

THE INTERNATIONALIZATION OF THE FIRM — FOUR SWEDISH CASES


Dy Moreira

Cite this paper

Downloaded from [Academia.edu](#) 

[Get the citation in MLA, APA, or Chicago styles](#)

Related papers

[Download a PDF Pack](#) of the best related papers 



[Critical Literature Review on the Uppsala Model](#)

Rustam Akbarli

[Are Existing Models of Internationalisation Adequate for Explaining Eastern Internationalisation, Parti...](#)

Shahmir Aslam

[A Note on the Criticisms Against the Internationalization Process Model](#)

Amjad Hadjikhani

THE INTERNATIONALIZATION OF THE FIRM — FOUR SWEDISH CASES¹

BY

JAN JOHANSON AND FINN WIEDERSHEIM-PAUL

Introduction

THE widespread interest in multinational firms has given rise to many articles and books on various aspects of the international strategies of firms. Research has been concentrated on the large corporations, particularly the American.

Many firms, however, start international operations when they are still comparatively small and gradually develop their operations abroad. From our studies of international business at the University of Uppsala we have several observations indicating that this gradual internationalization, rather than large, spectacular foreign investments, is characteristic of the internationalization process of most Swedish firms. It seems reasonable to believe that the same holds true for many firms from other countries with small domestic markets. A related observation is that the type of development during the early stages is of importance for the following pattern. Similar observations have also been made about U.S. firms and have been used as an argument in discussions of foreign investments and international marketing.²

In this paper we describe and analyse the internationalization of four Swedish firms — Sandvik, Atlas Copco, Facit and Volvo. All of them sell more than two-thirds of their turnover abroad and have production facilities in more than one foreign country. In Sweden³ they are often used as examples and patterns in discussions of international operations. Usually such discussions only treat the operations of the firms during later years when they have already become large and international. Here we adopt a more longitudinal approach, describing and discussing the whole development which has led to their present international position.

Before the case descriptions we give an account of our view of the inter-

¹ This study has been financially supported by the Swedish Council for Social Science Research and the Svenska Handelsbanken Foundation for Social Science Research. Appreciation is expressed to our colleagues in the international business research programme for their valuable comments.

² See Gruber, W., Mehta, R. and Vernon, R., 'The R and D Factor in International Trade and International Investment of The United States,' *Journal of Political Economy*, Vol. 75, No. 1, February 1967, pp. 20-37, and Caves, R. E., 'International Corporations: The Industrial Economics of Foreign Investment', *Economica*, Vol. 38, No. 149, 1971, pp. 1-27, in discussions of foreign direct investments; also Terpstra, J. V., *International Marketing*, New York: McGraw-Hill, 1972.

³ Since its crisis in 1971, Facit is not quoted as an example any longer.

nationalization process, on which these descriptions are based, and discuss some patterns which follow from this view. In the concluding section we discuss some similarities and differences between the firms with respect to the internationalization.

The Internationalization Process

The term international usually refers to either an attitude of the firm towards foreign activities or to the actual carrying out of activities abroad.⁴ Of course there is a close relationship between attitudes and actual behaviour. The attitudes are the basis for decisions to undertake international ventures and the experiences from international activities influence these attitudes. In the case descriptions we have to concentrate on those aspects of the internationalization that are easy to observe, that is the international activities. We consider, however, these attitudes as interesting and important and the discussion of the internationalization process is basically an account of the interaction between attitudes and actual behaviour.

Our basic assumption is that the firm first develops in the domestic market⁵ and that the internationalization is the consequence of a series of incremental decisions. We also assume that the most important obstacles to internationalization are lack of knowledge and resources. These obstacles are reduced through incremental decision-making and learning about the foreign markets and operations. The perceived risk of market investments decreases and the continued internationalization is stimulated by the increased need to control sales and the increased exposure to offers and demands to extend the operations. We are not trying to explain why firms start exporting⁶ but assume that, because of lack of knowledge about foreign countries and a propensity to avoid uncertainty, the firm starts exporting to neighbouring countries or countries that are comparatively well-known and similar with regard to business practices *etc.* We also believe that the firm starts selling abroad *via* independent representatives, as this means a smaller resource commitment than the establishment of a sales subsidiary.⁷

Considering the development of operations in individual countries we

⁴ These two aspects of the international process are discussed in Kindleberger, C. P., *American Business Abroad*, Boston: Yale University Press, 1969.

⁵ Cf. Vernon, R., 'International Investment and International Trade in the Product Cycle', *Quarterly Journal of Economics*, Vol. 80, pp. 190-207, 1966, May and Burenstam-Linder, S., *An Essay on Trade and Transformation*, Stockholm: Almqvist & Wicksell, 1961. Market and country are used interchangeably in this paper.

⁶ This question is investigated in a research project by F. Wiedersheim-Paul entitled 'Export Propensity of the Firm'.

⁷ A more detailed discussion of the internationalization process is given in Johanson, J. and Vahlne, J. E., 'The Internationalization Process of the Firm', *Mimeographed Working Paper*, Department of Business Administration, Uppsala, 1974.

expect a stepwise extension of operations. Of course it is possible to identify different types of steps and a different number of stages. We have chosen to distinguish between four different stages. They are:

1. no regular export activities
2. export *via* independent representatives (agent)
3. sales subsidiary and
4. production/manufacturing

We think these stages are important because

- (a) they are different with regard to the degree of involvement of the firm in the market
- (b) they are often referred to by people in business.

There are two aspects about the degree of involvement. The four stages mean successively larger resource commitments and they also lead to quite different market experiences and information for the firm. The first means that the firm has made no commitment of resources to the market and that it lacks any regular information channel to and from the market. The second means that the firm has a channel to the market through which it gets fairly regular information about sales influencing factors. It also means a certain commitment to the market. The third means a controlled information channel to the market, giving the firm ability to direct the type and amount of information flowing from the market to the firm. During this stage the firm also gets direct experience of resource influencing factors. The fourth stage means a still larger resource commitment.

We call the sequence of stages, mentioned above, the *establishment chain*.⁸ We have, of course, simplified the matter somewhat by exaggerating the differences between the four steps. It is not always obvious whether a firm has established relations with an agent or not, while a joint venture with an earlier representative can be placed in the second or the third stage, *etc.*

Of course we do not expect the development always to follow the whole chain. First, several markets are not large enough for the resource demanding stages. Second, we could expect jumps in the establishment chain in firms with extensive experience from other foreign markets.

Considering the extension of activities to new markets, it is possible that the concept of psychic distance may prove useful.⁹ This concept is defined as

⁸ Similar discussions of a stepwise extension of activities in individual countries can be found in, for example, Gruber, W., Mehta, R., Vernon, R., *op. cit.*, and Caves, R. E., *op. cit.*

⁹ 'Psychic Distance' has been used by, for example Beckermann, W., 'Distance and the Pattern of Intra-European Trade', *Review of Economics and Statistics*, Vol. 28 1956, Linnemann, H., *An Econometric Study of International Trade Flows*, Amsterdam: North-Holland, 1966, and Wiedersheim-Paul, F., *Uncertainty and Economic Distance—Studies in International Business*, Uppsala: Almqvist and Wicksell, 1972. Here we use the concept with the same meaning as in Wiedersheim-Paul, *op. cit.*, 1972.

factors preventing or disturbing the flows of information between firm and market. Examples of such factors are differences in language, culture, political systems, level of education, level of industrial development, *etc.* For obvious reasons, psychic distance is correlated with geographic distance. But exceptions are easy to find. Some countries in the British Commonwealth are far apart geographically, *e.g.* England and Australia, but for different reasons they are near to each other in terms of psychic distance. The U.S.A. and Cuba are near to each other geographically, but, for political reasons, far apart with regard to psychic distance. As these examples indicate, psychic distance is not constant. It changes because of the development of the communication system, trade and other kinds of social exchange. In general we expect most changes to take place rather slowly.¹⁰

Psychic distance, however, is of course not the only important factor for international operations. In most textbooks about international business the size of the potential market is considered the most important factor for international operations. 'The first activity phase of export planning then, is identifying and measuring market opportunity'.¹¹ Thus we should expect that market size influences decisions in the internationalization process. We could expect either that the firm first starts operations in countries with large markets or that they prefer to start in smaller markets. In the latter case the argument may be that small markets are more similar to the domestic Swedish market and require a smaller initial resource commitment or have less competitive domestic industries.

But there are reasons to expect that the patterns of agency establishment differ from those of sales subsidiary establishments with respect to the two factors. The agency establishments, according to our view, are made primarily during the early stages of internationalization, which means that they could be expected to be more closely related to psychic distance than to the size of the market. The sales subsidiary establishments — and still more production — could be expected to be influenced primarily by the market size as it generally requires a larger minimum resource commitment than an independent representative. The production establishments are influenced by different forces; on one hand, by psychic distance, on the other, by factors such as, *e.g.*, tariffs, non-tariff barriers and transport costs. As a result it is hard to observe any correlation between psychic distance and production establishments.

A third pattern which could be expected is that after the establishment of the first agency a phase follows when agencies are established in several markets. In the same way we could expect a separate phase dominated by the

¹⁰ Of course, changes due to political decisions can be very fast, *e.g.* U.S.A.—CUBA.

¹¹ Root, F. R., *Strategic Planning for Export Marketing*, Copenhagen: Elhar Hareks Forlag, 1964, p. 11.

establishment of sales subsidiaries in several markets. Last, a phase with the establishment of production in several markets will follow. We assume that the three different phases in the internationalization of the firm are dependent on the development of the activity knowledge and the organizational structure of the firm. During the agent phase the firm builds an export department with the capability and responsibility for the establishment and maintenance of agencies. Establishment of sales subsidiaries means that units for the control of subsidiaries are organized. In the last phase, units for coordination of production and marketing in different countries are developed.

It should be noted that the discussion so far has dealt exclusively with the development of the marketing side of the firm. We do not regard this as a serious limitation. Marketing operations in this sense are predominant among the international activities of at least the Swedish firms.¹² Furthermore it has been shown that the marketing side is often a determining factor in the development of the firm.¹³ Last, a similar development is likely when internationalization takes place on the purchasing side of the firm.¹⁴

The Internationalization Process — Four Cases

Here we describe the internationalization of the four firms Sandvik, Atlas Copco, Facit and Volvo. The descriptions are based on various types of published data¹⁵ about the firms which have been checked and supplemented by interviews with the firms. As we said before, we have chosen to use the moments when a firm establishes agencies, a sales subsidiary and production facilities as key factors in the process of internationalization. It has been possible to identify these moments with fairly high accuracy in most cases.

In order to help the reader we have constructed diagrams illustrating the 'establishment profiles' of the firms. These profiles show when the firm has started operations in twenty national markets. To standardize the case descriptions the countries are the same for all cases.

The analysis of the establishment patterns is based on a ranking of countries according to psychic distance.¹⁶ As mentioned above, we believe

¹² See, information from 'A File of Swedish Subsidiaries Abroad', Centre for International Business Studies, Department of Business Administration, University of Uppsala.

¹³ Chandler, A. D., *Strategy and Structure*, Cambridge, Mass.: M.I.T. Press, 1962.

¹⁴ Håkansson, H. and Wootz, B., 'Internationalization of the Purchasing Function of the Firm', *Mimeographed Working Paper*, Department of Business Administration, Uppsala, 1974.

¹⁵ Carlson, S., *Ett Hjulverkets Affärer, in Ett Svenskt Jernverk (A Swedish Steel Mill)*, Sandviken, 1937, Gärdlund, T., Janelid, I. and Ramström, D., *Atlas Copco, 1873-1973*, Stockholm: 1973, and *Mimeographed Research Papers* by students at the Department of Business Administration, Uppsala.

¹⁶ The ranking, with minor modifications, is taken from Hörnell, E., Vahlne, J.-E. and Wiedersheim-Paul, F., *Export och Utlands-Etableringar (Export and Foreign Establishment)*, Stockholm, 1973.

that the psychic distance changes very slowly. Thus the rank order of countries according to the present psychic distance from Sweden, which is given in the 'establishment profiles' with a few exceptions, reflects the psychic distance fairly accurately even when the internationalization has taken a long time, as in our cases.

In order to compare the relations between establishments and the two kinds of market characteristics, we used a very crude indicator of market size, G.N.P. 1960. As it is only used for the ranking of countries we do not think this crudeness is of much importance. Most market size indicators are fairly well correlated with G.N.P. which also changes rather slowly.

Sandvik AB

Steel production in Sandviken started in 1862 in order to exploit the Bessemer process. During the first years the product line consisted mainly of industrial raw material: pig iron, ingot and blanks. These products became successively less important and were replaced by more manufactured special steel products, like cold-rolled strips, wire, tubes and saws; product groups that are still very important for Sandvik. In 1910 production of steel conveyors was started and in the 1940s hard metal products were introduced. The latter have been of great significance for the development of the firm during the last decades. At present about 40 per cent of the turnover comes from this product group and Sandvik is one of the biggest producers of hard metal products in the world. Another type of product which has been introduced during the 1960s is alloys used in nuclear reactors.

Of the four firms described Sandvik is the oldest and also the one which first started its internationalization course. The first contacts with representatives were established in the 1860s. Sandvik's early start with representatives in foreign countries was an innovation at that time. Until then the Swedish iron and steel exporting had mainly been undertaken by trading firms. A probable explanation of these early foreign representatives is that the founder of Sandvik, G. F. Göransson, had earlier been general manager in a trading firm with extensive connections abroad.

As can be seen from the profile for agency establishments they were set up in successively more distant markets. We computed the Spearman rank correlation coefficient between the time order of establishments and the order of psychic distance and market size respectively (see Table I). Obviously there is high correlation between the order of agency establishments and distance. The coefficient of the market size factor should be interpreted with care as most of the establishments took place a long time ago. But it is remarkably low.

The same distance-related behaviour, as for the agencies, cannot be observed in the establishments of sales subsidiaries. As the profile shows,

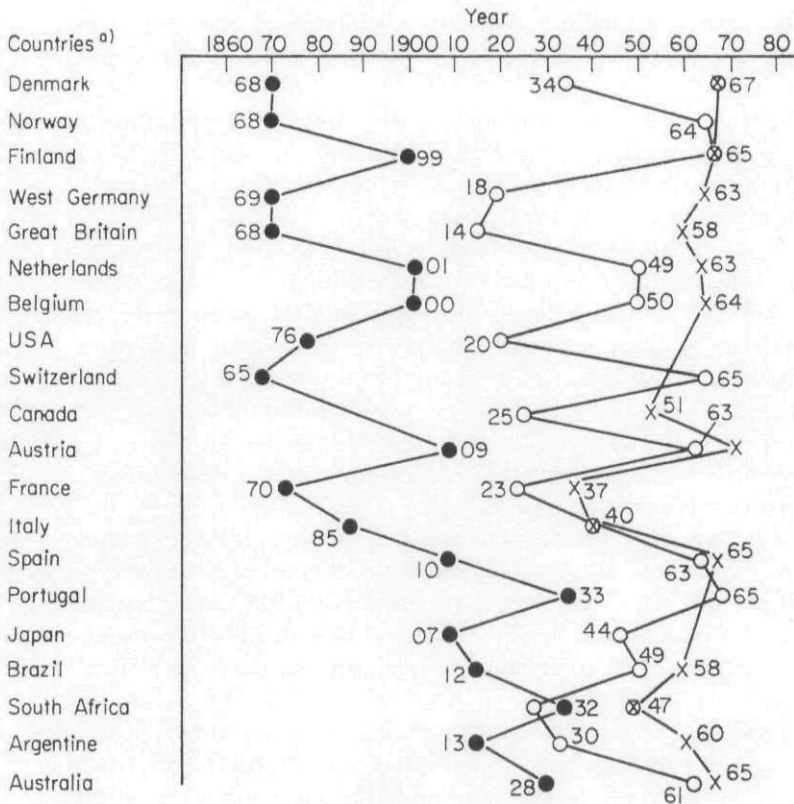


Figure 1. Profiles of establishments, Sandvik

(a) Ranked according to psychic distance from Sweden.

- = agent
- = sales subsidiary
- × = manufacturing subsidiary
- ⊗ = sales and manufacturing subsidiary

Table I. Rank Correlation (Spearman) between the order of Sandvik foreign establishments and psychic distance and market size

	<i>Psychic distance^b</i>	<i>Market size^b</i>
<i>Agents</i>	0.79 (0.001) ^a	0.24 (0.181)
<i>Sales subsidiaries</i>	0.16 (0.227)	0.66 (0.002)
<i>Production</i>	-0.01 (0.496)	0.06 (0.386)

^a In this and all tables that follow, the probability of getting the coefficient or a more extreme value is shown in brackets after each coefficient. It is done in order to give the reader an indication of the 'strength' of the coefficients.

^b The correlation between the measures of distance and size is only 0.06.

Sandvik did not establish the first subsidiaries in the nearest markets, the Nordic countries, but in the large industrial markets like Germany, Great Britain and the U.S.A.

The reason for not establishing trading links in the Nordic countries and the big import markets like Switzerland and the Netherlands was probably that Sandvik had access to efficient representatives, in these markets, with well developed channels to the customers.

Establishments after 1940 have mainly been made in important markets where Sandvik until then lacked sales subsidiaries. *e.g.* the Nordic countries and E.E.C. countries. During the 1950s Sandvik developed a policy to use subsidiaries in foreign marketing and, when entering new markets during the 1960s, sales subsidiaries were used from the beginning.

Table I also shows that the sales subsidiary establishments do not follow the same time pattern as the agency establishments. In this case the market size factor's highest correlation is with the order of establishments. This is in accordance with our expectations.

The patterns for the manufacturing subsidiaries is quite different from the other kinds of establishment. The first production establishments were made in distant markets. They were saw production in France, Finland and Italy and drill production in South Africa and Canada. There is no correlation at all between the order of production establishments and the factors of distance and size.

According to the establishment chain, described above, firms first make contacts with an independent representative in the foreign market. Later they set up sales subsidiaries and after that, in some cases, production. At the same time there is also a broadening to other markets. The internationalization course of Sandvik is well in accordance with this picture. On practically all markets, independent representatives have been the first connections. Then, after a considerable period of time, they have been replaced by sales subsidiaries. Canada is the only country where a subsidiary was not preceded by a representative. The reason was that Sandvik's representative in the U.S.A. and, later, the subsidiary there, performed the marketing in Canada as well.

In 1971, 85 per cent of the total turnover of around 1800 million Swedish kronor came from abroad. The main part of sales is made by the subsidiaries and the independent representatives are nowadays of little significance. The number of independent representatives reached its maximum about 1950 but, since then, has radically diminished.

Two new patterns can be seen in Sandvik's establishments during the last few years. First, Sandvik has developed a new organization of subsidiaries, especially intended to handle the marketing of conveyor bands. The head office of this group is situated in Stuttgart in West Germany and the manu-

facturing units are in the U.S.A. and West Germany. Second, several establishments during the last five years have been made as joint ventures. The products involved are those used in the nuclear industry in France, the U.S.A. and West Germany. One reason for these joint ventures is that a 'national connection' is very important as projects in this area are often characterized by 'buy national' behaviour. Another reason is that Sandvik alone cannot afford the heavy investments needed.

Atlas Copco

The firm started in 1873. At the beginning the production was railway material of various kinds. Soon, other products were added; steam engines for ships and machine tools. Production of pneumatic tools started in the 1890s and already at the turn of the century the marketing of rock drills was started. In 1905 Atlas produced the first air compressor of their own design. In 1917 the company was merged with another firm, producing diesel engines.

As early as in 1880 exports were substantial. Diesel engines were the dominant export products until some years after 1930, while the compressed air products were sold mostly on the domestic market. After World War II the selling of pneumatic products soon dominated and the diesel motor production was sold in 1948.

During the first years after the war the selling efforts were concentrated on 'the Swedish method' — lightweight rock drill equipment combined with Sandvik's rock drills. At the end of the 1950s the production and selling were changed towards heavier equipment, stationary compressors and pneumatic tools.

Atlas Copco is five years younger than Sandvik but started the internationalization process considerably later. The successive establishment of contacts with representatives on more and more distant markets, which the model predicts, is evident also for Atlas Copco but less clear than for Sandvik (see figure 2).

The establishment of sales and production subsidiaries was not common until after World War II, when Atlas Copco sold off its production of diesel motors and concentrated on pneumatic products. During the first few years of the 1950s twenty-three sales subsidiaries were established. By concentrating on 'the Swedish method', Atlas Copco also concentrated on an active marketing strategy, including well developed sales organizations, storing and technical service in the local markets. Sales subsidiaries were considered necessary for this strategy.

The first manufacturing subsidiary abroad was started in Great Britain in 1939. Most important was the acquisition in 1956 of Arpic in Belgium.

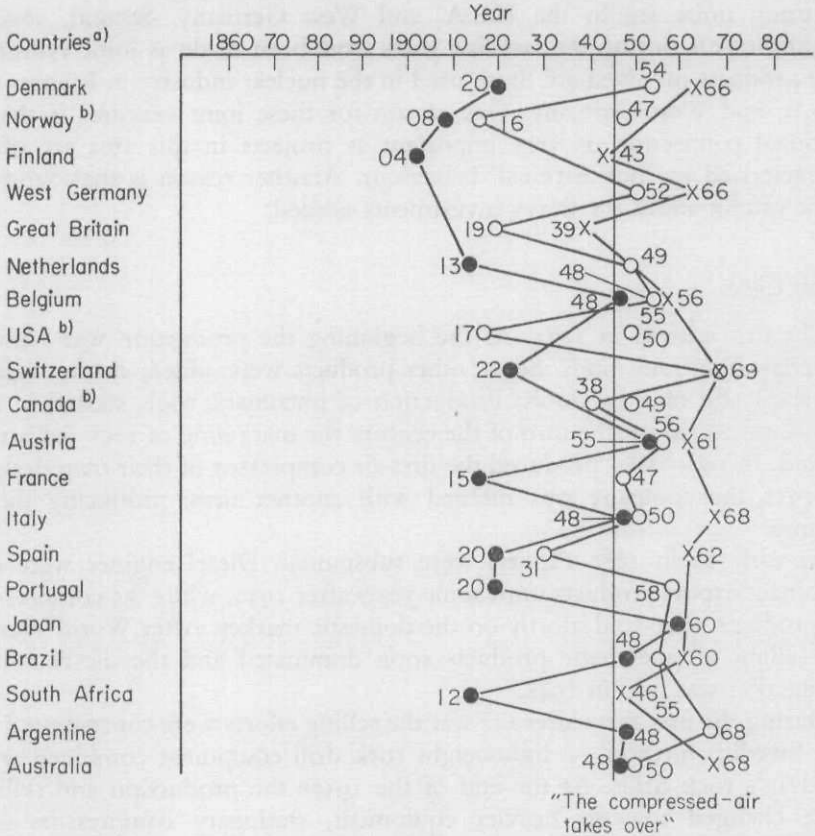


Figure 2. Profiles of establishments, Atlas Copco

- (a) Ranked according to psychic distance from Sweden
- (b) In Norway, USA and Canada we have marked two sales subsidiary establishments. The first one sold diesel products, the second pneumatic equipment.

Table II. Rank Correlation (Spearman) between the order of Atlas Copco foreign establishments and psychic distance and market size

	<i>Psychic distance</i>	<i>Market size</i>
<i>Agents</i>	0.40 (0.041)	-0.26 (0.123)
<i>Sales subsidiaries</i>	0.33 (0.072)	0.48 (0.018)
<i>Production</i>	0.16 (0.242)	-0.11 (0.312)

This firm was an important competitor of Atlas Copco. During the 1960s several establishments were made in more distant countries. The reasons for this expansion were mostly to overcome various barriers to trade.

The pattern of establishment is similar to Sandvik's but less pronounced. The agency establishments are correlated with the distance factor and the

sales subsidiary establishments with the market size factor. The production establishments are correlated with neither.

The development in individual markets is illustrated in Figure 2. In most cases representatives have been used before subsidiaries. But many of these representatives were used in the marketing of diesel products. The selling of pneumatic products, being more method than product oriented, was from the start performed by subsidiaries in the important markets. Four of the sales subsidiaries were not preceded by representatives. Two of these were failures in so far as they soon had to close down (the U.S.A. and Canada).

One of them was not established until 1952 (West Germany). The late establishment in the German market was due to the fact that Atlas Copco met its strongest competition in this market, and it was considered too tough for selling. The first regular export to Germany did not occur until 1951, when the selling of the recently developed pneumatic equipment for mines started.

Selling abroad as a ratio of total turnover 1922 (1900 million Swedish kronor) was nearly 90 per cent. The majority of this selling is made by about thirty-five foreign subsidiaries, but Atlas Copco has representatives in more than 100 countries. There are manufacturing units in ten countries.

Facit

This firm was formed in a reconstruction in 1922. The new enterprise took over the production of a calculating machine from a bankrupt firm, AB Facit. In the beginning of the 1930s a new version of this machine was developed. The new product started Facit's expansion on foreign markets.

Table III. Rank Correlation (Spearman) between the order of Facit foreign establishments and psychic distance and market size

	<i>Psychic distance</i>	<i>Market size</i>
<i>Agents</i>	0.25 ^a (0.200)	-0.53 ^a (0.040)
<i>Sales subsidiaries</i>	0.60 (0.004)	0.21 (0.179)

^a Only fourteen observations were used due to difficulties in dating some agent establishments.

Some figures of turnover illustrate this. During the period 1923-33 the turnover was constant, 2.5 million Swedish kronor. Until 1939 there was an increase to 10 million Swedish kronor. In 1939 the export ratio was 80-85 per cent and the number of export markets was about seventy.

The expansion also continued with the buying of other firms; *viz.* in 1939 a manufacturer of typing machines, in 1942 a manufacturer of calculating machines and in 1966 a manufacturer of accounting and calculating machines. In 1972, after a financial crisis, Facit merged with a well-known Swedish multinational firm, Electrolux.

The internationalization process in Facit is unlike Sandvik's and Atlas Copco's. About ten years after the reconstruction in 1922, contacts were established with independent representatives on a large number of markets at the same time. There was no tendency to start on neighbouring markets.

There was, however, a high negative correlation with the market size, indicating that Facit first established agency relations in small countries (see Table III).

The establishment of subsidiaries, which started at the end of the 1940s, is less confined to a certain time period. They are highly correlated with the distance factor but not with market size. The reasons for substituting subsidiaries for representatives are numerous. For one thing, it became a

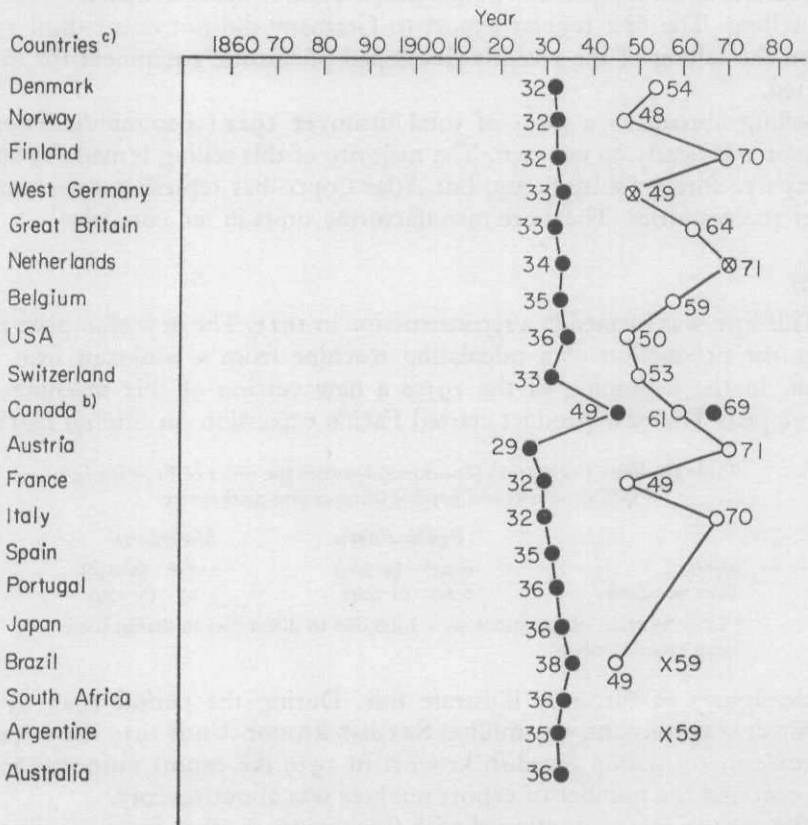


Figure 3. Profiles of establishments, Facit^a

- (a) Establishments of manufacturing subsidiaries are so few that they cannot be connected by a line.
 (b) The subsidiary started in 1961, but in 1968 was sold to the former agent on the market.
 (c) Ranked according to psychic distance from Sweden.

policy for Facit to use sales subsidiaries. For specific markets reasons, such as better control, the reinforcement of the selling organization and dissatisfaction with the representative were mentioned.

The motives for setting up manufacturing subsidiaries abroad have been mostly defensive in character. The foremost reasons for these establishments have been barriers to exporting to the markets concerned. This is also the case of those markets where licensing has been used. The general policy of Facit has not been to decentralize production geographically, but to export from Sweden.

In one case Facit has sold a sales subsidiary to the former representative on the market. This is the only example of a backward move in the 'establishment chain'. In all other cases the establishments have followed the 'chain' pattern.

In 1971 the turnover was about 950 million Swedish kronor. Forty-nine per cent of this turnover was sold through subsidiaries, 17 per cent through independent foreign representatives. The total export ratio was 66 per cent. The number of foreign subsidiaries was twenty, distributed among fourteen countries. Three of these were manufacturing units, two both manufacturing and sales and 15 sales.

A new development, considered of great importance, is various agreements with foreign companies, often Japanese, on development and production of new products.

*Volvo*¹⁷

The company started its activities in 1927, but the first product, a car, was already finished the year before. The production of cars appeared to be rather sensitive to seasonal variations and in 1928 Volvo started producing trucks as well, the sales of which were more evenly distributed throughout the year.

Export selling was a part of the first production plans and shortly after the start Volvo began establishing representatives abroad.

This was first done on neighbouring markets, Denmark and Norway and on less industrialized distant ones like Argentina, Brazil, Spain and Portugal. No attempt was made to sell to the large European markets until the 1950s. One reason for this behaviour was the hard competition from the domestic industries on these markets. From the start Volvo's policy was to not use its own affiliates or subsidiaries. However, early on Volvo had to break with its policy and establish selling subsidiaries in Finland and Norway, due to difficulties in finding retailers on these markets. A wave of establishments

¹⁷ The discussion below relates exclusively to the automobile manufacturing part of the company.

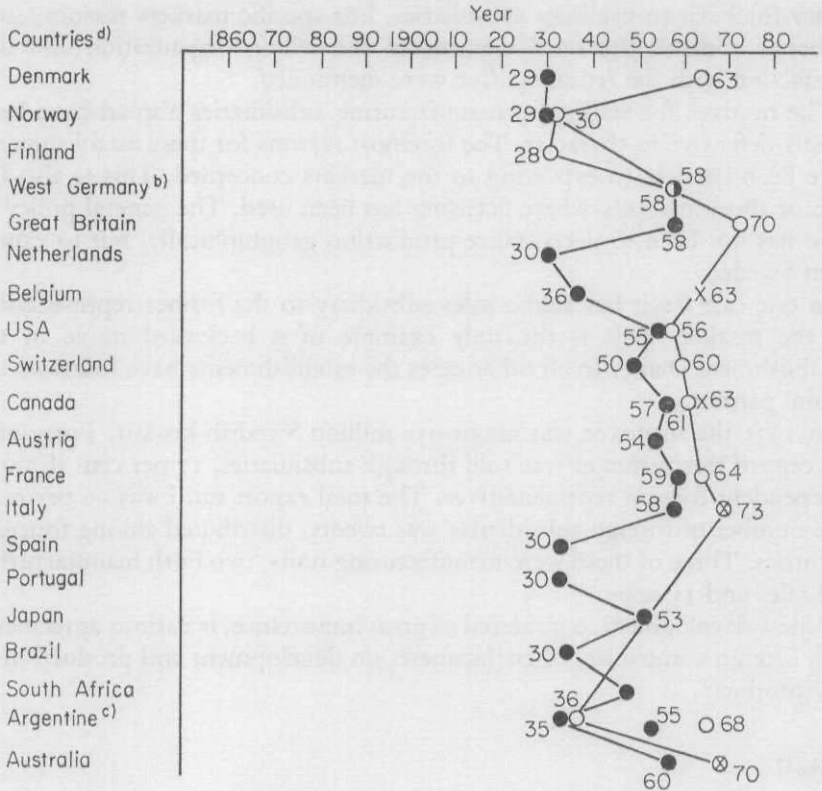


Figure 4. Profiles of establishments, Volvo^a

- (a) Establishments of manufacturing subsidiaries are so few that they cannot be connected by a line.
- (b) Establishment of agent and subsidiary in the same year.
- (c) The subsidiary, which started in 1936, was closed down and substituted by an agent in 1955.
- (d) Ranked according to psychic distance from Sweden.

Table IV. Rank Correlation (Spearman) between the order of Volvo foreign establishments and psychic distance and market size

	<i>Physic distance</i>	<i>Market size</i>
<i>Agents</i>	0.23 (0.076)	-0.70 (0.001)
<i>Sales subsidiaries</i>	0.47 (0.021)	0.06 (0.386)

followed in the 1950s when Volvo started up new selling subsidiaries in most European countries, and in the U.S.A. and Canada.

This establishment pattern is very similar to Facit's with a high correlation between subsidiary establishments and distance and a negative correlation between agent establishments and market size.

The establishment of manufacturing units on most markets has not occurred before that of sales subsidiaries and the strategy has been to keep production in Sweden as long as possible. Establishments are said to be caused mainly by barriers to trade. Volvo has in such cases used assembly plants to avoid tariffs, import fees and other barriers. In Canada and Australia these plants were preceded by sales subsidiaries. This was not the case in Belgium. This plant was intended to produce for the E.E.C. market. Besides the markets studied, Volvo also has its own assembly plants in Peru and Malaysia. As can be seen, assembly plants are often situated in distant countries.

The model's assumption that a firm starts selling to markets through representatives is correct for all countries except Finland. The two other very early establishments, in Norway and Argentina, were soon shut down, in Norway due to World War II and, in Argentina, because of barriers to import. A number of years thereafter the distribution was run by agents. When the markets again became important Volvo established new subsidiaries.

Special circumstances were at hand in the U.S.A., West Germany and Switzerland. In the U.S.A., Volvo had an agent for part of the market before establishing a subsidiary for the other parts. For a couple of years, an agency and a subsidiary were used side by side. Volvo thereafter took over and used a single subsidiary for the whole market. Also, in Switzerland, an agent was first used. After some years a subsidiary took over part of the market, but an agency is still used for the other parts. In West Germany two different local agents appeared, but their sales were of minor importance. Volvo therefore started a subsidiary in order to cover the whole market.

In 1973 Volvo has more than 100 export markets and the export ratio exceeds 70 per cent of the total turnover of about 7000 million Swedish kronor. In 1973 Volvo had manufacturing subsidiaries in five countries and sales subsidiaries in twelve. A new tendency in Volvo's international development in the last few years is a number of cooperation agreements and 'joint ventures' with various foreign companies regarding the construction and production of engines, gear boxes *etc.*

The Internationalization Course — Some Concluding Remarks

First, compared to their present sizes the four firms were small when they started internationalization. Of course we have to be careful comparing sizes over so long a time period. However, they were not small in comparison with other Swedish firms in their respective industries at that time. Sandvik had 300 employees and a sales value of 1 million Swedish krona in 1870. Atlas Copco was of similar size when it started exporting in the 1880s. Facit and Volvo had sales values of 2-3 million Swedish kronor when they started exporting forty years later.

Two of the firms — Sandvik and Volvo — had export in mind when they were established. It is interesting to note that the founders of both these firms — Göransson and Gabrielsson — had long experience of selling abroad. Göransson had been general manager of a trading firm. Gabrielsson was a sales manager in S.K.F. and had been employed at the S.K.F. subsidiary in Paris.

The internationalization process was much faster in the firms that started latest. Sandvik, which established its first agency contact in 1868, needed sixty-five years to get agents in all twenty markets investigated. Atlas Copco, that established its first contact in 1904, needed fifty-five years, Volvo started in 1929 and needed thirty years and Facit, finally, with its first contacts in 1929 needed twenty years.

We expected to find a negative relationship between psychic distance and the establishments. At least we expected that agency relations should be established first in neighbouring and similar countries. To a certain extent we expected the establishment of sales subsidiaries to occur in the same order. Both kinds of establishments were expected to be influenced by the size of the market. In that case, however, we expected the relationship to be stronger with the sales subsidiary establishments.

To a certain extent the establishments have followed this course. However, there are obvious differences between the firms as shown in the following table (Table V).

Table V. Rank Correlation (Spearman) between agency establishments and psychic distance and respective market size

	<i>Sandvik</i>	<i>Atlas Copco</i>	<i>Facit</i>	<i>Volvo</i>
<i>Psychic distance</i>	0.79 (0.001)	0.40 (0.041)	0.25 ^a (0.200)	0.23 (0.076)
<i>Size</i>	0.24 (0.181)	-0.26 (0.123)	-0.53 ^a (0.040)	-0.70 (0.001)

^a Based on only fourteen observations due to lack of information on establishing years of agents.

All the coefficients of distance have the expected sign and some of them are significant at the 0.05 level. But the differences between the firms are so large that there is reason to believe that they have followed different strategies of internationalization. This impression is strengthened when looking at the size of the coefficients which are rather low, with the exception of Volvo and Facit, which have significant negative coefficients. Whereas Sandvik and, to a certain extent, Atlas Copco could be described as having followed a course of establishing agency contacts in successively more distant countries, Volvo and Facit have started in the smaller countries and later extended to large countries. Atlas Copco has not followed any pronounced course with respect to the two country characteristics. This is not surprising as the product on which Atlas Copco based its main internationalization, drill equipment, has

markets in countries with certain resources which need not be correlated with any of the above mentioned characteristics.

Looking at the sales subsidiary establishments the pattern is quite different (Table VI). It should be noted that the correlations between agency and sales subsidiary establishments are all lower than 0.30. The distance factor seems

Table VI. Rank Correlation (Spearman) between subsidiary establishments and psychic distance and respective market size

	<i>Sandvik</i>	<i>Atlas Copco</i>	<i>Facit</i>	<i>Volvo</i>
<i>Psychic distance</i>	0.16 (0.227)	0.33 (0.072)	0.60 (0.004)	0.47 (0.021)
<i>Size</i>	0.66 (0.002)	0.48 (0.018)	0.21 (0.179)	0.06 (0.386)

to have influenced Facit's and possibly Volvo's subsidiary establishments, whereas Sandvik's and Atlas Copco's are correlated with the market size. It seems reasonable to draw the conclusion that the firms have followed different internationalization strategies with respect to the two variables.

To a certain extent the establishing behaviour is similar within two groups, Sandvik and Atlas Copco in one and Facit and Volvo in the other one. A possible explanation of the difference between the two groups is that the members of the first group had started their internationalization process already at the end of the nineteenth century, while the two other firms did not start establishing until the late 1920s and the effects of the two factors may very well have changed during this long time period.

Another possible explanation of the difference between the two groups is that Sandvik and Atlas Copco manufacture and market more unique products than Facit and Volvo. The latter firms, according to that explanation, have had to avoid the domestic competitive situation in the big industrial countries, whereas the former have found gaps in those markets.

We may conclude that in order to be able to understand the patterns of different firms we have to develop some conditional model of internationalization. At the present stage we cannot formulate any such model, but we consider this a primary objective of our future research.

It should also be noted that the manufacturing establishments of Sandvik and Atlas Copco — the others have set up so few of such establishments — are not at all correlated with the two factors (-0.01 and 0.06 for Sandvik and 0.16 and -0.11 for Atlas Copco).

The establishment chain — no regular export, independent representative (an agent), sales subsidiary, manufacturing — seems to be a correct description of the order of the development of operations of the firms in individual countries. This is illustrated in Table VII. Of sixty-three sales subsidiaries, fifty-six were preceded by agents and this pattern is the same for all the firms. With regard to the manufacturing establishments there is a difference between Sandvik and Atlas Copco on one hand, where twenty-two out of twenty-seven establishments were preceded by sales subsidiaries, and Facit

Table VII. Establishment patterns for the investigated firms

Firm	Pattern					
	Sales subsidiary			Production subsidiary		
	n	a		n	a	s
	↓	↓		↓	↓	↓
	s	s		p	p	p
Sandvik	2	18		0	2	13
Atlas Copco	3	14		0	3	9
Facit	0	14		0	2	3
Volvo	2	10		0	2	3
Total	7	56		0	9	28

'n' denotes no regular export activity

'a' denotes export via an agent

's' denotes sales subsidiary

'p' denotes production subsidiary

An arrow denotes change from one state to another

and Volvo on the other, where five out of seven occurred without the firm having any sales subsidiary in the country. However, in no case has a firm started production in a country without having sold in the country *via* an agency or sales subsidiary before.

In all firms there have been periods of agency establishments, sales subsidiary establishments and, in the case of Sandvik and Atlas Copco, of manufacturing establishments. In two of the firms — Sandvik and Volvo — there has followed a period of international joint ventures for special purposes.

Considering the first establishment of sales subsidiaries it does not seem to have been a step in a conscious and goal directed strategy of internationalization — at least not in the case of Sandvik, Atlas Copco and Volvo. For various reasons they had to take over representatives or start subsidiaries. Gradually, when they had gained experience of setting up and managing subsidiaries they developed policies of marketing through subsidiaries in some of the firms. It should be noted that the firm Atlas Copco, which most consistently used subsidiaries for export marketing, did that when it got a new general manager, the former manager of a department store.

The manufacturing subsidiaries almost all manufacture for local or, in some cases, regional markets. They have finishing, assembly or component production which could be called marketing production. The only exception is Atlas Copco's factory in Belgium making stationary pneumatic equipment.

Generally the development of the firms seems to be in accordance with the incremental internationalization view discussed. In a few cases, notably Atlas Copco after World War II and Facit's agency establishments, the direction and velocity of internationalization has, however, been influenced heavily by strategic decisions.¹⁷

¹⁷ Three of the firms, after a period of international operation, changed their names to adopt to the international market. The only exception is Volvo.

Copyright of *Journal of Management Studies* is the property of Blackwell Publishing Limited and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.