COPING WITH LIABILITY OF FOREIGNNESS: DIFFERENT LEARNING PATHS

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Abstract

Much has been written about how international firms create and sustain firm-specific advantages that offset their liability of foreignness. Less attention has been devoted the question of how international firms can reduce their liability of foreignness. Looking for different paths of learning our study explores the dynamics of firms' liability of foreignness. A sample of 494 international firms from Sweden, Denmark and New Zealand is clustered along three structural dimensions of liability of foreignness: (1) perceived lack of knowledge about the foreign market, (2) the longevity of operations in the foreign market, and (3) international experience of the entrant firm. The four clusters that precipitate represent different learning path positions. One group of firms can be identified as pre-entry learners, another group as post-entry learners. A minor group of firms is characterized by perceiving a persistent lack of knowledge about the foreign market they are operating in. One might speculate if these firms engage in any learning about the foreign business environment. Furthermore, the data suggest that firms with extensive international experience are more capable in familiarizing with the foreign business environment than are firms with little international experience.

Keywords: Liability of foreignness; paths of learning; international experience

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Executive summary

The international business literature has argued that firms are at a disadvantage compared to indigenous firms with respect to operations in a foreign country (e.g., Hymer, 1960; Kindleberger 1969; Hennart 1982; Zaheer, 1995). This liability of foreignness has been the fundamental assumption driving theories of the multinational enterprise (MNE). It has been argued that in order to overcome the liability of foreignness and compete successfully against local firms, MNEs need to provide their overseas subsidiaries with some firm-specific advantage e.g. proprietary knowledge, trade mark, or unique management skills (Buckley and Casson 1976; Dunning 1977; Caves 1982; Hennart 1982). However, as pointed out by Zaheer and Mosakowski (1997), this does present a rather static picture of the costs of doing business abroad. In fact, their empirical studies shows that the liability of foreignness tends to decline over time while the firms gain local market knowledge (Zaheer and Mosakowski 1997). Our study opposes a static approach to liability of foreignness by aiming for identification of different learning paths of international firms. For this purpose a sample of 494 international firms from Sweden, Denmark and New Zealand is clustered along three structural dimensions of liability of foreignness: (1) perceived lack of knowledge about the foreign market, (2) the longevity of operations in the foreign market, and (3) international experience of the entrant firm. The four clusters that precipitate represent different paths of learning. Our empirical study opposes a conventional static view of disadvantage of foreignness. The data support the assertion that the liability of foreignness differs substantially among international firms and suggest that learning about the foreign environment can follow significantly different paths. Hence, a large group of firms seem to master a rapid reduction of their liability of foreignness, possibly by engagement in learning prior to the foreign market entry. In contrast, a minor group of firms seem to resists involvement in learning processes and perceives a high liability of foreignness even after a relatively long period of operations in the foreign country. The data indicate that to some extent are firms' ability to lower their liability of foreignness associated with international experience in general. If true, one might speculate that with more international experience firms develop learning capability routines in foreign markets.

1. Introduction

The international business literature has argued that when firms operate in a foreign country they are at a disadvantage compared to the indigenous firms (e.g., Hymer, 1960; Kindleberger 1969; Hennart 1982; Zaheer, 1995). This liability of foreignness, or disadvantage of foreignness, has been a fundamental assumption driving theories of multinational enterprises (MNEs). However, despite its central role in the explanation of MNE existence the liability of foreignness issue has drawn little attention among the IB scholars. International business scholars have been more occupied with the identification of firm-specific advantages that offset the liability of foreignness of MNEs and with inquiries into how these firm-specific advantages are created and sustained. In order to overcome the liability of foreignness and compete successfully against local firms, MNEs need to provide their overseas subsidiaries with some firm-specific advantage in the form of proprietary knowledge, trademarks, or unique management skills (Buckley and Casson 1976; Dunning 1977; Caves 1982; Hennart 1982). As pointed out by Zaheer and Mosakowski (1997), this presents a rather static picture of the costs of doing business in a foreign country. In fact, their empirical study suggests that the liability of foreignness is likely to diminish with elapsed time. Zaheer and Mosakowski therefore concluded that instead of looking at the costs of doing business abroad as some static costs one should rather see them as costs that decline when firms gain more knowledge on the local market:

"*Once the MNE has existed in a foreign environment for a substantial length of time, many (though perhaps not all) of the costs of doing business abroad' are likely to decline*". Zaheer and Mosakowski, 1997, p. 458.

In this paper we examine the learning aspects of liability of foreignness. An entrant firm's liability of foreignness is composed of different barriers of more or less permanent nature, and to varying degrees are these barriers susceptible to managerial intervention. Thus, foreign exchange risks and discrimination by local governments and consumers are of more permanent nature and can only to a limited extent be influenced by managers of entrant firms. Where the management of the entrant firm *can* make a difference is in relation to the unfamiliarity with the local business environment. Local firms have the general advantage of being better informed about their country: its economy, its language, its law, and its politics (Hymer, 1960). But the entrant firm can learn about these conditions. Perhaps not even as the result of a deliberate learning strategy, but just as a byproduct of doing business in the foreign country over a longer period of time.

Looking for different paths of learning our study explores the dynamics of firms' liability of foreignness. A large sample including international firms from Sweden, Denmark and New Zealand will provide empirical evidence of different paths of learning. We also examine to what extent different paths of learning are associated with particular behavioral or managerial characteristics of entrant firms. The answering of this question is of interest to both international business theorists and practitioners of international business. Theory of MNEs can be fertilized by a better understanding of how entrant firms lower their liability of foreignness through learning (and thereby reduce the need for firm-specific advantages vis-à-vis local firms). Furthermore, managers of international firms are inherently interested in improving the learning capabilities in relation to foreign market entries.

The remainder of the paper is organized as follows: Section two gives a review of the theoretical and empirical studies that deal with liability of foreignness. On the basis of the literature review we identify important dimensions of liability of foreignness dynamics. This is done in section three as a first step towards identification and mapping of learning paths of entrant firms. Section four accounts for the data compilation procedure and the sample characteristics. Section five reports the results of the cluster analysis and discusses the finding. The sixth section concludes and discusses the managerial implications of the study.

2. Theory and empirical evidence of liability of foreignness

Our review of studies relating to the liability of foreignness topic starts with the theoretical and conceptual presentations. Thereafter we look at the empirical evidence of liability of foreignness.

2.1. Theoretical and conceptual presentations of liability of foreignness

The 'liability of foreignness' concept was introduced by Stephen Hymer in his seminal thesis study from 1960 (published in 1976). Hymer supposed entrant firms to be disadvantaged vis-à-vis local firms due to foreign exchange risks and unfamiliarity with the business conditions of the foreign market. Searching for an explanation of FDIs Hymer contrasted production subsidiaries with license agreements, where the latter foreign operation method was to be considered as the default solution since no liability of foreignness would hamper the local licensee. The managerial choice was that of 'make' or 'sell' of proprietary knowledge or trademarks. Or - phrased differently – internalization versus externalization. In the case where internalization

was preferred by the foreign firm learning about the local business environment would not start until after the establishment. Evidently, with no experience obtained in the foreign market expectably the liability of foreignness would be quite high initially. To what extent – or how – the entrant firm would bring down its liability of foreignness after an establishment was not made subject to discussion in Hymer's thesis, or in his later works. To Hymer's theoretical successors, the internalization theorists (Buckley and Casson 1976; Dunning 1977; Caves 1982; Hennart 1982) these learning processes were not the concern, either, inasmuch as a static make-or-sell approach was maintained (Zaheer and Mosakowski, 1997).

In contrast to Hymer (and the internalization theorists), the internationalization process theorists (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977; Cavusgil, 1984) assumed entrant firms to learn about the foreign markets *before* they ventured into any establishments (FDIs). The entrant firms would acquire knowledge about the local business environment in two ways. First, entrant firms would typically enter a foreign market through local operators (e.g. sales agents) and tap these operators for knowledge about local business customs, local legislation, and local suppliers and customers. Not until a sufficient level of knowledge was tapped would the entrant firm engage in a foreign direct investment (now within the 'maximum tolerable market risk level' of the entrant firm). So, instead of presenting a choice between externalization and internalization as did Hymer, the process theorists expected externalization (by use of local, independent operators) followed by internalization to be the typical route of foreign market penetration. Secondly, firms would enter foreign markets of successively greater psychic distance, implying that foreign markets in which a firm already operated would function as 'steppingstones'

to new markets. Together, the stepwise expansion in terms of geography and resource commitment would bring down substantially the liability of foreignness *prior* to the establishment of a subsidiary. Not only would the entrant firm have learned from its conduct of businesses in similar foreign markets (pre-entry learning), but also from the local operators (post-entry learning). The spillover effects from market to market in terms of learning are not quite concordant with the important role that Johanson and Vahlne (1977) ascribed *market-specific* knowledge in the internationalization process of firms. But, as Casson (1993) has pointed out, it is difficult to conceive psychic distance patterns of firms without assuming some sort of scope economies with respect to learning about foreign market environments. In a similar vein, Barkema et al. (1996) point out that centrifugal expansion patterns are more successful than random, diversified expansion routes. They identify a 'locational path of learning' in relation to firms' engagement in foreign ventures. The firms that followed this path of learning benefited substantially from their previous experience in the same country, but also - although to a lesser extent - from previous expansion in culturally adjacent countries. The firms benefited the least from previous ventures in culturally distant countries.

An assumption made in the internationalization process theory was that the entrant firm's acquisition of knowledge about the foreign market would reduce the perceived uncertainty and, in turn, encourage to more resource commitment in that market. However, the research done by Welch and Wiedersheim-Paul (1980) indicated that some firms perceive higher levels of risk and uncertainty as internationalization proceeds, in response to increased information and knowledge. Also, research by Erramilli (1991), on U.S. service firms, has shown that the desire for control of

foreign operation (and thus the resource commitment to the foreign market) are not necessarily increasing when firms are acquiring more knowledge about the foreign market. Instead of a monotonically increasing proportionality between knowledge accumulation and resource commitment, as postulated by the international process theorists, Erramilli suggested a U-shaped relationship between learning and the inclination of an entrant firm to engage in resource-demanding foreign operation modes.

Another assumption of the internationalization process theory was that a firm would perceive its liability of foreignness to be relatively little in similar, neighboring countries and great in distant and cultural dissimilar countries. In other words, a firm would expect to perform better in foreign countries associated with little 'psychic distance'. But, as Evans et al. (1992) point out, firms may *over*estimate the similarities across neighboring countries, and *under*estimate the similarities of countries far away from the home. Even countries that share language, historical, and legal traditions, often have very different institutions that do not allow the simple transfer of business practices and attitudes across borders. Evans et al. (1992) provide many examples of Canadian retailers that performed poorly in the United States due to the large differences in the operating environment between countries. In fact, many of the examples that they present show that the differences in the business environment between Canada and the U.S. were more profound than the managers had expected. Moreover, the growing literature on survival of firms in foreign nations suggests that foreign investment into close countries often fails (e.g. Mitchell, Shaver and Yeung, 1994).

2.2. Empirical evidence of liability of foreignness

Our review of empirical studies will be restricted to that part of the liability of foreignness concept that has to do with lack of local knowledge - the situation where entrant firms are less knowledgeable than their indigenous competitors about local business conditions. Thus, we have not included studies on other aspects of liability of foreignness, such as discrimination of governments against foreign firms and foreign exchange risk of international firms. With these restrictions in mind only very few empirical studies examining liability of foreignness have been found.

The few empirical studies that we are aware of fall into two categories distinguished by the way they gauge liability of foreignness. Either, liability of foreignness is gauged in terms of how knowledgeable the entrant firms are about the local business environment, i.e. an input measure. Alternatively, liability is gauged in terms of how the entrant firms are performing (output measure).

Two studies have dealt with liability of foreignness in terms of how knowledgeable entrant firms are about local business conditions. The two studies have also in common that they use perceptual measures of entrant firms' lack of knowledge of foreign markets.

In a test of Johanson and Vahlne's theorizing on firms internationalization process (1977) Sullivan and Bauerschmidt (1990) measured potential barriers (and incentives) to foreign operations as perceived by 410 firms in the European forest and paper and pulp industry. The study could not find any association between firms' stage of internationalization and their perception of height of barriers. As a consequence, the

authors queried the wisdom of the internationalization process theory with respect to the importance of experiential knowledge.

Eriksson et al. (1997) identified a number of internationalization knowledge components and clustered them in three groups: (1) General internationalization knowledge, (2) Institutional knowledge, and (3) Business knowledge. 'General internationalization knowledge' includes knowledge about how to export and operate an international affiliate network - organizational and international human resource management aspects are included. 'Institutional knowledge' consists of knowledge of the institutional framework, rules, norms and values in the particular market, while 'Business knowledge' comprises knowledge on customers, suppliers and competitors and the manner in which they do business.

Zaheer (1995) gauged the liability of foreignness in terms of performance of entrant firms. In a cross-sectional study of a paired sample of subsidiaries (foreign exchange trading rooms) in the U.S.A. and Japan, Zaheer found that foreign subsidiaries were in fact less profitable than local subsidiaries.

Building on that work Zaheer and Mosakowski (1997) studied the entry and survival of banks' foreign exchange trading rooms and found that the liability of foreignness changed over time. In the first two years, the survival rates of host-country and foreign-owned trading rooms were similar; this suggests that the liability of newness is initially about the same magnitude as the liability of foreignness. For the next fourteen years, trading rooms owned by foreign banks exited at a higher rate than those owned by host-country banks; the exit rate peaked in year eight.

The conclusions of the empirical studies as to whether firms' liability of foreignness is likely to diminish over a period of time are few and mixed. Sullivan and Bauerschmidt (1990) found no decline of unfamiliarity with foreign markets with increasing international experience. However, the study by Sullivan and Bauerschmidt was a cross-sectional study and did not look at the development of perceived uncertainty in one market over a period of time. Among the four reported empirical studies the study by Zaheer and Mosakowski (1997) stands out as being the only longitudinal study of liability of foreignness. Moreover, the study makes a direct comparison with indigenous firms. Therefore, the finding by Zaheer and Mosakowski (1997) - that the liability of foreignness does diminish over a period of time – deserves special attention.

3. Identification of learning paths

Building on the above literature review we can extract important dimensions of liability of foreignness dynamics. By liability of foreignness dynamics we refer both to the change aspects of liability of foreignness and to its susceptibility to managerial discretion. Our aim is to identify different paths of learning of international firms. By 'learning paths' we refer to a specific and identifiable sequence of actions undertaken by an international firm that more or less deliberately will bring down its liability of foreignness in a particular foreign market.

In the stepwise process towards identification of learning paths we distinguish between basic/structural determinants on the one side and managerial or behavioral

variables on the other side. The structural determinants take on the characteristics of being exogenous to the management of the international firm. In most instances, the opportunity to control or manipulate these factors is, at best, limited and indirect. In contrast, managerial or behavioral variables are to a large extent subject to managerial discretion.

The first step in our effort to detect such learning paths is to outline what we consider to constitute the basic and structural determinants of firms' learning path positions. Later on in the process, these determinants will constitute the dimensions along which a clustering of our sample firms takes place (see section 5). From the literature on liability of foreignness we have identified the following three structural determinants: (1) Elapsed time of operations in the foreign market, (2) International experience of the entrant firm, and (3) Lack of knowledge about the foreign market.

3.1. Elapsed time of operations in the foreign market

Quantification of changes of liability of foreignness requires incorporation of the time dimension. Zaheer and Mosakowski (1997), for example, pinpointed exits of foreign subsidiaries to different points in time. As pointed out by Johanson and Vahlne (1977) experiential learning – considered crucial in the internationalization process – is a very time-consuming process. The internationalization process model (Johanson and Vahlne, 1977) claims that the internationalization process usually is a long, slow and incremental process. It is basically a learning-based model postulating that the investment uncertainty that comes with the liability of foreignness can only be reduced by acquiring specific market knowledge, which can only be done through

activities on the market (experiential knowledge). This learning-based explanation of the internationalization process is explicitly formulated in the model:

"International expansion is inhibited by the lack of knowledge about markets and such knowledge can mainly be acquired through experience from practical operations abroad." (Forsgren and Johanson, 1992, p. 10).

Apparently, elapsed time *per se* does not bring about knowledge about foreign markets. If no activities take place in the foreign market the entrant firm, or if activities are extremely restricted by certain organizational routines leaving no room for variation, the learning effect will expectably be close to zero. And yet, Eriksson *et al*. (1998) have demonstrated that 'time' in itself is strongly correlated with internationalization – even more than the conduct of business activities. Without the necessary time available an entrant firm cannot absorb the experience from its current business activities. In the same vein, Barkema et al. (1996) submit that learning is inherently incremental, and the speed with which firm expand internationally is subject to diminishing returns from efforts to speed up the process.

3.2. International experience of the entrant firm

The international experience of an entrant firm makes up a potentially important dimension of liability of foreignness in a learning perspective. An internationally experienced firm is less likely to underestimate barriers to operations in foreign countries. The Canadian retailers in the study of Evans et al. (1992) were mainly novices in respect to international operations. To many of these firms the US venture was their first foreign market entry. By the same token, Erramilli (1991) demonstrated

how the desire for high control modes in foreign operations of US service firms was contingent on their international experience. The study indicated an overoptimistic approach to foreign markets among inexperienced firms supposedly explained by lack of knowledge. In addition to providing a more realistic approach to foreign market entry international experience may also hold the potential of improving the learning capabilities of firms.

3.3. Lack of knowledge about the foreign market

Obviously, the unfamiliarity with the foreign business environment constitutes a dimension of liability of foreignness that is less exogenous than is foreign exchange risk and discrimination against foreign firms by e.g. foreign governments. Still, foreign firms are inherently handicapped vis-à-vis indigenous firms in regard to knowledge about the local business environment and many of the difficulties faced by entrant firms arise from not knowing how business is done in the foreign country. Some of the rules, customs, and practices are explicit and relatively easy to comprehend and adopt. At a deeper level, how the game is played is influenced by the foreign country's values and by its basic cultural assumptions. These differences tend to be implicit, and hence harder to uncover. They also are much more socially imprinted upon the individual, and hence foreigners find differences in values and cultural assumptions much harder to accept than differences in practices (Schein 1985).

Next step in our identification of learning path of international firms is to cluster a large sample of firms along the three determinants.

4. Data compilation and sample characteristics

4.1. Data compilation

The data of the study were gathered through a mail survey. The survey was part of an international research project, 'Learning in the Internationalization Process', including researchers from Denmark, Finland, New Zealand, South Korea, and Sweden. A pilot study was conducted in 1997 in which ten managers of Swedish international firms were asked to answer the questionnaire in a personal interview situation. For practical reasons, it was decided that each research project member should be responsible for gathering company data from her/his own country. In all the five countries the local researchers sent out a standardized questionnaire. Because the sample definition varied somewhat from country to country only the data for Sweden, Denmark and New Zealand were considered consistent and therefore usable for this particular study.

Local databases in Denmark, New Zealand and Sweden were used to identify companies with: (1) between 20 and 200 employees (2) international operations, including export and foreign direct investment. In 1998 the questionnaires were sent out to identifiable informants – primarily managing directors. Most questionnaires were completed by the managing director or by another top executive. A reminder was mailed one month after the initial mailing. Upon this follow-up procedure the number of usable replies reached 201, 117 and 176 in Denmark, New Zealand and Sweden, respectively. This corresponds to net response rates of 27, 20 and 35 per cent, respectively. A test was conducted to check the sample for possible non-

response bias. Regarding size and number of foreign subsidiaries no statistically significant differences between respondent and non-respondent were found.

An average profile of the firms in the sample is shown in Table 1. All the three countries are relatively small. As a consequence of the limited home markets most firms in these countries are forced to engage in international operations at an early stage of their development.

---Insert Table 1 about here ---

For all the three country samples the average firm is highly internationalized and possesses presumably considerable experience in conducting foreign operations. One sixth of the personnel is employed outside the home country (13.9 - 18.4 per cent) and more than one third of the average turnover originates from overseas activities (36.6 - 43.4 per cent).

The profile of the firms from Denmark (201) and Sweden (176) are very similar in terms of size and level of internationalization, but the Swedish firms typically have longer export experience (30.3 years) than the Danish firms (20.9 years). The firms from New Zealand (117) are larger both in terms of turnover and employees, and the profile of their internationalization varies from the Danish and Swedish sample firms. The New Zealand sample firms have less international experience (in terms of years) and operate in fewer countries, but apart from that they are quite similar in regard to the proportion of sales abroad and employees outside the home country.

The total sample of 494 companies includes a unique sample of internationalized firms that vary on several dimensions, e.g. the targeted foreign markets. However, the common denominator is that the firms early in their development are exposed to international activities and therefore supposedly struggle with liability of foreignness problems when entering foreign markets.

4.2. Operationalization of variables

In the questionnaire respondents were asked to select one recent business assignment (e.g. entering a new market, or undertaking a considerable expansion of an existing business). The assignment should be important to the firm and its international expansion. Furthermore, the assignment should preferably be well underway in the foreign location.

4.2.1. Structural variables

Perceived liability of foreignness. Given this focus, the liability of foreignness was measured as the perceived lack of knowledge in relation to the particular foreign business assignment. More specifically, the firms should indicate to what extent lack of certain kinds of knowledge was an obstacle for this particular foreign expansion. Following Eriksson et al. (1997) the required foreign market knowledge is of two different kinds: 'Institutional knowledge' and 'Business knowledge' (see also section 2). 'Institutional knowledge' consists of knowledge of the institutional framework, rules, norms and values in the particular market. 'Business knowledge' includes knowledge on counterparts (customers, suppliers, distributors, and competitors) in the host country, including knowledge about local business cultures.

In the questionnaire the firms were asked to indicate on a 7-point Likert scale to what extent the lack of the following types of knowledge was an obstacle to the foreign expansion (1 = no obstacle, and 7 = serious obstacle):

- Knowledge on business law and rules in the foreign market
- Knowledge on financial practice in the foreign market
- Knowledge on the local business culture
- Knowledge on the products of customers in the foreign market
- Knowledge on the products of suppliers in the foreign market
- Knowledge on the products of competitors in the foreign market

The average score of the six items varied from 3.8 (knowledge of competitors) to 4.9 (knowledge of suppliers). The Cronbach alpha value for all six items was 0.78. Therefore, we have created a composite index of liability of foreignness where all six items are included.

Elapsed time. The elapsed time was measured in a straightforward way as the number of years and months since the particular assignment was started in the foreign market. In principle, the value of the variable can vary from 1 month to infinite. However, the variable was truncated after fifteen years. As shown by Zaheer and Mosakowski (1997), after some years the learning and adaptation on the local market will only be marginal. In their study the exit-rate of foreign owned subsidiaries peaked after eight years indicating that the liability of foreignness peaked at this point in time. Accordingly, we have truncated the time variable after fifteen years indicating

that most firms have overcome the initial liability of foreignness after fifteen years of activities in the foreign market.

International experience. The international experience is capturing the extent to which the firms have accumulated general knowledge about how to conduct business in an international environment, including handling of uncertainty attached to foreign markets. It is a measure of the firms' exposure to international activities and their ability to manage in unknown territory in the foreign markets. 'International experience' is measured as the proportion of total turnover that originates from outside the home country (going from 0 to 100 per cent).

4.2.2. Managerial and behavioral variables

Willingness to local adaptation. The willingness to local adaptation is a perceptual variable that was measured by asking the respondents to what extent the firms were making adaptations to the local market. In the questionnaire they were asked to indicate on a 7-point Likert scale (1 = no adaptations and 7 = substantial adaptation) to what degree they have made adaptation to the local market, as regards:

- the product
- the production process
- the business routines

The average score of the three items varied from 4.6 (the product) to 4.9 (the production process). The Cronbach alpha value for the three items was 0.89. The high value allows us to create a composite index of willingness to local adaptation where all three items are added together.

Risk willingness. The risk willingness is another perceptual variable. Expectably, the variable is highly correlated with the perception of future performance. A risk-averse attitude is expected to be associated with low performance expectations, whereas a risk-taking preference pertains to high performance expectations. Therefore, expectations to future performance were used as a proxy for the risk willingness. In the questionnaire the respondents were asked to indicate on a 7-point Likert scale (1 = no effect and 7 = substantial effect) the expected outcome of the foreign assignment in terms of:

- Increased sales
- Increased profitability
- Increased productivity
- Improvement in the competitiveness of the company

The average score varied from 5.0 (improvement in competitiveness) to 5.6 (increased sales). The Cronbach alpha value for the four items was 0.74. Therefore, we added all the four variables together and created a composite index of risk willingness.

5. Results and discussion

5.1. Cluster-analysis

In order to identify the learning paths among the sample firms we conducted a cluster-analysis based on the three structural variables: Elapsed time, international experience, and lack of knowledge about the foreign market (perceived liability of

foreignness). As discussed earlier, each of the three variables represents an important dimension of learning paths of entrant firms.

The first step in the cluster-analysis was to decide the appropriate number of clusters, though, no completely satisfactory method for determining the number of clusters exists. It is advisable to look for changes in the three statistics: CCC, pseudo F statistic and the pseudo t^2 statistic. For that purpose, a hierarchical cluster-analysis (Ward's method) was conducted. With a local peak for the pseudo F statistic and a small value of the pseudo t^2 statistic (increasing for the next cluster fusion) these statistical measures were indicating that the data could be distributed into four clusters.

The next step was to create the four clusters. For that purpose we applied a nonhierarchical clustering technique, as proposed by Hair et al. (1992). The three variables were measured on different scales. In order to bring the variables on comparable scales they were all standardized (mean = 0 and standard deviation = 1).

5.2. Results of cluster analysis

The results of the clustering and the distribution of the 494 firms on the four clusters are shown in Table 2.

--- Insert Table 2 about here ---

The firms in cluster 1 and 2 are both characterized by short elapsed time of the entered, foreign country. However, whereas the firms in cluster 1 are characterized by

having a high perceived liability of foreignness and substantial international experience, the cluster 2 firms have low perceived liability of foreignness and only limited international experience. Accordingly, the cluster 2 firms have used a short time – if any - in the foreign country overcoming the liability of foreignness. This may fit well with a 'pre-entry learning path' in which a substantial part of the learning takes place before the focal investments. The firms in cluster 4 seem to fit with a 'Post-entry learning path' where the learning takes place in pace with the commitments that are made to the local market.

5.3. Discussion

The firms in cluster 3 and cluster 4 have spent, relatively, a long time in the foreign country. But while the cluster 4 firms have used the time adapting to the local market conditions (and overcoming the liability of foreignness) this is not the case for the firms in cluster 3. The cluster 3 firms still perceive a high liability of foreignness - the highest of all four clusters. This may indicate that cluster 3 resembles a type of firms that either are unwilling to adapt locally (because they pursue global economies of scale), or because they are incapable of adapting locally (as indicated by the limited international experience). Accordingly, cluster 3 is labeled the 'no learning'-cluster. Cluster 4 consists of firms with extensive international experience. They have spent relatively long time learning about the local business environment and thereby overcoming the liability of foreignness. We have labeled cluster 4 'The completed learning' cluster.

As can be seen in Table 2, most of the sample firms are included in cluster 2 (48 per cent) and cluster 1 (24 per cent). So apparently, the majority of the sample firms have

been active in the foreign country for a relatively short time. These firms are following different learning paths of pre-entry learning or post-entry learning.

Table 3 shows how each of the four clusters score on the two behavioral variables: ‘Willingness to local adaptation’ and ‘Risk willingness’.

--- Insert Table 3 about here ---

There are significant differences among the four cluster as concerns the firms’ willingness to engage in adaptation to the local environment. As expected, the cluster 4 firms - that already have overcome the liability of foreignness - are more willing to (and probably more capable of) adapting to the local environment. The same is true for the cluster 2 firms that have engaged themselves in pre-entry learning. In contrast the willingness to undertake local adaptation is much lower among the firms in cluster 1 and 3 – the firms that still perceive a high liability of foreignness.

The cluster 2 firms have, as expected, the lowest level of risk willingness. This is in accordance with the theorizing on pre-entry learning, saying that risk-aversion of international managers drives this pattern of foreign expansion. The highest level of risk willingness is found among the firms in cluster 1 and 4. These firms also exhibited the highest level of international experience.

6. Conclusions and managerial implications

Our empirical study opposes a conventional static view of disadvantage of foreignness. The data support the assertion that the liability of foreignness differs substantially among international firms and suggest that learning about the foreign environment can follow significantly different paths. Hence, a large group of firms seem to master a rapid reduction of their liability of foreignness, possibly by engagement in learning prior to the foreign market entry. In contrast, a minor group of firms seem to resists involvement in learning processes and perceives a high liability of foreignness even after a relatively long period of operations in the foreign country. The data indicate that to some extent are firms' ability to lower their liability of foreignness associated with international experience in general. If true, one might speculate that with more international experience firms develop learning capability routines in foreign markets. It is, however, important to stress the way firms' liability of foreignness is measured in the study. Liability of foreignness is expressed as a perceptual measure, namely the lack of knowledge about the foreign country as perceived by the focal firm. This gives reasons to be cautious about what appears to be low values of liability of foreignness. Thus, other researchers have reported systematically underestimation of foreign market barriers, e.g. by internationally inexperienced firms. Another reservation relates to the cross-sectional design of the study. Only longitudinal studies can establish the true learning path of international firms. What we can observe in our study is, by definitions, only *positions* of firms in different paths of learning. The existence of a sole, large-scale longitudinal study of firms' liability of foreignness (Zaheer and Mosakowski, 1997) illustrates the large room for further research.

Our study has applied a dynamic view, where liability of foreignness and the associated costs of doing business abroad are supposed to decline over time. A dynamic view opens up for more managerial discretion in the process of entering foreign markets. Our study supports the view that overcoming liability of foreignness is not just a question of possessing firm-specific advantages that compensate for an initial liability of foreignness of the firm. Sustainable competitive advantage can also be achieved through the practicing of a proactive learning strategy that facilitates high-velocity familiarizing and adaptation to the local market. Such pro-active learning strategies may diminish the problem of liability of foreignness and thereby broaden the range of foreign markets in which a firm can obtain a competitive advantage.

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Table 1. Characteristics of the sample (N=494)

Company characteristics	Denmark	New Zealand	Sweden
	Means (1998) and standard deviation in parentheses		
Number of companies	201	117	176
Total turnover (mill. DKK)	US $ 30 m. (52)	US $ 66 m. (307)	US $ 38 m. (109)
- proportion of sales abroad (per cent)	43.4 % (31.8)	36.6 % (29.9)	42.4 % (29.4)
Total number of employees	192 (419)	367 (1050)	193 (574)
- proportion employed overseas (per cent)	13.9 % (23.0)	18.4 % (29.1)	14.0 % (20.2)
Number of foreign countries in which the company operates	14.3 (8.1)	8.7 (7.1)	15.5 (6.9)
Years of export experience	20.9 (13.5	16.1 (11.4)	30.3 (15.5)

Table 2 Values on the structural variables for each cluster

	Cluster 1 Post-entry learning	Cluster 2 Pre-entry learning	Cluster 3 No learning	Cluster 4 Learning completed
Perceived liability of foreignness	1.08	- 0.44	0.60	- 0.89
Elapsed time	- 0.37	- 0.48	1.67	1.20
International experience	0.68	- 0.42	- 0.55	1.03
Number of firms	121	248	60	65

* All variables are standardized with mean=0 and standard deviation=1

Table 3 Values on the behavioral variables for each cluster

Strategic variables	Mean values across different strategies of foreign assignments				F-statistics (differences between means) and significance
	Post-entry learning (1)	Pre-entry learning (2)	No learning (3)	Learning completed (4)	
Willingness to local adaptation	3.4 (D)	5.1 (B)	4.2 (C)	5.8 (A)	43.62***
Risk willingness	5.4 (A)	5.1 (B)	5.2 (B)	5.5 (A)	3.85***

* The letters in parentheses are showing the Duncan grouping where different letters indicates that the values are significantly different.