Learning about Foreign Markets

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ABSTRACT

This empirical study addresses the question of how firms' perceived knowledge about local markets develops during the period of entry or expansion. Different predictions of how foreign market familiarity is changing during the period of entry are derived from the literature on firms' internationalization process. The predictions are made subject to empirical examination using a set of primary data of current (i.e. at the point in time of mail interviews) foreign operation business operations reported by managers of Danish international firms. The empirical study also gives insight to the incidence and character of 'shock effects' in relation to foreign market entry: the phenomenon of entrant firms' inclination to underestimate differences between the home and host country in terms of business environments. The data support the supposition that entrant firms in general *are* exposed to such a 'shock effect'. On average, the foreign market familiarity as perceived by the entrant firms reach its lowest level seven years after entry or initiation of the foreign market expansion. The company data indicate that entrant firms in general experience the shock effect in relation to entry of adjacent, rather than distant, countries. Hence, the 'psychic distance paradox' hypothesis is supported. Also, entrant firms in general experience the shock effect in relation to acquisition of tacit rather than explicit knowledge, and furthermore, the data suggest that the shock effect befalls producers of customized products, but not producers of standardized products.

Key words: Internationalization process of firms, local market knowledge, shock effect.

1. Introduction

When firms enter a foreign market they will usually be disadvantaged vis-à-vis the indigenous firms in terms of familiarity with the local business environment. This unfamiliarity - often denoted 'liability of foreignness' (Zaheer 1995) - induces high levels of uncertainty that impede effective decision-making, difficulties in dealing with local governments and local partners. Diverse local preferences, cultures, and business systems increase the odds that foreign firms will make costly errors, encounter substantial delays, or otherwise struggle with their attempts to establish operations abroad. At the root of many of these difficulties is a foreign firm's lack of local market knowledge (Johanson and Vahlne 1977). Local market knowledge is knowledge that is specific to a host country regarding its language, culture, politics, society, and economy. Acquisition of local market knowledge is critical for the successful planning and implementation of almost all aspects of entry into a new host country (Lord and Ranft 2000).

How entrant firms perceive their 'liability of foreignness' has implications both for their commitment of resources to the foreign market in question and for the performance of their business activities. The more uncertain the management of an entrant firm is about how it should conduct business in a foreign market the less inclined – all else being equal - will that management be to involve in high-commitment operation modes (Johanson and Vahlne 1977; Johanson and Wiedersheim-Paul, 1975). Furthermore, if the management misjudge the 'liability of foreignness' in relation to a foreign market this will diminish the chances that the entrant firm performs well in the foreign market. Needless to say, the management's underestimation of business environment differences between home and host market will be more critical to the performance than an overestimation. Hence, an understanding of how managers of entrant firms ascertain their lack of

knowledge about a foreign market is therefore essential for the development of positive as well as normative theory of firms' internationalization processes.

The literature displays some controversy regarding the evolvement of entrant firms' foreign market familiarity - in particular if one takes on the perspective of the entrant firm itself, i.e. the market familiarity as perceived by the entrant firm. Hence, a number of questions can be identified in regard to perceived familiarity and the way in which firms learn about local markets. First of all, is it really true, as conceded by mainstream internationalization theory (Johanson and Vahlne 1997), that firms' familiarizing with the local business environments mainly takes place *after* market entry? Or, are (some) firms capable of engage in extensive *pre*-entry learning that remedies their inadequacies in regard to knowledge about local business conditions? If the latter is true, we would expect to observe managers who - during the period following a foreign market entry - perceive a persistently high level of familiarity with the local business conditions. Furthermore, one may ask if managers of entrant firms make realistic assessments about how knowledgeable they are in terms of doing business in the targeted foreign markets. Is it so that managers of entrant firms tend to overestimate their preparedness of conducting business in the foreign market? In the case of overestimation, managers of entrant firms will experience a 'shock effect' in the period following foreign market entry. Also, little is known about time spans of foreign market unfamiliarity: when managers of entrant firms perceive lack of local market knowledge, how long time does it take them to remedy this? Are we talking about months, years, or decades? In particular, how long time does it take to overcome a possible 'shock'?

Addressing these questions the paper reports an empirical study of how entrant firm managers' perceived familiarity with foreign markets evolves. The empirical study is based on primary data of current (at the time of study) foreign operations reported by managers of Danish international firms.

The paper is organized as follows: In section 2 we overview previous literature about entrant firms' foreign market familiarizing and derive a number of hypotheses for testing. Section 3 accounts for the data compilation and sample characteristics. In section 4 we specify the statistical model and the construct operationalization. The results are reported and discussed in section 5. Section 6 concludes.

2. Previous Studies and Development of Hypotheses

In this section we derive a number of hypotheses from the literature on firms' internationalization concerning the evolvement of entrant firm managers' perception of their familiarity with the local business environment. Firstly, we contrast 'post-entry' and 'pre-entry' familiarizing (H_1 and H_2, respectively). Secondly, we hypothesize that *if* managers of entrant firms do familiarize 'post-entry' they will only do so after an initial and temporary downturn of their perceived familiarity with the local business environment. In other words, the managers will experience a 'shock effect' (H_3). Thirdly, we elaborate on the nature of a possible 'shock effect' (H_4 – H_6).

Post-Entry Familiarizing

The internationalization process theorists (Johanson and Wiedersheim-Paul 1975, Bilkey and Tesar 1977, Johanson and Vahlne 1977, Loustarinen 1979, Cavusgil 1984, Forsgren and Johanson 1992) argue that managers of entrant firms will defer high resource commitment, such as subsidiaries, until their perceived familiarity with the local business environment has reached a minimum tolerable level. Furthermore, the same theorists predict that to a non-negligible degree do managers of entrant firms lack knowledge when they enter foreign markets, and this lack of local business knowledge can only be acquired in the course of time following the initial entry.

Among the internationalisation process theorists the influential scholars belonging to the Uppsala School of Internationalization (Carlson, 1975, Johanson and Wiedersheim-Paul 1975, Johanson and Vahlne 1977) have advanced the idea that it is primarily those individuals working in the specific, foreign market who will discover the problems and opportunities intrinsic to that market. The experiential and context-specific character of the local market knowledge implies that most of the learning will have to take place post-entry, while the opportunities for pre-entry learning are accordingly low.

In accordance with this view we derive the following hypothesis about the post-entry learning pattern of entrants firms:

H_1 *Entrant firms' perceived market familiarity increases with elapsed time of operations in the particular foreign market.*

Pre-entry Familiarizing

Even though (some) internationalisation process theorists have put special emphasis on the post-entry learning, this does not imply that they completely rule out the possibility of pre-entry learning. On the contrary, the Uppsala School theorists implicitly suggest that to some extent does pre-entry learning takes place. The Uppsala internationalization process model (Carlson 1975, Johanson and Wiedersheim-Paul 1975) predicts that firms enter foreign markets of successively greater psychic distance from the home market. This implies that foreign markets in which a firm already operates will function as 'steppingstones' to new markets. The stepwise geographical expansion enhances the foreign market familiarity *prior* to entry of the individual foreign market since the managers of the entrant firms have acquired valuable knowledge through past conduct of businesses in similar foreign markets.

These spillover effects across foreign markets in terms of learning are not quite concordant with the important role that the Uppsala scholars, Johanson and Vahlne (1977), ascribed to market-*specific* knowledge in the internationalization process. Though, in a later work Johanson and Vahlne (1990) themselves suggest a relaxation of their original emphasis on market-specific knowledge as being pivotal in firms' international market expansion. Johanson and Vahlne (1990) reiterate the general rule that resource commitment to foreign markets will be made in small steps due to a longwinded accumulation of experiential knowledge. Some exceptions to the incremental expansion are conceivable. One exception is when managers of entrant firms have considerable experience from markets with similar conditions. It may be possible to generalize this experience to the foreign market entered most recently (Johanson and Vahlne 1990, p. 12). In other words, pre-entry learning *is* conceivable. It has also been pointed out in more recent work by other Uppsala-scholars (Eriksson et al. 1997) that, via their business network, organizations can gain access to the knowledge of other firms, without having to go through exactly the same experiences as these firms.

Also internationalization theorists scholars without affiliation to the Uppsala school have pointed at the possibility of pre-entry learning. Thus, Casson (1996) has pointed out that 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) conclude from an empirical study 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 operations. 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 operations in culturally distant countries.

Based on the above discussion, we conjecture a second, competing hypothesis, proposing that substantial pre-entry learning has taken place in adjacent foreign markets:

H_2 *Entrant firms' perceived market familiarity does not change (increase) with elapsed time of operations in the particular foreign market.*

The hypothesis envisages the rather extreme case where managers of entrant firms have benefited from pre-entry learning to the extent that they from the very first day in the foreign market are confident with the local business environment. Moreover, this (high) level of local market familiarity persists throughout the post-entry period: the entrant firms do not have to spend precious time to catch up with the local competitors, because they have already learned their lessons.

Post-Entry Shock Effect

An assumption made in the internationalization process theory is that the entrant firms' acquisition of knowledge about the foreign market reduce the perceived uncertainty, which, in turn, induces the firms to commit more resources to these markets. However, the research done by Welch and Wiedersheim-Paul (1980) indicated that in some firms will managers - in response to increased information and knowledge - perceive higher levels of risk and uncertainty as internationalization proceeds. 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) is 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 managers in an entrant firm to engage in

resource-demanding foreign operation modes. On this background we submit a third competing hypothesis:

H_3 *Entrant firms' perceived market familiarity increases with elapsed time of operations in the particular foreign market, but only after a temporary decline ('shock effect').*

The studies on evolvement of firms' familiarity with foreign markets (underpinning hypotheses 1-3) are summarized in Table 1.

Table 1 *Suppositions of local market familiarity of entrant firms at different points in time of entry*

Local market familiarity at different points in time ▸ ▾ Studies of firms' foreign market familiarity ▾	Familiarity at Pre/Post-Entry t_1	Familiarity at Post-Entry t_2	Familiarity at Post-Entry t_3
Johanson and Vahlne (1977)	Low	High	
Johanson and Vahlne (1990) Casson (1996), Barkema et al (1996)	High	High	
Welch and Wiedersheim-Paul (1980), Erramilli (1991)	High	Low ('Shock effect')	High

Market Characteristics (the Psychic Distance Paradox)

The internationalization process theory predicts firms to target foreign markets (as outlets for their products) in a sequence determined by the managers' 'psychic distance' to the individual market. Since managers would expect their firm to perform/sell better in foreign countries associated with little 'psychic distance', these countries would be entered before markets

that are more distant in a cultural sense. Countries of little 'psychic distance' can also be phrased as foreign markets where managers feel knowledgeable about, or familiar with, local business conditions. To managers of entrant firms, neighboring countries would usually qualify as markets of little psychic distance. But, as O'Grady and Lane (1996) point out, managers may overestimate the similarities between neighboring countries. 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. O'Grady and Lane (1996) 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. From these observations O'Grady and Lane coined the term "the psychic distance paradox".

Moreover, the growing literature on survival of firms in foreign countries suggests that investment into close countries often fails (e.g. Mitchell, Shaver and Yeung, 1994). The reason may very well be that managers of entrant firms take more precautions when entering distant markets and spend more time on planning, since they are fully aware of the significant 'psychic distance'. From this we derive the following hypothesis on a possible 'shock effect' - i.e. the occurrence of a *decrease* preceding an *increase* of managers' perceived market familiarity - in relation to the entry of countries of little psychic:

H_4 *Entrant firms experience a 'shock effect' in relation to adjacent markets – not in relation to distant markets.*

Knowledge characteristics

As mentioned earlier 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 values of the foreign country 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). Reflecting these different characteristics, the Uppsala internationalization process theorists (Johanson and Vahlne 1977, Forsgren and Johanson 1992) made a distinction between two broad categories of knowledge that entrant firms are in need of: knowledge than can be acquired quickly and with relative ease because it is explicit (markets statistics, competition laws, product approval requirements, technical standards, import regulations, etc.), and knowledge that is characterized by its tacitness and therefore can be acquired mainly through learning-by-doing. Since the acquisition of latter type of knowledge is the most indispensable and critical in the internationalization process (according to the Uppsala theorists), the improvement of local market familiarity is contingent upon the extent to which the firms accumulate knowledge through ongoing activities:

> "*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).

The vital, requisite knowledge about the local business environment is inherently experiential and specific to the individual foreign market. The opportunities for pre-entry learning are accordingly

low for this experiential or tacit knowledge. Conversely, we would expect entrant firms to acquire the needed objective/explicit market knowledge (in contrast to tacit knowledge) before entry takes place, or immediately after market entry.

Furthermore, for the 'shock effect' this would only be in relation to tacit knowledge, not in relation to perceived lack of explicit knowledge. Accordingly, we submit the following 'shock effect' hypothesis in relation to knowledge characteristics:

H_5 *Entrant firms experience a 'shock effect' only in relation to lack of tacit knowledge - not in relation to explicit knowledge.*

Product characteristics

A firm's internationalization pattern is usually described by two dimensions: the geographical spread of the firm's international activities, and the commitment of resources to the individual foreign market. Welch and Luostarinen (1988) have argued that product characteristics constitute a third dimension. All else being equal, export of commodity goods is associated with a low degree of internationalization. Complex products, such as turnkey projects, requires a great deal of customization. Hence, some firms may operate in industries in which international product standards are widespread, and little - or none - product modification is needed in relation to foreign market operations. Conversely, other industries are characterized by products that require extensive product modification in order to comply with the needs and preferences of the individual customer in the foreign market. Services will typically, but not exclusively, belong to the latter category of complex and customized products, whereas it is difficult to generalize anything about goods.

From what has been said, we would expect the knowledge requirements of entrant firms to differ significantly with product characteristics, i.e. customized versus standardized. More specifically, we would expect that producers/vendors of customized products are involved in much

more sophisticated learning processes than are producers/vendors of standardized products. Conversely, we would expect little or no foreign market knowledge to be required in relation to internationally standardized products. And if some knowledge is needed this may be acquired even before entry.

Furthermore, for the 'shock effect' this will only be experienced by producers/vendors of customized products, not by standard product manufacturers/sellers. Accordingly, we submit the following 'shock effect' hypothesis in relation to knowledge characteristics:

H_6 *Only producers/vendors of customized products experience a 'shock effect' – not producers/vendors of standardized products.*

3. Data compilation and sample characteristics

The data of the study have been gathered through a mail survey as part of a large, international research project, "Learning in the Internationalization Process" (including researchers from Denmark, Finland, New Zealand, Korea, and Sweden; however, only the data set of the Danish firms is relevant to our research question). A pilot study was conducted in 1997 in which ten Swedish managers were asked to answer the questionnaire in an interview situation. The final standardized questionnaire was sent out in August 1998 to all Danish firms that were involved in international operations, e.g. having export or operation subsidiaries abroad. The database *CD-Direct* was used to identify all the Danish companies conducting international operations. The population comprised 723 firms in various industries (both manufacturing and service firms were included), and with different geographical location of their international operations. The reason for

choosing this population was the active involvement of these firms in foreign operations and the associated transfer of internationalization knowledge.

The questionnaires were mailed personally to the CEO. Most questionnaires were completed by CEOs or other top executives. A reminder was mailed one months after the initial mailing. Upon this follow-up procedure the number of replies reached 246, corresponding to a response rate of 34 per cent. For various reasons (e.g. no foreign activities anymore) a number of returned questionnaires were inadequate. After exclusion of incomplete questionnaires a total of 198 replies - making up a net response rate of 27.4 per cent - were usable for data processing. 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.

Table 2. *Characteristics of the sample (N=198)*

Company characteristics	**Mean (1998)**	**Standard deviation**
Total turnover (million DKK)	238 (US $ 28 million)	488
- proportion of sales abroad	42.9 %	31.2 %
Total number of employees	192	419
- proportion of employees abroad	14 %	23 %
Number of foreign countries in which the company operates	18	17
Years of export experience	21	18

An average profile of the firms in the sample is shown in Table 2. Reflecting a considerable variation the average size of the sample is 192 employees (in Denmark and abroad) providing turnover of DKK 238,000,000 (equivalent to US $ 34,000,000 as per January 2003). One sevenths of the personnel is employed outside Denmark and almost half of the average turnover originates from foreign activities. The average firm is indeed highly internationalized and possesses considerable experience in conducting foreign operations. However, the sample includes also a number of what one may call novice exporters.

4. Operationalization of Variables

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

The **unfamiliarity in foreign markets** was measured as the perceived lack of knowledge in relation to the particular foreign business operation. More specifically, the firms should indicate to what extent lack of certain kinds of local market knowledge constituted an obstacle to the accomplishment of the particular foreign business operation. Following Eriksson et al. (1997) the required foreign market knowledge is of two different kinds: 'Institutional knowledge' and 'Business knowledge'. '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 completion of the foreign business operation (1 = no obstacle, and 7 = serious obstacle):

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

The **elapsed time** of operation in the particular foreign market was measured in a straightforward way as the number of months and years since the particular international business operation was commenced. In principle, the value of the variable may vary from 1 month to infinite.

The characteristics of the knowledge in terms of being mainly **experiential or objective knowledge** was measured by asking the respondents to indicate on a 7-point Likert scale the extent to which the above-mentioned six knowledge items (knowledge of: (1) business law and rules, (2) financial practice, (3) business culture, (4) products of customers, (5) products of suppliers, and (6) products of competitors in the foreign market) were acquired through own experiential activities or purchased from external sources of expertise. On the scale 1 was indicated that the knowledge was acquired mainly through purchase from external expertise sources ("objective knowledge"), while 7 indicated that the knowledge was acquired mainly through a learning-by-doing process ("experiential knowledge"). The Cronbach alpha value for all six items

was 0.70. Therefore, we have created a composite index of the characteristics of knowledge in which all six items are included. The mean value of the composite index is 3.1. The sample was then divided into two categories: those that mainly purchased the local market knowledge from external expertise sources ($1 \leq$ values < 3) and those that mainly acquired the knowledge by own experiential activities ($3 \leq$ values ≤ 7).

The **psychic distance** to the particular market was also measured as a perceptual measure. The respondents were asked to indicate on a 7-point Likert scale to what extent the particular market of the foreign operation would differ from existing, well known markets (1 = 'well known market', and 7 = 'market very different'). The sample was then divided into two categories: business operations of markets with little psychic distance (original values of 1-3) and business operations carried out in markets with great psychic distance (original values of 4-7).

The level of **customization** of the product was measured perceptually on a 7-point Likert scale. The respondents indicated to what extent the main products/services associated with the foreign operation were customized vs. standardized (the mean value on the scale is 3.6). The sample was then divided into two categories: those with customized products/services (values of 1 - 3) and those with standardized products (values of 4 - 7).

Control variables. 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 number of years in which the company has conducted international activities.

The *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 to what degree they have made adaptation to the local market, as regards: the product, the production process and the business routines scale (1= no adaptations and 7 = substantial adaptation). The Cronbach alpha value for the three items was 0.89. The high value allows us to create a composite index of local adaptation where all three items are added together.

In the same vein, the *newness of the foreign customers* associated with the foreign operation was measured on a 5-point Likert scale comparing the customers on the particular foreign market with the existing customer relationships (1=welknown customers and 5=completely new customers).

Finally, the number of years the particular respondent had been dealing with international business tasks was included in order to control for the *personal experience* of the individual. By inferring this we control for the personal experience and get a more accurate measure of the organizational perception of the unfamiliarity which is the focus in this study.

5. Results and discussion

In order to test hypotheses 1 - 3 on the interrelationship between elapsed time of business operations in the foreign market and managers' perception of their local market knowledge (familiarity) a regression analysis was conducted. We apply the following regression model:

$$\textit{Local market knowledge of entrant firms} = f(\textit{elapsed time}, (\textit{elapsed time})^2, \textit{control variables})$$

In order to test the proposed non-linearity of the relationship between local market familiarity and elapsed time we have included both the first and second order of the independent

variable: elapsed time. Following hypothesis 1 we expect the first order parameter of elapsed time to be significantly positive and the second order parameter to be insignificant. Hypothesis 2 propose that both the first and second order parameter of elapsed time are insignificant, while a significantly negative first order parameter and a positive second order parameter would be in line with hypothesis 3. These predictions are summarized in the three left-hand columns of Table 3.

Table 3. *Summary of the predictions that follow the hypotheses.*

	H_1	H_2	H_3	H_4		H_5		H_6	
				Short psychic distance	Long psychic distance	Experiential knowledge	Objective knowledge	Customized products	Standardized products
Elapsed time	+	insig.	-	-	insig.	-	insig.	-	insig.
$(\text{Elapsed time})^2$	insig.	insig.	+	+	insig.	+	insig.	+	insig.

Legend: + = expect a positive coefficient
- = expect a negative coefficient
insig. = expect no significant coefficient

Furthermore, the expected signs of the parameters in relation to hypotheses 4, 5, and 6 are indicated in the right hand columns of Table 3.

In table 4 (next page) are shown the results of the regression models with the inclusion of the four control variables. Hypotheses 1-3 are tested in Model 1 in Table 4 (left-hand column). In this model local market familiarity is expressed as a function of elapsed time and the four control variables. As can be seen, neither hypothesis 1, nor hypothesis 2 are confirmed since the signs of the first order parameter in Model 1 are significantly negative. However, hypothesis 3 is supported by the significant negative sign of the first order parameter and the significant positive sign of the second order parameter of elapsed time. The result indicates that prior to foreign market entry managers tend to overestimate their knowledge about the foreign market. Upon entry the managers realize their inadequacy in terms of local market knowledge and, as a consequence, they spend a

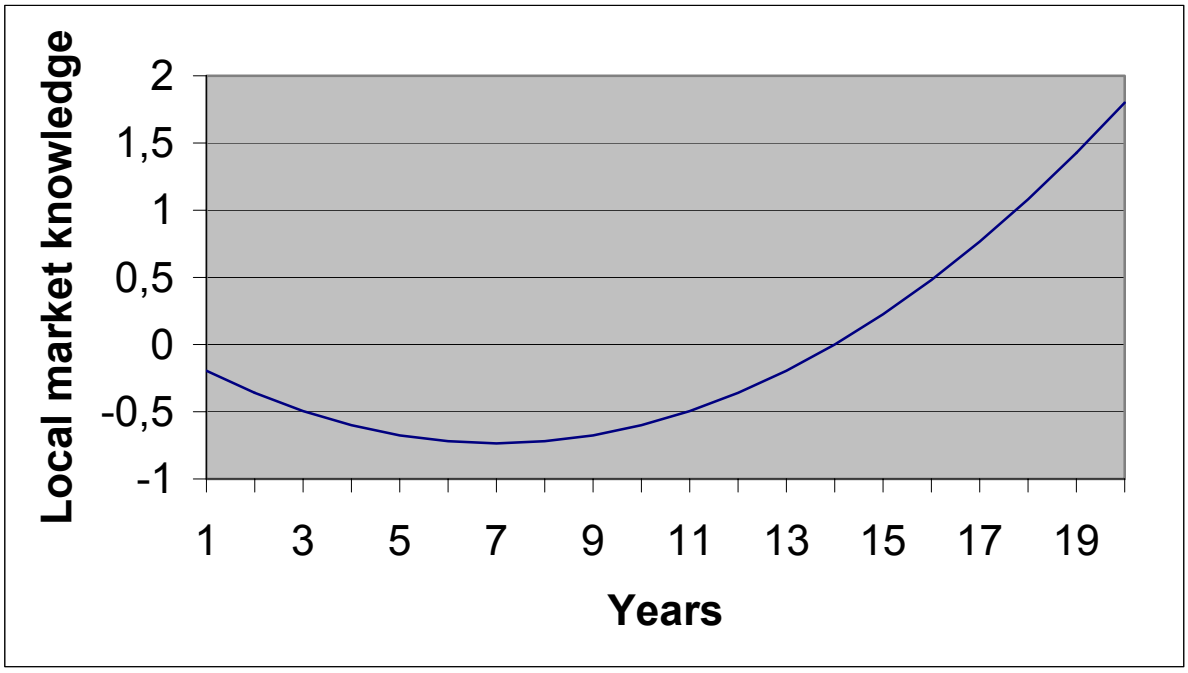
Table 4 *Regression analysis of the hypothesized models*

	Model 1	Model 2		Model 3		Model 4	
	Local Market knowledge /familiarity	Psychic distance		Knowledge characteristics		Product characteristics	
		Short psychic distance	Long psychic distance	Experiential knowledge	Objective knowledge	Customized products	Standardized Products
Intercept	2.45 (0.35)***	2.83 (0.46)***	1.98 (0.59)***	2.97 (0.53)***	2.08 (0.50)***	2.79 (0.43)***	- 5.91 (0.61)***
Elapsed time	- 0.21 (0.09)**	- 0.24 (0.11)***	- 0.01 (0.25)	- 0.33 (0.11)**	- 0.09 (0.20)	- 0.19 (0.10)*	- 0.09 (0.25)
Elapsed time^2	0.015 (0.008)**	0.02 (0.009)**	0.002 (0.033)	0.022 (0.009)**	0.001 (0.020)	0.016 (0.008)**	- 0.008 (0.030)
International experience	0.008 (0.005)	0.01 (0.007)*	0.011 (0.009)	0.004 (0.007)	0.002 (0.008)	0.009 (0.006)	0.003 (0.011)
Local adaptation	0.452 (0.05)***	0.45 (0.06)***	0.48 (0.08)***	0.425 (0.067)***	0.482 (0.077)***	0.45 (0.06)***	0.43 (0.10)***
Newness of customer	- 0.111 (0.04)***	- 0.06 (0.05)	- 0.16 (0.08)**	- 0.120 (0.057)**	- 0.090 (0.063)	- 07 (0.05)	- 0.15 (0.08)*
Personal experience	0.004 (0.01)	0.004 (0.013)	0.01 (0.02)	0.004 (0.014)	- 0.004 (0.015)	- 0.009 (0.011)	0.024 (0.019)
F-value N R-square	17.72*** 153 42.0%	11.47*** 84 46.9%	6.11*** 68 37.2%	9.67*** 79 44.3%	7.72 73 40.9%	13.07*** 89 48.6%	5.95*** 62 38.9%

***, ** and * indicate 1%, 5% and 10% level of significance, respective

number of years familiarizing themselves with the local market conditions. The typically pattern is shown in Figure 1. The curve is derived from the parameters estimated in Model 1, Table 4. As can be seen from Figure 1 on average the 'shock effect' of foreign markets entry lasts for about seven years. During the first seven years of entry managers perceive a downturn of their local market familiarity, and not until after year seven are the managers able to reduce their market uncertainty. Still, it takes about thirteen years (on average) for entrant firm managers to retrench to the level of local market familiarity perceived at the point in time of entry.

Figure 1. *Changes of managers' perception of local market familiarity as a function of elapsed time of operation.*



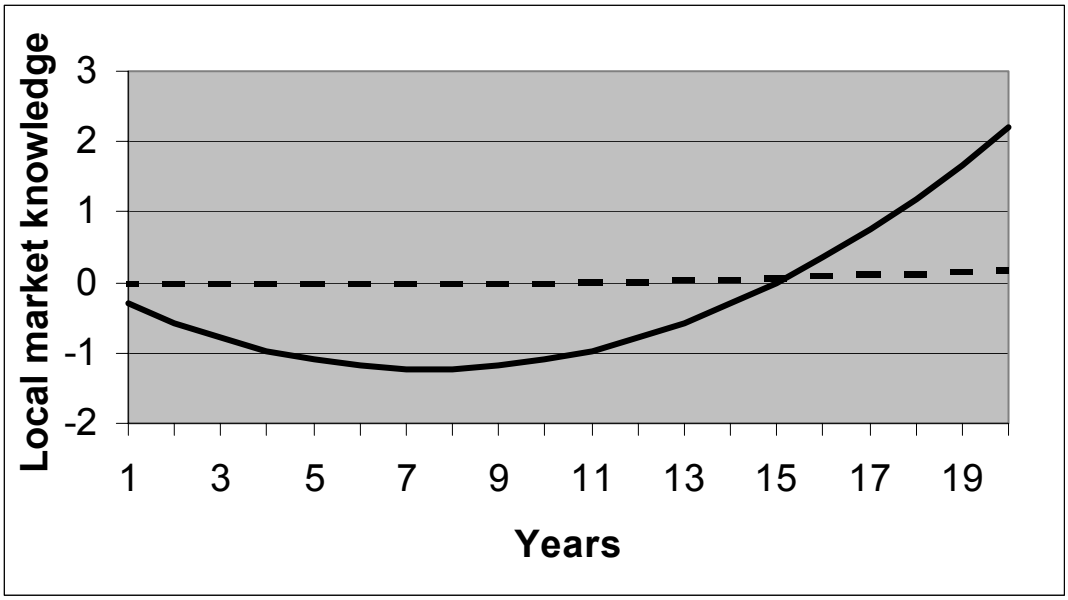
Note to figure 1: The calculations are based on the parameters in Table 4, column 1.

Hypothesis 4 on 'psychic distance' is tested in Model 2, Table 4. As regards adjacent markets (of little psychic distance) the first order parameter has a significant negative sign and a

significant positive sign of the second order parameter of elapsed time. This indicates a U-curve in terms of evolvement of managers' familiarity with adjacent markets, i.e. a 'shock effect' as expected. As regards distant markets (of great psychic distance) neither first or second order parameters are significant.

Hypothesis 5 on 'knowledge characteristics' is tested in Model 3, Table 4. As expected, lack of tacit/experiential internationalization knowledge is associated with a significant negative sign of the first order parameter and a significant positive sign of the second order parameter of elapsed time. In relation to lack of explicit/objective knowledge neither first or second order parameters are significant. Hence, the data suggest that a 'shock effect' appears in relation to internationalization knowledge that tends to be tacit, but not to explicit internationalization knowledge.

Figure 2. *Changes of managers' perception of local market familiarity as a function of elapsed time of operation and knowledge characteristics.*



Notes to figure 2: The calculations are based on the parameters in Table 4, column 2 and 3. Full-drawn curve line: Tacit/experiential knowledge. Broken line: Explicit/objective knowledge.

Figure 2 depicts the 'shock effect' in relation to entrant firms' acquisition of experiential/tacit internationalization knowledge.

The last hypothesis, H_6 on 'product characteristics' is tested in Model 4, Table 4. Also this hypothesis is supported, although on a modest 10 % level of significance. For producers/vendors of customized products the first order parameter of elapsed time of operations has a significant negative sign of the first order parameter and a significant positive sign of the second order - indicating a 'shock effect'. Both first and second order parameters are insignificant as regards producers/vendors of standardized products.

The control variable, 'Local Adaptation' is significant in all four models (with positive sign), whereas the control variable 'Newness of Customers' is significant in model 1, in relation to distant markets (model 2), experiential knowledge acquisition (model 3), and producers/vendors of standardized products (model 4). The control variable 'Personal Experience' is not significant in any of the models.

6. Conclusions

In this paper we identified three different – and competing - predictions of how entrant firm managers' perception of familiarity with the local business environment evolves after market entry. We formulated hypotheses to each of the three predictions and tested these hypotheses on a unique set of primary data of current (at the time of data compilation) foreign operations reported by managers of Danish international firms. The observed behavior of the sample firms did fit with the 'shock effect' prediction: the phenomenon that managers of entrant firms are inclined to underestimate differences between the home and host country in terms of the business environment. The data indicate that the local market familiarity as perceived by the entrant firm manager declines

until, on average, seven years after entry. The company data suggest that entrant firm managers in general experience the shock effect in relation to entry of adjacent, rather than distant, countries. Hence, the 'psychic distance paradox' hypothesis is supported. The data also suggest that the shock effect befalls producers of customized products, but not producers of standardized products, and furthermore, entrant firms in general experience the shock effect in relation to acquisition of tacit rather than explicit knowledge.

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