has concentrated on a few specific areas. This discussion was introduced in the field of industrial firms and business-to-business relationships by two Swedish researchers, Johanson and Mattsson (1988). They pointed out that the network in which a company operates also affects its internationalisation. Their work was based on the basic idea behind the network approach: when entering new markets a company also enters a new network, and it has to create new relationships. Recent research has also connected networks more closely to the internationalisation process of the firm. A few studies have highlighted the significance and usage of internal connections in SME internationalisation. For example, Jones (1999) and Coviello and Munro (1997) pointed out that the inward and outward activities – e.g., import and export – in a small firm are tightly intertwined. Thus, experiences and contacts related to inward activities may facilitate and anchor the internationalisation process.

However, very few empirical studies describing SME usage of networks in internationalisation exist, and these are mostly of an exploratory nature with quite scattered findings. They are often based on the preassumption that SME internationalisation partly depends on the firm's set of network relationships (for a review of these studies, see Coviello & McAuley 1999). In general, the empirical studies support Johanson and Mattsson's (1988) argument that the network has a significant effect on SME internationalisation.

The significance of the different actors in the network seems to vary during the process of internationalisation. In the pre-export stage – when the firm is still searching for information and considering the possibility of entering international markets – the problems are mainly related to the lack of different resources and small firms may turn to public and semi-public actors for assistance. On the other hand, when a small firm is already involved in international operations it faces competition and environmental turbulence in the market. These new circumstances create novel needs for external assistance, and the firm's interests also turn to different network actors. Other firms, such as customers and suppliers, may seem to be suitable partners in this stage, when new strategy alternatives, and also business partners with market knowledge and long-term relationships, are sought. This also indicates the more efficient use of developed personal and business networks. (Nummela 1997) To sum up, it is assumed here that existing business networks can offer small firms assistance during their internationalisation process.

This study focuses on changes in the network that are due to internationalisation. The dynamics of networks is investigated by taking the so-called IMP Group's network approach. According to this approach, change in industrial networks is continuous, and this evolutionary, incremental change is interrupted by radical changes (e.g., Halinen et al. 1999, Easton & Lundgren 1992, Gadde & Håkansson 1992, Lundgren 1992). As such, there is a strong resemblance to the general organisational-change theory discussed earlier. In the network context, continuous changes are first-order changes, which are based on the existing network, and discontinuous changes are second-order changes transforming the existing network (cf. Lundgren 1992). The change in a network is due to the fact that it is never complete or in equilibrium (Håkansson 1992). The most important change agents in the network are the companies themselves, as the origin of the change is related to the interface between the actor and the environment (Gadde & Håkansson 1992).

Changes in a network may concern the actors, the activities and the resources that exist between firms (Halinen et al. 1999). Therefore, in this study the changes due to internationalisation in the network are analysed with the help of the A-R-A model (for the basic A-R-A model, see, e.g., Håkansson & Johanson 1992), which has been commonly used in studies of business-to-business marketing. The key elements here are the actors, the activities and the resources in the network. The actors perform and control the activities with the help of the resources, and through exchange processes they develop and maintain relationships with each other.

Again, this study is concerned less with the process of network evolution, and more with the changes in the actors, activities and resources in SME networks. Such changes are analysed over the course of time. First, the relevant actors in the network are identified, then their activities are examined, and finally, the resources acquired through these contacts are analysed. As Gadde and Håkansson (1992) suggest, both major and minor changes in the network are considered as important study objects, as the minor changes may lead to major ones in the future.

The network of a small firm is a complex combination of the several embedded nets to which it belongs (cf. Halinen & Törnroos 1998, Easton 1992). In order to make the relevant actors distinguishable, this complex reality needs to be simplified through classification. The classification used in this project was inspired by Smilor and Gill (1986), who studied networks in the context of business incubators and SMEs. They identified six different types of actors in a small firm's business network: major (large) and emerging (small) firms, universities, state & local support (public sector) and professional & other support (trade and other associations, chambers of commerce etc.) (Figure 1). It is assumed that all these actors may assist small firms in their internationalisation.

INSERT FIGURE 1 HERE

Figure 1. The business network of a small firm (adapted from Smilor & Gill 1986, 29)

The previously presented classification of levels of change is applied here in the context of SME internationalisation. Accordingly, an *alpha*-level change occurs in the network if the company has been in contact with the public and semi-public actors in order to acquire extra resources with a view to solving some specific problem in internationalisation. However, the activities are based on individual transactions and no permanent resource links are created. A *beta*-level change would involve the creation of short-term alliances and partnerships for export activities. A good example of this kind of co-operation could be the export circles of

SMEs. These kinds of activities create temporary resource links between the companies, but links are usually dissolved by the mutually agreed deadline. A *gamma*-level change refers to a long-term or permanent change in the company network, including the acquisition of crucial resources from some of the partners. As stated earlier, alpha and beta level changes are interpreted here as first-order changes and gamma changes as second-order changes.

3. RESEARCH DESIGN

Change as a study object requires special attention to be given to the research design because of the retrospective and longitudinal perspective needed. Particularly when the focus is on change processes, longitudinal research is recommended as it permits the identification and observation of processes (Kimberly 1976). As stated earlier, the number of empirical studies on change and internationalisation is limited, and only a few of them have taken a longitudinal research approach. Among the few exceptions are the studies by Schuh (2001), Havnes (1998) and McDougall and Oviatt (1996). Schuh examined the evolution of the international marketing strategies of eight companies by using a longitudinal case-study method.[iii] Havnes (1998) analysed first- and second-order changes in internationalisation and used the data from the international Interstratos research project[iv] in his study. McDougall and Oviatt (1996) did a follow-up study analysing the internationalisation of new-venture manufacturers in the computer- and communications-equipment industries. Their study is based on data collected with a follow-up questionnaire from companies who had participated in a related study earlier. In most cases the analysis of change seems to be based on some stage model of internationalisation.

The reasons for the lack of longitudinal studies are obvious: they require a lot of work and take a considerable time compared with traditional research designs. However, although they are laborious, they do offer the possibility to obtain very rich descriptions of the internationalisation of the companies concerned. For this reason, this study also takes a retrospective perspective, although the research design is not necessarily longitudinal, as the data was collected at only one point of time from three case companies that are in different stages in their internationalisation. The case companies are all manufacturing companies located in South-western Finland. Some basic information of the case companies is summarised in Table 1 below.

Table 1. Summary of the case firms' selected characteristics

INSERT TABLE 1 HERE

One of the key questions to be solved in the research design was the question of timing (of the importance of timing in research design, see Mitchell & James 2001). What is the time period during which the respondents reflect on the changes related to internationalisation? In order to make this evaluation frame as stable as possible, the first export delivery was selected as the starting point (t°) in the analysis (Figure 2). When this starting point is fixed for all of the companies, the findings from each one may be compared in cross-case analysis. The time period in question is the time from the first export delivery (t°) to the time of the data collection (t^{1}).

INSERT FIGURE 2 HERE

Figure 2. Comparison of cases

The study comprises companies that were in different stages of internationalisation at the time of the data collection (t^1). Company representatives were asked to look back and describe the changes during the time period in question. In analyses of change, the key interests are the triggers: deadlines, milestones and crisis situations (Gersick 1991), which could also be called critical events or incidents (e.g. Halinen et al. 1999). Following the critical incidents enables the researcher to observe mechanisms and processes through which changes are created (Schuh 2001). However, the definition of a critical event is a subjective one, as the actors themselves determine which events are critical and which are not (Halinen et al. 1999). This study concerns the critical events related to internationalisation. Some less notable and less conscious changes were also brought to light by comparing the interview data with the documents. If available, the documents were also helpful for checking details, such as numerical information.

One representative from each company, the managing director, was interviewed face-to-face. The interviews were semi-structured and followed a loose pattern based on the theoretical framework. Data triangulation was used to complement the personal interviews, and other, particularly secondary, data was collected. Memos, annual reports, brochures, Internet pages and other material, as well as newspaper articles, were used as additional sources of information.

Another question related to the research design was the selection of the case companies. In order to get as broad an overview of the phenomenon as possible, no industry or other background limitations were imposed. The case companies include firms with different internationalisation histories: Born Globals, Born-again Globals and ‘traditional’ firms[v] among them. This variety was considered to increase the richness of the data and the diversity of the cross-case analysis as the time period in focus varied considerably. A more detailed description of each company follows in the next chapter.

4. CHANGE IN THE CASE COMPANIES

4.1 Company F

Company F manufactures and markets products for contact-lens care as well as contact lenses, spectacle frames and other related products. In 2001, the turnover of the company exceeded three million euros and it employed 30 persons. Contact lenses cover approximately one third of the turnover, and the other two thirds come from lenses and spectacle frames. The company is family-owned and in addition to this business the managing director and his family also own a small optician's business and a photographer's studio.

The company was established in 1978 when the managing director, who is an optician by education, and his friend, who has a degree in chemistry, noticed the invasion of imported liquids for contact-lens care. They deduced that there would be a niche for a corresponding Finnish product at a more reasonable price. After three years of extensive product development they introduced their own product to the Finnish market. They initially developed three different products for contact-lens care, and this then led to the manufacture and marketing of a range of contact-lens-care products.

In Finland the products are sold directly to opticians through the company's sales representatives in the field. The brand is quite well known in Finland, not least because the company prominently sponsored a local team in the national basketball league in the late 1990s. Domestic markets are stable, although the demand has decreased slightly. However, the company has been able to cover this loss with an increase in exports.

The internationalisation of the company started in the mid-1980's when it began importing stock lenses and spectacle frames, but exports started later, in 1994. Because of the strict legislation, entry to the main European markets was quite difficult and therefore Poland was selected as the first target market. From these markets the company quite soon expanded to Estonia and Sweden. Finnish membership in the European Union in 1995 offered access to these markets and at the moment the company is operating in most European countries. In 2001, the proportion of exports was approximately twenty per cent of the turnover, but exceeded fifty per cent in the main export product (contact-lens-care solutions). Customers on international markets are mainly local distributors and wholesalers, who are specialised in optical products. Exported products are sold both under the company brand name and as private-label products.

The company has created a network based on long-lasting relationships in some activities. For example, in product development the company co-operates closely with the University of Turku. They use the laboratory facilities of the Institute of Microbiology for the testing needed for product development and other related purposes. The managing director finds this arrangement very effective as it allows them to utilise the facilities only when they are needed and thus also pay for the expenses only during this time.

On the other hand, the company has co-operated with several governmental organisations in order to seek extra financial resources for investments needed. Co-operation with public organisations has also been necessary when organising tailor-made education for their workforce as the public education system does not offer any education for this field. The personnel has also occasionally participated seminars and courses related to exports that have been organised by governmental organisations. The managing director himself is an active member in several entrepreneurial associations but according to him the role of these activities concerning internationalisation has been very limited. However, co-operation in all these activities has been quite stable and no significant changes can be identified during the company's internationalisation.

Most of the raw materials used for the production are purchased from foreign suppliers, as potential suppliers do not exist on domestic market. Long-lasting relationships with key suppliers have been established and in order to stay competitive the company has invested considerable time to search for the best possible supplier for each component. This has lead to a relatively tight supplier network as the new entrant, usually internationally well-known and respected supplier, has always replaced the older one in the network. As the competitiveness is particularly significant on international markets, it seems that these changes have been – at least partly – due to internationalisation. In addition to the supplier network, the company has also created an international dealer network, which is based on long-lasting relationships with the local dealers. It can be concluded that according to our classification the changes due to internationalisation have been gamma level changes, although not very radical ones.

4.2 Company L

Company L is a family-owned company, which specialises in the design, manufacture and marketing of forest harvesting heads. The harvester heads are used in forest machines for wood harvesting all over the world. The price of a harvester head varies from 60.000 to 70.000 euros. In 2001 the turnover of the company was approximately three million euros and it employed 17 persons.

The company was founded in 1985 as an engineering office focusing solely on designing harvester heads. The managing director has a strong background in the business since early 1980s, first in his father's company and thereafter as an independent entrepreneur. Design of an own product for the company started in 1993 and this product was launched on the market in 1995. At the moment the company offers six basic models in its product line and additionally their harvesting heads can be attached to almost forest machine in the market. This flexibility and diversity of product offering can also be considered as one of the competitive advantages of the company as only very few of its competitors can offer something similar. Each product is tailor-made for each customer and has both country- and customer-specific elements. Cost efficiency in production is guaranteed with careful product planning and procurement, the diverse products consist of similar elements and modules.

The product was originally planned for global markets: it was tested in Australia and the first delivery was made in 1995 to Canada. Since that the company proceeded to the main European markets and now it operates world-wide. During the last years the share of exports has been approximately 98 per cent of the annual turnover. At the moment the main market area is North America, which covers approximately 25 per cent of exports. In the future besides North America and Europe also the importance of more distant markets, such as Southeast Asia and Japan as well as South America will be growing.

The company has a world-wide dealer and importer network. The local dealers have their own customer network consisting mainly of small and medium-sized forest contractors who own less than 10 machines. Customers include sometimes also forest companies and firms that install additional products and sellers of second-hand machines. The dealer network is under constant development process and at the moment company L is trying to withdraw from co-operation with the weakest dealers and create strong partnerships with the most effective ones.

In the forest machine industry co-operation between companies is quite rare. However, in the case of company L co-operation has been one of the key characteristics of the company business idea. Since 1993 and the development of its own product the company has invested notably in the development of subcontractor network. At the moment it has a few key subcontractors who take care of selected processes (e.g., automation, welding, painting) in the production and also a few key component suppliers with whom a long-term partnership is aimed at. The subcontractors are small companies located nearby whereas most of the suppliers are large foreign companies. As a whole, approximately half of the production has been outsourced but key activities (testing, assembly etc.) are still done in-house.

In addition to co-operation with other companies, company L has also co-operated with public and semi-public organisations as well as universities. For example, it has financed its growth partly with financial support from a governmental organisation and trained its personnel in courses organised by semi-public and public organisations. They have also utilised the services of Finnish commercial counsellors abroad as well as trainees from the local Polytechnic. The company has also participated in two export circles; one of which aimed at the Russian markets, the other to Brazilian markets. The export circles are co-operative ventures of four small firms who jointly attempt to enter the markets and for this purposes the companies jointly hire an export manager. The circles are initiated by a governmental organisation, which covers half of the expenses caused by co-operation for three years.

In the case of company L the interpretation of change in internationalisation is slightly problematic. If the situation at the time of founding is compared with today, noticeable changes can be identified as the engineering office at that time operated in a totally different network. However, a radical change in the company and its business idea occurred in 1993 when it turned from an engineering office to a manufacturer. Its activities were reorganised according to the new business idea and therefore this time point would seem a more suitable time for comparison. If the latter time is used as a comparison point, the changes occurred are less notable, although not insignificant. Here the latter interpretation is applied, particularly as it is in line with the thoughts of McDougall et al. (1994) who suggest that new ventures who anticipate to be involved in international operations should plan their organisation and procedures internationally-oriented from inception.

Consequently, in company L the changes due to internationalisation have been both on all classification levels. There have been contacts with public and semi-public organisations as well as co-operation in export circles and these changes can be classified as alpha and beta level changes. On the other hand, for its international operations the company has created a substantial international dealer network, which can be classified as a gamma-level change.

4.3 Company S

Company S is a small company operating in the metal and engineering industry, its main products being screw conveyors and pumps. In 2001 the company employed 21 persons and its annual turnover was approximately four million euros. The company was established in 1977 as a joint company of the managing director and his father-in-law. Business operations started when the managing director and his father-in-law bought machinery and some preliminary sketches from a company that had gone bankrupt. The company has remained in the family, although the older generation has already withdrawn from it.

During the company history the main products have been the conveyors, which are used in various industries in order to move raw materials from one place to another. These are also the products, which are exported. The price of one conveyor is approximately 10,000 – 35,000 euros. Customers include the pulp and paper industry, mechanical woodworking, mining and the metallurgical industry, as well as sewage clarification and power plants. The conveyors have an important role in process industries where undisturbed production and dust-free material transfer are crucial issues.

Both in Finland and abroad the products are sometimes sold to the end users, i.e., manufacturing companies in various process industries. However, the majority of products are sold to large, often globally operating systems suppliers as a part of a larger system consisting of complementary products. The number of potential customers in each country is limited; for example, in Austria the company has only one customer, a globally operating systems supplier. Also on the other export markets the number of customers is very small.

The manufacture of the products is rather simple, as they are based on standard modules. However, each one is unique and tailor-made for each end customer. The planning process starts with the listing of customer needs, the main criteria being the quantity and quality of the movable material, transport length and the location of the conveyor. Earlier experience of movable materials, their qualities and requirements, are useful in the planning process.

The company started exporting in 1990 with a delivery to Sweden, although there were occasional direct deliveries to Norway and indirect deliveries to Russia even before that. The export share has varied considerably; at most direct exports exceeded 25% of the turnover. Currently Austria accounts for 80% of exports, Norway 15% and Sweden 5%. The relative importance of the different markets has clearly varied. In the early 1990s the main focus of export operations was on Sweden, one person was employed almost full-time for two to three years trying to enter this market (the production manager who had Swedish as his mother tongue). The first deliveries were made to Austria in 1993, and exports there have been regular ever since. At the moment the share of exports is approximately 10 per cent of the annual turnover. Also the proportion of indirect exports has remained considerable, at the moment it is approximately 70% of the turnover.

The core competence of the company lies in the manufacture of conveyors for demanding industry purposes. Most of the production is done in-house, although less important activities are outsourced to small subcontractors (e.g., in automation) who operate on their premises. All components are bought from suppliers with whom the company has long-term relationships.

The use of network in the case of company S has been quite limited. The managing director has occasionally participated in seminars and courses related to exports and internationalisation but otherwise the company has been rather self-sufficient when it comes to internationalisation. In addition to this, the company has also participated two export circles initiated by a semi-public organisation. The export circles focused on the Swedish and Norwegian markets but did not bring any notable business. It can be concluded that in company S there have been some alpha and beta-level changes in the network due to internationalisation.

4.4 Cross-case analysis

The three case companies have clear similarities and differences. First, their internationalisation process has occurred mostly at the same time, in the 1980s and 1990s. Second, they all operate in rather traditional industries; no high technology or service aspect is included in their activities. However, from the perspective of change due to internationalisation, they also differ significantly from each other. The major changes in the case companies are summarised in table 2 below.

Table 2. A summary of the changes in the case companies

INSERT TABLE 2 HERE

It seems that the extent of change is the highest in company L, in which change has occurred on several levels: alpha, beta and gamma levels of change could be identified. Also in company F several changes have taken place but not all of them have been related to internationalisation. However, the changes due to internationalisation have been noticeable, particularly in co-operation with other companies, and they can be classified as gamma level changes because of the permanent resource links created. The changes in company S have been of limited importance and it seems that internationalisation has not caused any permanent changes in the company's network.

The findings from case companies indicate that the extent of change may be related to the firm's commitment to internationalisation. In company L, which is highly committed to internationalisation, also the changes due to internationalisation were clearly observable. On the other hand, the commitment of company S could be classified as low, and also the changes were least noticeable. Naturally, some of the differences could also be partly explained by the companies' distribution channels: company S who sells the products directly to customers without middlemen does not need the network as the others do. It is also worth noticing that only in company L the changes in the network were outcomes of strategic decision-making, in the other two companies no explicit decisions preceded the changes.

5. DISCUSSION AND CONCLUSIONS

A classification for analysing changes due to internationalisation was created for the study and it proved to be very helpful in identifying changes in the company network. However, the basis for the classification was taken from earlier studies on organisational change and this created a slight contradiction. As stated earlier, research on organisational change has strongly concentrated on the process of change and paid less attention to the content of change, which is the focus of this study. For the purposes of this study, the interpretation of the borrowed concepts had to be somewhat different. This led to an interesting confrontation: the findings from the case companies suggest that also gamma-level changes could be continuous changes, i.e., outcomes of an incremental development process instead of radical, abrupt events. Does this mean that our classification is inherently flawed and should be revised or does it indicate that our understanding of this phenomenon is yet limited and it requires deeper investigation? This question remains open for others to answer but hopefully it will encourage lively and fruitful debate on the topic.

The findings also point out that various changes in a company network are not necessarily connected, although all of them might be somehow related to internationalisation of the firm. It can be assumed that the connectedness depends on the company's commitment to internationalisation and particularly, on the companies' strategic decisions. In a company where internationalisation is strongly based on a deliberate strategy, the changes probably follow a more predefined pattern and thus they are also closer connected to each other. Consequently, in future studies on change and internationalisation also the aspect of strategy should be taken into consideration.

Despite the interesting results, this study also has some limitations. First, the findings are based on only three cases and thus the results can only be considered tentative. Nevertheless, they open new avenues for further research and point out topics that need more elaboration. It would be worthwhile, for example, to study sources of radical change in detail. When do they actually occur and why? Additionally, the study could be extended to companies whose internationalisation has proceeded from exporting to more demanding operation modes. McDougall and Oviatt (1996) have argued that operation modes that require more resource commitment also call for more strategic changes, and it would no doubt be rewarding to examine if this is really so.

This study was retrospective in nature, focusing on the change from the viewpoint of a single company. It would be quite attractive to broaden the perspective from the micro level to industry or country level and examine whether SMEs in general have changed the way they internationalise their operations. Recent studies on Born Globals suggest that this would be the case. It has been argued that these companies should have been created to fit the international business environment from inception (McDougall et al 1994). In other words, it could be assumed that there would be fewer changes due to internationalisation in these companies. A broader empirical study would be required to verify the justification of this argument.

A second limitation of the study is the problem related to the identification of change. A retrospective research design is always challenging as it puts weight on the time perspective and on the memory of the respondents. Additionally, for the respondents it is sometimes problematic to recognise change because from their perspective it may be considered as a part of normal business development. However, a more significant issue is the fact that it is sometimes difficult to separate change related to internationalisation from other change happening in the company. Although the relationship between change and internationalisation was emphasised during the interviews, there is the possibility that the managers were describing change on the company level, and thus the changes related to internationalisation were given more weight than they should have been. Nevertheless, this does not seem to have been a problem in this study, rather the reverse, because also first-order changes were identified.

Findings from the case companies support the argument that change in SME internationalisation is more multidimensional phenomenon than assumed. Various types of change could be identified and the phenomenon itself was analysed on diverse levels. The complexity of the concept is also demonstrated through the fact that the changes in the different dimensions are not necessarily connected, but they are very context dependent. This sets substantial managerial challenges as it complicates the identification of weak signals from the environment and thus the prediction of future changes. This multidimensionality also presents considerable requirements for research, as operationalisation has to be carefully managed. An explicit definition is essential if reliable and comparable results are to be obtained. Hopefully this paper will stimulate discussion and research on the topic since more empirical studies are needed in order to identify the factors behind this behaviour.

Have SMEs changed the way they internationalise? If this change has occurred what are the main reasons behind it? More companies need to be investigated and common factors that influence their behaviour have to be identified.

REFERENCES

Andersen, Otto (1993) On the internationalization process of firms: A critical analysis, *Journal of International Business Studies*, Vol.24 No.2, 209-231.

Andersen, Poul Houman – Blenker, Per – Christensen, Poul Rind (1997) Generic Routes to Subcontractors' Internationalisation, In: *The Nature of the International Firm*, Eds. I. Björkman – M. Forsgren, Copenhagen Business School Press: Copenhagen, 231-255.

Bell, Jim – McNaughton, Rod – Young, Steve (2001) 'Born-again global' firms. An extension to the 'born global' phenomenon, *Journal of International Management*, Vol.7 No.3, 173-189.

Bell, J. – Murray, M. – Madden, K. (1992) Developing exportise: An Irish perspective, *International Small Business Journal*, Vol.10 No.2, 37-53.

Calof, Jonathan L. – Beamish, Paul W. (1995) Adapting to Foreign Markets: Explaining Internationalization, *International Business Review*, Vol.4 No.2, 115-131.

Chapman, Judith Ann (2002) A framework for transformational change in organisations, *Leadership & Organization Development Journal*, Vol.23 No.1, 16-25.

Christensen, Poul Rind (1991) The small and medium-sized exporter's squeeze: empirical evidence and model reflections, *Entrepreneurship & Regional Development*, Vol.3 No.1, 49-65.

Clark, Timothy – Pugh, Derek S. – Mallory, Geoff (1997) The Process of Internationalization in the Operating Firm, *International Business Review*, Vol.6 No.6, 605-623.

Coviello, N. – McAuley, A. (1999) Internationalisation and the Smaller Firm: A Review of Contemporary Empirical Research, *Management International Review*, Vol.39 No.3, 223-256.

Coviello, N. – Munro, H. (1997) Network Relationships and the Internationalisation Process of Smaller Software Firms, *International Business Review*, Vol.6 No.4, 361-384.

Coviello, N.E. – Munro, H.J. (1995) Growing the Entrepreneurial Firm. Networking for International Market Development, *European Journal of Marketing*, Vol.29 No.7, 49-61.

Easton, Geoff (1992) Industrial networks: a review, In: *Industrial Networks. A New View of Reality*, Eds. B. Axelsson, B – G. Easton, Routledge: London, 1-27.

Easton, G. – Lundgren, A. (1992) Changes in industrial networks as flow through nodes, In: *Industrial networks. A new view of reality*, Eds. B. Axelsson – G. Easton, Routledge: London, 89-104.

Gadde, L-E. – Håkansson, H. (1992) Analysing change and stability in distribution channels – a network approach, In: *Industrial networks. A new view of reality*, Eds. B. Axelsson – G. Easton, Routledge: London, 166-179.

Gersick, Connie J.G. (1991) Revolutionary change theories: A multilevel exploration of the punctuated equilibrium paradigm, *Academy of Management Review*, Vol.16 No.1, 10-36.

Golembiewski, R.T. – Billingsley, K. – Yeager, S. (1976) Measuring change and persistence in human affairs: Types of change generated by OD designs, *Journal of Applied Behavioral Science*, Vol.12 No.2, 133-155.

Halinen, Aino – Salmi, Asta – Havila, Virpi (1999) From dyadic change to changing business networks: An analytical framework, *Journal of Management Studies*, Vol.36 No.6, 779-794.

Halinen, Aino – Törnroos, Jan-Åke (1998) The Role of Embeddedness in the Evolution of Business Networks, *Scandinavian Journal of Management*, Vol.14 No.3, 187-205.

Havnes, Per-Anders (1998) *Dynamics of small business internationalisation. A European panel study*, PhD dissertation, University of Stirling, Stirling, UK.

Hohenthal, Jukka (2001) The creation of international business relationships. Experience and performance in the internationalisation process of SMEs, Doctoral thesis no.90, Department of Business Studies, Uppsala University, Uppsala.

Hurmerinta-Peltomäki, Leila (2001) Time and internationalisation. The shortened adoption lag in small business internationalisation, *Publications of the Turku School of Economics and Business Administration*, Series A-7:2001, Turku, Finland.

Håkansson, Håkan (1992) Evolution processes in industrial networks, In: *Industrial networks. A new view of reality*, Eds. B. Axelsson – G. Easton, Routledge: London, 129-143.

Håkansson, H. – Johanson, J. (1992) A model of industrial networks, In: *Industrial networks. A new view of reality*, Eds. B. Axelsson – G. Easton, Routledge: London, 28-34.

Johanson, Jan – Mattsson, Lars-Gunnar (1988) Internationalisation in Industrial Systems - A Network Approach, In: *Strategies in Global Competition,* Eds. N. Hood – J-E. Vahlne, Routledge: London, 287-314.

Johanson, Jan - Vahlne, Jan-Erik (1977) The internationalisation process of the firm - a model of knowledge development and increasing foreign market commitments, *Journal of International Business*, Vol. 8 No. 1, 23-32

Jones, Marian V. (1999) The Internationalization of Small High-Technology Firms, *Journal of International Marketing*, Vol.7 No.4, 15-41.

Kimberly, John R. (1976) Issues in the Design of Longitudinal Organizational Research, *Sociological Methods & Research*, Vol.4 No.3, 321-347.

Lam, Long W. – White, Louis P. (1999) An adaptive choice model of the internationalisation process, *International Journal of Organizational Analysis*, Vol.7 No.2, 105-134.

Lundgren, A. (1992) Coordination and mobilisation processes in industrial networks, In: *Industrial networks. A new view of reality*, Eds. B. Axelsson – G. Easton, Routledge: London, 144-165.

Madsen, Tage K. – Servais, Per (1997). The internationalization of born globals: an evolutionary process? *International Business Review*, Vol.6 No.6, 561-583.

McDougall, Patricia Phillips – Oviatt, Benjamin M. (1996) New venture internationalization, strategic change, and performance: A follow-up study, *Journal of Business Venturing*, Vol.11 No.1, 23-40.

McDougall, P.P. – Shane, S. – Oviatt, B.M. (1994) Explaining the formation of international new ventures: The limits of theories from international business research, *Journal of Business Venturing*, Vol.9 No.6, 469-487.

Miller, Danny – Friesen, Peter H. (1984) *Organizations: A quantum view*, Prentice-Hall, Inc.: Englewood Cliffs, NJ.

Mitchell, Terence R. – James, Lawrence, R. (2001) Building better theory: Time and the specification of when things happen, *Academy of Management Review*, Vol.26 No.4, 530-547.

Nummela, Niina (1997) The significance of network in small business internationalisation. *Proceedings of the 13th Annual Industrial Marketing and Purchasing Conference*, Vol. 1, Lyon, 523-547.

Petersen, Bent – Pedersen, Torben (1997) Twenty Years After – Support and Critique of the Uppsala Internationalisation Model, In: *The Nature of International Firm*, Eds. Björkman, I. - Forsgren, M., Copenhagen Business School Press: Copenhagen, 117-134.

Rothwell, R. – Dodgson, M. (1991) External linkages and innovation in small and medium-sized enterprises, *R & D Management*, Vol.21 No.2, 125-137.

Sadler, A. – Chetty, S. (2000) The Impact of Networks on New Zealand Firms, *Journal of Euromarketing*, Vol.9 No.2, 37- 58.

Schuh, Arnold (2001) Strategic change during the internationalisation of the firm, *Proceedings of the 27th EIBA Conference*, Paris 13-15.12.2001

Smilor, Raymond W. – Gill, Michael D. Jr (1986) *The New Business Incubator. Linking Talent, Technology, Capital & Know-How*, Lexington Books: Lexington, Mass.

Tushman, Michael L – O'Reilly, Charles A. III (1996) Ambidextrous Organizations: Managing Evolutionary and Revolutionary Change, *California Management Review*, Vol.38 No.4, 8-30.

Van de Ven, Andrew H. (1992) Suggestions for studying strategy process: A research note, *Strategic Management Journal*, Vol.13 No.13 Special Issue, 169-188.

Van de Ven, Andrew H. – Poole, Marshall Scott (1995) Explaining development and change in organizations, *Academy of Management Review*, Vol.20 No.3, 510-540.

Watzlawick, P. – Weakland, J.H. – Fisch, R. (1974) *Change: Principles of Problem Formation and Problem Resolution*, Norton: New York.

Welch, L.S. – Luostarinen, R. (1988) Internationalization: Evolution of a concept, *Journal of General Management*, Vol.14 No.2, 34-55.

FIGURE 1

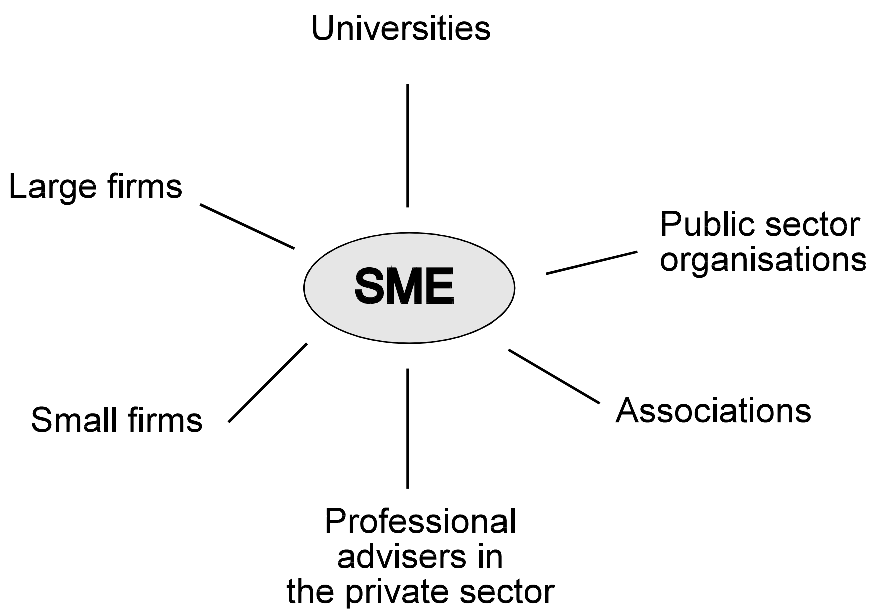
Universities
Large firms
Public sector organisations
SME
Small firms
Associations
Professional advisers in the private sector

FIGURE 2

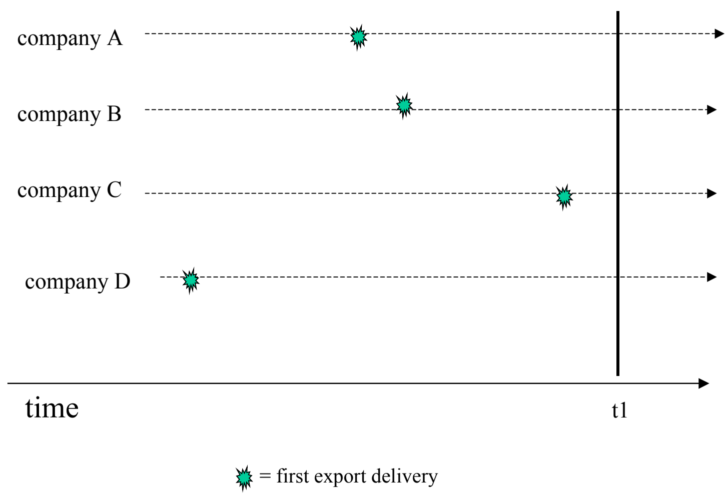
company A
company B
company C
company D
time
t1
= first export delivery

TABLE 1

	Company F	**Company L**	**Company S**
Turnover in 2001	EUR 3 m	EUR 3 m	EUR 4 m
Personnel in 2001	30	17	21
Exports (%) in 2001	20	98	10
Founded	1978	1985	1977

TABLE 2

	Company F	**Company L**	**Company S**
Use of network • **actors** • **activities** • **resources**	Long lasting relationships with suppliers and dealers resulting in permanent resource links with these actors	Transactions with public and semi-public organisations, short term co-operation with SMEs leading to temporary resource links with them, long lasting relationships with dealers resulting in permanent resource links	Transactions with public and semi-public organisations, short term co-operation with SMEs leading to temporary resource links with them
Changes due to internationalisation	Gamma-level changes	Alpha, beta and gamma-level changes	Alpha and beta-level changes

---

[i] Defining small and medium-sized enterprises has proved to be very complicated. This paper uses the European Union definition: SMEs employ less than 250 persons, their annual sales do not exceed 20 Mill. ECU and they are independent (i.e., other companies' share of ownership does not exceed 25 per cent). The terms SME, small firm and small business are used interchangeably throughout the paper.

[ii] Although internationalisation includes both the inward and outward operations of a firm (Welch & Luostarinen 1988), this article focuses on the outward operations of SMEs, particularly on direct exporting, as this is the most common form of international operations among small firms.

[iii] The companies included the large multinationals Procter& Gamble Europe, Nestle and Heineken, as well as five businesses of three Austrian companies. The companies were analysed within a framework consisting of four stages: early internationalisation, local market expansion, regionalisation and globalisation.

[iv] This panel data included information on 1700 firms from seven European countries during the period 1991-1995.

[v] Bell et al. (2001) have classified internationally operating firms into three categories: Born Globals, Born-again Globals and traditional firms. Traditional firms follow the incremental internationalisation process, Born Globals are international from inception and Born-again Globals are well-established firms which focus on domestic markets at start-up, but which later start a rapid internationalisation process (Bell et al. 2001, 174)