International Institute for
Applied Systems Analysis
Schlossplatz 1
A-2361 Laxenburg, Austria

Tel: +43 2236 807 342
Fax: +43 2236 71313
E-mail: publications@iiasa.ac.at
Web: www.iiasa.ac.at

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Finnish Companies' Business Operations in the Baltic Sea Region: Locational Sources of Firm-Specific Competitiveness

Maarit Lindström (Maarit.Lindstrom@etla.fi)

Approved by

János Gács (gacs@iiasa.ac.at)
Project Leader, Economic Transition and Integration

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Abstract

The paper analyzes the locational sources of firm-specific competitive advantages of Finnish companies in the Baltic Sea region. Views of managers responsible for foreign operations in 100 Finnish companies form the base of the study organized in systematic way in the framework of a survey and interviews conducted in Finland in the Spring of 2002. The analysis of the survey data is implemented via statistical analysis.

Evidence was found for the claim that a major part of the Finnish companies' created assets, especially technological ones, are of home country origin. Nevertheless, certain other sources of competitiveness, such as consumer demand for upgraded product quality; inter-firm competition; and links with companies operating in the same industry are originating to a significant extent in other Baltic Rim countries, especially EU member countries.

It was also found that technology intensity and the degree of transnationality of the companies are company characteristics that explain to what extent companies are taking advantage of foreign sources of competitiveness.

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About the Author

Maarit Lindström is working as a researcher at the Research Institute of the Finnish Economy (ETLA) in Helsinki. She is preparing her Ph.D. thesis at the Turku School of Economics and Business Administration in Finland.

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Maarit Lindström

1. Introduction

1.1 Aim of the report

Since the early 1990s Finnish companies' internationalization has greatly accelerated and deepened. At the same time the Baltic Sea region[1] has become to an increasing extent a main market area for a large number of Finnish companies. Statistics of the year 1999 show that the share of the Baltic Sea Rim countries in Finnish exports was 36%, while the share in imports was 48%. At the same time, approximately 44% of the foreign direct investments by Finnish companies were realized within the Baltic Sea region economies.

The Baltic Sea region unites areas from European Union countries, which are deepening their integration as well as embracing the coming enlargement of the EU, but also areas from Baltic Rim transition countries, that have been on a path of creating solid, market-based systems for more than ten years now. While regional economic integration and globalization of markets in the Baltic Sea Rim have increased, the question has also emerged whether these heterogeneous markets should be seen as a whole i.e. developed and transition economies together, as their economic system has become basically the same. In contrast to this approach, traditional theories and empirical studies in the field still tend to treat developed and transition markets separately. It is, however, justified to ask: how is this region seen at the company level, in the everyday practice? Do companies that operate all over the Baltic Sea region treat this area as a united sphere of operations, or as fragmented markets?

The aim of this study is to identify and examine the geographical scope of competitive advantages[2] of the Finnish companies in the Baltic Sea region, where

[1] The countries included to the Baltic Sea region in this study are: Finland, Sweden, Denmark, Germany, Poland, Estonia, Latvia, Lithuania and Russia (this study is concentrated only on Russian Baltic Rim areas: Moscow, St. Petersburg and Leningrad regions and the Karelian republic as well as Kaliningrad region).

[2] Competitiveness of a firm refers to competitive advantages a company possesses when it competes in markets. Term competitiveness and competitive advantage are used synonymously. Thus high competitiveness means high competitive advantage and vice versa. Competitiveness of a nation refers to competitive advantages of a nation. In this study the term is used with the same content as Porter (1990) has defined it in his theory "the fourfold diamond of a nation". Competitive advantages of nations are

companies have ample dealings through trade, FDI and non-equity arrangements. We use the framework of a small and open economy: the Finnish economy is highly export oriented and foreign operations play an important role in it. The purpose is to find out to what extent competitive advantages of companies are derived from the home country (i.e. Finland) on the one hand, and to what extent core competencies are stemming from the host countries' characteristics, on the other. The study concentrates on those Finnish companies, which are already operating and doing business in the Baltic Sea region. These are in a unique position to assess and compare the origins of competitiveness in their home country as well as in their host countries.

The study contributes to empirical research by broadening the knowledge about Finnish companies' foreign operations, including the distribution and nature of their locational sources of firm-specific competitiveness. It also analyses the modes of foreign involvement in sourcing competitiveness abroad. We concentrate to study competitive advantages from the point of view of technology intensity of the companies and their degree of transnationality.

We also look at the effects of foreign operations on competitiveness as well as the role of government policy in enhancing competitiveness. Some attention is paid at the business environment as well as the likely changes in the role of different countries in the future development of the Baltic Sea Rim. This report serves as a starting point for a future study in which the empirical findings of this study will be integrated with the theoretical framework of various theories of international business and international economics theories related to firm-specific competitiveness, trade and FDI.

The structure of the study goes in the following way: First it is analyzed if the survey data is representative, after, which some characteristics and descriptive statistics concerning the companies' business operations in the Baltic Sea region are examined. A deeper investigation and a detailed discussion of locational sources of companies' competitiveness is then provided with the assistance of exploratory factor analysis and some other statistical methods (mainly non-parametric tests). Qualitative information based on interviews is also included in some parts of the paper.[3]

1.2 Method of analysis

This study represents exploratory research involving quantitative aspects, while the main empirical results are based on statistical analysis. Exploratory research aims to discover significant variables in field situation and to identify possible relationships among variables. It also lays the groundwork for later testing of possible hypotheses (Kerlinger 1977). The main reason for choosing the exploratory approach over hypotheses testing was that the author intended to examine whether the existing theories, concepts and empirical generalizations in a subsequent phase of the investigation are appropriate. In such occasions exploratory approach and methodology

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seen as potential locational sources for companies to utilize and develop their firm-specific competitive advantages.

[3] Direct citations from the interviews are printed in italics in paragraphs separated them from the main text written by the author.

are more suitable than other methodologies (Brinberg and McGrath 1985, Emory 1985). In addition to the statistical analysis some qualitative data are also used to illustrate the quantitative results at hand.

The design of the empirical investigation was originally based on the following questionnaire procedure, in the framework of which the questionnaires were sent to the major Finnish companies' managers of foreign operations:

1. Formulation of the questionnaire
2. Gathering contact information of the target companies and respondents
3. Pre-filling the questionnaire: investigating the respondents' point of view
4. Adjusting the questionnaire according to the requirements of the statistical methods
5. Mailing the questionnaire
6. Analysis of the survey data

In the course of the planning process it became evident that the case analysis based on expert interviews with some of the participating respondents might bring some extra value to the study. Firstly, by testing if all the essential questions were asked in the questionnaire, and to see if qualitative case analysis based on interviews, annual reports and articles would bring up something new that the questionnaire had not been able to reach. Secondly, several case analyses could also clarify the research set up as providing *examples* of the participating respondents and companies. The statistical analysis alone would not give knowledge profound enough. Therefore, five case companies and their respondents were selected for interviews and a deeper analysis of the survey responses was carried out. The possible interviewees were selected from the group of respondents that had indicated in the questionnaire that they were willing to participate in such a session.

1.3 Data Collection

The mail questionnaire was sent to managers responsible for foreign operations in the 380 biggest companies in Finland in the Spring of 2002. The distribution of the respondents of the survey is shown in Table 1.

Altogether, we received 162 answers from the respondents to the enquiry. Part of the respondents told that their companies did not have business operations in the Baltic Sea region at all at the given moment or they were said to be very marginal (altogether 46 such cases). For the use of statistical analysis there were 100 usable, properly filled out, questionnaires. It equals 26.3% of the original amount of all sent out questionnaires (380).

However, the figure of 380 for the total number of companies gives a too low image of the response rate, as in some companies, such as certain groups, a parent company had included several daughter companies' operations into one questionnaire of a parent company and this way they gave their responses at the group level.[4] Thus it is

[4] The selection of companies were based on the turnover of the companies, rather than on the turnover of groups (the latter method is used , for example, by the Etlatieto ltd. database of the 500 biggest companies in Finland). Also the selection was not based on the ownership information of the companies as such, but

approximately 340 companies or groups instead of 380, which form the compatible target group of the largest Finnish companies potentially having international business operations in the Baltic Sea region. With this adjustment in the base, we got almost 50% of responses to our mail survey. Consequently, 30% of the total 340 questionnaires sent out could be included into the statistical data analysis.

The response results also showed that the extent of the general inconvenience potential respondents sometimes feel when confronted with mailed questionnaires such as: 'not interested', 'no time to answer', 'information hard to get', 'impracticable responses', was relatively small.

Table 1. Questionnaire Response.

Response	Number of Companies	%
Not interested	5	1.5
Incorrect company address	4	1.2
No time to answer	9	2.6
Information hard to get	2	0.6
No foreign operations in the BSR at all	39	11.5
Foreign operations in the BSR only marginal	7	2.0
No response	174	51.2
Impracticable responses	0	0.0
Usable responses	100	29.4
Total	340	100.0

The biggest group of returned, but unfilled, questionnaires was 'no foreign operations in the Baltic Sea region at all', making up 11.5% of the responses. The high frequency of this reason not to fill out a questionnaire was not a surprise, since the target group of the companies had been selected according to the turnover, rather than according to their external orientation. Naturally, the size of the turnover does not tell much about the foreign operations as such, although the probability to do foreign operations, especially FDI, is higher among these large companies.[5]

Non-respondents of the survey constitute 51% of the total. This is of course relatively high, but tolerable in this context. The targeted respondents were hard to reach since they travel a lot, as being in charge of foreign operations. They were often also busy as core business needed rapid responses, in which case they naturally skipped assisting research projects, such as this one, based on voluntary action. Many of the executives also sat in various business meetings frequently, which made them rather difficult to reach.

An analysis of non-responding companies was carried out to find out if any bias in the results might emerge due differences in the structure of the respondents and non-

on the fact that the head-office of the company had to be in Finland. (In 1990 about 70 companies of the 500 largest Finnish companies were foreign owned. By 1999 this number had exceeded 150).

[5] If these 'no foreign operations' responses are not taken into account in the population of the target companies the share of responses usable for statistical analysis increases up to 33%.

respondents. Information from secondary sources was applied to study if non-responding companies were differing in terms of size, industry classification and the location of their daughter companies and ventures in the Baltic Sea Rim. In this analysis no systematic bias in common company characteristics was discovered when non-responding and responding companies were compared.

2. Business Operations in and with the Baltic Sea Region

In this section we look at the companies' modes of foreign operations as background variables. We look at the modes of operations rather than at the volumes or quantities of these operations (see the questionnaire in Appendix 1). The aim is to get a grip of the character of the firms' foreign operations in the Baltic Sea region.

The major part of the companies under study, namely 38 percent, *represent the production goods sector*. 16 percent belong to the consumer goods sector and 15 percent represent services sector when the main line of products of the companies are examined. Some 30 percent of the companies cannot be categorized under only one of the abovementioned groups and is therefore here considered as multi-sectoral companies.[6]

Representative Finnish companies *started their foreign operations* in and with Sweden at the beginning of the 1970s. In Denmark and Germany firms started those operations ten years later. The next entrance has typically been Estonia and Poland at the beginning of the 1990s when Estonia regained her independence and also Poland got out of the Soviet sphere of influence. Latvian and Lithuanian markets have become within reach of Finnish firms a couple of years later. Most Finnish companies in the sample started their operations in Russia already in the Soviet era at the end of the 1970s.

These findings are in accordance with the results of several other studies: Finnish firms have typically followed an entry path in stages, firstly from the neighboring country, Sweden, to other North and Western European markets (Larimo 1993), and subsequently to the new Eastern European markets. These stages usually showed a step-wise pattern in the Western European markets as described by internationalization theory (Larimo 1993; Luostarinen 1994). However, in transition economies Finnish firms have followed a much less step-wise entry path, due to the restricted operating environment prior to the transition, and the sudden changes in the business environment at the beginning of the 1990s, which stimulated more direct entry modes. (Borsos-Torstila, 1999). In addition, at the beginning of the 1990s, there was a special, one time opportunity of massive privatization of the Eastern European state companies which made the situation very different from the entry possibilities in the West European markets.

The Soviet Union and her major successor state, Russia, is an exception here as it has usually been on the Finnish companies' agenda longer than the other Eastern European economies. A bilateral trade agreement with the Soviet Union established

[6] Here it will be taken for granted that certain kind of large-company bias may emerge due to the nature of the data. This is, however, not disturbing because the aim of the study is not to generalize the results to *all* Finnish companies operating in the Baltic Sea region.

Finland's position as a strong trading partner through the mechanism of clearing trade all the way after the Second World War up to the 1990s. (Kivikari, 1997).

Figure 1 characterizes the commitment of the sample companies' operations in the Baltic Sea region markets. Over half of the companies' representatives define the BSR as their *firms' main market area* and that their companies do foreign *trade on regular basis*. A little bit less than 40 percent say that their companies trade in the Baltic Sea Rim regularly, but this is not their main market area. And finally, 10 percent of the companies have trade in and with the area irregularly.

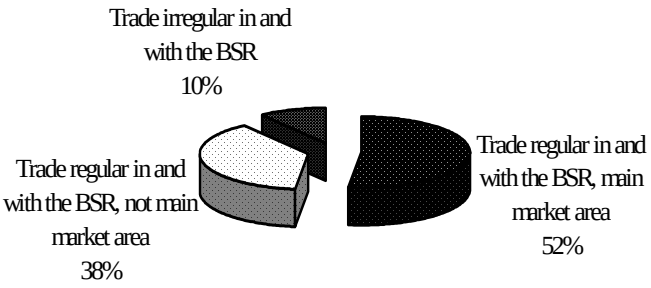
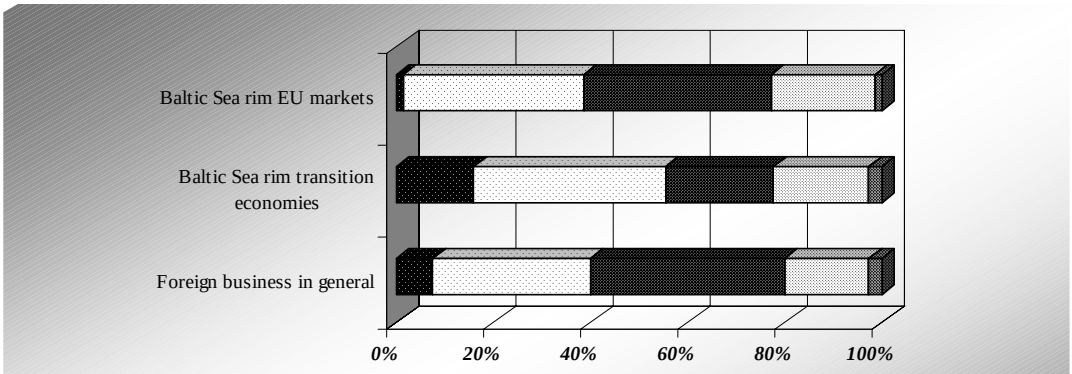


Figure 1. Character of Trade in the Baltic Sea Rim.

One can conclude from this that the managers responding to the survey represent companies, which are well committed to the BSR and who have to know this market area relatively well on behalf of their profession and status in their companies. In this way, there is no reason to consider their views and opinions unfounded when it comes to the foreign operations and sources of competitiveness in the Baltic Sea region.

The survey results show that foreign business operations of these firms are generally seen almost as *profitable as domestic business operations* (Figure 2). The Baltic Sea Rim EU countries seem to reach out to this general level; however, the Baltic Sea Rim transition countries lag behind: there international business operations have been more frequently less profitable or successful than domestic business according to the respondents' experience.

Business links of the companies are most commonly based on *traditional trade of products*. Exports and imports, including export and import of services, constitute a major part of the Finnish firms' foreign operation modes. Subcontracting is rather common in Sweden and Estonia in this group of the companies, while turnkey-project exports seem to be a common mode to operate in the Russian markets.



	Foreign business in general	*Baltic Sea rim transition economies*	*Baltic Sea rim EU markets*
clearly more profitable	*2.5*	*2.5*	*1.4*
a little bit more profitable	*17.5*	*19.8*	*21.4*
equal	*40.0*	*22.2*	*38.6*
a little bit less profitable	*32.5*	*39.5*	*37.1*
clearly less profitable	*7.5*	*16.0*	*1.4*

Figure 2. Respondents' View of Profitability of the Foreign Business Operations of Their Company Compared to the Domestic Operations of the Same Company (net profit in %).

When analyzing transfers that the Finnish companies are supplying to their Baltic Sea region customers, partners or subsidiaries one finds that these are *mostly made up of final goods*. The second most important class of transfers is intermediate goods, while the third one raw materials. Technology and marketing know-how are as a rule far less important subjects of transfers. The most often mentioned target markets for technology and marketing know-how are Estonia and Sweden.

The Finnish companies receive mainly final goods from their Baltic Sea region customers, partners or subsidiaries, even though in the case of Poland and Estonia intermediate products are more often mentioned among the goods delivered than in the case of other markets.

These large companies under study do not make much use of *minority or majority joint-ventures*. Instead, they are heavily relying on wholly-owned companies all over the economies in the Baltic Sea Rim. At the beginning of the 1990s joint-ventures used to be much more common in Eastern European markets. Borsos-Torstila (1999, p.109) found three reasons for the companies' favoring wholly owned subsidiaries instead of joint-ventures in Eastern Europe lately: 1) relatively well advanced reform processes in the Visegrad countries; 2) various problems that other firms experienced in their joint venture partnerships; 3) difficulty in finding an appropriate partner/acquisition target.

Meyer (2000), when analyzing data of German and British companies, also found empirical evidence for certain business environment variables in the markets of transition economies that are decisive for the choice of entry mode. He found support for the hypotheses that (1) foreign companies are more likely to establish wholly-owned

subsidiaries in the advanced transition economies, and (2) that companies originating in closer physical proximity to the transition economies are more likely to establish wholly-owned subsidiaries.[7] However, regardless of these results, some firms' general policy or strategy is in the favor of full ownership, in spite of the FDI target region, due to the need to secure and control the involved tacit knowledge.

The cross-border patterns, which the Finnish sample companies follow in their major international foreign direct investment operations in the Baltic Sea Rim are rather homogenous throughout the whole region. Figure 3 illustrates the percentage frequencies of the patterns.

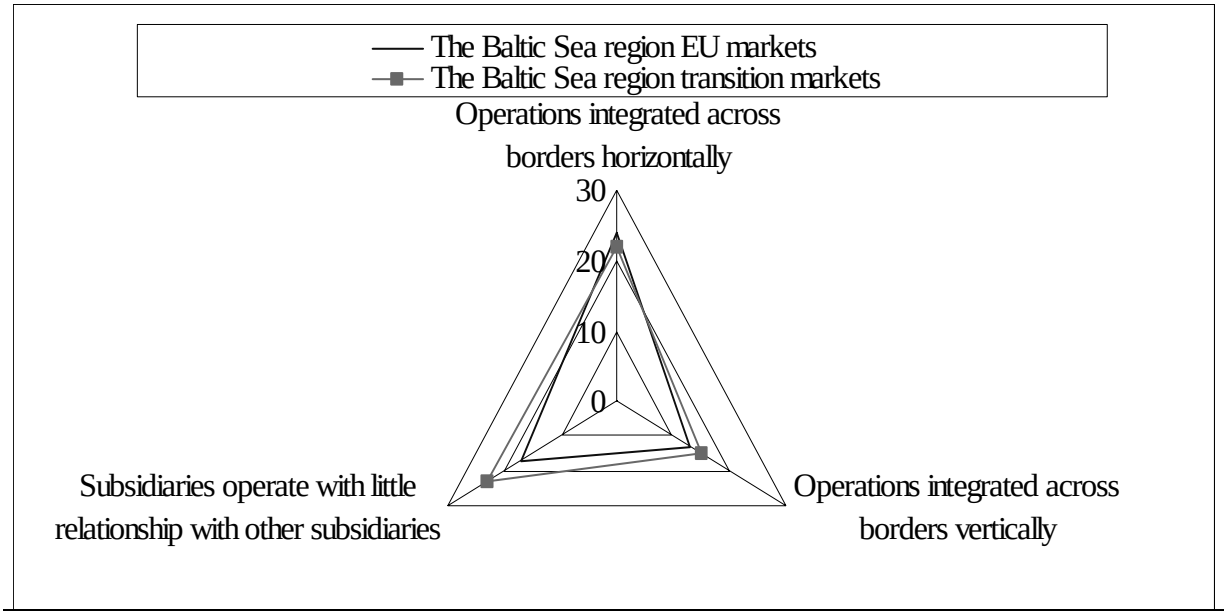


Figure 3. Cross-border Pattern of Major International FDI Operations in the Baltic Sea Region (%).

Most of the FDI in the Western BSR markets are *horizontal in nature,* i.e. operations are integrated across borders between different production processes. This means also that the foreign production of products or services tend to be roughly similar in these markets. On the other hand, the subsidiaries in the Eastern BSR are mentioned most commonly to operate with little relationship with other subsidiaries. The no-relationship pattern is almost as commonly mentioned among respondents as the horizontal pattern. Operations that are *vertically integrated* across borders, i.e. within certain production process or processes, are most seldom found characteristic in foreign direct investments in the Baltic Sea region.

[7] Many empirical studies have found out that the longer the distance higher the likelihood of low involvement modes (see e.g. Kogut and Singh 1988; Kim and Hwang 1992)

Fragmenting of production vertically by stages of production in cross-border operations is usually a phenomenon less frequently occurring than horizontal operations even in foreign direct investments carried out by companies other than Finland. As a matter of fact, most direct foreign investment in production facilities are horizontal in the sense that most of the output of foreign affiliates is actually sold in the foreign country. Horizontal investments are also quantitatively more important than vertical investments (Markusen 1995, pp. 170-171).

In the questionnaire, respondents' were asked to name those countries in the Baltic Sea region *which are hosts to their company's foreign direct investment* and which have had the *most positive impact* on upgrading their *company's competitiveness*. Most respondents considered Sweden to credit the first position, even if Estonia followed quite closely Sweden. The third position went to Germany.

3. Geographical Sources of Competitiveness

This section presents the views of respondents as to what extent they see their companies' source of firm-specific competitive advantages originating in Finland and foreign locations in the Baltic Sea region as listed in the questionnaire. Respondents were asked to use an evaluation scale of 1 to 5. The scale was defined as follows: 1 indicates that the indicated competitive advantage is not at all important, while 5 indicates that competitive advantage is very important. Respondents were asked to answer only to those listed items, which were considered to be relevant to their company.

Table 2 considers four groups of competitive advantages, which broadly correspond to Michael Porter's fourfold diamond of competitive advantages of nations, i.e. factor conditions, demand conditions, firm strategy, structure and rivalry, and related and supporting industries (Porter 1990). These groups of competitive advantages, however, were revised by some other scholars and reformulated in their specifications (Dunning 1997, Rugman et al. 1995) In the Table 2, we show the results for all the sample companies. The figures reported are mean responses with standard deviations in parentheses.

Table 2 reveals a clear picture of home country orientation in most groups of competitive advantages. Only the item "links with ministries and other institutions promoting trade" is an exception. However, certain areas of competitive advantage are clearly more important than others. Those that are ranked as most important in Finland compared to the other regions are: access to resources and assets, and consumer demand. In the group "access to resources and assets" the highest scores go to access to skilled and professional labor, organizational capacity, innovatory capacity, and managerial expertise. In the consumer demand group, both "upgrading of product quality" and "making for more product innovation" get high mean values in Finland.

Table 2. Sourcing of Competitive Advantages by the Sample Companies.

	FIN	EU	EUA	RUS
Access to resources and assets				
a) Natural resources	2.32	2.00	1.72	1.88
	(1.63)	(1.39)	(1.19)	(1.39)
b) Unskilled labor	2.06	1.80	1.87	1.77
	(1.05)	(0.98)	(1.20)	(1.11)
c) Skilled and professional labor	4.22	3.59	3.45	3.05
	(0.90)	(1.39)	(1.07)	(1.36)
d) Innovatory capacity	3.90	3.37	2.63	2.42
	(1.16)	(1.41)	(0.99)	(1.18)
e) Organizational capacity	4.29	3.58	3.31	2.93
	(0.77)	(1.28)	(1.19)	(1.49)
f) Managerial expertise	4.51	4.01	3.67	3.34
	(0.68)	(1.28)	(1.30)	(1.51)
g) Relational skills	4.02	3.97	3.60	3.74
	(1.04)	(1.09)	(1.18)	(1.58)
Consumer demand				
h) Upgrading of product quality	4.41	4.30	3.59	3.16
	(0.70)	(0.82)	(1.16)	(1.37)
i) Making for more product innovation	4.26	3.70	3.31	3.02
	(0.87)	(1.060	(1.22)	(1.40)
Inter-firm competition/rivalry	3.77	3.75	3.14	2.89
	(1.10)	(1.15)	(1.07)	(1.23)
Links with foreign or domestic firms and institutions				
j) Sectoral companies	3.19	3.13	2.60	2.28
	(1.14)	(1.24)	(1.29)	(1.34)
k) Related companies	3.36	3.02	2.61	2.34
	(1.06)	(1.17)	(1.15)	(1.09)
l) Universities and other research institutions	3.33	2.86	2.06	1.97
	(1.26)	(1.28)	(1.01)	(1.18)
m) Ministries and other institutions promoting trade and FDI	2.06	2.63	2.32	2.42
	(1.05)	(1.20)	(1.07)	(1.23)

Figures reported are mean values with standard deviations in parentheses.

Respondents of the sample firms thus perceived that their companies' domestic operations and/or indigenous resources and capabilities of the home country provide important source of their competitiveness – especially so in the case of skilled and professional labor, managerial expertise and organizational capacity.[8]

[8] In Table 2 the items b)-e) are usually referred to as created assets of technological nature, while items f)-g) as created assets of managerial nature.

To analyze the sourcing of competitive advantages more closely several statistical tests were run to see if the valuation of competitive advantages differ statistically significantly from each other in different target areas.

Table 3. Sourcing of Competitive Advantages by the Sample Companies: Wilcoxon Signed–Rank Test Results: Statistical Significance*.

	Comparison	**Statistical sig.**
Access to resources and assets		
a) Natural resources	FIN-EU	a
b) Unskilled labor	FIN-EUA	-
c) Skilled and professional labor	FIN-EU	c
d) Innovatory capacity	FIN-EU	c
e) Organizational capacity	FIN-EU	c
f) Managerial expertise	FIN-EU	b
g) Relational skills	FIN-EU	-
Consumer demand		
h) Upgrading of product quality	FIN-EU	-
i) Making for more product innovation	FIN-EU	c
Inter-firm competition/rivalry	FIN-EU	-
Links with domestic or foreign companies and institutions		
j) Sectoral companies	FIN-EU	-
k) Related companies	FIN-EU	b
l) Universities and other research institutions	FIN-EU	c
m) Ministries and other institutions promoting trade and FDI	EU-RUS	-

*P-value: a=0.05; b=0,01; c=0,001

First we run non-parametric tests[9] for several related samples concerning the different sources of competitiveness in different target markets (see questionnaire question no. 16). Friedman's tests were run for each competitive advantage item a) – m) in Finland, the EU markets, EU applicant countries, and Russia, as well as the "other countries". The result showed statistical significance at the 0.01 level for each and every item of competitive advantage in the four groups (access to resources and assets; consumer demand; inter-firm competition/rivalry; links with foreign or domestic firms and institutions). This means that these advantages in the different target markets are not from a similarly distributed populations.

[9] Non-Parametric tests are often used in place of their parametric counterparts when certain assumptions about the underlying population are questionable. Non-Parametric tests may be, and often are, more powerful in detecting population differences when certain assumptions are not satisfied. All tests involving ranked data, i.e. data that can be put in order, are non-parametric. See more closely Appendix 2 to get a description of the tests applied.

After this procedure Wilcoxon signed–rank tests were run for two related samples, i.e. The test was carried out between the highest value market and next best value market in each item of competitive advantage to make a pair wise comparison as seen in Table 3.

The test results support the finding that Finland is indeed the base for the companies' firm-specific competitiveness in created assets, especially technological ones. Product innovation also mainly happens in Finland as well as linking with universities and other research institutions. To less extent, but still statistically significantly, Finland seems to be a major source of competitiveness compared to neighboring EU markets in natural resources, managerial expertise and linking with related companies.

3.1 Technology Intensity

Data initially analyzed in Table 2, are now further classified by the technological intensity of the sample companies. The rough categories used are low- and high-technology–intensity companies. We define low-technology (LT) companies as those in which the average R&D expenditure as a percentage of sales are under 2 per cent. High-technology (HT) companies embrace those ratios 2 percent or more. The reason for taking this rudimentary categorization is that in the sample there were only 9 companies in which the R&D ratio was 4% or more i.e. which could be considered really high-technology companies.[10]

Porter's hypothesis is that high technology firms will obtain their core assets e.g. innovatory capacity (d) in their home countries, while medium technology and low technology companies will tend to assign lower rankings to innovative capacity, and related variables, while as they are more likely to be natural resource intensive, or influenced by the characteristics of consumer demand. The latter firms also tend to be more internationally oriented with higher rankings for cross-border, vis-à-vis domestic, competition.

Table 4 reveals a picture, which generally supports this hypothesis. Natural resources and unskilled labor achieve the highest mean values among representatives of low-technology firms, while representatives of higher technology firms seem to appreciate more those technologically oriented core assets, i.e. c) – e), in Finland and elsewhere in the BSR. Managerial expertise does not show this clear bias. On the other hand, relational skills are a bit more appreciated among higher technology companies than lower technology companies.

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[10] There is no standard definition for high-technology companies. Government agencies, private companies, and trade associations all define high-technology depending on their needs and purposes. Maybe the most common meaning for a HT company is that it operates in one of the following industries (biotechnology, computers, engineering, information technology, semiconductors, or telecommunications), has products with short life cycles, is based on innovation, invests heavily in research, and is knowledge-driven, rather than manufacturing-driven. However, in our sample medium and low-technology manufacturing companies dominate, which make it hard to tell much about the high-technology companies as a separate group.

Table 4. Sourcing of Competitive Advantages Classified by Technological Intensity of the Sample Companies.

	HT				LT			
	FIN	**EU**	**EUA**	**RUS**	**FIN**	**EU**	**EUA**	**RUS**
Access to resources and assets								
a) Natural resources	2.00	1.74	1.66	1.91	2.59	2.24	1.75	1.71
	(1.39)	(1.34)	(1.21)	(1.40)	(1.79)	(1.48)	(1.24)	(1.36)
b) Unskilled labor	1.89	1.67	1.91	1.93	1.97	1.73	1.64	1.22
	(0.99)	(0.96)	(1.28)	(1.17)	(0.89)	(0.88)	(0.99)	(0.55)
c) Skilled and professional labor	4.42	3.63	3.73	3.34	4.08	3.74	3.34	2.83
	(0.71)	(1.48)	(0.84)	(1.18)	(1.02)	(1.38)	(1.14)	(1.55)
d) Innovatory capacity	4.38	3.85	2.89	2.84	3.42	2.84	2.43	1.95
	(0.75)	(1.01)	(0.92)	(0.99)	(1.25)	(1.62)	(1.04)	(1.32)
e) Organizational capacity	4.40	3.67	3.46	3.09	4.21	3.42	3.24	2.88
	(0.67)	(1.22)	(1.07)	(1.40)	(0.83)	(1.45)	(1.23)	(1.62)
f) Managerial expertise	4.34	4.09	3.69	3.66	4.66	4.00	3.85	3.13
	(0.85)	(0.98)	(1.21)	(1.33)	(0.48)	(1.59)	(1.25)	(1.63)
g) Relational skills	4.05	4.09	3.76	4.03	3.92	3.83	3.53	3.59
	(0.90)	(0.91)	(1.05)	(1.21)	(1.22)	(1.31)	(1.21)	(1.92)
Consumer demand								
h) Upgrading of product quality	4.35	4.22	3.46	3.16	4.42	4.30	3.80	3.18
	(0.59)	(0.87)	(1.09)	(1.13)	(0.79)	(0.82)	(1.13)	(1.65)
i) Making for more product innovation	4.54	3.72	3.36	3.19	3.95	3.59	3.33	2.82
	(0.55)	(0.96)	(1.15)	(1.20)	(105)	(1.22)	(1.22)	(1.53)
Inter-firm competition/rivalry	3.85	3.89	3.35	3.21	3.56	3.56	3.00	2.57
	(1.26)	(1.34)	(1.08)	(1.13)	(0.96)	(1.04)	(0.98)	(1.24)
Links with foreign or domestic firms and institutions								
j) Sectoral companies	2.76	3.10	2.37	2.25	3.44	2.88	2.80	2.26
	(1.05)	(1.08)	(1.31)	(1.37)	(1.11)	(1.40)	(1.23)	(1.32)
k) Related companies	3.35	3.20	2.74	2.61	3.29	2.29	2.52	2.00
	(0.89)	(1.06)	(1.08)	(0.99)	(1.23)	(1.49)	(1.20)	(1.15)
l) Universities and other research institutions	3.86	3.43	2.33	2.17	2.91	2.37	1.69	1.59
	(0.98)	(1.22)	(1.19)	(1.23)	(1.33)	(1.11)	(0.59)	(0.91)
m) Ministries and other institutions promoting trade and FDI	2.92	2.77	2.47	2.65	2.56	2.37	2.16	2.18
	(1.05)	(1.19)	(1.02)	(1.08)	(0.96)	(1.24)	(1.11)	(1.47)

Figures reported are mean values with standard deviations in parentheses.

In the group "consumer demand", "product innovation" gets higher mean values among HT companies, but for "upgrading the product quality" the situation is the other way round. However, LT companies do not give higher values for "inter-firm competition" than HT companies. "Links with foreign and domestic firms" also get higher mean values (except for links with sectoral companies) among HT companies.

To make sure that the conclusions from Table 4 are right the Kruskal-Wallis test for k-independent samples were undertaken to test continuous variable i.e. the ratio of

R&D expenditures to sales for each company as a grouping variable, and sources of competitiveness in different target markets as test variables.

The results imply that the appreciation of many sources of competitiveness, especially created assets and consumer demand, in Finland and the named EU countries indeed increase when the technology orientation of the companies increases (see Appendix 2). An interesting phenomenon is that Russia, with its natural resources and labor, tends to be appreciated more when the technology intensity of the companies increases. The reason for this maybe that the companies operating in Russian trade are mainly manufacturing companies, for example pulp and paper companies, or petrochemical industry companies that use and need relatively much R&D in their operations.

3.2 Degree of Transnationality

Rugman, Dunning and some other scholars studying multinational enterprises claim that when firms become more transnational in their value-added activities, they are more likely to derive their core assets from outside their national boundaries and may deliberately seek out foreign assets, which they perceive to be supportive for their core competencies (Dunning 1997, 285).

A transnationality index was calculated for our survey data set and then the association between this index and sources of competitive advantages in the Baltic Sea region was investigated. Here the measurement of transnationality was based on a transnationality index, obtained for each company by averaging out for the percentage of their assets, employment and turnover abroad. Companies were reclassified into two groups, namely those having a transnationality index under 15 per cent (TRANSL), and those more than 15 percent (TRANSH) (see Table 5).

Companies with higher transnationality had a tendency to give higher scores for technically oriented created assets such innovatory capacity and organizational capacity in the Baltic Sea region, which support the hypothesis spelled out above. However, there seem not to be large differences between TRANSL and TRANSH when natural resources and unskilled labor are concerned. A clear association between transnationality and the importance of foreign sources of competitiveness is thus not existing in the Baltic Sea region in these assets. That is also the case with consumer demand, where only Finland gets clearly higher mean value in TRANSH than in TRANSL. However, TRANSH companies seem to have given higher scores to inter-firm competition and rivalry variables all over the Baltic Sea region, including Finland, than TRANSL companies.

Table 5. Sourcing of Competitive Advantages Classified by Transnationality of the Sample Companies.

	TRANSH				TRANSL			
	FIN	**EU**	**EUA**	**RUS**	**FIN**	**EU**	**EUA**	**RUS**
Access to resources and assets								
a) Natural resources	2.47	2.16	1.72	1.97	1.75	1.60	1.58	1.74
	(1.65)	(1.49)	(1.28)	(1.53)	(1.26)	(1.06)	(0.97)	(1.05)
b) Unskilled labor	2.07	1.88	1.93	1.79	2.18	1.73	1.77	1.67
	(1.02)	(0.94)	(1.31)	(1.19)	(1.18)	(1.16)	(0.87)	(0.91)
c) Skilled and professional labor	4.17	3.79	3.33	2.95	4.23	2.87	3.56	3.00
	(0.96)	(1.33)	(1.10)	(1.34)	(0.86)	(1.46)	(1.01)	(1.38)
d) Innovatory capacity	3.89	3.33	2.63	2.38	3.79	3.45	2.41	2.31
	(1.23)	(1.46)	(1.02)	(1.23)	(1.08)	(1.51)	(1.00)	(1.03)
e) Organizational capacity	4.31	3.67	3.20	2.92	4.23	2.85	3.30	2.79
	(0.76)	(1.23)	(1.19)	(1.48)	(0.86)	(1.34)	(1.22)	(1.47)
f) Managerial expertise	4.48	3.98	3.57	3.32	4.54	4.00	3.61	3.21
	(0.72)	(1.38)	(1.31)	(1.58)	(0.65)	(1.10)	(1.34)	(1.36)
g) Relational skills	4.02	3.83	3.56	3.68	4.08	4.33	3.79	3.84
	(1.17)	(1.12)	(1.22)	(1.75)	(0.83)	(1.11)	(1.22)	(1.50)
Consumer demand								
h) Upgrading of product quality	4.56	4.27	3.33	2.92	4.08	4.25	3.80	3.25
	(0.61)	(0.94)	(1.21)	(1.42)	(0.81)	(0.45)	(1.08)	(1.21)
i) Making for more product innovation	4.35	3.63	3.22	3.05	4.00	3.85	3.23	2.71
	(0.82)	(1.06)	(1.20)	(1.43)	(0.98)	(1.14)	(1.23)	(1.21)
Inter-firm competition/rivalry	3.94	4.02	3.21	2.84	3.40	2.70	3.00	3.00
	(1.06)	(1.03)	(1.15)	(1.24)	(1.27)	(1.25)	(1.05)	(1.31)
Links with foreign or domestic firms and institutions								
j) Sectoral companies	3.04	2.89	2.09	1.97	3.40	3.67	3.38	2.61
	(1.22)	(1.30)	(1.22)	(1.28)	(1.04)	(0.98)	(1.06)	(1.29)
k) Related companies	3.44	3.09	2.47	2.06	3.29	2.80	2.91	2.88
	(1.09)	(1.23)	(1.20)	(1.04)	(1.12)	(1.15)	(1.15)	(1.05)
l) Universities and other research institutions	3.57	2.87	2.05	1.78	3.04	2.87	1.90	2.12
	(1.32)	(1.34)	(1.05)	(1.15)	(1.07)	(1.25)	(1.00)	(1.17)
m) Ministries and other institutions promoting trade and FDI	2.79	2.49	2.27	2.30	2.75	2.93	2.19	2.59
	(1.03)	(1.16)	(1.09)	(1.35)	(1.03)	(1.44)	(1.17)	(1.12)

Figures reported are mean values with standard deviations in parentheses.

The association between "links with companies and institutions" as sources of competitiveness and transnationality are not straightforward either. Especially in the case of Russia low transnational companies appreciate more relational skills and links with foreign and domestic firms than more international companies.

To a lesser extent, the same can be seen in the case of EUA countries. It can easily be perceived that for Finnish lower transnational companies the Eastern European

markets are relatively more important as a source of competitiveness in terms of links with sectoral and related companies, than for more multinational companies. Links with industrial competitors, suppliers, subcontractors etc. seem to benefit them in the neighborhood of larger markets, in addition to improving product quality.

Here again the Kruskal-Wallis test for k-independent samples were undertaken using the transnationality index for each company as a grouping variable and sources of competitiveness in different target markets as test variables. The results confirmed the general view got from the table 5 (see Appendix 2).

3.3 Sourcing of Competitive Advantages: Factor Analysis

In order to obtain a more detailed picture of the perceptions of different groups of competitiveness an exercise of factor analysis was carried out. Factor analysis is a multivariate method to determine interrelations among a set of variables. Factor analysis can be used as an expedient way of ascertaining the minimum number of hypothetical factors that can account for the observed covariation. It is also a means to explore the data for possible data reduction (Kim-Mueller 1982, p. 9).

The result of the factor analysis is outlined in Appendix 2. The exercise was done for each four major groups of competitive advantages separately[11]. The analysis revealed several categories that illustrate Finnish companies' sources of competitiveness in the Baltic Sea region.[12] Here each group is discussed in detail by combining the survey data and interview data at hand.[13]

In the first group (Access to resources and assets) eight factors were found. These were **organizational and innovatory skills in the Eastern BSR; unskilled labor; relational skills; managerial and organizational expertise in the Western BSR; innovatory capacity in Finland and the Western BSR; natural resources; managerial and organizational expertise in Finland; and skilled labor in Finland**. In this group, Finland is prominently represented by its own factors for competitive advantages with skilled workforce and managerial and organizational capability, based on the results of the previous subsections, even though these factors didn't get the highest factor loadings. Nevertheless, these firm-specific competitive advantages in Finland were strongly supported by the interviewed persons:

Well, our company is in our group a center of excellence in life sciences. We produce clinical screening and research instruments for pharmaceutical industries and academic observing purposes. I would say that the very reason why the owners of the company want to keep this place in Finland is the ultimate know-how we have with

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[11] The size of the sample compared to the number of variables would not allow us to include all the variables in question 16 of the questionnaire to the one factor analysis (see e.g. Hair et. al. 1998, pp. 98-99)

[12] In question 16 of the questionnaire "other foreign countries than the BSR countries" were mentioned. In factor analysis these "other countries" tend to appear under different factors: sometimes under the Eastern BSR oriented factors and sometimes the Western BSR oriented factors. However, the role of the other countries is minor in this study, where the focus is on the BSR. The reason to put "other countries" to the questionnaire altogether was to control for the possibility that for some companies the BSR might be an irrelevant market area.

[13] Some key characteristics of the case companies are listed in Appendix 2.

relatively moderate cost structure compared to the Unites States for example (Field of Business: Diagnostic systems: Drug discovery, research and clinical screening).

Our strength is really in the project management. It is one of the most important competitive advantages we have in our company in Finland. This is also one reason why in Russian markets most of our clients are foreign-owned companies. We have done a lot of projects for the tobacco industry, bier industry, hamburger restaurant chains etc. there. Our customers see it utterly important that the projects are done in time, also in the Russian markets (Field of Business: Utility production and services).

A Finnish organization is typically flexible, goes for good quality and capable of independent decision-making. Finnish leaders act straightforwardly, efficiently and creatively. When one goes to Sweden inefficiency start to raise its head and further the south you, go more organizational inefficiency increases… The productivity of organization…Basically, we get the same result with fewer leaders than many other (foreign) companies (Field of Business: Engineering, construction and energy equipment).

Competitive advantages stemming from the Eastern BSR and the Western BSR are separated to different factors when organizational, managerial and innovatory capacities are concerned, too. However, relational skills, natural resources and unskilled labor are all grouped according to the substance, not according to the target regions.

In the second group (Consumer demand) four clear factors were found. Those were **consumer demand in the Eastern BSR; consumer demand in the Western BSR and elsewhere; product innovation in Finland; and product quality in Finland**. The Eastern BSR, i.e. Russia, the Baltic states and Poland, are, here again, separated from consumer demand in Germany, Sweden and Denmark, as well as other foreign markets outside the Baltic Sea region. For subtitles of consumer demand, namely making for more product innovation and improving product quality, the factor analysis solution created own, separated factors for Finland. Below some experiences of managers of foreign operations in the different fields of industry are summarized to illustrate the demand conditions in different parts of the BSR.

Well, the image of our products is very 'Scandinavian'. We have this Scandinavian design and lightness. Also ergonomics and welfare in office work play major role in our products. This is also what we want to emphasize and we are really good in this segment. However, there are differences in consumer demand in different target markets in the Baltic Sea region. For example, in Northern countries we people are not very hierarchical in business culture, and thus traditional office furniture for managers have practically almost all disappeared. However, office furniture for managers is very much wanted in more conservative societies. I mean in this case the Baltic countries, and especially Russia or even Germany. They need these hierarchical levels, status signs of which have to be seen also in the office furniture. Then, for Poland or other Eastern European countries altogether we sell a lot of so called volume products. So, really these demand issues have to be seen market by market (Field of business: Office furniture manufacturing).

For fired heaters and power products like fluidized-bed boilers, pulverized coal boilers, gas fires, heat recovery steam generators etc. we have global markets. We really sell the very same products everywhere. Development and innovations happen basically here at home. We are defined to be a center of excellence in our group profile,

but services for keeping up and repairing these major products have been heavily localized in target markets (Field of business: Engineering, construction and energy equipment).

The product we sell is a kind of bulk product or raw material oriented product. We sell this same product as it is to any customer. To some extent it still depends to what purpose the customer will use it (there are different quality standards for different uses, such as for stuffing or for surfacing material for paper for example), we select the correct deposit for each use but otherwise it is exactly the same base product. For us, costs are the determining factor. This means that from Finland this product can be transferred and sold to other areas only to a limited extent because of the high transfer costs (Field of business: Producer of limestone-based products).

In the group "Inter-firm competition and rivalry" only one factor emerged hereby combining all four original variables into a factor called **inter-firm competition.** Still, this does not, in any way, mean that the nature of the competition would necessarily be the same kind in the different markets, or similar as far as the source of competitiveness is concerned. In this respect the opinions of the interviewees are revealing:

Actually, we have found out in our field of business that in the Baltic Sea region differences between EU countries and transition countries occur. That is that in the EU area there is more protectionism inside countries. They protect their technologies and own companies more than other Baltic Sea region countries, which are more open in this sense. By open I mean that they are more open to new technologies and modern solutions than their Western counterparts. This is our experience. Germany is for example very protectionist (Field of business: Engineering, construction and energy equipment).

This protectionism occurs amazingly widely at current times when we discuss a lot of such matters as European Union integration and global markets. Well, according to our experience, it is rather 'inward heated' – system. Still, what a surprise that some German cable is not necessarily applicable in Holland…Yes, they are protecting their own companies (Field of business: Utility production and services).

The pressure of competition from and in abroad is distinctly relevant for large companies as enhancing the efficiency of functions, especially in sectors where domestic competition in the small home market of Finland is not necessarily that strong:

For us the amount of competing companies elsewhere, like Germany, is much higher and competition much harder than in Finland. Our company was established in 1945 in Finland and our market share in Finland is about 45% today. We have been a market leader in home country for long time and we have competed with 2-4 companies here in the domestic markets. I am not saying it is not competition at all, but the major part of competition pressure comes from and in abroad (Field of business: Office furniture manufacturing).

Competition in Finland and the EU countries seems to be still more important source of competitiveness for the Finnish companies than competition in the EU applicant countries or Russia. Some empirical studies dealing with Finnish companies' foreign operations and competition, such as Larimo et al. (2001), have found out that Finnish companies see competition in Eastern Europe increasing, but still weaker than

in the Western markets. The main competitors in Eastern Europe are other foreign companies and, to lesser extent, local private or privatized large companies.

The fourth group of competitive advantages addressed by factor analysis, namely "Links with domestic or foreign firms and institutions", brought about five factors. These are **research and related companies in Finland and the Western BSR; supporting contacts in the Western BSR; supporting contacts in foreign markets generally; research in the Eastern BSR; and companies in the Eastern BSR.** This fourth group seems to be the most diverse compared to the other groups mentioned above. Finland is again separated with research and related companies, while both the Western and the Eastern BSR contacts and links tend to group separately. There is also one factor for supporting links in foreign operations generally independent of the BSR.

The local contacts and links are an important source of competitiveness as already indicated by the rather high scores in Table 3. Here is a telling statement based on the experience of FDI in Eastern Baltic Sea region:

If we cannot be more local in the future, we'll drop off. For example, we have sometimes thought about our daughter companies' names in Russia (St. Petersburg) and Estonia. Currently, they show our original Finnish name in them. We have thought that it would have been wiser to give Russian and Estonian names directly in the first place without keeping the connection to the West. Now, a local customer may start to think that she or he is dealing with some foreigner or something. This is a minor problem for us in Estonia, where our company is wholly in the hands of Estonian staff. In Russia, we have a Finnish manager and some Finns in other positions in the organization too. So the company is considered a Finnish company. This is a problem there in a society where social, informal, non-transparent networks are really important. For an outsider it seems to be utterly difficult to get into this 'dear old brother' -system (Field of business: Utility production and services).

4. Modes of Foreign Involvement

The respondents of the sample companies were asked to estimate with the scale of 1 to 5 the importance of three modes of acquiring or tapping into the resources and capabilities of the BSR foreign markets. These three modes were 1) foreign direct investment, 2) non-equity co-operative agreements e.g. strategic alliances, management contracts, licensing and franchising agreements, and 3) arm's length transactions.

The hypothesis here was that deeper forms of international cross-border operations, i.e. FDI and non-equity arrangements, are likely to advance more the firm-specific competitive advantages for the Finnish company than shallower forms of transactions, i.e. arm's length trade. It is usually expected that companies with high transnationality appreciate deeper forms (i.e. here FDI) of foreign involvement, more than those for whose business foreign operations are less significant (Meyer 2000; Kogut-Singh 1988; Dunning 1997).

The results of the survey show that the managers of foreign operations of our sample companies consider arm's length transactions as the most important mode of competitiveness, after which come FDI and non-equity transactions (see Table 6). This holds for the whole sample when mean scores are compared, and there is no difference in this respect between less or more transnational companies.

Table 6. Importance of Modes of Foreign Involvement of the Sample Companies.

	Mean/ (St. dev)	N
Foreign direct investment	3.38 (1.17)	81
Non-equity arrangements	3.14 (1.18)	77
Arms' length transactions	3.61 (1.10)	87

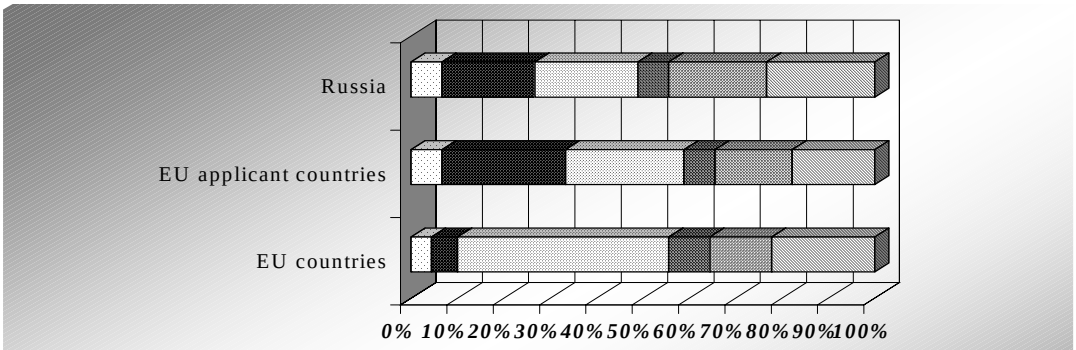
Another hypothesis usually claimed with respect to the modes of foreign involvement is that companies that are technology-intensive are more likely to internalize their assets compared to those, which are not. In our sample, in this group of companies the degree of technology intensity did not change the general result either. Those companies that are less or more technology intensive seem to give similar ranking order for the named modes of involvement in foreign operations.

These results are quite contrary to the expectations and results got from other studies such as Dunning (1997). However, the prominent role of trade operations can be explained by the importance of trade in the companies' foreign operations in general. The arm's length operations are after all the most common mode of foreign involvement in the Finnish economy and this is most probably the reason it gets the highest scores in this question, too. [14]

5. Effects of Foreign Operations on Companies' Competitiveness

Internationalization has been an important phenomenon in Finland throughout the 1990s. Therefore, we also wanted to see if the respondents saw any dynamics in the effect of foreign operations on their companies' competitiveness. We asked respondents 1) what effect foreign operations have had on their companies' overall competitiveness in recent years (1995-2001), and 2) if this effect has decreased, stayed the same, or increased.

[14] Result of non-parametric tests for k-related samples: Friedman and Kendall's W-test gave statistical significance at the 0.05 level, which means that there is a significant difference in the mean values given to each mode of involvement of foreign operations.

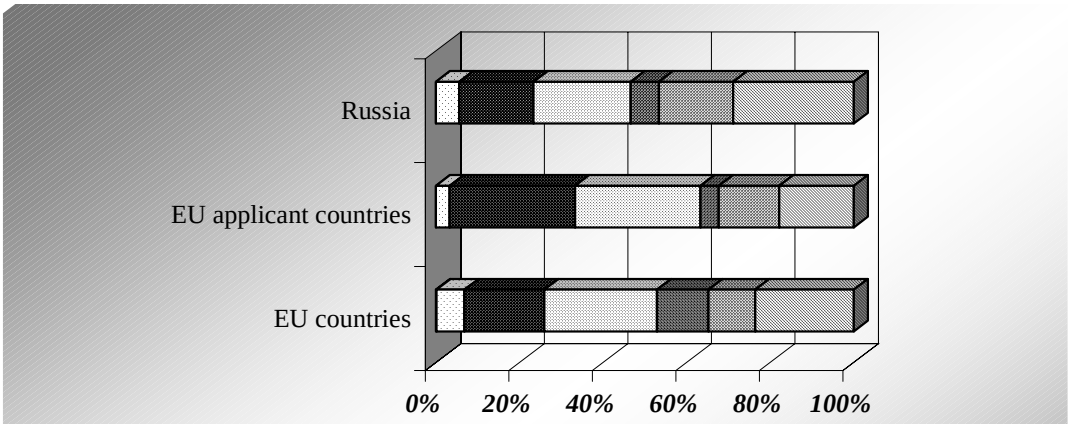


	EU countries	EU applicant countries	Russia
missing infromation	22.2	17.8	23.3
cannot say	13.3	16.7	21.1
very positive	8.9	6.7	6.7
somewhat positive	45.6	25.6	22.2
no effect	5.6	26.7	20.0
somewhat negative	4.4	6.7	6.7
very negative	0.0	0.0	0.0

Figure 4. Effect of Foreign Operations on the Competitiveness of the Companies in Recent Years (1995-2001).

These questions were asked in the BSR context by grouping countries to categories such as EU-countries, EU accession countries and Russia. The structure of responses is available in Figures 4 and 5. Figure 4 shows that the EU countries (Germany, Denmark and Sweden) have usually had the most positive effect on companies' competitiveness in recent years. Estonia, Latvia, Lithuania and Poland have had the second largest positive effect on the companies' competitiveness (if taken together), after which comes Russian nearby regions. Answers concerning Russia show more often than in other markets responses 'cannot say' or unfilled response. This reflects uncertainty and unpredictability related to the impact of the foreign business operations in and with Russia.

If we look at Figure 5 and the responses concerning the change in the effect on competitiveness, we notice that in the EU countries the effect of foreign operations has increased to some extent or severely in 39% of the cases. The same figure for EU applicant countries is 34%, and for Russia 30%. Again, answers concerning Russian markets display more than in the other two groups those responses, which reflect that the respondents could not say how the changes have actually occurred during the years 1995-2001. Nevertheless, the mean values for different markets in the BSR do not differ statistically significantly from each other in either question (see the results in detail in Appendix 2). These results do not seem to vary according to the company characteristics, such as transnationality or technology intensity, either.



	EU countries	*EU applicant countries*	*Russia*
missing infromation	*23.3*	*17.8*	*28.9*
cannot say	*11.1*	*14.4*	*17.8*
increased severly	*12.2*	*4.4*	*6.7*
increased to some extent	*26.7*	*30.0*	*23.3*
not changed	*18.9*	*30.0*	*17.8*
decreased to some extent	*6.7*	*3.3*	*5.6*
decreased severly	*0.1*	*0.0*	*0.0*

Figure 5. Change in the Effect of Foreign Operations on the Competitiveness of the Companies in Recent Years (1995-2001).

6. Role of Government Policy

Government policy has a lot of channels through which it can affect on companies' abilities to operate at home and in foreign markets. All in all, any action of governments may have some effect on the business environment, and through this, on business facilities of companies.

However, in the current globalizing world, with comparatively free movement of factors, the competition in the factor markets has become more crucial than before. This situation puts more pressure on decision makers of governments to take into account the likely effect of different governmental policies on business environment and investment climate. A big question for policy makers in any country, including Finland, is therefore how to make a country an appealing location for internationally competitive companies? (Pajarinen et al. 1998; Ylä-Anttila 1998).

In our survey respondents were asked to estimate the influence of government policy of Finland on the companies' international competitiveness in recent years (1995-2001). We named 11 routes or policies that might have this kind of positive or negative competitiveness stimuli. Here we used again the Likert-scale from 1 to 5 for evaluation by the respondents, where 1 means very negative effect; 3 no effect; and 5 very positive effect, while CNS means "cannot say".

Table 7. Influence of Government Policy of Finland on Companies' International Competitiveness in Recent Years (1995-2001).

	Mean	St. dev.	N	CNS (N)
1. Education and training policy	3.80	0.76	88	4
2. Industrial and technology policy	3.62	0.67	90	6
3. Provision and upgrading of infrastructure	3.49	0.70	91	8
4. Trade policy	3.41	0.58	93	6
5. Market-facilitating policy	3.35	0.60	89	7
6. Promoting an ethos of competitiveness	3.26	0.77	89	4
7. Environmental policy	3.21	0.70	90	4
8. Promoting a culture of investment and saving	3.12	0.60	88	10
9. Social policy	3.07	0.56	89	7
10. Corporate taxation	2.87	0.64	90	8
11. Income taxation	2.24	0.86	90	7

In Table 7 the policies are ranked in descending order of the mean scores. The Table shows that the respondents appreciated the efforts made via education and training policy in Finland the most. The mean value for this policy effect is as high as 3.80. The next place goes to industrial and technology policy, which was also considered rather successful. After these two comes provision and upgrading of infrastructure, in which the mean value is approximately 3.50.

The lowest appraisals are given to social policy, corporate taxation and income taxation.[15] Social policy receive a mean value of 3.07 meaning that it is generally considered not having an effect at all on enhancing the companies' international competitiveness as such. Thus, the respondents seem to consider the high welfare level and the generous social security system in Finland to be at the level where its positive and negative impacts on companies' international competitiveness are generally even.

There are only two policies where the mean values go under 3. They are: income taxation of employees and corporate taxation of companies. This result can be interpreted so that taxation in Finland actually has a negative influence on Finnish companies' international competitiveness. This is in accordance with findings of another empirical study "Finnish companies' international business operations and their prospects" by TT (2001)[16]. That report showed that Finnish companies see corporate taxation to be an important factor when they are planning to extend operations in home country and abroad and that corporate taxation indeed has an effect on decision-making when selecting a location for the company.

In our sample, companies spending more on R&D, i.e. higher technology companies, seem to especially consider so that income and corporate taxation have had negative impact on their international competitiveness. This is mainly because

[15] Again, statistical tests support the hypothesis at 0.001 level that different policies are not from the similarly distributed population (see Appendix 2)

[16] TT is the Finnish abbreviation for The Confederation of Finnish Industry and Employers <URL: http://www.tt.fi>

international experts engaged in research and development with high salaries are comparatively difficult to tempt to come to Finland with the current Finnish tax rates on income (see e.g. also another report by TT : "Are headquarters leaving Finland?", 2002)[17]. Also some Finnish highly educated experts move out of the country for various reasons, better real income being one of the reasons. In terms of tax rate on corporations Finland fairs rather well in international comparison, unlike in terms of income taxation and gross wages.[18]

7. Business Environment in the Baltic Sea Region

It is evident that in the course of time profound changes in the business environment in Finland[19] and in foreign areas of operations may happen which have effect on the companies' foreign operations, and thus on competitive position as well. These shifts in competitive position may, of course, influence the companies' capability to source competitive advantages abroad.

With an open-ended question we tried to capture some major overall business environment impacts in the period 1995-2001 on the competitive position of companies, meaning for example EU policies, economic integration development effects, and sectoral transformation. We asked an open-ended question in order that the respondents be able to answer freely to this question. Responses were expected to be diverse and rather sector-specific (see question 18 in the questionnaire). Based on the analysis of the answers Figure 6 below was drawn up.

In the answers, several key characteristics emerged which can be categorized as company-, industry- and market–level changes. Among company level changes several respondents mentioned that a big *merger* in their company had a profound influence on the competitive position in their field of business (often this had happened in the case of mergers including a Swedish competitor). Also *specialization* related to that merger or otherwise had exceptional impact on the competition field of the companies.

On the industrial level, the same tendency of companies to merge to bigger units was mentioned as a major change in the business environment. Altogether, companies' fast *internationalization* had affected the competition circumstances. Also *liberalization* of certain industries, like the energy sector and the pharmaceutical sector, have been remarkable affecting not only structurally, but also by increasing competition stimuli in formerly strictly controlled sectors. D*umping* in some raw material oriented and low-value added sectors were mentioned a couple of times having profound effects on competition in certain industries as was mentioned *cheap labor force*. The emergence of both these phenomena were felt in the Eastern Baltic Rim markets.

Changes at the market level showed some general tendencies of the world economy such as *globalization* and *internationalization*. When it comes to the Baltic

[17] The so called "key person law" has improved the situation a little in Finland recently, even if its application directive is considered to be too strict.
[18] See for example the OECD tax database for the year 1999.
[19] International business environment measures (for national level of competitiveness) show the following positions for Finland: WEF (World Economic Forum): Finland is no. 1 in global and current competitiveness (2001); IMD (Institute of Management Development): Finland is no. 2 in the World and no. 1 in Europe (2002).

Sea region the membership of Finland in the European Union was mentioned as one of the most important steps of entering and integrating into the Western European markets. In the EU the deepening and the further *integration* processes *of markets* were also underlined in the responses. The EU has naturally had significant effects on the transition countries, especially EU-applicant countries, by inducing the harmonization of market mechanisms and legislation there. Market expansion and integration therefore spill over to the Eastern Baltic Rim countries as well.

Economic growth in different sectors in the Baltic countries and Poland seem to have been a remarkable factor of changing the competitive position of the Finnish firms. In Russia, the *devaluation of the Russian ruble* in 1998 did serious harm to some of the Finnish companies. The ensuing economic recovery and growth during the past few years have compensated this effect and has given a new positive boost to the competitive environment in Russia. Even thought the competition in the Baltic countries, Poland and Russia is not considered as strong as it is in the EU-markets, in recent years it has been recognized in the companies that competition in the former markets has generally increased, and the *know-how and management skills* in the local companies have substantially *improved*. As one interviewed respondent put it:

In the EU our hardest competitors are local companies. If we talk about the Baltic countries our hardest competitors are local or multinational companies. In Russia competitors mainly come from elsewhere than Russia. However, more and more Russian companies are rising to become real competitors for us…Actually, they made progress really rapidly lately. (Field of business: Utility production and services.)

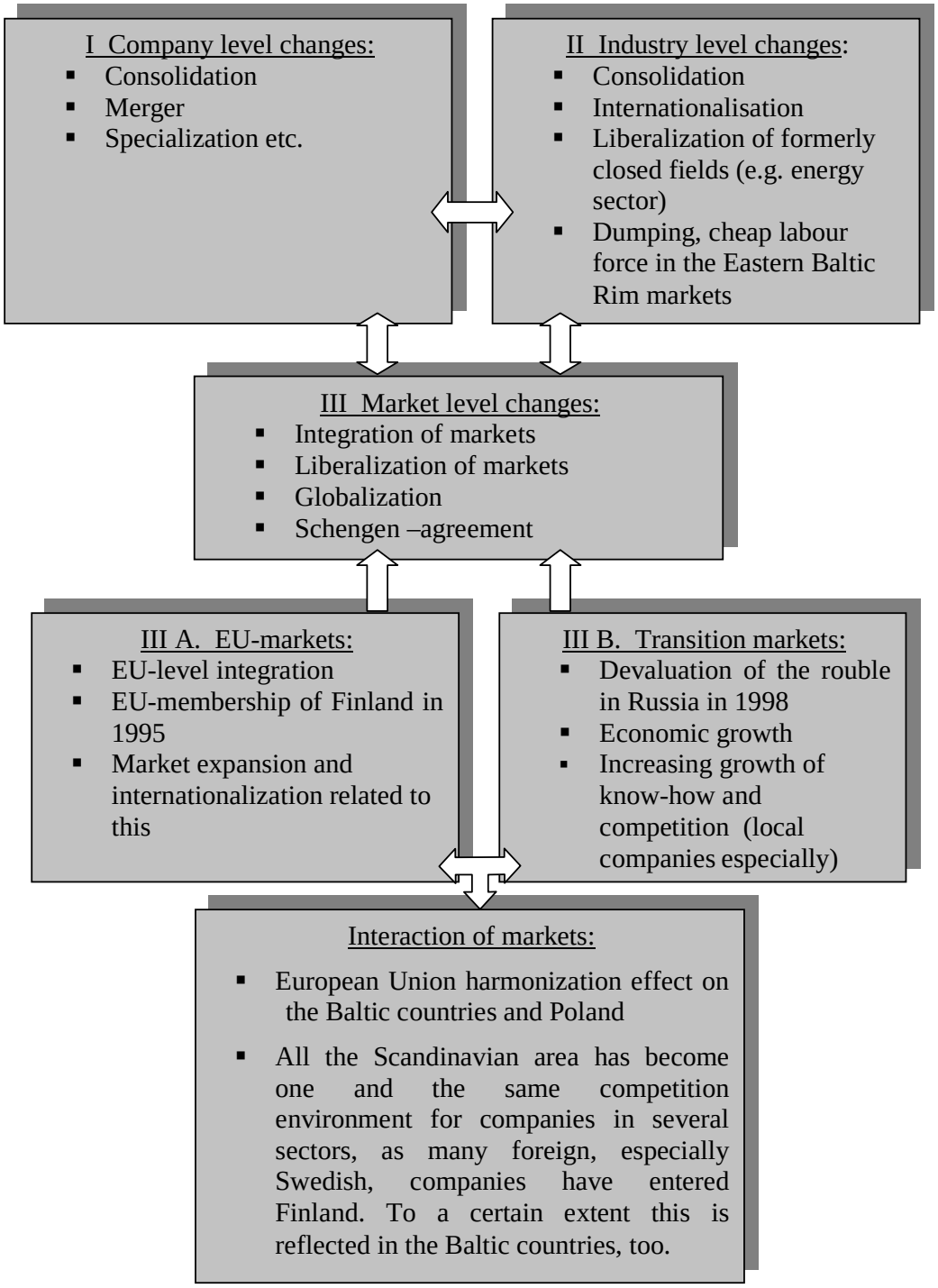
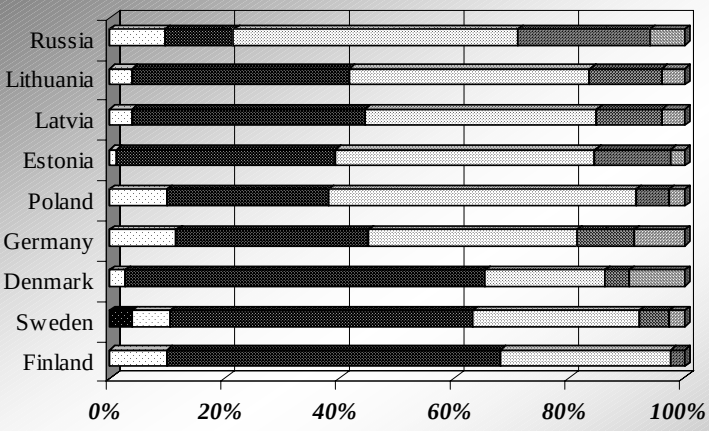


Figure 6. Changes in Business Environment, which Have Affected Companies' Competitive Position in Recent Years.

8. Likely Changes in the Role of the Baltic Sea Region Countries

How about the future role of the BSR countries for the Finnish companies? Our enquiry found out that managers of Finnish companies responsible for foreign operations have a similar response structure in their answers concerning the likely changes in the role of Finland, Sweden, Denmark and Germany in their companies' strategies by the year 2010, while Estonia, Latvia and Lithuania have also some similarities. The third group includes Poland and Russia, where the replies tend to be alike as well. The factor analysis also confirms the result by three factors grouped according to grouping mentioned above (see Appendix 2).



	Finland	Sweden	Denmark	Germany	Poland	Estonia	Latvia	Lithuania	Russia
cannot say	0.0	2.6	9.7	8.7	2.8	2.4	3.8	3.8	6.0
increases strongly	2.5	5.3	4.2	10.1	5.6	13.1	11.4	12.7	22.9
increases somewhat	29.6	28.9	20.8	36.2	53.5	45.2	40.5	41.8	49.4
stays as it is	58.0	52.6	62.5	33.3	28.2	38.1	40.5	38.0	12.0
decreases somewhat	9.9	6.6	2.8	11.6	9.9	1.2	3.8	3.8	9.6
decreases strongly	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 7. Likely Changes in the Role of Different BSR Countries up to Year 2010 by Sample Companies.

Finland, Sweden, Denmark and Germany get typically replies such as "stays mainly at the same" or "increases somewhat", while in the case of the Baltic countries there is a shift to a larger share of responses saying "increases somewhat" or even "increases strongly". Expectations toward the improvement of Polish markets are even higher as 60 per cent of respondents (N=71) say that it will increase somewhat or strongly. The same figure for Russian markets is as high as 73 per cent (N=83).

The growth expectations concerning Russia are the highest ones (see also TT, 2001). In the last couple of years the growth rate of the Russian economy was high. In

the year 2000, for example, the growth rate of real GDP in Russia was 6.3%, which belonged to the highest rates among the Baltic Sea countries.

However, many respondents feel still certain uneasiness and uncertainty when Russian markets are concerned. As some managers of foreign operations in the Finnish companies mentioned certain signs of stability and prospects for long-term economic development are still lacking:

When considering the future of the Baltic Sea region there is a rather important role for Russia - how it will develop in the long run -; certain positive signs are at sight. The question is how and when will the money and capital flows, which once vanished from Russia, return to the home country. I mean when will a Russian manager or businessman think about investing the profits to his own company, instead of buying expensive Mercedes-Benz cars, building fancy houses or making portfolio investment abroad? At what sequence will that come? (Field of business: Utility production and services).

Furthermore, the underlying infrastructure is seen as such that needs urgent renewal also in traditionally strong sectors of Russian industry:

Russia has to resolve her energy production. All the production units are, according to Western thinking and standards in such conditions, that they need to be rebuilt, renewed and modernized. Russia has not been able to do these things in the 1990s because the economy has gone down, but now, when the economy has started to grow again, the demand for energy grows too and that puts even more pressure on the infrastructure. Even though Russia has enormous resources in gas and oil, huge coal and forest assets etc., the rational exploitation of natural resources is one of the most essential things for that economy to be able to confront its demanding future challenges (Field of business: Engineering construction and energy equipment.).

9. Conclusions

Since the end of 1990s, there has been an ongoing debate among academics and policy-makers about to what extent competitive advantages of companies stem from location-bound characteristics of their home countries, and, to what extent from outside their home countries, due to increasing internationalization of the companies. Finnish companies have experienced a fast internationalization period during the 1990s. This has raised the question what role there is for a small and open economy, such as Finland, to source competitive advantages outside the country.

To answer this question and to better understand the significance of foreign sources of competitiveness, this study focused on the views of managers of foreign operations in major Finnish companies concerning such issues as: importance of foreign involvement; effects of foreign operations on companies' competitiveness; locational sources of competitiveness and their importance in the BSR. Furthermore, the study tried to highlight such characteristics in the business environment and government policy in Finland that have facilitated or hindered the competitiveness of the companies during 1995-2001.

The analysis of the filled out questionnaires collected from the largest Finnish companies show that ***arm's length transactions still play a major role in the Finnish companies' foreign operations, regardless of the fast internationalization process.***

The business operations of the Finnish companies in the Baltic Sea region are diverse and manifold, but still mainly founded on arm's length transactions. This characteristic feature is reflected in the analysis of sources of competitiveness based on the empirical data of this study. Major Finnish companies' managers of foreign operations still considered the arm's length transactions the most important modes of involvement in acquiring foreign resources and capabilities for their companies. Only after this comes FDI and non-equity arrangements, which are usually considered as deeper forms of international cross-border operations and thus likely to advance more firm-specific competitive advantages to the company than shallower forms of transactions.

The survey results also showed that foreign business operations are generally seen almost as profitable (in terms of net profit) as domestic business operations in the sample companies. The Baltic Sea Rim EU countries seem to reach out to this general level; the Baltic Sea Rim transition countries lag somewhat behind: international business operations there have more frequently been less profitable or less successful according to the respondents' experience in the past few years.

Finnish companies have strong roots in created assets, especially technological created assets at their domestic location.

The investigation of geographical sources of competitiveness of Finnish companies in the Baltic Sea region gives support to the hypothesis that Finland is indeed a base for the companies' firm-specific competitiveness in created assets, especially technological ones. Product innovation mainly happens in Finland as well as linking with universities and other research institutions. To less extent, but still statistically significantly, Finland seems to possess a major source of competitiveness in natural resources, managerial expertise and linking with related companies compared to the neighboring Baltic Sea region markets. However, certain other locational elements, like consumer demand for upgrading product quality, inter-firm competition, and links with companies operating in the same industry are taken advantage of a significant amount from other Baltic Rim countries, especially EU countries. Unskilled labor is a significant source of competitiveness in the EU applicant countries.

Technology intensity and transnationality of the companies explain to some extent the intense of foreign sourcing for competitiveness.

Technology intensity as well as the degree of transnationality of the companies proved to be company characteristics, which explain to what extent the sample companies' respondents appreciated foreign sources of competitiveness. Particularly so called created assets and consumer demand seemed to be more highly valued and also more often foreign sourced in higher technology companies than in lesser technology oriented companies.

In terms of companies' source of competitiveness the Baltic Sea region is fragmented.

It became evident that the Baltic Sea region markets differ from each other when it comes to the importance of these countries as source of competitiveness for Finnish companies. In many competitive advantage areas the division seemed to be Finnish markets i.e. home country markets, Baltic Sea region EU countries' markets, and Baltic Sea transition countries' markets, in this order of magnitude.

The overall taxation in Finland seems to have had a negative influence on companies' international competitiveness in the recent years.

The role of government policy and business environment is essential for a competitive environment. In this study the respondents considered education and training policy, industrial and technology policy as well as provision and upgrading of the infrastructure those policies that have been most successful from a competitiveness point of view during the last few years in Finland. At the same time, income taxation and corporate taxation were considered to be the most unfavorable domestic policy elements for the business environment. These policies were considered to have been negative impact on Finnish companies' international competitiveness.

The concentration of markets has been the most profound change in the business environment.

In the business environment profound changes were found at three levels: firm-level, industry-level and market-level changes. The most distinct features have been, on one hand, the consolidation and concentration of the companies and industries, and on the other hand, the integration and liberalization of the markets in the Baltic Sea region.

Growth expectations are highest for Russia and Poland in the Baltic Sea region.

Finnish companies expect the role of the various Baltic Sea Rim countries to change by the year 2010 so that the economies of Finland, Sweden, Denmark and Germany are anticipated to stay at the same level as today or to grow somewhat, while in the Baltic countries they expect growth to some extent or even strongly. Expectations towards the expansion of the Polish and Russian markets are the highest ones.

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Appendix 1.

Part 1. General Information on your Company

Company/Group:_____

Respondent(s):_____

Position of respondent(s):_____

Amount of employees:_____

Main line of Business:_____

Main line of products of the company/group is:

Please tick: Consumer goods sector ☐
Production goods sector ☐
Services ☐
Multisector company ☐

Notice! When the company is a parent company of the group we ask your responses at the group level.

1. Please give your company's approximate division of employees, assets, and turnover <u>by market areas</u> (%). Give as an estimated percentage for year 2001.

	Finland	**Baltic Sea Region** (=Sweden, Denmark, Germany, Poland, Estonia, Latvia, Lithuania, Russia: Baltic rim areas)	**Other foreign countries**	
<u>Employees:</u>	_____%	_____%	_____%	**Total 100%**
<u>Assets:</u>	_____%	_____%	_____%	**Total 100%**
<u>Turnover:</u>	_____%	_____%	_____%	**Total 100%**

2. How much does your company spend on research and development? Please give as an estimated percentage of turnover for year 2001.

<u>Research and development</u> _____% of turnover

Part 2: Business Operations in and with the Baltic Sea Region

Please respond to the following questions in respect to your business operations (trade and foreign direct investment) in Sweden, Denmark, Germany, Poland, Estonia, Latvia, Lithuania and Russia's Baltic rim areas. Please use the 'write in' column when necessary.

3. When did your company establish business links with the Baltic Sea region? Please give year or decade.

Sweden	Denmark	Germany	Poland	Estonia	Latvia	Lithuania	Soviet Union/Russia
_____	_____	_____	____	_____	_____	_____	_____

4. What is the character of your company's trade in the Baltic Sea region? Please tick.

☐ We do trade in and with the Baltic Sea region regularly and the area is our company's main market area.
☐ We do trade in and with the Baltic Sea region regularly, but the area is not our company's main market area.
☐ We do trade in and with the Baltic Sea region irregularly.

5. Is your company's foreign business <u>more profitable (net profit%) than its domestic business</u>? Scale 15 (1= clearly less profitable 2= a little bit less profitable 3=equal 4= a little bit more profitable 5= clearly more profitable) CNS=cannot say. Please circle the correct alternative.

a. Foreign business in general	1	2	3	4	5	CNS
b. In/with the Baltic Sea region transition markets (if operations there): Baltic countries, Poland, Russia	1	2	3	4	5	CNS
c. In/with the Baltic Sea region EU markets (if operations there): Sweden, Denmark, Germany	1	2	3	4	5	CNS

6. What kind of <u>business links</u> does your company have with/in the Baltic Sea region? Please tick:

	Sweden	Denmark	Germany	Poland	Estonia	Latvia	Lithuania	Russia
1. Exporting products	□	□	□	□	□	□	□	□
2. Exporting services	□	□	□	□	□	□	□	□
3. Importing products	□	□	□	□	□	□	□	□
4. Importing services	□	□	□	□	□	□	□	□
5. Selling licences	□	□	□	□	□	□	□	□
6. Buying licences	□	□	□	□	□	□	□	□
7. Franchising contract selling	□	□	□	□	□	□	□	□
8. Franchising contract buying	□	□	□	□	□	□	□	□
9. Subcontracting	□	□	□	□	□	□	□	□
10. Selling know-how contract	□	□	□	□	□	□	□	□
11. Buying know-how contract	□	□	□	□	□	□	□	□
12. Project export	□	□	□	□	□	□	□	□
13. Project import	□	□	□	□	□	□	□	□
14. Minority share in joint venture	□	□	□	□	□	□	□	□
15. Majority share in joint venture	□	□	□	□	□	□	□	□
16. Wholly owned subsidiary or branch	□	□	□	□	□	□	□	□
17. Other, specify								

7. What kind of transfers is your company <u>supplying</u> to its Baltic Sea region customer, partner or subsidiary? Please tick:

	Sweden	Denmark	Germany	Poland	Estonia	Latvia	Lithuania	Russia
1. Final goods	□	□	□	□	□	□	□	□
2. Intermediate goods	□	□	□	□	□	□	□	□
3. Raw materials	□	□	□	□	□	□	□	□
4. Technology transfer	□	□	□	□	□	□	□	□
5. Marketing know-how	□	□	□	□	□	□	□	□
6. Other, please specify								

8. What kind of transfers does your company <u>receive</u> from its Baltic Sea region customer, partner or subsidiary? Please tick**:**

	Sweden	Denmark	Germany	Poland	Estonia	Latvia	Lithuania	Russia
1. Final goods	□	□	□	□	□	□	□	□
2. Intermediate goods	□	□	□	□	□	□	□	□
3. Raw materials	□	□	□	□	□	□	□	□
4. Technology transfer	□	□	□	□	□	□	□	□
6. Information regarding local business environment (culture, legal matters)	□	□	□	□	□	□	□	□
7. Other, please specify								

9. What characterises the nature of your <u>investment</u> projects at the current time? Please give the number of projects in each country. If you do not have investments tick. If you do not have investments at all please continue to the question 12.

	Sweden	Denmark	Germany	Poland	Estonia	Latvia	Lithuania	Russia
1. No investment	□	□	□	□	□	□	□	□
2. Greenfield (Start-up venture)								
3. Acquisition (purchase of all or part of an existing enterprise)								
4. Joint-venture (where new entity was set up with one or more local partners)								
5. Joint-venture acquisition								
6. Representative office								
7. Investment (other than any above)								

10. What pattern does your company follow for its major international FDI operations in the Baltic Sea region? **Please tick:**

A. the Baltic Sea region EU markets (Sweden, Denmark, Germany)

a. Operations are integrated across borders:

- Horizontally (between different production processes) ☐
- Vertically (inside different production processes) ☐

b. Subsidiaries operate with little relationship with other subsidiaries: ☐

B. the Baltic Sea region transition markets (Baltic states, Poland and Russia)

a. Operations are integrated across borders:

- Horizontally (between different production processes) ☐
- Vertically (inside different production processes) ☐

b. Subsidiaries operate with little relationship with other subsidiaries: ☐

11. Please name those foreign countries in the Baltic Sea region which are hosts to your firm's foreign direct investments and which have most positive impact on upgrading your company's competitiveness at the current time. Please give 1=first, 2=second etc. CNS=Cannot say. Please tick if necessary.

a. Sweden____ e. Estonia____
b. Denmark____ f. Latvia____
c. Germany____ g. Lithuania____
d. Poland____ h. Russia___ CNS ☐

Part 3: Geographical Sources of Competitiveness in the Baltic Sea Region Markets

EFFECT OF INTERNATIONAL OPERATIONS ON COMPANY'S COMPETITIVENESS:

12. What has been, in your opinion, the effect of foreign operations in the Baltic Sea region on your company's overall competitiveness in recent years (1995-2001)? Scale 1-5 (1=very negative 2=somewhat negative 3=no effect 4=somewhat positive 5=very positive) CNS=Cannot say. Please circle the correct alternatives.

Host Country: Sweden, Denmark, Germany	Host Country: Estonia, Latvia, Lithuania, Poland	Host Country: Russia
1 2 3 4 5 CNS	1 2 3 4 5 CNS	1 2 3 4 5 CNS

13. Has the effect of foreign operations on your company's overall competitiveness, in your opinion, decreased or increased during recent years (1995-2001)? Scale 1-5 (1= decreased severely, 2= decreased to some extent 3= not changed 4= increased to some extent 5= increased severely) CNS=Cannot say. Please circle the correct alternatives.

Host Country: Sweden, Denmark, Germany	Host Country: Estonia, Latvia, Lithuania, Poland	Host Country: Russia
1 2 3 4 5 CNS	1 2 3 4 5 CNS	1 2 3 4 5 CNS

14. What effect have foreign operations in the Baltic Sea region have had on following functions in your company (1995-2001)? Scale 1-5. (1=very negative 2=somewhat negative 3=no effect 4=somewhat positive 5=very positive) CNS=Cannot say. Please circle the correct alternatives.

	Host Country: Sweden, Denmark, Germany	Host Country: Estonia, Latvia, Lithuania, Poland	Host Country: Russia
a. Used capacity	**1 2 3 4 5 CNS**	1 2 3 4 5 CNS	1 2 3 4 5 CNS
b. Specialization of production	**1 2 3 4 5 CNS**	1 2 3 4 5 CNS	1 2 3 4 5 CNS
c. Product development	1 2 3 4 5 CNS	1 2 3 4 5 CNS	1 2 3 4 5 CNS
d. Division of risks	1 2 3 4 5 CNS	1 2 3 4 5 CNS	1 2 3 4 5 CNS
e. Tolerance of cyclical fluctuation	1 2 3 4 5 CNS	1 2 3 4 5 CNS	1 2 3 4 5 CNS
f. Increasing know-how:			
-In marketing	1 2 3 4 5 CNS	1 2 3 4 5 CNS	1 2 3 4 5 CNS
-In management	1 2 3 4 5 CNS	1 2 3 4 5 CNS	1 2 3 4 5 CNS
-In technological or technical prosesses	1 2 3 4 5 CNS	1 2 3 4 5 CNS	1 2 3 4 5 CNS
g. Availability of capital	1 2 3 4 5 CNS	1 2 3 4 5 CNS	1 2 3 4 5 CNS
h. Availability of raw-material	1 2 3 4 5 CNS	1 2 3 4 5 CNS	1 2 3 4 5 CNS
i. Availability of work-force	1 2 3 4 5 CNS	1 2 3 4 5 CNS	1 2 3 4 5 CNS
j. General cost level of production	1 2 3 4 5 CNS	1 2 3 4 5 CNS	1 2 3 4 5 CNS
k. Utilization of economies of scale	1 2 3 4 5 CNS	1 2 3 4 5 CNS	1 2 3 4 5 CNS

COMPETITIVENESS AT THE MOMENT:

15. What <u>factors is your company's competitiveness</u> in the Baltic Sea region foreign markets (not Finland) mainly based on at the current time? Please mention the three most important alternatives 1= first, 2=second etc. CNS=Cannot say.

a. Effective sales and marketing____
b. Low cost structure____
c. Financing____
d. Effectiveness in production, organization and processes____
e. Products and product development____
f. Management____
g. Purchase function and material control____
h. Fluid logistics____
i. Other ?_____

CNS □

COMPETITIVE ADVANTAGES: HOME COUNTRY VS. HOST COUNTRIES:

16. <u>How important do you consider such competitive advantages of your company, which stem from home country (Finland) and foreign locations in the Baltic Sea region to be?</u> Scale 1-5. (1=not at all important 2= a bit important 3= somewhat important 4= rather important 5=very important) CNS= Cannot say. ***<u>Please give a correct value for each cell</u>.*** Please answer to those items that are relevant to your company.

	A **Finland**	**B** **EU countries: Sweden, Denmark, Germany**	**C** **EU applicant countries: Baltic countries and Poland**	**D** **Russia**	**E** **Other foreign countries (not the Baltic Sea rim)**
Access to resources and assets a. Natural resources					
b. Unskilled labour					
c. Skilled and professional labour					
d. Innovatory capacity					
e. Organizational capacity					
f . Managerial expertise					
g. Networking and PR					
Consumer demand h. Upgrading of product quality					
i. Making for more product innovation					
Competition j. Interfirm competition/rivalry					
Links with foreign or domestic firms and institutions k. Sectoral companies					
l. Related companies					
m. Universities and other research institutions					
n. Ministries and other institutions promoting trade and FDI					

17. What is, in your opinion, the importance to your company of each of the following modes of involvement in acquiring and/or tapping into the resources and capabilities of foreign countries?
Scale 1-5. (1=not at all important 2= a bit important 3= somewhat important 4= rather important 5=very important) CNS=cannot say. Please circle the correct alternatives.

1. foreign direct investment	1	2	3	4	5	CNS
2. non-equity arrangements (strategic alliance, franchising contract etc.)	1	2	3	4	5	CNS
3. arm's length transactions	1	2	3	4	5	CNS

COMPETITIVE ENVIRONMENT:

18. Have there been any profound changes in some aspects of the competitive environment in Finland, elsewhere in the Baltic Sea region or other international markets that have had an effect on your company's competitive position in recent years? Please specify:

_____
_____
_____
_____

19. How would you estimate the influence of the government policy of Finland on your company's international competitiveness in recent years (1995-2001)? Scale 1-5. (1=very negative 2=somewhat negative 3=no effect 4=somewhat positive 5=very positive). CNS=Can not say. Please circle the correct alternatives.

a. Provision and upgrading of infrastructure	1	2	3	4	5	CNS
b. Social policy	1	2	3	4	5	CNS
c. Trade policy	1	2	3	4	5	CNS
d. Industrial and technological policy	1	2	3	4	5	CNS
e. Education and training policy	1	2	3	4	5	CNS
f. Environmental policy	1	2	3	4	5	CNS
g. Market-facilitating policy	1	2	3	4	5	CNS
h. Promoting an ethos of competitiveness	1	2	3	4	5	CNS
i. Promoting a culture of investment and saving	1	2	3	4	5	CNS
j. Corporate taxation	1	2	3	4	5	CNS
k. Income taxation	1	2	3	4	5	CNS

20. Among other things, the EU's Eastern enlargement will most likely have an effect on the role of different countries' markets in the Baltic Sea region. In general, how would you evaluate in your company's business, the role of different countries to change up to year 2010? Scale 1-5. (1= decreases strongly 2= decreases somewhat 3= stays as it is 4= increases somewhat 5=increases strongly) CNS=Cannot say. Please circle the correct alternatives.

a. Finland	1	2	3	4	5	CNS	**e. Poland**	1	2	3	4	5 CNS
b. Sweden	1	2	3	4	5	CNS	**f. Estonia**	1	2	3	4	5 CNS
c. Denmark	1	2	3	4	5	CNS	**g. Latvia**	1	2	3	4	5 CNS
d. Germany	1	2	3	4	5	CNS	**h. Lithuania**	1	2	3	4	5 CNS
							i. Russia	1	2	3	4	5 CNS

Would you be willing to participate in an interview related to this research?

Yes □ No □

We appreciate your cooperation very much!

Appendix 2

Test Results and Key Characteristics of the Case Companies

Non-parametric tests:

1. Friedman test: Tests the null hypothesis that *k* related variables come from the same population. For each case, the *k* variables are ranked from *1* to *k*. The test statistic is based on these ranks.

2. Kendall's W test: A nonparametric test of the hypothesis that several related samples are from the same population, which measures the agreement of raters. Each case is a judge or rater, and each variable is an item or person being judged. For each variable the sum ranks is computed. Kendall's W ranges between 0 (no agreement) and 1 (complete agreement).

3. Wilcoxon Signed Rank test: A nonparametric procedure used with two related variables to test the hypothesis that the two variables have the same distribution. It makes no assumption about the shapes of the distributions of the two variables. This test takes into account information about the magnitude of differences within pairs and gives more weight to pairs that show large differences than to pairs that show small differences. The test statistic is based on the ranks of the absolute values of the differences between the two variables.

4. Kruskal-Wallis test: A nonparametric equivalent to the one-way ANOVA process. It tests whether several independent samples are from the same population. It assumes that the underlying variable has a continuous distribution and requires an ordinal level of measurement.

1. Friedman test: Question 16:

Target: Finland, EU, EUA, RUSSIA other than BSR

Natural resources:		Unskilled labor:	
N	40	N	39
Chi-Square	15.835	Chi-Square	147.485
Df	4	Df	5
Asymp. Sig.	0.003	Asymp. Sig.	0.000
Skilled labor:		Innovatory capacity:	
N	41	N	38
Chi-Square	52.879	Chi-Square	68.693
Df	4	Df	4
Asymp. Sig.	0.000	Asymp. Sig.	0.000
Organizational capacity:		Managerial expertise:	
N	38	N	40
Chi-Square	60.141	Chi-Square	62.933
Df	4	Df	4
Asymp. Sig.	0.000	Asymp. Sig.	0.000
Networking and Pr:		Product quality:	
N	37	N	41
Chi-Square	18.184	Chi-Square	74.343
Df	4	Df	4
Asymp. Sig.	0.001	Asymp. Sig.	0.000
Product innovation:		Competition:	
N	40	N	37
Chi-Square	57.082	Chi-Square	43.708
Df	4	Df	4
Asymp. Sig.	0.000	Asymp. Sig.	0.000
Sectoral companies:		Related companies:	
N	39	N	39
Chi-Square	42.533	Chi-Square	43.806
Df	4	Df	4
Asymp. Sig.	0.000	Asymp. Sig.	0.000
Universities:		Ministries:	
N	39	N	40
Chi-Square	58.896	Chi-Square	26.707
Df	4	Df	4
Asymp. Sig.	0.000	Asymp. Sig.	0.000

2. Wilcoxon Signed Ranks test: Question 16:

Natural resources EU countries - Natural resources Finland:

Z	-2.053
Asymp. Sig. (2-tailed)	0.040

Unskilled labor EUA countries - Unskilled labor Finland:

Z	-1.520
Asymp. Sig. (2-tailed)	0.129

Skilled labor EU countries - Skilled labor Finland:

Z	-3.964
Asymp. Sig. (2-tailed)	0.000

Innovatory capacity EU countries - Innovatory capacity Finland:

Z	-3.796
Asymp. Sig. (2-tailed)	0.000

Organizational capacity EU countries - Organizational capacity Finland :

Z	-4.153
Asymp. Sig. (2-tailed)	0.000

Managerial expertise EU countries - Managerial expertise Finland :

Z	-3.031
Asymp. Sig. (2-tailed)	0.002

Networking and PR EU countries - Networking and PR Finland :

Z	-1.262
Asymp. Sig. (2-tailed)	0.207

Product quality EU countries - Product quality Finland:

Z	-1,736
Asymp. Sig. (2-tailed)	0.083

Product innovation EU countries – Product innovation Finland:

Z	-3.823
Asymp. Sig. (2-tailed)	0.000

Competition EU countries – Competition Finland :

Z	-1.231
Asymp. Sig. (2-tailed)	0.218

Sectoral companies EU countries - Sectoral companies Finland :

Z	-0.367
Asymp. Sig. (2-tailed)	0.714

Related companies EU countries - Related companies Finland:

Z	-3.165
Asymp. Sig. (2-tailed)	0.002

Universities EU countries - Universities Finland:

Z	-4.116
Asymp. Sig. (2-tailed)	0.000

Ministries Russia - Ministries EU countries :

Z	-5.585
Asymp. Sig. (2-tailed)	0.559

3. Kruskal-Wallis test: Question 16:

3.a Grouping variable: Technology intensity

	FIN			EU			EUA			RUSS			Other countries		
	Chi-S.	df	A. Sig.	Chi-S.	df	A. Sig.	Chi-S.	df	A.Sig	Chi-S.	df	A.Sig.	Chi-S.	df	A. Sig.
Access to natural resources and assets															
Natural resources	15.494	9	0.078	11.170	8	0.192	8.897	8	0.351	15.965	8	**0.043**	27.781	8	**0.001**
Unskilled labour	24.002	9	**0.004**	13.263	7	0.066	12.539	7	0.084	19.705	7	**0.006**	15.595	7	**0.029**
Skilled and professional labo	20.596	10	**0.024**	24.318	8	**0.002**	13.826	7	0.054	14.649	7	**0.041**	19.696	8	**0.012**
Innovatory capacity	23.002	9	**0.006**	20.138	7	**0.005**	10.604	7	0.157	11.985	7	0.101	16.405	8	**0.037**
Organizational capacity	23.319	10	**0.010**	22.952	9	**0.006**	12.101	7	0.097	10.250	8	0.248	14.359	8	0.073
Managerial expertise	22.559	10	**0.012**	23.421	9	**0.005**	14.611	8	0.067	13.525	8	0.095	13.950	8	0.083
Relational skills	13.620	10	0.191	14.689	9	0.100	16.675	7	**0.020**	10.847	6	0.093	23.003	8	**0.003**
Consumer demand															
Upgading of product quality	18.605	10	**0.046**	18.196	9	**0.033**	26.736	8	**0.001**	14.506	8	0.069	12.324	8	0.137
Making for more product inn	19.727	10	**0.032**	17.991	9	**0.035**	17.438	8	**0.026**	15.390	8	0.052	9.573	9	0.386
Interfirm competition/riva	23.110	10	**0.010**	17.941	8	**0.022**	19.133	8	**0.014**	19.054	8	**0.015**	27.130	8	**0.001**
Links with foreign or domestic firms and institutions															
Sectoral companies	17.060	10	0.073	7.110	8	0.525	9.208	8	0.325	8.395	8	0.396	6.897	8	0.548
Related companies	14.151	10	0.166	5.611	8	**0.048**	20.351	8	**0.009**	17.834	8	**0.023**	12.405	8	0.134
Universities and other resear	26.129	10	**0.004**	22.090	8	**0.005**	28.090	7	**0.000**	20.185	7	**0.005**	19.623	8	**0.012**
Ministries and other instituti	23.563	10	**0.009**	14.181	8	0.077	12.992	8	0.112	13.806	8	0.087	11.062	8	0.198

3.b. Grouping variable: Transnationality index

	FIN			EU			EUA			RUSS			Other countries		
	Chi-S.	df	A. Sig.	Chi-S.	df	A. Sig.	Chi-S.	df	A. Sig.	Chi-S.	df	A. Sig.	Chi-S.	df	A. Sig.
Access to natural resources and assets															
Natural resources	39.883	33	0.191	31.480	27	0.252	45.359	31	**0.046**	39.381	27	0.058	32.637	23	0.088
Unskilled labour	44.637	31	0.054	37.406	27	0.088	42.188	29	0.054	39.518	26	**0.043**	39.641	23	**0.017**
Skilled and professional labour	56.851	34	**0.008**	51.326	28	**0.005**	40.319	34	0.211	41.758	30	0.075	33.619	24	0.092
Innovatory capacity	45.204	30	**0.037**	43.828	25	0.011	37.461	27	0.087	36.542	25	0.064	34.088	23	0.064
Organizational capacity	53.407	35	**0.024**	55.306	28	**0.002**	43.533	31	0.067	44.488	29	**0.033**	26.919	23	0.259
Managerial expertise	51.778	37	0.054	46.935	29	**0.019**	41.608	32	0.119	43.004	29	**0.045**	31.579	23	0.109
Relational skills	59.400	33	**0.003**	43.513	28	**0.031**	43.382	31	0.069	41.153	26	**0.030**	38.565	22	**0.016**
Consumer demand															
Upgading of product quality	39.329	33	0.207	38.836	27	0.066	42.427	33	0.126	40.785	27	**0.043**	31.484	23	0.111
Making for more product innovation	53.902	32	**0.009**	32.890	27	0.201	43.538	31	0.067	42.154	28	**0.042**	34.384	23	0.060
Interfirm competition/rivalry	51.762	31	**0.011**	41.723	25	**0.019**	39.163	29	0.099	40.217	28	0.063	36.470	23	**0.037**
Links with foreign or domestic firms and institutions															
Sectoral companies	42.318	34	0.155	40.627	27	0.054	41.923	31	0.091	43.023	28	**0.035**	40.559	23	**0.013**
Related companies	43.508	32	0.084	43.399	26	**0.022**	41.324	30	0.082	33.794	27	0.172	40.000	23	**0.015**
Universities and other research instit	52.079	32	**0.014**	43.361	27	**0.024**	46.999	29	**0.019**	46.031	27	**0.013**	40.204	24	**0.020**
Ministries and other institutions prom	49.751	31	**0.018**	30.717	27	0.283	48.903	30	**0.016**	41.665	28	**0.047**	41.734	25	**0.019**

4. Factor analysis: Question 16: Results are based on rotated component matrices. Method: Principal component; Rotation method: Varimax with Kaiser Normalization*

Access to resources and assets	
Factor 1: Organizational and innovatory skills in the Eastern BSR	
Organizational capacity Russia	0.916
Skilled labor EU applicant countries	0.908
Managerial expertise Russia	0.888
Organizational capacity EU applicant countries	0.878
Skilled labor Russia	0.872
Managerial expertise EU applicant countries	0.866
Innovatory capacity Russia	0.812
Innovatory capacity EU applicant countries	0.809
Skilled labor other countries	0.757
Organizational capacity other countries	0.681
Managerial expertise other countries	0.665
Factor 2: Unskilled labor	
Unskilled labor Russia	0.900
Unskilled labor EU applicant countries	0.886
Unskilled labor Finland	0.793
Unskilled labor EU countries	0.780
Unskilled labor other countries	0.747
Factor 3: Relational skills	
Relational skills Finland	0.848
Relational skills EU countries	0.807
Relational skills Russia	0.743
Relational skills EU applicant countries	0.741
Relational skills other countries	0.686
Factor 4: Managerial and organizational expertise in the Western BSR	
Managerial expertise EU countries	0.865
Organizational capacity EU countries	0.842
Skilled labor EU countries	0.779
Factor 5: Innovatory capacity Finland and the Western BSR	
Innovatory capacity Finland	0.944
Innovatory capacity EU countries	0.897
Innovatory capacity other countries	0.648
Factor 6: Natural resources	
Natural resources EU applicant countries	0.906
Natural resources EU countries	0.832
Natural resources Russia	0.767
Natural resources Finland	0.689
Natural resources other countries	0.669
Factor 7: Managerial and organizational expertise Finland	
Managerial expertise Finland	0.756
Organizational capacity Finland	0.713
Factor 8: Skilled labor Finland	
Skilled labor Finland	0.645
Total variance explained: 92.595	

* In inter-firm competition rotation method was not used, because there was only one component to be extracted. This means that the solution cannot be rotated.

Consumer demand:	
Factor 1: Consumer demand in the Eastern BSR	
Upgrading of product quality EU applicant countries	0.889
Making for more product innovation EU applicant countries	0.851
Making for more product innovation Russia	0.767
Upgrading of product quality Russia	0.744
Factor 2: Consumer demand in the Western BSR and elsewhere	
Upgrading of product quality other countries	0.884
Making for more product innovation other countries	0.841
Upgrading of product quality EU countries	0.679
Making for more product innovation EU countries	0.608
Factor 3: Product innovation in Finland	
Making for more product innovation Finland	0.903
Factor 4: Product quality in Finland	
Upgrading of product quality Finland	0.958
Total variance explained: 89.084	

Inter-firm competition rivalry:	
Factor 1: Inter-firm competition	
Inter-firm competition Finland	0.870
Inter-firm competition Russia	0.865
Inter-firm competition other countries	0.838
Inter-firm competition EU applicant countries	0.805
Inter-firm competition EU countries	0.773
Total variance explained: 69.043	

Links with domestic or foreign firms and institutions:	
Factor 1: Research and related companies in Finland and the Western BSR	
Universities and other research institutions Finland	0.946
Universities and other research institutions EU countries	0.855
Related companies Finland	0.712
Related companies EU countries	0.698
Ministries and other institutions promoting trade and FDI	0.565
Factor 2: Supporting contacts in foreign markets generally	
Sectoral companies other countries	0.839
Related companies other countries	0.808
Ministries and other institutions promoting trade and FDI other countries	0.666
Ministries and other institutions promoting trade and FDI EU applicant countries	0.651
Sectoral companies Russia	0.621
Ministries and other institutions promoting trade and FDI Russia	0.539
Factor 3 Research in the Eastern BSR	
Universities and other research institutions Russia	0.889
Universities and other research institutions EU applicant countries	0.880
Universities and other research institutions other countries	0.692
Factor 4: Companies in the Eastern BSR	
Related companies EU applicant countries	0.863
Sectoral companies EU applicant countries	0.830
Related companies Russia	0.810
Factor 5: Supporting contacts in the Western BSR	
Sectoral companies Finland	0.828
Sectoral companies EU countries	0.808
Ministries and other institutions promoting trade and FDI EU countries	0.789
Total variance explained: 88.949	

5. Friedman test and Kendall's W test: Question 17

Friedman:

N	77
Chi-Square	7.114
Df	2
Asymp. Sig.	0.029

Kendall's W:

N	77
Kendall's W (Kendall's coefficient of concordance)	0.046
Chi-Square	7.114
Df	2
Asymp. Sig.	0.029

6. Friedman test and Kendall's W test: Question 12

Friedman:

N	42
Chi-Square	5.820
Df	2
Asymp. Sig.	0.054

Kendall's W:

N	42
Kendall's W (Kendall's coefficient of concordance)	0.069
Chi-Square	5.820
Df	2
Asymp. Sig.	0.054

7. Friedman test and Kendall's W test: Question 13

Friedman:

N	40
Chi-Square	0.409
Df	2
Asymp. Sig.	0.815

Kendall's W:

N	40
Kendall's W (Kendall's coefficient of concordance)	0.005
Chi-Square	0.409
Df	2
Asymp. Sig.	0.815

8. Friedman test and Kendall's W test: Question 19

Friedman:

N	73
Chi-Square	218.208
Df	10
Asymp. Sig.	0.000

Kendall's W:

N	73
Kendall's W (Kendall's coefficient of concordance)	0.299
Chi-Square	218.208
Df	10
Asymp. Sig.	0.000

9. Factor analysis: Question 20

Factor 1: The role of the Baltic countries	
Estonia	0.914
Latvia	0.907
Lithuania	0.884
Factor 2: The role of the EU countries	
Denmark	0.798
Sweden	0.685
Finland	0.657
Germany	0.619
Factor 3: The role of Russia and Poland	
Russia	0.829
Poland	0.653
Total variance explained: 67.855	

Some Key Characteristics of the Case Companies:

Company 1:	
Field of Business:	Utility production and services
Main products or services:	The construction, operation, and maintenance of mechanical and electrical installations, including: electrical installations; plumbing and heating; air-conditioning and ventilation; security; audio-visual; surveillance and control systems; fire detection and extinguishing systems
Transnationality index:	4.3
Baltic Sea region index:	4.3
Foreign target countries in the BSR:	Russia and other CIS-countries, Baltic countries
Main modes of foreign operations:	Project and turnkey deliveries: Offers complete service from initial design to post-installation maintenance in the construction of mechanical and electrical installations, process electrification, air-conditioning and electrification projects
FDI:	Greenfield investments: Estonia and Russia
Respondent's title:	Leader of the international operations

Company 2:	
Field of Business:	Producer of limestone-based products
Main products or services:	The products are mainly used in the steel, building material, pulp and paper industries as well as environmental care and agriculture
Transnationality index:	20.0
Baltic Sea region index:	20.0
Foreign target countries in the BSR:	Sweden, Estonia, Poland, Russia, Lithuania, Germany
Main modes of foreign operations:	Trade, FDI and some alliances
FDI:	Wholly-owned subsidiaries: Sweden, Germany, Poland, Estonia, Russia
Respondent's title:	Marketing director

Company 3:	
Field of Business:	Office furniture manufacturing
Main products or services:	Office furniture solutions and related services
Transnationality index:	34.6
Baltic Sea region index:	30.6
Foreign target countries in the BSR:	All the Baltic Sea region countries
Main modes of foreign operations:	Trade and FDI, licensing
FDI:	Wholly-owned subsidiaries in Sweden, Germany and Poland
Respondent's title:	Export manager

Company 4:	
Field of Business:	Engineering, construction and energy equipment
Main products or services:	Engineering services and products primarily for the oil, gas, petrochemical, chemical, pharmaceutical and power generation industries as well as environmental services. The group produces power plants, steam boilers, power generation and process boilers and auxiliary equipment for the utility and industrial markets.
Transnationality index:	40.0
Baltic Sea region index:	36.0
Foreign target countries in the BSR:	All the Baltic Sea region countries
Main modes of foreign operations:	Trade and FDI
FDI:	Wholly-owned subsidiaries in Sweden, Germany and Poland
Respondent's title:	Chief Financial Officer (CFO)

Company 5:	
Field of Business:	Diagnostic systems: Drug discovery, research and clinical screening
Main products or services:	Provider of drug discovery, research, and genetic disease screening solutions for customers in a variety of businesses, including the academic, biotechnology, clinical, and pharmaceutical industries.
Transnationality index:	56.3
Baltic Sea region index:	13.7
Foreign target countries in the BSR:	All the Baltic Sea region countries
Main modes of foreign operations:	Trade and FDI, many strategic alliances
FDI:	Wholly-owned daughter companies in Sweden, Denmark, Germany
Respondent's title:	Regional sales director