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# **“Factors to consider before moving production to a developing country”**

-A decision model based on theories, empirical data and applied on Automotive

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**Professor:**  
Lars Bengtsson

**Authors:**  
Sara Bertram  
Hanna Svensson

## Summary

- Title:** Factors to consider before moving production to a developing country – A decision model based on theories, empirical data and applied on Automotive AVS
- Course:** Master thesis in business administration. Major: Strategic Management, 10 Swedish Credits (15 ECTS)
- Authors:** Sara Bertram and Hanna Svensson
- Advisors:** Lars Bengtsson
- Keywords:** Decision model, Internationalization, Foreign direct investments (FDI), Location advantages, Low cost countries
- Purpose:** Our purpose with this thesis is to create a decision model for the board of Trelleborg AB. With our knowledge and inquiries we hope to create a model that can form the basis for their decision on whether or not to perform a direct investment in Central or Eastern Europe. Usually the creation of these kinds of models tends to be highly corporate specific. Our goal is, however, to create a model that is not only valuable to our case company, Trelleborg AB, but also can be applied on a wider basis.
- Methodology:** Our thesis has a qualitative inception which results in the creation of the decision model
- Theoretical perspectives:** The theory starts with explaining the motives for foreign direct investments and continues to explain why there is an existing hierarchy between the developing countries and how foreign investors may take advantages of the differences.
- Empirical foundation:** The empirical findings are based on interviews with three companies who have performed FDI in different extensions.
- Conclusions** The developing country must fulfill the need of a stabile environment, a good infrastructure and to be able to secure the sourcing in order to obtain foreign investments. The most decisive factor depends on the motive of the firm making it hard to determine the location with only the help of our model.

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## 1. Introduction

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*In this chapter we will present background to the thesis and its problem area. Purpose, target group, nature of the essay, disposition and definitions are shown.*

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### 1.1 Background

The increasing globalization during the past few decades has affected both firms and consumers. Boundaries of the past are dissolving and distances between markets, both geographically and in taste are diminishing. Consequently firms are faced with new challenges and the consumers will be the ones that benefit from this. The changes in the economic context for the firms due to globalization can be explained as follows.

*“Economic globalization refers to the increasing cross border interdependence and integration of production and markets for goods, services and capital. This process leads to a widening of the extent and form of international transactions, and to a deepening of the interdependence between the actions of economic actors located in one country and those located in others”<sup>1</sup>.*

Reduction in the differences between many countries' income levels, consumption patterns as institutional structures is one of the big effects to come out of the increased economic globalization. But this positive outcome is unfortunately not the case everywhere; the gap may have shrunk between several countries but it has also grown between others. Less developed countries that have not been able to attract Foreign Direct Investments (FDI), or at least not the right kind of FDI that helps to industrialize the country, are the ones falling behind. The large growth of FDI indicates that the globalization is continually growing and for developing countries a good strategy in their struggle to catch up has proven to be to attract these investments. The competition for the right kind of FDI has increased among the developing countries and that in turn has improved the bargaining power of the big multinational enterprises (MNE)<sup>2</sup>.

In developing countries FDI have for a long time been associated with either reduced production costs, due to cheap labour and raw material, or the ability to provide local production for overseas markets. The implication of the reduced gap between many countries leads to that the developing countries are starting to offer the MNE almost the same wage levels and raw material prices. For the MNE and according to their improved bargaining power this has put pressure on the developing countries to be able to offer the MNE other important factors that could help distinguish them from their competitors while adding value for the investing company.

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<sup>1</sup> Dunning & Narula, 2000, p 1

<sup>2</sup> Ibid.

Automotive AVS is a company within the Trelleborg Group and develops and manufactures polymer based components and systems used for noise and vibration damping for light vehicles. They, as so many others in the automobile industry, are facing a strong competitive environment where their customers persistently are demanding lower prices. To be able to meet these demands Automotive AVS is focusing on cost efficiency production and wishes to take advantages of the possibilities offered to the industrial companies by the developing countries.

## 1.2 Problem discussion

The globalization that has occurred during the past years has not passed anyone unnoticed. The boundaries that before separated people and firms are dissolved and today there are none or at least very few obstacles for movement<sup>3</sup>.

The reasons for moving production have normally been either to have to make use of cheap market labour and raw material or to provide local production for overseas markets. Nowadays another contributing factor is the desire to gain access to technology<sup>4</sup>.

A firm must ask whether FDI is the right path to choose. If the firm may benefit from the advantages through outsourcing, international alliances or joint ventures perhaps there is no need for a direct investment since it may prove to be more expensive. Through an alliance the MNE can get access to market knowledge and distribution capabilities of a local company without having to invest heavily in the country. It is, however, important that both partners benefit from the alliance if it is to continue.

In the 1960's the firms in Sweden began to set up their respective businesses abroad. The two main reasons were lower production costs, resulting in lower prices, as well as to be able to attract new consumers on new markets. A tendency has been that the firms keep the spearhead competence in Sweden and only move the production abroad. Therefore there is a high demand for well educated labour whereas there is a redundancy of blue collar labour in Sweden<sup>5</sup>.

An investigation that has been made by Institutet för Tillväxtpolitiska Studier (ITPS) shows that most Swedes think that the firms show a lack of responsibility to the Swedish society when they move their production to so called low cost countries. Further on the respondents think that this is done by the companies to obtain lower production costs and through that be able to offer lower prices to its customers. Also shown in the results from this investigation is that the respondents are not prepared to pay a higher price for a product that is made in Sweden. This is an equation hard to solve. As long as the consumers are not prepared to show the same loyalty to the firms as they expect the firms to show Sweden the chances are slim that the firms are going to keep their production in this country<sup>6</sup>

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<sup>3</sup> [www.svensktnaringsliv.se](http://www.svensktnaringsliv.se), 2004-10-18

<sup>4</sup> Grant, 2002, p 412

<sup>5</sup> Westerlind Wigström, 2004, p 10

<sup>6</sup> Ibid, p 8

The changes in Europe have opened up new opportunities to both firms and countries. In Central and Eastern Europe former conflicts are reduced and states are breaking loose from former governments to become independent self-governed states. Create a more stable environment is a part of their struggle and in order to obtain that, many of the states had the desire to become members of the European Union. The European Union was originally created to secure a lasting peace, and the only way to do that was to unite the countries economically and politically. After a while the countries decided to go even further by forming a common market.

Time of efforts has managed to remove the barriers to trade between the member states, making Europe a common market where goods, services, people and capital can move around freely. In 2004 the EU welcomed ten new countries and a few years from now the candidate countries Bulgaria, Croatia, Romania and Turkey are expected to follow. This enlargement does not only mean a peaceful, stable and democratic Europe, but also a market with nearly half a billion consumers. For companies this leads to a wish for establishment of an activity in these countries in order to serve the potential market and consumers now available to them.

The new member states are less developed and wishes to obtain foreign investments from firms in order to make economic progress and thereby bring their living standard closer to Western European. Being less developed also means that the prices are less developed leaving the companies with the possibility to produce in the country on very favourable terms being close to a new potential market and still staying close to their already established Western European market.

All in all, this means that the countries and the firms could benefit from each other causing an increasing competition and high demands on the contestants.

All ready existing theories and literature concerning globalization and international production does mainly explain the motive for foreign investment and why there is a hierarchy among countries. The eclectic paradigm try to take this one step further by making some predictions, but not about the location per se which is what we hope to contribute to in a greater extent than already existing literature.

### **1.2.1 Problem formulation**

“Which factors should be fulfilled by both the company and the intended region before a decision on movement of production to Central and Eastern Europe is made?”

### **1.3 Purpose**

Our purpose with this thesis is to create a decision model that can be used as a decision bas before moving production to Central and Eastern Europe. To see how well the model

is working in a real life scenario we will as a final test apply it to Automotive AVS and thereafter evaluate the results we received and problems/shortcomings we faced.

#### **1.4 Nature of the thesis**

The empirical data presented in this study come from a few selected cases where decisions have been made to move production or part of production to a Central or Eastern European country. The idea is to see if there are any general conclusions to be drawn from these cases that cannot be deduced from the theory selected for achieving the decision model. These conclusions are then to be integrated in the decision model this will then be tested on a case where the movement of production of Trelleborg AB's Automotive division is considered.

#### **1.5 Target group**

The target group of this thesis is students of business economy as well as directors and other employees within firms that have an interest in the company's strategy and positioning issues about moving production to a new location.

Basic knowledge is needed, mainly about how theories and definitions are used.

#### **1.6 Disposition**

In our method chapter we will explain how we have approached our task, according to collection of information and choice of companies. We will thereafter present our chosen theories, which will show what kind of perspective we have had on the issue. In the case studies that follow we give a view to our problem from other companies' perspectives and their experiences from moving production abroad. From the theories and actual case studies the decision model can now be stipulated. The decision model is then tested on Automotive AVS. This final chapter of this thesis presents our conclusions and recommendations for future work.

#### **1.7 Definitions**

In this section we shortly summarize our way of using expressions and concepts relevant to the chosen perspective.

*Infrastructure.* A system of constructions and the operation of these, that form the basis for maintenance, and the conditions for production to work, e.g. roads, railroads, airports,



harbours, power plants, electricity distribution, water and sewer systems, telephone connections and the education system<sup>7</sup>.

*Contractual arrangements.* Outsourcing, joint ventures and alliances<sup>8</sup>

*Outsourcing.* A company hires a supplier to perform an activity, which formerly came under the company's own management or decides that a part of the company's business should be put out and released to another company<sup>9</sup>.

*Joint venture.* Two or more companies found a common subsidiary, i.e. a common ownership.

*Alliances.* Different forms of co-operation between juridical independent persons.

*Acquisition.* A company buys shares corresponding to more than 50% of the votes in another company. An acquisition of more than half of the value of the votes means that the buyer controls the bought company, which then becomes a subsidiary to the buyer's company.

*New establishment.* To found a new business or create a new company from scratch

*Merger.* It is a type of acquisition, which means that two or more former independent companies bring together their assets and liabilities to a new or reconstructed company<sup>10</sup>.

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<sup>7</sup> [www.ne.se](http://www.ne.se) 2004-12-03

<sup>8</sup> Schilling, p 270, 1999

<sup>9</sup> Strandell et al, 2004 p 20

<sup>10</sup> Ibid, p 37

## 2. Method

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*The method will explain how we will approach and achieve the task to increase the understanding for our conducted research.*

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### 2.1 The first approach

Our first intention with our thesis was to study an area that is in focus for many companies today, this to make it more interesting for our part and also because we thought it would be easier to gain help from the industry. Given the chance to be a part of the cooperation for research and thesis at master level between Trelleborg AB and Lund University we were able to make it happen. At the first meeting we had with Trelleborg AB and our supervisor Lars Bengtsson, in the beginning of October 2004, we were approached with different areas of Trelleborg AB's interests, subjects that they thought would be interesting for both them and our studies. The one that caught our interest was about moving production to South East Asia due to cost efficiency.

In the beginning of November we had our first own meeting with staff from Trelleborg AB's Business Development Group. At this point we started narrowing down the research area. Initially the idea was to investigate if movement of production, from Sweden to Asia, would lead to a reduction in production costs. However Asia seemed to be a too complex area for our research as it also offers a potential market for Trelleborg AB's products and the research would have to imply a lot more aspects to take into consideration, something that would be hard to accomplish given the limited time for this study. Instead Central and Eastern Europe was selected since movement of production to these countries also could lead to reduction of production costs.

Furthermore we agreed on dividing our study in three parts.

- Studying relevant theories to this area.
- Studying actual cases of companies having been in similar situations, to back up the theories and stipulating a suitable decision model. The conclusions from the case studies could be of a more general kind, something that was of interest to Lund University.
- Testing the decision model on Automotive AVS, a part of the Trelleborg group.

The case study on Automotive AVS would be a way to make Trelleborg AB a part of our solution hoping that this model would be of use for both Trelleborg AB and other companies in the future.

## 2.2 The inception of the research

The choice of inception for the research is highly dependent on the relationship between theory and empirical data<sup>11</sup>. Inception can be divided into two approaches, deductive and inductive theory.

In deductive theory, the researcher, based on what is known in a particular domain and of theoretical considerations in relation to that domain, deduces hypotheses that must be the subject of close empirical examination<sup>12</sup>. A deductive study is distinguished by drawing a conclusion about a separate phenomenon from common principles and existing theories<sup>13</sup>. The weakness with this inception is that instead of explaining the underlying causes it only establishes them<sup>14</sup>.

The process of induction involves drawing generalized inferences out of observations, the theory being the outcome of an inductive research. The risk, though, is that the scope of the theory is hard to tell, since it is based on research of which the foundation is typical for a certain situation, time or group of persons<sup>15</sup>. Another weakness with inductive inception is that it does not include the underlying structure in the picture, it only shows the external connections, hence only scratching the surface<sup>16</sup>.

A combination of these both is called abduction. It means that a separate case is interpreted with an overall hypothetic pattern, which if it is real explains the case in concern. The interpretation should then be confirmed through new observations. As an opposition to the other two, abduction embraces understanding through its direction on the underlying patterns. Abduction has, just as induction, its starting point in empirical facts, but it does not reject theoretical pre-conceptions, and therefore it is closer to deduction. During the research process there is an alternation between theory and empiricism, at which both are gradually re-interpreted by implications of each other. In comparison, the other two tend to be more one-sided and unrealistic than abduction<sup>17</sup>.

We have in our research used abduction; due to that we believe using both approaches will give our report a more reliable and general result. When first starting to consider how we should reach the thesis goal of making a decision model for moving production to Central and Eastern Europe, we decided in concordance with Trelleborg AB that we would study existing theories in our particular domain to establish an understanding for the area. This would also become the breeding ground for our decision model. From the theories we took out the factors we thought were the most important and further on help to improve our decision model. During the time we gathered data we began to understand that it is a relatively unexploited area in theories but not for real life scenarios in the

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<sup>11</sup> Wallén, 2000, p 47

<sup>12</sup> Bryman&Bell, 2003, p 9

<sup>13</sup> Patel&Davidsson, 1998, p 21

<sup>14</sup> Alvesson&Sköldberg, 1994, p 41

<sup>15</sup> Patel&Davidsson, 1998, p 21

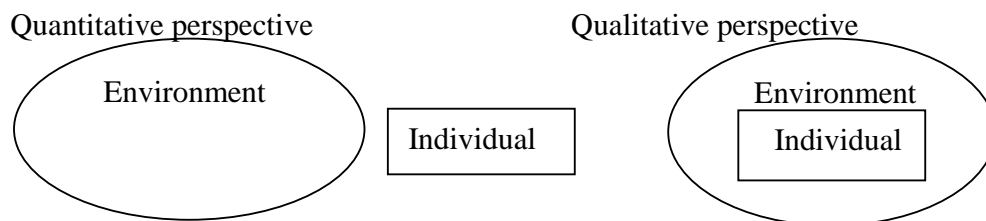
<sup>16</sup> Alvesson&Sköldberg, 1994, p 41

<sup>17</sup> Ibid, p 42

industry. We still wanted to use existing theories, but to fill the blanks they have and see how relevant they are to our report, we decided to conduct interviews with firms that have experience in moving production from Sweden to Central and Eastern Europe. The chosen companies also helped us to conclude what additional theory we had to take into considerations. During the continuing process this interplay is what has characterized our work. Furthermore we hope that by adopting this inception of alternating theory and empirical data will make the results more reliable and also give it a higher validity and reliability than if only using theories.

### 2.3 Qualitative and Quantitative method

The two methods that are relevant when collecting data and information are the qualitative and quantitative method. The choice made between depends on how best they illuminate the selected problem area<sup>18</sup>.



*Model 1 "The traditional and the qualitative perspective" Backman, 1998 p 47*

Qualitative method is characterized by flexibility and closeness to the test object. The method searches for connection and structure while the interest of the method often lies with what is separated and distinctive. As the opposite from the quantitative method, the qualitative method tries to attain more and deeper information but from a fewer number of participants. The investigation is often characterized by an unstructured and informal way of gathering the information. When the research is conducted through a qualitative approach it is preferred for the researcher to become a part of the investigated environment. The investigator can become a member or participant and the relation can be described as an I-you<sup>19</sup>. The advantage with the qualitative method is that the interviews conducted give a comprehensive picture of the investigated problem.

For our problem formulation we have decided that the best approach is a qualitative method, which gives explanations and reasons to certain phenomena. It also gives a higher validity and reliability for us, as we will discuss when approaching these areas. The goal with our research is to find the factors that are vital to consider when moving

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<sup>18</sup> Holme och Solvang 1997 s.76

<sup>19</sup> Holme & Solvang 1997 p 78

production to Central or Eastern Europe. The theories we have found within this area are of qualitative nature and therefore it seems natural to us to use the same approach when we want interview material to support, criticize or complement them. It will in addition be easier to compare the theories and collected material if they are all of qualitative nature. When this part of the investigation is completed we will start our co-operation with Automotive AVS in the effort to be able to answer if they should move their production to Central or Eastern Europe or not. This will be the final test for our decision model and its ability to be adapted to a real decision situation. To gain a truthful and relevant answer to the question we will need to work close with the company when working qualitative. This will help the information we receive to be bound by close ties to the reality it is supposed to evaluate.

The three chosen companies where we have carried out interviews were selected due to their different experience in moving production both in time and extension. Another contributing factor in the selection process was that these companies were prepared to help us by telling their stories and letting us share them with companies that are facing the same problems they have already confronted. The establishing of contacts have been made through first approaching by telephone and e-mail describing the nature of the study and why we would like to come in contact with the person in question.

The next step in the process was to send the questions by e-mail. We started out with having ten questions we intended to send to the respondents. The questions have been developed from the theories we have taken part of but also including the thoughts we had when this work began which we needed answers to. The questions are presented in Appendix 1. By asking open and direct questions we hoped to get thorough answers. The questions have been slightly reconstructed during the process, due to what the former interviews enlightened but also so that the questionnaire was better suited to the respondent and the company that the person represented. After this it has been up to each respondent to decide if they want to answer them oral or by mail. All respondents chose to answer our questions briefly by e-mail, asking us to call them back when we received and revised the given information. This allowed us to form a deeper understanding before we posed more questions and gave us the benefit to follow up answers we found unclear or particular interesting.

All telephone interviews were conducted with a speakerphone so that both of us could hear, take notes and afterwards discuss our impressions and perceptions of the conversation. By choosing the most comfortable way for each individual, we believe the questions will be more worked through than if we would force a certain working way upon them. Also starting this process early in our work has given our participants and us the benefit of time implying that the information we have received has been given without time pressure, increasing the reliability of the information. Also being able to read the chosen theories before formulating our questions have made their relevance higher; we have known what we need to ask about and also how to communicate this in a clear manner to our participants.

## 2.4 Reliability and Validity

It is crucial for a conducted study to be able to present material that has reliability and validity. Reliability stands for how trustworthy it is and validity is the measurement system's ability to measure what it was supposed to measure<sup>20</sup>.

To help us gain high validity and reliability throughout our work we have had several different sources of inspiration. The benefit of this is to have several different approaches of the problem and not overlook important areas. It started with the help from our supervisor Lars Bengtsson to find suitable theories for our subject and from there on we could move further and find new ones suitable for this study.

Having an overview of which production related factors that need to be considered we contacted Peringvar Östblom and Fabian Wallén at Confederation of Swedish Enterprises to obtain information on how the society and companies in Sweden look at moving production abroad. They helped us gain access to reports and find companies suitable for interviewing. The participants of our research were chosen on the basis that they had all made decisions about production movement, but had different experiences and motives. We thought that this would make our end results more general and hopefully more reliable.

Before commencing the interviews Trelleborg AB were asked to comment on our questionnaire, whether they thought our questions lacked some kind of dimension and also to find out factors that would be more relevant than others. By using three different areas of expertise as help and three participants for our interviews, we think we have had the ability to make our report reach both high validity and reliability. It will be as working in a process that constantly fine-tunes the motives, goal and material to our report due to being in contact with several persons from different organizations. It is vital to be able to go back and not be afraid of asking new questions or question the answers we already have been given. In this area we have felt an understanding and support from all our sources. Although, we are very much aware that the lack of face-to-face contact with the respondents may have caused a weaker reliability since distortion of information happens more easily when the researcher is not facing its respondents. We hope though that the numerous consultations with our respondents have established that kind of reliance between us that prevents the interviewed from distorting the reality.

## 2.5 Criticism of the sources

When evaluating sources, one might use different criteria of the criticism. The most important are: tendency, dependency and contemporary criticism, which together will be used to show that the sources are reliable and valid<sup>21</sup>.

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<sup>20</sup> Wallén, 2000, p 47

<sup>21</sup> Wiedersheim-Paul & Eriksson 2001, p 150

Tendency criticism has to do with the supplier of information, conscious or unconscious, interest to angle the information<sup>22</sup>. The tendency criticism that could be directed against our sources is that the respondent would like to represent the company in a good light; leaving out the difficulties and failures they actually endured since it is sensitive information. This is hard to prevent but we tried to choose companies that were not competitors to Trelleborg AB and that were known to be liberal with information to external operators, hoping this would let the respondents speak more freely and open about their experiences.

Dependency criticism means that a control is made to see whether the sources are dependent on each other<sup>23</sup>. Dependency also refers to how many stages the information has passed before it reached the current source. The more stages the information has passed through, the less valuable is the source since it is well known that information is distorted with the number of stages<sup>24</sup>. The persons we have spoken to are not in interference with each other, but sometimes the information has passed several stages before it reached us. It has not always been possible for us to come in direct contact with the person in charge for the movement of production, which means that the information our respondents has given us sometimes has been given to them. We have tried to avoid a conflict of truth by making sure that our respondents are in such a position within the respective companies that gives them access to accurate information.

Contemporary criticism means that a source is less valuable as information provider the more distance it is in time from the course of events it is expressed about<sup>25</sup>. The information we have gathered from our sources is highly current since two of the companies perform FDI and movement of production continuously and the other began production in Estonia two months before our research started in October. The data collection has been executed during a limited periods of time neutralizing the risk of losing valuable and fresh information as time goes on. As mentioned before both of us have been taking notes during all interviews that have been compiled this to avoid the information from being forgotten.

## 2.6 Selection

The information we have received is from documents of different character; also called secondary data and it contains Internet and literature. Through interviews and meetings with different people we have also received primary data. The theories we chosen to use in the report are gathered according to our purpose and question of wording. The interviews have their starting point in the theories and are complemented through information from our sources of inspirations. This can together be mentioned as a descriptive investigation.

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<sup>22</sup> Alvesson & Sköldberg, 1994, p125

<sup>23</sup> Wiedersheim-Paul & Eriksson, 2001, p 151

<sup>24</sup> Alvesson & Sköldberg, 1994 p 126

<sup>25</sup> Ibid, p 126

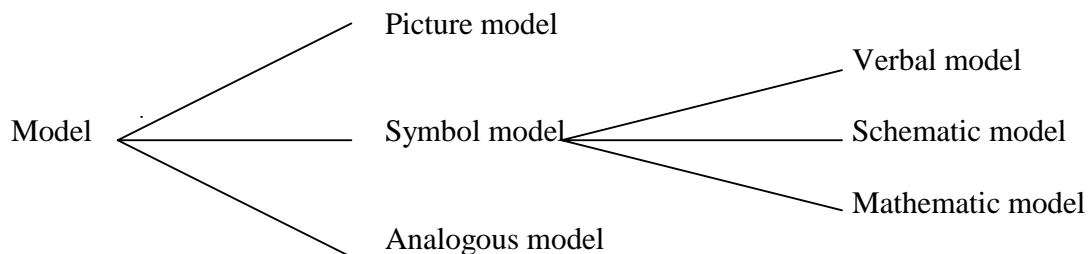
The companies we have decided to study to achieve a better model have all already moved their production or part of it. The benefit of choosing these kinds of companies is that they have already gone through a decisions process and will have learned what they did right and what did not come out the way they expected.

## 2.7 Creation of a model

The knowledge and apprehension, i.e. the background and experience we will use when we are building our model is called frame of reference. It consists of our knowledge in the area and methods, our practical experience, the concepts, our valuation etc. that all together control how we will choose and create our model<sup>26</sup>. We as authors have experience in the field of business economy, and how to read, interpret and use theories studied, but we have no former experience in creating a model.

A model may have several different shapes. It may for example be verbal, mathematic, or schematic and these are all examples of symbolic models. A symbolic model is the most common type used in business economy and it means that it is formulated through symbols which could be constituted by letters, diagrams, arrows, boxes, numbers and so on<sup>27</sup>. Our model will be a schematic model. When using a schematic model it is vital that it there is clarity in what the symbols stand for, the related text and what the schema depicts.

*Model 2. Models divided after different model technique.*



*Source: Hägg & Wiedersheim-Paul, 1994, p 20*

To identify, create and formulate a problem it is vital when working with model creation and very often it is the most difficult thing in the process. There is not one model, which is the solution to a certain problem. There are several since the problem it self is often not clearly specified. When creating a model there are three parts in the process, whereas

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<sup>26</sup> Aronsson et al, 1975 p 40

<sup>27</sup> Hägg & Wiedersheim-Paul, 1994 p 18



problem formulation is one, the following two are theory formation and definition formation<sup>28</sup>.

A model does not exist without a reason. They are created, evaluated and used from different starting-points. There are different perspectives in these starting-points where management, decision and harmony are three common perspectives. The decision perspective is what will characterize our model. That means that the problem solving can focus on acting, but also on understanding, explanation and prediction<sup>29</sup>. One might say that our model will have a roll as guidance to companies. Hopefully it will help them see what would be a good alternative of actions in the prevailing situation. The guidance is connected to decision-making or problem solving, whereas both are goal oriented<sup>30</sup>.

The purpose with our model is that the user will be able to make a decision more easily. The decision making is most likely target oriented, i.e. the one who is making the decision will choose the alternative that best fulfils the desired goal. It means that it is not just the problem that must be well defined, but also the goals must be precise. To use a model for decision making and guidance one must state a rule of choice, a decision criteria, which is related to the goals of the decision making and there might be different rules of choice in various situations that can be used as a complement to the same model<sup>31</sup>. The different alternative of actions will be evaluated and the consequences estimated according to the goals and decisions criteria.

Decision making is dependent on the person's personality. The ways we perceive and interpret information differ from person-to-person, which is one explanation to the differences in management styles<sup>32</sup>. A decision can be hard to make since there is an element of uncertainty. There might be an uncertainty of the outcome, valuation or the connection. The decision whether to locate a new production facility abroad is an un-programmed decision. It means that each decision is more or less unique and there are no clear directions on how to proceed. A decision is always connected to a goal, and often there are conflicts between the goals of the people or divisions involved. The decision model that is to be created must therefore consider the goals of the interested parties<sup>33</sup>. The model is a simplification of the reality and the simpler the model is, the easier it will be for the user to accept it and use it. There for it has been important for us to make sure that all conceptions are well defined so that the user is in agreement with what we mean. There is also a belonging text that explains thoroughly the steps and the different boxes' contents and consequences.

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<sup>28</sup> Hägg & Wiedersheim-Paul, 1994 p 9-10

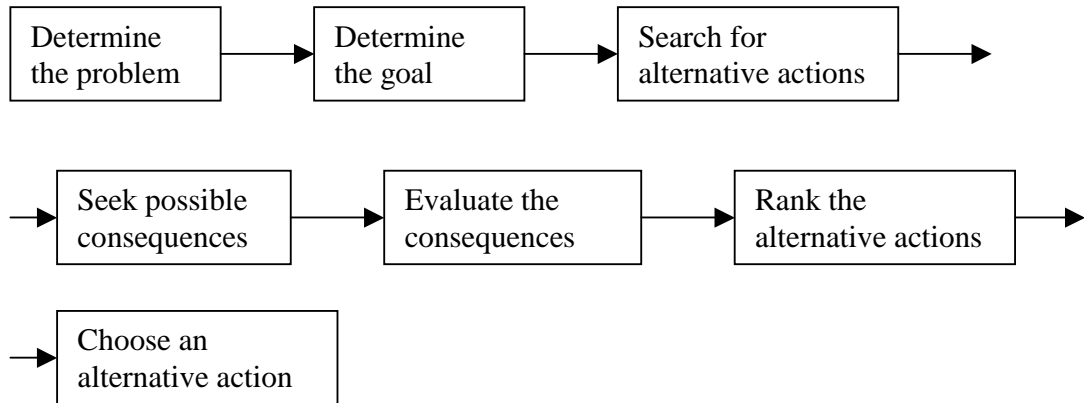
<sup>29</sup> Ibid, p 24

<sup>30</sup> Aronsson et al, 1975 p 51

<sup>31</sup> Hägg & Wiedersheim-Paul, 1994 p 64

<sup>32</sup> Edlund et al, 1999 p 17

<sup>33</sup> Ibid, 1999 p 29



*Model 3 "Illustration of a decision model", Aronsson et al, 1975 p 53*

### 3. Theory

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*The purpose with our theories is to establish certain aspects that are important to look into when production movement is considered and they will form the basis for our model*

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There is non all-embracing explanation to international production since the motives for and the determinants of international production differ, depending on company and country. There are three approaches when it comes to the literature regarding the determinants of MNE activity. First is the macroeconomic perspective concerning why countries engage in FDI. The second approach is focusing on the individual business enterprise and the domestic firm's multinational behaviour and finally the third is focusing on why firms of one nationality are making better use of foreign markets than the indigenous firms located on those markets<sup>34</sup>.

The eclectic paradigm of international production by Dunning tries perhaps more successfully than other theories to integrate all three approaches mentioned above and the theory has had a great impact in the literature on direct investments<sup>35</sup>.

We chose the eclectic paradigm since we found it suitable for our purpose as it form the basis for a general explanation of international production. Also a contributing factor to our choice of theoretical perspective was the theory's acknowledgment.

There are similarities in the paradigm with other explanations to globalization of markets and production where the studies of Michael Porter are one. The O advantages of the eclectic paradigm are embracing Porter's competitive advantages. Further on, the national diamond framework of Porter is a useful tool in the analysis of firms and countries which is why we have chosen to present it in this thesis<sup>36</sup>.

We have divided this theory chapter into four sections, starting with internationalization and the effects it has on industries and specific firms but most importantly the effects on the automobile industry which is the industry we will investigate further in our analysis. Secondly there is a section on competitive advantage in an international context where the work of Porter is presented followed by the section where the eclectic paradigm is described. This ends in the fourth and final section concerning location of production.

#### 3.1 Internationalization

##### 3.1.1 Internationalization in different industries

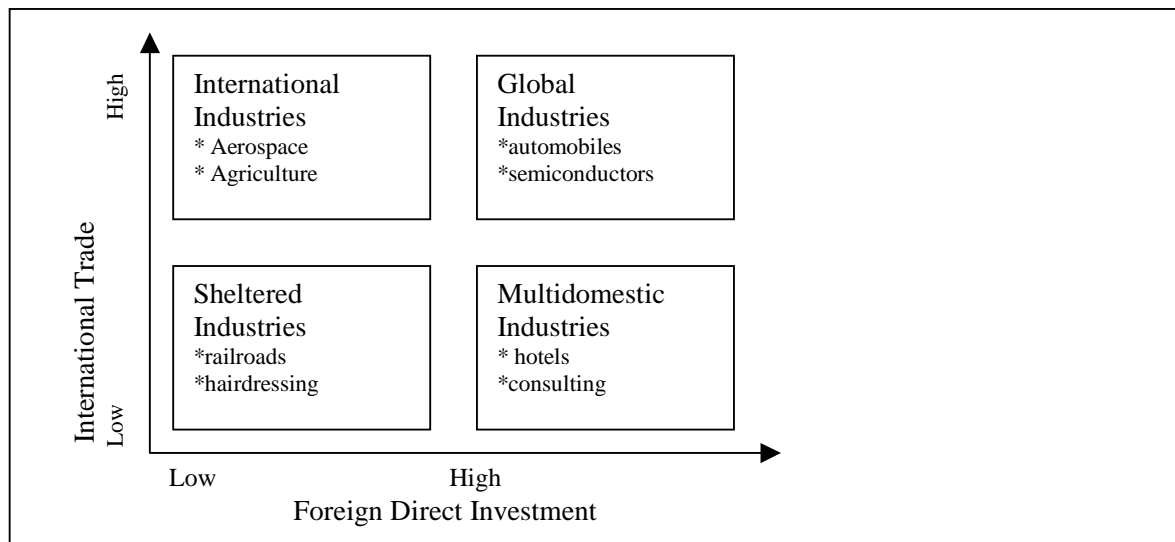
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<sup>34</sup> J H Dunning, 1993, p 66-95

<sup>35</sup> Strandell et al, 2004, p 51

<sup>36</sup> J H Dunning, 1993, p 86

The most important and persistent force changing the competitive environment of business in the recent decades is internationalization. National markets have been opened to new competitors and it has created new business opportunities for all firms. Internationalization for a company can occur through trade and direct investments. The forces that drive them both are the quest to exploit production opportunities by locating production to where it will reach the highest efficiency. Industries can be divided into four different categories depending on to what extent they currently are internationalized and what the future potential is<sup>37</sup>.



Model 4” Patterns of industry internationalization, Grant 2002 p412

*Sheltered industries* are national and can even be local when looking at their market scope. Many industries have been in this category through having been protected against international competition by for example regulations, public ownership or physical trading barriers. But now they find themselves on the road to internationalization. Companies that remain in this category are primarily fragmented service industries, small-scale manufacturing, and industries with non-tradable products due to being perishable or difficult to transport<sup>38</sup>.

*Trading industries'* internationalization occur primarily through export and import. This is the result of a product being transportable, not nationally differentiated, and being profitable. In this case it is more efficient to exploit from one single position. This industry also contains products that only are available in few locations.

<sup>37</sup> Grant, 2002 p 411

<sup>38</sup> Grant, 2002 p 411

*Multidomestic industries* internationalize through direct investments. This due to trade not being feasible or the national differentiation of products is too big<sup>39</sup>.

*Global industries* are able to use both trade and direct investments as means to reach internationalization. This is where we are able to find most of the large-scale manufacturers today<sup>40</sup>.

The way internationalization often occurs for companies providing services or manufacturing non-tradable products are through own subsidiaries. Manufacturing companies often start with export from home market and then later create for example sales- and distribution subsidiaries before moving production.<sup>41</sup>

### **3.1.2 Effects of internationalization on the automobile industry**

The automobile industry tends to evolve towards a global structure, like so many other large-scale manufacturing industries. Even though internationalization offers increased market and investment opportunities it also means a higher intensity of competition.

There has been a concentration of automakers in the automobile industry. The production has been concentrated to few, very large globally active corporations where GM and Ford are the largest<sup>42</sup>. The industry is established, stable and mature. This can lead to the risk of a seismic-shift according to Day. A seismic-shift is a kind of shake-out, where several companies risk to be put out of business due to a change in protecting mechanisms or that the rules of the market is changing. As we have already mentioned the automobile industry has enjoyed the benefit of being protected from new entrants because of the concentrated competition and its high entry barriers like import restrictions and patents<sup>43</sup>.

Deregulation, globalization, technical discontinuity and emergence of a “Competency Predator” are examples of what can trigger off a seismic-shift. These factors are emerging together and leave the companies facing several new threats they have to approach to survive. A seismic-shift can occur anywhere and it is vital for the companies to sense it before their respective competitors do<sup>44</sup>. For companies in stable and mature businesses the ground rules for surviving a shift in competition are; fast integration to achieve economies of scale, cost reduction through information technology, aggressive debt financing and leadership in offering value-added services<sup>45</sup>.

The speed of developing new car models has increased as a result of globalization and the greater competition from Japan. The consequences are that the automobile industry is

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<sup>39</sup> Ibid 412

<sup>40</sup> Ibid p 412

<sup>41</sup> Ibid, 202 p 413

<sup>42</sup> Strandell et al, 2004 p 62

<sup>43</sup> Day, 1997 p 96

<sup>44</sup> Day, 1997 p 97

<sup>45</sup> Ibid, 101

facing restructuring, co-operations and changes in ownership<sup>46</sup>. Historically a consumer used to drive his or her car until it fell apart. Nowadays the quality and features outstrips what most customers want, need or can absorb and is a good example of disruptive technologies according to the authors<sup>47</sup>.

The growing number of car models and the growing demand for speedy design, development and delivery has changed the basis of competition. The architecture of each subsystem in the automobile industry is becoming more interdependent so that they can meet the demand from the car manufacturers. To become more flexible and quick the car manufacturers are forced to break up their value chain, which means that the former dominant integrated firms are forced to disintegrate. This is exactly what GM and Ford have done, but by doing this they have outsourced the pieces of the value chain where the money will be in the future so that they can stay where the money once was<sup>48</sup>. It is important for these globalized, disintegrated corporations to remember the “bedrock principle,” i.e. those who control the interdependent links in a value chain capture the most profit<sup>49</sup>. Overshooting technologies has changed the game and this means that components and subsystems are becoming highly profitable, which was rarely the case in the past<sup>50</sup>.

### 3.1.3 Company motive for international production

According to Dunning the four motives why firms locate production abroad are seeking of resources, markets, efficiency and strategic assets. Today many of the MNE who perform FDI have a combination of the above motives mentioned. Last we find some general factors that affect investments from MNE.

*Resource seeking* can be the result of three different goals. The first is to find resources at a lower price than what is currently the case. The second is to find inexpensive and well-motivated labour, both unskilled and semi-skilled. The last type of resource seeking is when firms need to go ahead with FDI to be able to get hold of certain technology or expertise in other forms. This also includes collaborative alliances<sup>51</sup>.

*Market seeking* implies finding new markets to exploit. The reasons for wanting to enter a new market are many. Being closer to the customer could result in many advantages like for instance cost reductions as well as the ability to provide better service. Furthermore there might be the need to get accustomed to local tastes and culture. Also, many governments try to attract FDI by lowering their taxes or giving MNE other benefits<sup>52</sup>.

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<sup>46</sup> Strandell et al, 2004 p 62

<sup>47</sup> Christensen et al, 2001 p 81

<sup>48</sup> Ibid

<sup>49</sup> Ibid, p 77

<sup>50</sup> Ibid, p 79

<sup>51</sup> J H Dunning, 1993 p 57

<sup>52</sup> J H Dunning, 1993 p 58-59

*Efficiency seeking* is a way to rationalize the structure in the firm. This can be done both within the processes and the product area. The obvious benefit is cost reduction but also it is a way to risk diversification. The first way to reach this is by taking advantage of differences in costs and accessibility in different countries. The second is by entering markets where consumer patterns are almost the same, which leads to economies of scope and scale<sup>53</sup>.

*Strategic asset seeking* is a way to promote the firm's long-term strategy options and gain advantages in the international competition. The firm's existing portfolio of assets will improve and thereby coming to terms with imperfections in the market and their own strategy. Seeking strategic assets is the hardest to measure results from and is often thought of integrated in the above mentioned. What is known is that it gives an important advantage against competitors<sup>54</sup>.

*The general factors* are something motivating MNE to FDI even though the main object for the investment may be seeking one of the motivation factors mentioned above. It takes up factors as exchange and financing variables, governance deregulations, liberalization of trade and investments, distance and integration factors. But also culture is an important part, two countries that have similar culture are likely to invest in each other<sup>55</sup>.

## **3.2 Competitive advantage in an international context**

### **3.2.1 Comparative advantage**

Internationalization has changed the way companies need to compete. In the past reaching a competitive advantage required simply matching the company's internal strength in resources and capabilities with the key success factors of the industry. With different countries competing on a global market it is vital to see that the national environment also plays a part (availability of the resources in the country where they conduct business)<sup>56</sup>.

National influence on competitiveness means that a country has a comparative advantage against other countries with the products that make intensive use of those resources available in abundance within that country. For example the United States has an abundant supply of technological resources. This gives the country a comparative advantage with products like microprocessors or computer software. The term comparative advantage refers to the relative efficiencies of producing different products between countries and as long as exchange rates are not fluctuating this should translate to competitive advantage. The comparative advantage a country possesses will be shown

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<sup>53</sup> Ibid, p 59-60

<sup>54</sup> Ibid, p 60-61

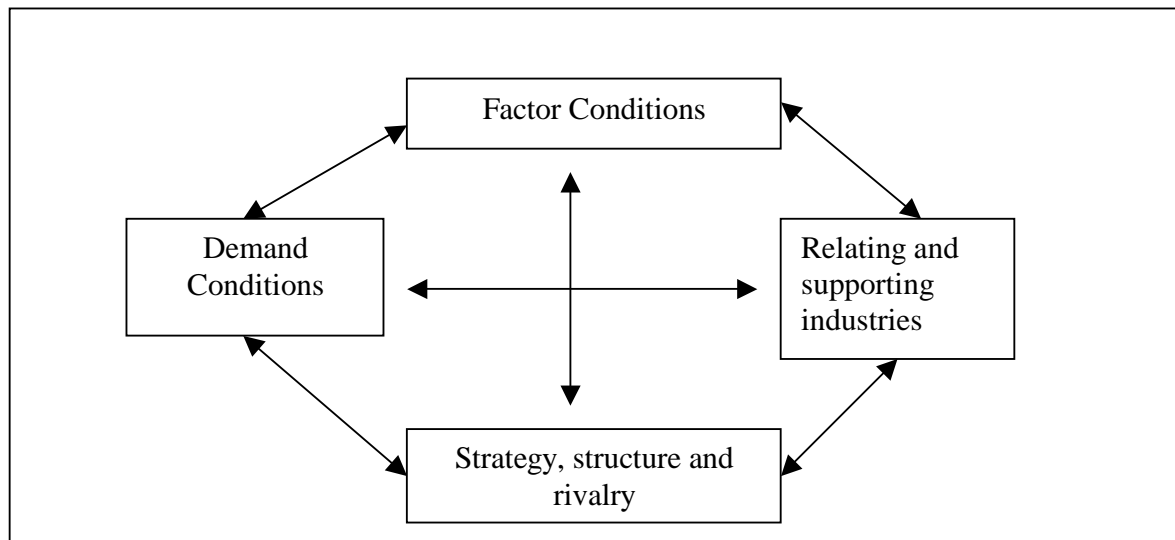
<sup>55</sup> Strandell et al, 2004 p 53

<sup>56</sup> Grant, 2002 p 415

in the trade balance as a positive number<sup>57</sup>. The theory about comparative advantage focuses on natural resource endowments, population, and the capital stock<sup>58</sup>. Empirical research has shown that this is not enough. Other critical factors are cultural, religious, and social factors as well as “home-grown” resources such as technology, human capital, management capabilities and infrastructure. Economies that lack natural resources but still have been able to grow through developing their internal resources are called “tiger economies”. Knowledge is increasingly becoming a critical factor in national advantage, resulting in education, entrepreneurship and social organization each playing an important role in a country’s competitiveness<sup>59</sup>.

### 3.2.2 Porter’s national diamond

Porter’s national diamond framework offers an extension in our understanding for the impact of national conditions on firm’s international competitive advantage. The research conducted is based on thirteen industrialized countries. Porter states that a country’s competitive performance is dependent on the performance of the companies within the country. This is though an interdependent relation, since the national environment has a strong influence on the performance of the firm<sup>60</sup>. As time passes it is important to continuously upgrade and innovate the country’s resources and capabilities to sustain the advantage it has already gained. Finally the firm’s competitive performance will depend less on national resources and more on the dynamic conditions that influence innovation and upgrading<sup>61</sup>



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<sup>57</sup> Grant, 2002 p 416

<sup>58</sup> Ibid, p 416

<sup>59</sup> Ibid, p 417

<sup>60</sup> Ibid, p 417

<sup>61</sup> Ibid, p 418



*Model 5, Porter's National Diamond Framework, Grant, 2002 p 417*

*Factor conditions.* Porter's research focuses firstly on the "home-grown" resources and secondly on the role that highly specialized resources play when it comes to a country's advantage over other countries. Examples could be Hollywood and its pre-eminence in film production or Japan's lack of raw material that has led to firm's minimizing their products<sup>62</sup>.

*Related and Supporting Industries:* It is often vital for the success of industries to have related and supporting industries in their presence. The competitive strength is often associated with "clusters" of industries. In the United States most of this cluster contains of semiconductors, computers and computer software<sup>63</sup>.

*Demand Conditions:* The demand conditions in the domestic market works as the primary driver of innovation and quality improvement. For example the dominance of Japanese companies in the camera industry is much dependent on the Japanese consumers' fondness for amateur photography and adopting new products<sup>64</sup>.

*Strategy, Structure and Rivalry:* There is an undeniable connection between the national competitive performances in particular sectors and the strategy and structure of the firms. Porter's research shows that the competition between domestic firms spurs innovation and upgrading of the competitive advantage. This is due to the more direct and personal competition between domestic firms compared to international competition. In other words the competition intensifies if firms are based in the same country<sup>65</sup>.

### **3.3 Internationalization theory - Eclectic paradigm**

Dunning tries in his internationalization theory to explain the motives and forces behind foreign investments. The eclectic paradigm offers a framework for explaining, "what is," rather than "what should be," the level and structure of foreign value activities of enterprises. This also gives an intersection between a macro-economic theory of trade and a micro-economic of the firm. This is a way to see how resource allocation and the organizational structure fit. With the globalization of today it is more important than ever to look outside the firm. The eclectic paradigm is the ability for the enterprises to look at trade from both a country and a firm specific way. It gives you support to look at different perspective and from them decide if there is an advantage for you as a firm or country to gain advantages in international trade.

The paradigm consists of three parts, to which it also offers guidance, Ownership (O), Location (L) and Internalization (I). This is also why the paradigm often is referred to as

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<sup>62</sup> Grant, 2002 p 418

<sup>63</sup> Ibid, p 419

<sup>64</sup> Ibid, p 419

<sup>65</sup> Ibid p 419

the OLI triad. Both the firm and the country in order for the company must fulfil these three criteria to make an investment. The eclectic paradigm makes no predictions about in which countries the firms are most likely to engage in FDI but since the advantages are not evenly spread across countries there are those countries that will be more favourable to the firms<sup>66</sup>.

### **3.3.1 (O) Owner specific advantages**

(O) Ownership-specific advantages are firm specific qualities within the acquired company. They are supposed to be unique to firms of a particular nationality of ownership and depend on its ability to possess or acquire certain assets not available or not available at such favourable terms to another country's enterprise. This includes not only tangible assets, for example manpower or capital, but also intangible assets such as technology, information, managing etc.

### **3.3.2 (L) Location-specific assets**

(L) Location-specific assets are constituted by advantages represented by a specific host country. They are as the ones mentioned above both tangible and intangible. They consist of natural resources, work power, capital, technology, organizational systems and information. The difference from (O) is that the assets are specific to a certain location in their origin of use but available to all firms. It is dependent on the extent to which the firms perceive their interest best being served by creating or utilizing their (O) advantages in a foreign location. (L) also takes in different endowments as culture, political and institutional environment. Depending on if the firm wants to have a horizontal or vertical integration strategy of the production, different things must be taken into consideration. The motives for vertical integration according to firms are to take advantage of the difference in factor prices. Horizontal integration motives are to be close to the market where the end-customer is.

### **3.3.3 (I) Internalization incentive advantages**

(I) Internalization incentive advantages mean that the firms perceives it to be in its best interest to add value to its (O) advantages rather than sell them or the right of use, i.e. there must be motivation for a company to keep the product in the firm and not let it be produced for example on license. The will to keep the patent or knowledge within the firm comes out of not wanting it be leaked to competitors. There might also be specific organizational advantages or effective production processes that contribute to the production being more cost effective when keeping the production within the firm.

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<sup>66</sup> J H Dunning, 1993 p 80

The internalization incentive advantage arises from market failure and for the firms it means an opportunity to circumvent or exploit this market failure. This is also the explanation to why a firm chooses the hierarchical- rather than the market route when exploiting differences in (L)-specific assets between countries. Examples on market failures are that advantage could be gained due to the lack of accurate information when entering a market, differences and lower transaction costs in the areas the company is working in and that the demand is greater than what the company can supply (leaving them without fully capturing economies of scope and scale).

The three parts of the eclectic paradigm (OLI) must according to Dunning be fulfilled when a firm is considering moving production. The character and pattern of the international production will depend on the configuration of the (O) assets of firms and the (L) assets of countries, as well as on the extent to which firms perceive that they themselves (rather than markets) possess advantages in organizing the (O) and L assets. Given that, it will also depend on the strategic alternatives open to the firms and the evaluation of the consequences of the different alternatives. The final decision on where to locate its production will depend on the network and characteristics of the (O) advantages and the extent to which the firm perceives that a particular location might help the firm to internalize intermediate product markets better than another<sup>67</sup>.

### **3.4 Location of production**

For a company that is facing internationalization there are two main issues. The first is where to locate their manufacturing and the second is the decision on how to enter the foreign market. The primary motivations for companies to seek new markets are to access resources and capabilities available in other countries<sup>68</sup>.

#### **3.4.1 Determinants of Geographical Location**

There are three sets of factors that decide where a company will manufacture their products/services<sup>69</sup>.

*National resource availability:* The firms' should manufacture in countries where resource supply for them is favourable. This means countries where key resources differ in terms of availability and cost. As an example we can take the semiconductor companies that will establish R&D facilities in California's Silicon Valley in order to exploit US microelectronics expertise<sup>70</sup>.

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<sup>67</sup> J H Dunning, 1993 p 76-79

<sup>68</sup> Grant, 2002 p 420

<sup>69</sup> Grant, 2002 p 421

<sup>70</sup> Grant, 2002 p 421

*Firm-specific competitive advantages:* When the competitive advantage for a firm is based on internal resources and capabilities it is vital for the company to use the country where these resources and capabilities best can be deployed<sup>71</sup>.

*Tradability:* Transportability is important when considering locating production away from its market. Factors that impact are high transportation costs, forcing local production, and differences in consumer taste, encouraging to local production. But also governments import restrictions can force global corporations to locate production facilities in local markets<sup>72</sup>.

### **3.4.2 Location and the value chain**

When a company is looking at different location decision it is important to remember that a product or service is made of a vertical chain of activities and the input requirements of each vary considerably. This result in different countries has different advantages at each stage of the value chain. It is vital for the firm when determining where to locate to identify the principal inputs into each activity and then match these to costs and availability of these inputs in different countries<sup>73</sup>.

The benefits that can come from breaking a value chain for gaining advantages by producing different activities in different countries must be traded off against weaker linkages between stages in the chain<sup>74</sup>. Factors to take into consideration are transportation costs and increased inventory costs. But also if the learning curve is steep, the time costs of shipping components can be great. For example semiconductors can loose 5 percent of its value when being shipped between Asia and the US. Scattered activities can also lead to problems of coordination and control. How important it is to have close linkages through geographical closeness depends on the firm's strategy<sup>75</sup>.

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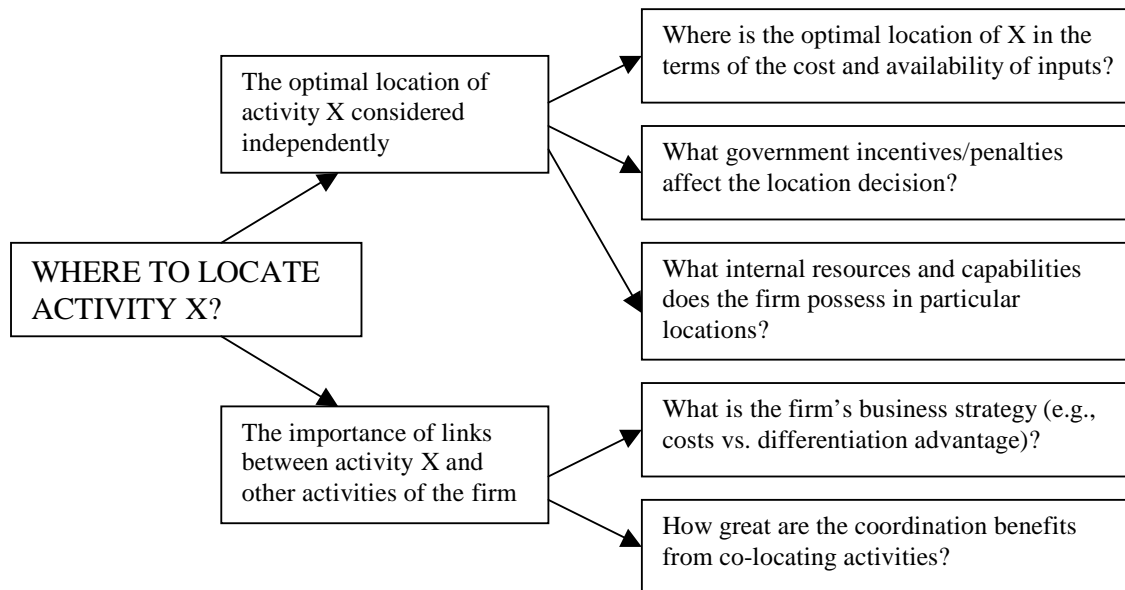
<sup>71</sup> Grant, 2002 p 421

<sup>72</sup> Grant, 2002 p 422

<sup>73</sup> Grant, 2002 p 422

<sup>74</sup> Grant, 2002 p 423

<sup>75</sup> Grant, 2002 p 424



*Model X, Determining the optimal location of value chain activities, Grant 2002 p 424*

### 3.4.3 Mode of procedure

According to Dunning there must be a reason or motive for the company to keep the production internally instead of letting another company produce on license<sup>76</sup>. When a company protects its proprietary systems through patents, secrecy or other, a firm is ensured that it gets all the rewards from its technology development investment. But protecting the proprietary system will probably make the products non-compatible with products offered by other manufactures. Since the high cost and its poor availability of complementary goods, proprietary systems face a high risk of rejection under conditions of strong network externalities<sup>77</sup>. A network externality exists when a user's benefit from using a product increases with the number of other users of the same product<sup>78</sup>. If you are the platform leader, or your product is the industry standard then you are dependent on complementary products<sup>79</sup>. The complementor's products expand the platform leader's market and the dependency between these two is an on-going concern<sup>80</sup>. A firm can use inter-organizational linkages to increase the availability of complementary products. This means that through contracts, alliances and joint ventures, i.e. contractual arrangements with distributors, complementors or large end-users, a firm can make sure that its technology is widely used in exchange for compensation<sup>81</sup>.

<sup>76</sup> Strandell et al, 2004 p 51

<sup>77</sup> Schilling, 1999 p 269

<sup>78</sup> Ibid, p 267

<sup>79</sup> Cusomano & Gawer, 2002 p 53

<sup>80</sup> Ibid, p 52

<sup>81</sup> Schilling, 1999, p270

Instead a firm can diffuse its technology through licensing arrangements and open systems. As in contrast to protection, this doesn't risk technological lockout or reduces the chances of having the technology spread out into the market place. A firm should only consider protecting proprietary elements of its technology if there are few competitors on the market, an already existing range of complementary products and/or if the firm's technology has a great, perceived or actual, margin of improvement over the other alternatives. If that is the case then the firm can carry out the protection and still hope to attain an adequate installed base so that they can avoid lockout under circumstances of strong network externalities.

There are though some downsides with open systems. They may soon be commoditized and probably not provide their developers with the appropriate rent. They may also become the dominant standard but still not generate others or more profitable activities of the firm<sup>82</sup>. An option that combines open systems and proprietary systems is modular design. A modular product system has the ability of using proprietary technology within components of the system, but using a standard-based interface to interact with other components or systems. Modularity in product systems are growing since it increases the amount of potential product configurations derivable from a given set of product technologies and it also enables a system to be upgraded without replacing the whole system<sup>83</sup>.

*Table 2. Diffusion versus Protection of Proprietary Technology under Conditions of Strong Network Externalities*

Consider diffusion when...	Consider protection when...
Technology leverages other profitable activities of the firm	Technology offers great margin of improvement, and that margin of improvement is readily apparent to customers
Technology requires third-party development of complementary goods	Technology is compatible with a wide range of complementary goods
Competitors are able to offer strategically equivalent technology	Competitors do not pose a significant threat

*Source: Schilling "Winning the standards race", 1999, p 269*

### **3.4.3 Mode of foreign market entry**

A firm takes the step to explore an overseas production opportunity if convinced that it will be profitable. The way a firm chooses to approach the resources and capabilities may differ but it basically comes down to producing in an overseas country either by transaction or through direct investments. Transaction means that the firm must exploit

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<sup>82</sup> Ibid, p 269

<sup>83</sup> Ibid, p 270

an overseas market by exporting because the firm's competitive advantage is by nature country based<sup>84</sup>. FDI is another and contrasting way to expand international and it has been the most popular way. With the growing numbers of FDI the kinds of international expansion have changed. For many people direct investments and establishment on foreign markets are synonymous with new establishment even though this is not the case. Moving into a new market can be done in many different ways, for example acquisition, merger, new establishment, alliances and joint ventures. Direct investment has to a great extent been performed through acquisition of companies. Acquisition is a faster and less expensive way to grow than new through establishments and for that reason acquisition is becoming widely used when a firm has the desire to establish a new or expanding in an already existing activity. It is on the verge of replacing new establishment as the most common way<sup>85</sup>. The methods used to establish in a new country depends highly on the prevailing structure. In developing countries and less developed industrial areas it is more likely that a firm chooses opts for a new establishment since there is a lack of appropriate firms to buy. Given that there is a lack of companies that have a development capability and because acquisition of companies is a popular way to expand the existence of such companies is becoming an important factor.

An acquisition might be related or non-related to the company's spearhead competence. A related acquisition has a connection with the buying company's core activities. The purpose of the acquisition is to reach a higher value than before. The value added can be obtained from economies of scale, economies of scope and through stronger market power. When there are no technological or product connection between the companies involved it is a non-related acquisition. A company performs this kind of acquisition when the company needs to diversify the risks, complement their mature activity or when needed to have access to new qualified competence. Stronger market power might also in this case be the reason for the acquisition<sup>86</sup>.

### 3.5 Summary of the theories

Industries can be divided into four different kinds depending on the level and form of their internationalization. The automobile industry belongs to the global industries, which widely uses both trade and FDI to reach internationalization. As for many other large-scale manufacturers internationalization has offered new opportunities but also increasing competition. Hence there has been a restructuring in the automobile industry, which is important to remember so that the firms can foresee where the money will be in the future.

A firm may be resource seeking, market seeking and/or efficiency seeking when locating production abroad. There are also general factors that affect firms when performing a FDI. The wide extension of FDI has changed the nature of competition. The company's internal resources and capabilities is no longer enough, today the national environment also plays an important part. The comparative advantage of a country will be shown in

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<sup>84</sup> Grant, 2002, p 412

<sup>85</sup> Strandell et al, 2004, p 37

<sup>86</sup> Strandell et al, 2004 p 54-55

the trade balance, as a positive number. The focus of comparative advantage has been on natural resources endowments, population and capital stock, but today it is recognized that other factors as infrastructure and culture also have an effect on the competitiveness of the country. In Porter's national diamond framework it is shown that the relationship between the country's competitive performance and the performance of the firms within the country is interdependent. To sustain a competitive advantage it requires dynamic advantages, i.e. the competitive advantage must be broadened through innovation and upgrading of the resources and capabilities. The national environment's effect on the firm's performance has to do more with dynamic conditions than national resource availability.

The eclectic paradigm explains the forces and motives behind foreign investments. There are three criteria, or advantages - owner-specific, location-specific and internalization incentive advantages - that must be fulfilled in order to gain foreign investments. To determine where to locate production the national resources availability, firm-specific competitive advantages and the tradability are all factors that decide where the company will locate its production. When looking at different location alternatives it is vital to remember that different countries have different advantages at the different stages of the vertical value chain.

A firm must also decide whether it should protect or diffuse its technology when entering a new market. Dunning states that there must be a reason for the company to keep the production internally, but doing so the firm risks technological lockout. Modular design is an option since it combines both open system and proprietary system.

The mode of entry a foreign market is also a decision the firm has to make. The entering may be conducted by either transaction or foreign investment. Transaction is mostly used when the firm's competitive advantage is country based. There are several ways of how to perform a direct investment as joint ventures, acquisition and new establishment. The latter two are common ways of procedure, where acquisition is growing since it is less time and cost consuming. Sometimes though there are not appropriate production facilities to acquire therefore new establishment is the most suitable course of action.



## 4. Empirical data from research carried out by others

*In this chapter we will present empirical data that has been developed by others for suiting their intentions and research. The data presented does, however, help shed light on some interesting aspects of our research.*

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### 4.1 Stated important factors for decision making

During a survey made in Sweden, the largest participants in each line of industry was asked what the most important factors are when new investments abroad are to be made. The majority thought stable laws and regulations, growing markets and the increase of educated and competent human resources have a great impact when deciding where to locate new investments. The participating companies did not think that low taxes and prevailing wage levels were the key factors. That might though differ, depending on business. For example firms in the power-supply industry are more concerned about the taxes since this is costly for them and labour-intensive production companies are concerned about the level of wages<sup>87</sup>. However some signs do show that the interest of Swedish companies in countries with low wages has grown during the latest years<sup>88</sup>.

Important locations factors	All surveyed	Swedish private companies	Foreign owned companies
Stable laws and regulations	76	76	74
A growing market	74	79	74
Employees with the right training and competence	74	75	74
Close to customers	71	71	67
Climate for companies in intended countries	59	59	64
Wage level in intended countries	24	19	31
Low taxes	22	21	25

*Table 2. Factors with the greatest impact on where companies decide to locate bigger new investments 2003-2007, answers in percentage, Strandell et al, 2004 p 64.*

### 4.2 Sweden versus the EU9-countries

To face the increasing demands on lower prices from the customers, companies must act if they want to survive. An evident solution to that problem is to lower the production

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<sup>87</sup> Strandell et al, 2004 p 64

<sup>88</sup> Ibid, p 7

costs. The factors involved in production are: labour costs, productivity and energy prices.

The labour costs for low-qualified workers are in comparison much higher in Sweden than in the EU9-countries (Cyprus, Slovenia, the Czech Republic, Poland, Hungary, Estonia, Slovakia, Lithuania, and Latvia) where the Baltic States have the lowest. Labour-costs include wages, social charges and taxes. On the other hand some sceptics argue that these differences will soon decrease and with the fast development of the salary in developing countries, the wage levels will soon be the same all over Europe. It is true that the salary in developing countries are rising at a high speed, but since the differences are so immense it will take a long time before they are approaching the Western level. Furthermore wage levels in Western Europe are also increasing the differences might actually be greater than they are today. A report made by the European Economic Advisory Group shows that the EU9-countries need decades before their salaries reach the same level as the other EU15-countries<sup>89</sup>.

The productivity in Sweden tends to be lower than in the EU9-countries. A Latvian worker performs on average 2101 hours of work a year, which is 537 hours more a year with a wage only 10,9 % of the average wage in the EU15-countries. To get a fair picture the productivity per worker must also be taken into consideration and this is lower in the EU9-countries. Still these countries have an advantage because of the very large difference in the labour cost/hour<sup>90</sup>.

A third and important factor is the energy price. For energy intensive companies lower costs for oil and electricity might be decisive factors when deciding where to locate the production. The prices in Sweden on diesel and electricity is fairly competitive, especially the price on the latter<sup>91</sup>.

Another solution to the problem of lowering their prices is to look for solutions where the company can keep a larger part of the profit, i.e. the search for more advantageous tax climates, so that the company can invest and be more effective and as a result lower the cost through that procedure. When it comes to corporations it is naturally the corporation tax, which is relevant. In comparison with other countries in West the tax in Sweden is competitive, but it is not particularly competitive in comparison with EU9-countries, whose taxes have been highly reduced. In these countries, as in India and China, a company may receive tax reduction if they decide to establish themselves there. Other taxes that one should take into considerations are the levy tax and the tax on dividends, which are higher in Sweden as a consequence of the double taxes companies are forced to pay on the owner capital<sup>92</sup>.

A country's currency is a decisive factor when talking about the country's competitiveness. Currency is affected by global market powers and politics. The

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<sup>89</sup>Westerlind-Wigström, 2004, p 14-17

<sup>90</sup> Ibid, p 18-19

<sup>91</sup> Ibid, p 23

<sup>92</sup> Ibid, p 31-33

competitiveness of a nation is determined by the relationship between the currency that pays for the production and the currency that pays for the product. One might say that a stronger currency means a reduced competitiveness for the export industries in that currency region. Since the EU9-countries are trying to join the European Monetary Union (EMU) and as the outside faith in these countries is increasing this is not a decisive factor for Swedish companies, which are thinking of moving to any of the EU9<sup>93</sup>.

When moving production there are also other institutional factors a company must consider such as the prevailing political framework as well as the availability and legislation of labour.

Comparason Sweden vs. EU9-countries

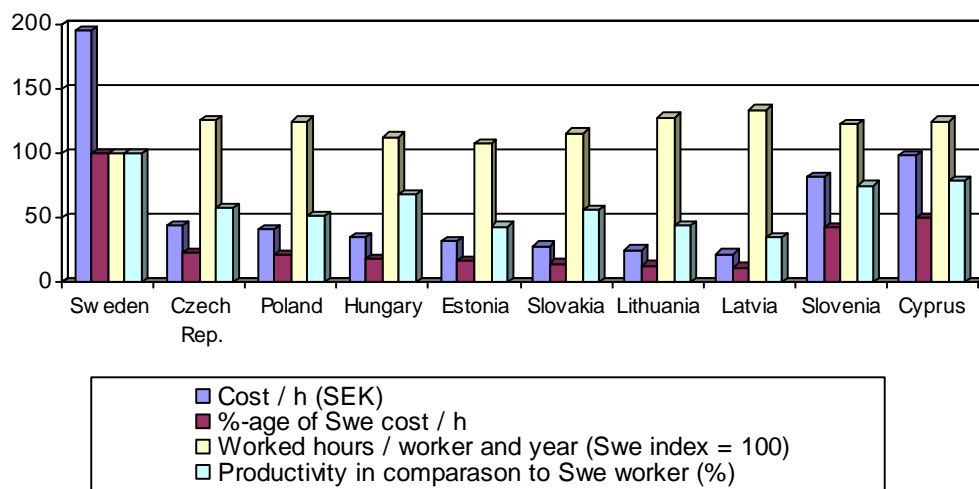


Diagram 1, "Overview country comparison" Source: Westerlind-Wigström C., "Den stora utmaningen", 2004, p 14-21

<sup>93</sup> Ibid, p 29-31

## 5. Case studies

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*Each of the case studies comes with a short presentation of the respective companies. This is followed by a reproduction of the answers from our interviews, as uncensored as possible*

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### 5.1 Flexenclosure

#### 5.1.1 Presentation of the company

Pharmadule Emtunga AB is one of the world-leader suppliers of advanced modular facilities. The company is organized in three divisions each focusing on their respective industrial segment: Pharmadule towards pharmaceutical and biotech industry, Emtunga towards oil and gas industry and Flexenclosure towards telecom and power industries<sup>94</sup>.

The division Flexenclosure is a leading manufacturer of high-quality telecom modules for the telecommunications industry. They produce advanced customised technical modules such as telecom shelters for housing telecom base stations, modular housing for telecom switching stations, electrical power systems, etc. and they are specialised in producing modular units for technically advanced systems that need flexibility combined with superior quality. Based in Vara, Sweden, Flexenclosure sell their products to clients all over the world<sup>95</sup>.

Up until recently the company produced telecom shelters in Vara, but in October 2004 the company began to move material and tools to Estonia. The transfer to Estonia was necessary if the company was going to be able to meet the demand for cost efficiency. Flexenclosure will not only be the name on one division in the company, but Flexenclosure OÜ will also be a completely own subsidiary in Estonia under Pharmadule Emtunga AB. With the help from Swedish Trade, Flexenclosure found suitable premises in Sõmeru, 10 miles from Tallinn. Amongst the advantages is that the roads are good, it is close to both the harbour and to the supplier of raw materials<sup>96</sup>.

#### 5.1.2 Answers from the company

It was as late as in March/April 2004 that the idea of moving Flexenclosure's production abroad came up. In October the same year the production had already been moved to its new location, Estonia. The factors that triggered the final decision about moving was that Flexenclosure, just as many other firms, had reached the point where they were no longer

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<sup>94</sup> [www.flexenclosure.com](http://www.flexenclosure.com), 2004-11-25

<sup>95</sup> [www.pharmadule-emtunga.com](http://www.pharmadule-emtunga.com), 2004-11-25

<sup>96</sup> Internal corporate material from Pharmadule-Emtunga

making enough money to keep the company operational; the last year the company has experienced a price drop of 50% on its products.

In the decision process that led to finding a new location for production, Flexenclosure got help in comparing the alternative countries in from Swedish Trade. Help was taken in after the company already had decided to move its production but not knowing where to move. For Flexenclosure the alternatives were to either move or close down.

Interesting factors according to Flexenclosure, when considering which country to move their production to, were wage levels, taxes, the geographical location, supply of workforce and the time it takes to start-up a company, i.e. how much bureaucracy there is. A comparison was made between Poland and Estonia. People, within the company, involved in this process have good connections there, facilitating future investments, hence the reason why Estonia and Poland were chosen. The representatives at Swedish Trade in both Estonia and Poland shared their views, experiences and presented the statistics of the countries at a meeting in Stockholm, and it was the statistics that was the most decisive factor. It became obvious after analyzing the countries that both are very similar in the stated important areas.

The company therefore decided to start an Estonian company, completely owned by Pharmadule Emtunga, renting their volume intensive production facilities in Sõmeru. Ownership of production facilities requires big investments, something management found to be a great risk and therefore renting was opted for. Prototype development, relations with the direct market and special applications are still in Sweden. Geographically Estonia is close to Sweden. Further advantageous with the country are cheap material and labour - an Estonian worker earns 3500 SEK per month - as well as good infrastructure and a business friendly climate. Most important, though, when deciding to move production to Estonia, was that it gave the possibility to a fast establishment and furthermore there is the possibility for expansion and synergy to other parts of the company.

Material costs are the biggest expense, amounting to almost 50% of the total costs when producing a telecom shelter. In Flexenclosure's calculations they were hoping to cut the material costs by 5%, and the big saving would be cutting the labour costs. As it turns out this has come true. In addition material costs have been reduced by 5%, without any major effort. Given the opportunity to stay in Estonia, they predict they will strengthen their position with the local suppliers that these expenses can be reduced further by 5 to 10 %. Most of what is required for production of telecom shelters is standardized and small and can be bought anywhere; hence closeness to the company's sourcing is not a decisive factor.

It is too early for the company to say what they may have overlooked in the process that could have been important for the final decision. So far they feel confident they are on the right track, approaching the goals they set up when deciding to move production to Estonia. There is a feeling today, spreading within Flexenclosure, that when you finally

have made a decision and are starting to work towards realizing it, everything involved in that process seems to run with much ease<sup>97</sup>.

## **5.2 Electrolux AB**

### **5.2.1 Presentation of the company**

The story of Electrolux starts with a vacuum cleaner. Mr Wenner–Gren presented in 1912 the world's first household vacuum cleaner, Lux 1. The absorption refrigerator and a remarkably successful marketing strategy followed the sensation. Today the Electrolux group is one of the most recognised white ware-, floor-care- and garden equipment brands in Europe and North America. The group also have a leading position in Australia and are gaining markets shares in the considered less developed markets.

The Electrolux group's mission is to be the world leader in profitability marketing innovate product and service solutions to real problems, thereby making the personal and professional lives of our customers easier and more enjoyable. Electrolux AB is organized into seven business sectors, which include a total of 27 product lines. To support this, there are five group staff units. The business strategy for the Electrolux group today is to be divided into two business areas, Consumer Durables and Professional Products. Both areas include indoor and outdoor use. Consumer Durables are mainly white goods, i.e., refrigerators, freezers, cookers, dryers, washing machines, dishwashers, room air conditioners and microwave ovens, as well as floor-care products and garden equipment. Professional Products, approximately 15% of Electrolux AB total sales, consists of food-service equipment for hotels, restaurants and institutions, as well as laundry equipment for apartment house laundry rooms, laundrettes, hotels and other professional users. Outdoor equipment implies mainly high-performance chainsaws, clearing saws and turf-care equipment, all sold under the Husqvarna brand<sup>98</sup>.

### **5.2.2 Answers from Electrolux AB**

The reason why Electrolux AB first started to think about moving production abroad was due to the need for lowering costs. The need came from customers starting to demand lower prices for the products; nowadays customers are not willing to pay more for a product produced in their home country. Much of the new view on getting the same quality or better at a lower price comes from the globalisation and its effect on basically every industry. The areas where Electrolux today finds its largest costs are in its material- and labour costs.

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<sup>97</sup> Mail & Telephone interview with Johnny Olsson, 2004-12-16

<sup>98</sup> [www.electrolux.com](http://www.electrolux.com), 2004-12-02

It is great importance for Electrolux, being one of the biggest white ware brands, to reach an optimal production structure. As a consequence they perform a yearly review of their facilities to be able to establish which ones that still are profitable and which ones that will have to be liquidated in a close future. This process is nothing Electrolux is especially keen on doing. It consumes both valuable time and resources that costs money. But in order to comply with the ever so increasing demands on lower prices as well as shareholders' hunger for profit, this is something needs to be carried out. The first step to be taken when considering moving production to a new location in order to cut costs as well as to enter into a new market is to determine whether it is worth while moving an existing production plant, build a new one or go for outsourcing to an OEM

There are three important factors, which must be fulfilled by the indented country when moving the production. First and foremost the country has to offer lower productions costs, the labour costs being the biggest. The second and very important factor is that the production quality must be secured or improved compared to the present production. The third factor is that the country has to be able to offer good logistics. Good logistics includes, among other things, the distance from final customers, infrastructure and different trade barriers. Electrolux points out that it is important to look at what kind of product categories it is you are producing and the distance for transportation. With this they mean that the bigger products you have in volume the more expensive the transport will be. Generally when buying a service from a logistics company, you buy a container and the more you can put in it, the lower the transport cost per product. Small products are more likely to become truly global.

Also when moving production to a new location and facilities it is important to look on how it influences the firm's sourcing, deliveries to customers and receiving material from suppliers. Electrolux agrees that this is an important part but in their case they try to buy as much as possible on a global scale from low cost countries. The cost is often so much lower, consequently diminishing the importance of closeness to suppliers. Often this results in being able to retain production in so called high cost countries.

Electrolux has a long history of moving production and feel comfortable in the decision process without the need of external help. The company is active on every market in the world and when it comes to Eastern Europe they are already established in Hungary and Poland. These two a more developed than for example Romania and Bulgaria, where the infrastructure is less developed and the crime rates are rather high. This does not mean they consider the rest of the area as an unattractive market; they are only waiting for the factors in these countries to become more favourable than in the ones where they already have production. Electrolux estimates that in ten to twenty years there will be a huge raise in the demand for their products in Eastern Europe when the poverty in these countries has fallen. Electrolux believes that it is vital to be there early on to be able to capitalise on the future profits and establish their brand in the customers conscious already.

Electrolux feels that their moving of production to date has fulfilled all the goals and motives they set out to reach. It is a strategy that has proven successful and will continue

to be the way ahead for the company, even though, as we have mentioned, it is not a self-chosen way<sup>99</sup>.

### **5.3 Tranemo Textil AB**

#### **5.3.1 Presentation of the company**

Tranemo Textil AB was founded in 1934 and the idea was to provide work for the women living in the neighbouring area. The equity capital came primarily from local businesses and private individuals who could see that there was a great need for work that the women could carry out in Tranemo, Sweden. In 1942 Gustav Kjällerström had acquired all shares, and the family business developed. At the beginning the business consisted entirely of contract sewing. This changed and in 1969 a total of 1.1 million garments were produced in the factories of Tranemo and Hallstahammar in Sweden as well as in Portugal. The company's strategy took another turn when in the beginning of the 1970s it began to produce and market its own work wear to supplement a shrinking market for contract sewing. This proved to be a wise decision, and as a result Tranemo Textil developed in a very profitable direction. Today Tranemo Textil has only a small production in Tranemo. Merchandise is produced at its own factory TAC in Bulgaria and through outsourcing in Poland and Portugal. The sales organisation has developed steadily, and now covers practically the whole of Western Europe<sup>100</sup>.

Tranemo Textil AB's business concept is to develop, manufacture and distribute high quality, distinctive and functionally designed work wear and protective clothing, through selected partners. Also the company tries to ensure that its vision of heightened job satisfaction, team spirit and professional pride at workplaces throughout Europe is met. Functional working clothes of the right quality give a good image at the workplace, forming the basis for a positive working environment and efficient work. With the working environment being such an important part of Tranemo Textil they have gotten an ISO 14001 certificate, which also affects how their production methods and how this affects the environment<sup>101</sup>.

#### **5.3.3 Answers from Tranemo Textil AB**

For a company as Tranemo Textil (TT) that is labour-intensive production wages are the biggest production costs. It was in the 1960's that TT started to move production from

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<sup>99</sup> Telephone interview with Jacob Broberg, 2004-11-26

<sup>100</sup> [www.tranemotextil.se](http://www.tranemotextil.se), 2004-12-9

<sup>101</sup> [www.tranemotextil.se](http://www.tranemotextil.se), 2004-12-09



Sweden. At this point it was to Portugal, a country that offered low cost production. The moving of production was triggered by the rise in cost for producing labour-intensive products in Sweden. The textile industry and especially sewing is a relatively easy to relocate, due to low investments and moving costs. Basically all you need is a building and electricity. The sewing machines are easy to move to the selected location. Currently TT has production facilities in Bulgaria and Sweden, the one in Bulgaria being a joint venture where TT owns half of the company and the production managers the other half. Production has been outsourced to producers in Poland, Portugal, China, India and Indonesia among others.

When TT decides if they want to enter a new market for production the most important things to look at are the political stability, infrastructure and cost development from a long-term point of view. In Portugal TT was lucky to survive a revolution due to the fact that the factory was set as a role model. But this is something the company would rather not experience again and therefore try to choose countries that are stable in a political way. The entry into the Bulgarian market required an analysis as well as the right kind of people that were willing to commit to TT. TT describes the right kinds of people, as foremen and local managers that know TT's company culture and the company's quality consciousness. They need to have knowledge about the local culture, local company climate and be able to speak the language. The analysis TT conducts is mainly internal but also in cooperation with Tekoindustries and Confederation of Swedish Enterprises. Factors that are considered before entering a new region/country is infrastructure (transport and handling issues), long-term development for the country (the development prognosis of the area), safety (rate of criminality), culture (industrial history and tradition of working) and as a last but not least mere common sense. The process starts in small scale and if it is successful the company's CEO and board of directors are the ones that make the decision about pursuing production at a bigger scale.

In the beginning when TT started with its strategy of moving production the material costs from suppliers was not as important for where to locate as it is today. The biggest reason for this was that everything was within Europe. Today labour costs are almost the same in Central and Eastern Europe and Asia; hence greater importance is being placed on cutting material costs and this is where TT today sees the big profits. For TT the European suppliers are too expensive and they are trying more and more to move to the Asian market and use its domestic suppliers. They can give the same quality at a lower price. But this is connected with hard work and you need to support the suppliers in their development. This is of course constrained due to language problems and culture differences.

In the future TT believes they will use more outsourcing for its production and instead of working close to its suppliers. This will spread their risk, something that is important in today's business climate where the cycles tend to be shorter and shorter. Also as mentioned above it will solve the problems caused by the language and cultural differences.

When TT looks at its results from their moving of production they think they have succeeded at the locations where they have been a longer time. But it takes time to reach the goals. In Asia the company has a big job ahead of them. It will also be hard for the company to only have production where it is cheapest. In this industry it is important to have complementing production in locations that give short delivery times. That is why TT still has production in Sweden. It has been successful to keep this as a complement to the foreign production. TT tries to be careful in its choice of locations but unfortunately it is not always easy in this up-tempo business climate. But this is the strategy that has made them successful and they will try to hold on to it for as long as it continues to help them reach TT's goals<sup>102</sup>.

#### 5.4 Conclusions from the interviews

*Decision criteria:*

<u>Flexenclosure:</u>	<u>Electrolux AB:</u>	<u>Tranemo Textil AB:</u>
levels of wage	lower cost-wage	political stability
taxes	secure quality	infrastructure
location	distance to customer	safety
supply of workforce	infrastructure	culture
time of establishment	sourcing	long-term cost development
bureaucracy	transportation possibilities	

As the companies have different goals with their way of doing business and compete in different markets they still have some common ideas about what is important to think about and do when you are moving production to a so called low cost country.

All three companies agree that the production costs are one of the most important factors to consider. Labour costs have dominated in the past and still play a big part in a firm's total cost, but as the globalisation is spreading the wage levels between countries are equalizing. This leads to that material costs become a bigger bargaining power for developing countries to attract FDI. To this segment we can add Flexenclosure's remarks about the importance of knowing how big labour force the country can supply you with, what kind of experience does it possess and is there a tradition of working in the culture?

Except for lower labour and material costs the companies want the new region to have a functional infrastructure. Besides good logistics, the selected region needs to be at an acceptable distance from customers and sub suppliers, with no complications regarding transportability and there has to be enough reliable power available for production.

The companies' thoughts on what is important to consider when moving production seem to differ somewhat, apart from the ones already mentioned. Yet we find there are many similarities, only they are seen from different angles. Both Flexenclosure and TT consider

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<sup>102</sup> Mail interview with Max Larsson, 2004-12-06

the bureaucracy and the country's political stability to be of importance. Add to this TT's need for analysing the country's long-term development and the fact that Flexenclosure's study tax levels and how these have developed through the years.

Electrolux has especially pointed out how important it is for them that the locations where they decide to establish themselves are able to give them the same quality on their products or better. This is one of the three cornerstones they have when making their final decision on moving. Electrolux sum things up rather well when they say that: the kind of demands you have on a location will differ depending on what kind of products you are thinking about moving.

## 6. The decision model

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*This chapter will be used to explain the decision model we have created from the theoretical and empirical material earlier presented in the thesis.*

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### 6.1 Constructing the model

The construction of this model has been made through an evaluation and fusion between the theoretical framework and empirical data presented earlier in the thesis. We decided to use the Eclectic paradigm (OLI) as the model's foundation due to its ability to consider both the company and the location factors that need to be fulfilled before moving production to another country. Further on the Eclectic paradigm is quite neutral and it is possible without destroying its purpose to add new factors and areas of interest to it. The building of the model continued with adding two of Dunning's motives, so we know what kind of factors to look for. As our model is built for manufacturing companies with labour intense production we found it suitable to use resource seeking and efficiency seeking as motives. This means to find factors that are needed in the production to a better price and easier, or that the production becomes more efficient than in another country.

After deciding on our model's foundation, we evaluated the importance of the eclectic paradigm's different parts. The conclusion we came to was that it was most important for the company to know its own needs and areas of competence (O). Thereafter before starting to look at factors deciding the geographical location it was important to know if the company should keep the production by themselves and if there were market failures that the company could gain from (I).

After this process it was time to start evaluate the country's advantages (L). At this point it felt relevant to compare the answers we had been given from the interviews and the theory used. The theory mentions sourcing as an essential area to consider when moving production to another country, also the answers from the companies agree with this view. To look at sourcing before going any further makes the decision process easier for the company. It is of course up to the company and its needs to decide which importance to give to the different parts. Every company is special in its own way and that makes it need different things. Therefore the model is constructed to be used in whatever way that best suits the company's interests.

Also to be able to work in a stable environment is mentioned both by Dunning and the answers we received from our respondents. From Dunning this is presented in the general factors, which we thought could be complemented with the case companies' need for political stability and little bureaucracy. The case companies have all in different ways given examples of situations involving these factors that have threatened their position. To be able to stay in a country on a long term is more important than gaining from lower prices in an unstable environment.

After handling the general factors we realised that there still were a lot of issues to deal with, before making a decision about where to move production. To have all these in the same decision box where to complicated, we therefore decided to divide them in two parts. The first was named infrastructure and involves factors for being able to deliver and produce the goods in the chosen country. For us the mindset was that if you are not able to fulfil these needs it does not matter if you can get cheap labour in the country or material to a lower cost.

The last step in our model was to approach the factors that both the theory and our case companies mentioned as the most important to know price and access to. Placing these factors last makes it easy for the company that uses the model to compare the countries that have been of interest and fulfilled the previous steps against each other and thereafter make a final decision. It is also gives an easy way to add factors that are of vital interest for the company.

## **6.2 Explanation to the model**

*(O) Owner specific advantages* Before beginning to look at how and where to locate production it is vital for the company to identify and be aware of its key success factors, i.e. their competitive advantage. You cannot compete without having unique assets that helps the company to get the better of their competitors.

*(I) Internalization incentive advantages* At this point it is up to the firms to see if the considered market offers advantages due to market failures. With market failure we mean possibilities for the company in a certain location, thanks to its present organization, to gain efficiency and lower cost in production and organization. At this level in the model it is up to the company to identify the character of its technology. Besides the factors mentioned in the theory chapter concerning protection vs. diffusion other important aspects to look at is weather the firm possess organizational advantages when keeping the technology within the firm. If not then the company should consider contractual arrangements as outsourcing, alliances and joint ventures since that would be an appropriate and less expensive way to accomplish the establishment. If though, the technology is the kind that needs to be protected from outsiders the company should consider acquisition, new establishment or merger so that the assets and advantages not becomes the competitors' belongings.

Having identified the character of the technology the company also knows how to establish it self on the new market, which leads us to decide where to locate the business.

It is according to theory and empirical data vital to se if the intended region can offer access to customers and suppliers e.g. tradability. Even with a goal of lowering the cost, one must secure the sourcing, other wise that may cause increasing transportation costs that could exceed the savings being made.

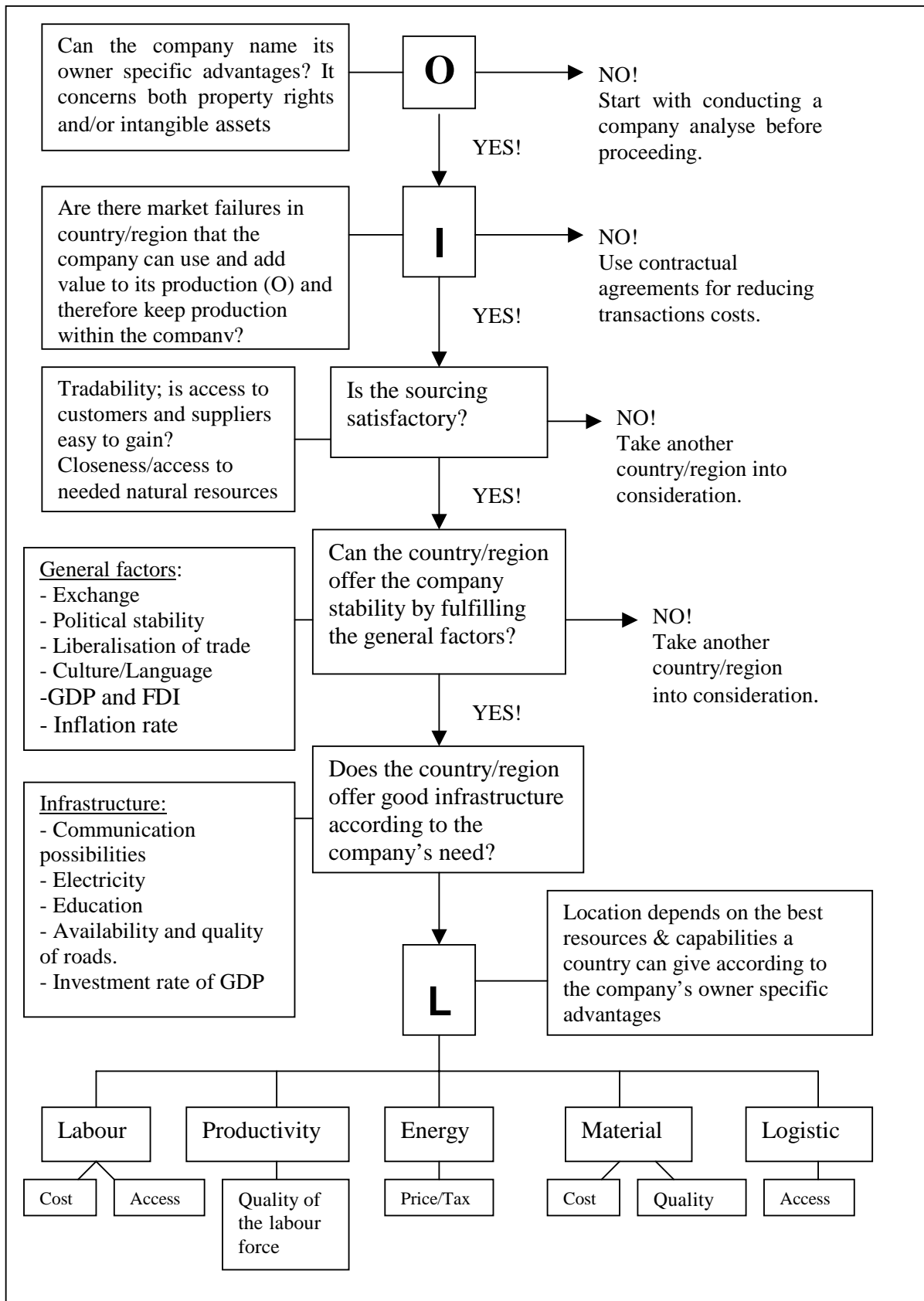
The next step is to make sure that the intended country offers stability according to a few general factors that always affect a company moving into a new area. This includes availability to language knowledge, schools for the family of the employees, judicial system, currency, religion, culture, tax system, political framework and much more which all contributes to a country's possibilities and competitiveness. If the country doesn't fulfil this demand one should immediately consider another country, because there is no need to precede the process if this basic demand cannot be complied with the company's need and demand.

If the country can fulfil the need for stability, the next step is to examine the infrastructure offered by the country. A good infrastructure means that there is a well-developed social and technical structure in the country, i.e. the foundation for a functional production is established in the country. Without this there is also no need to progress since there is a lack of the basic requirement for business in the country. Vital information to analyse at this point is communication possibilities, supply of electricity and tradability. With tradability means transportation possibilities, i.e. roads, harbours, railroads etc, that renders and facilitates transportation to and from suppliers and customers. This is especially important when the company is producing on a market where their final customer is not located. An indication on how the infrastructure will develop in the future is to see how much of the GDP that comes from FDI and will help the country to develop further.

*(L) Location specific advantages* If all the demands above (sourcing, stable and company friendly climate, good infrastructure) are fulfilled then the company can begin to look at the different production factors that could help the company to lower their costs. We cannot decide which of the mentioned that is the most important, since it differs from company to company, depending on which of the factors that is used most intense or is the highest cost in the company's production process. The result ought to be compared to the goals and decision criteria stated by the company in the beginning and see if they meet and match. The factors we have suggested in our model are the most common according to theory and our case companies. To the factors we have proposed the company can easily add factors that make a difference for it or are better suited for the company to evaluate the country's attractiveness.

Once you have applied the location part of the model on one country, the company should precede and apply the model on another contemplated country to see if that country also is able to meet the requests. This process goes on with every intended country and then every alternative is evaluated and compared with each other to see what consequences it brings and which alternative that best fulfils the need and demand from the company. After the choice has been made a new process starts that concerns finding an already existing suitable building for its production, or investigate the cost and time for building a new production facility.

### 6.2 The Decision Model



## 7. Analysis

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*In this chapter we will present case material about Automotive AVS and use the decision model we have created to find a solution to where the company should move its production*

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### 7.1 Presentation of Trelleborg AB

Trelleborg AB was founded in 1905 and today the Group has about 22,000 employees in 40 countries with the head office located in Trelleborg, Sweden. From the beginning operations concentrated on the manufacture of industrial rubber and tires. Trelleborg AB has been listed on the Stockholm Stock Exchange since 1964. Trelleborg AB is a global industrial group with spearhead competence within polymer materials and a high level of industrial know-how, combined with functional solutions and systems designed to meet the needs of the customers<sup>103</sup>.

The business concept of Trelleborg AB:

*“Based on its extensive knowledge of polymer technology, markets and customers, Trelleborg develops, manufactures and markets functionally oriented products, systems and services.”*

Most of Trelleborg AB’s growth in recent years has been achieved through acquisitions. In 1999 they decided to adopt a new strategy, which was termed “concentration and expansion”. Concentration meant that Trelleborg AB would now divest the non-core operations and focus on the industrial competence at its disposal. During these years, Trelleborg AB’s operations have been successfully concentrated to five core industrial business areas within which the knowledge of customer requirements and polymer technology is a common strength factor. The five core business areas are: Automotive, Wheel Systems, Engineered Systems, Building Systems and Sealing Solutions. Their operations focus on customers in the automotive industry, the construction industry and other industrial sectors. After this period of strong acquisition-driven growth, priority has now shifted to complementary acquisitions that offer synergies and which has the potential to meet profitability goals<sup>104</sup>.

Trelleborg AB strives to achieve market leadership within clearly defined product and market areas. Approximately 90 percent of sales derive from products with leading (first, second, third) positions. The position is evaluated on the basis of market share, profitability, growth and competitive advantages, as well as technological leadership and other factors. This drive to be in a leading position together with the drive for operational

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<sup>103</sup> [www.trelleborg.com](http://www.trelleborg.com), 2004-11-18

<sup>104</sup> Ibid, 2004-11-18



excellence, organic growth and finally to perform acquisitions that generates synergies constitute the four cornerstones of the Trelleborg group<sup>105</sup>.

## 7.2 Presentation of Automotive AVS

Trelleborg Automotive is a world leader in the development and manufacturing of polymer based components and systems used for noise and vibration damping for passenger car, light truck, heavy truck, rail, marine and industrial applications. The head office is located in South Haven, Michigan, in the US. Trelleborg Automotive comprises two business segments: Automotive antivibration system, (AVS) and Fluid & Acoustic Solutions. We will constrain the application of our model to Automotive AVS and its current situation. Further on we will refer to Automotive AVS with only Automotive or the company

Automotive is one of the market leaders for the supply of noise and vibration solutions to all vehicle segments and industrial markets<sup>106</sup>. The company is number one in Europe and in the US they find them self at number two. The main competitors for Automotive are Cooper Standard, Vibracoustic, ZF Lemforder and Paulstra/Bridgestone<sup>107</sup>.

The development in the automobile industry has a great impact on Automotive and today it is facing that the subcontractors are becoming fewer and bigger. An advantage for the company is that the demand for products that make the driving more comfortable, such as noise and vibration reducing products, is high. According to the theory we have in this area it seems as Automotive have chosen an activity in the value chain where there is a possibility to make money according to the Bedrock-principle. But at the same time they have to face an industry that demands lower prices. This is the reason for Automotive's focus on cost-efficiency production. As the competition is changing so are the ones Automotive delivers to. The OEM are more and more starting to contract whole systems to Tier-1 suppliers, making Automotive subcontractor to these instead. For that reason Automotive is currently working actively to strengthen their position among the Tier-1 suppliers as Delphi, GKN and Valeo.

Signs are indicating that the best markets for reaching growth today are in Asia and especially China<sup>108</sup>. For reaching growth in Europe the industry will have to change focus towards the Central and Eastern parts. These regions will be where the demand for new cars will grow the most. The motivating factors for the industry to move its production to these areas are the lower labour cost, greater worker flexibility and as already mentioned the local sales growth<sup>109</sup>.

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<sup>105</sup> Ibid, 2004-11-18

<sup>106</sup> [www.trelleborg.com](http://www.trelleborg.com), 2004-11-18

<sup>107</sup> Trelleborg AB's annual report 2003, p 18

<sup>108</sup> Ibid, p 18

<sup>109</sup> Automotive News Europé, 2004 p2

The time between innovation and a finished product in the automobile industry is reduced. A challenge for Automotive is to foresee the customers need in the future and develop the technical solutions of tomorrow before its competitors<sup>110</sup>. The strategy Automotive is using to be able to compete in this dynamic environment is to grow through both organic growth and acquisitions. They are trying to attain global presence in order to be able to serve their customers that work global with production and sales. This aspiration goes hand in hand with their ambition to work close with their customers in the areas of product development, aftermarket and service. Doing this give their customers a feeling of value adding and strengthens Automotives position against its competitors<sup>111</sup>.

As the industry move more and more of its production to Central and Eastern Europe it becomes an alternative that Automotive also must consider, especially if they are to fully follow its chosen path with cost-efficiency production and be able to compete with their competitors that to some extent already have moved production.

The information from Automotive that can be shared in this thesis and will be most of the material we work from when analysing which country in Central or Eastern Europe that best fulfils the company's need is presented in the text bellow. Some information has been left out due to being sensitive for the company to share with the public and could weaken their competitiveness.

### **7.3 Case study of Automotive**

Automotive's bigger production plants are today located in Brazil, China, France, Germany, Spain and the US, with the exception of a medium sized facility in Turkey. The plants have the obligation to be able to support and serve the customers within their continent. Appendix 2 shows where the Tier-One suppliers and the OEM, which all is established or potential customers, performs some kind of activity<sup>112</sup>. Due to transportation normally are limited to be conducted within the same continent there are no specific demands on how and with what the transportation are carried out. It is desirable that the location of the plant is in an area where the infrastructure is such that a lot of resources and time will not have to be spent on solving this issue.

The main input factors for Automotive's production are steel and rubber; these products are in some cases refined. Other vital input factors for the production are glue and finish. Being close to natural resources as petroleum, coal and iron, which are needed for making these input factors, would be a surplus for the company. But there are no explicit demands for being located near the sources where the needed natural resources are extracted. Most of the time the decision is taken based on that you can find the supply you need in the same continent as you are located in. Of course if it is cheaper to buy and transport material needed in the production from example China this is what you will do. A remark is that Automotive according to Trelleborg AB's Annual Report from 2003 is

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<sup>110</sup> Trelleborg AB's annual report 2003, p 20

<sup>111</sup> Trelleborg AB's annual report 2003, p 21

<sup>112</sup> Appendix 2

trying to close more global contracts for the material it needs. This is possible due to that the components they need are fairly small and they earn on it even though they have to pay for the long transportation.

As it is today Automotive is interested in moving production to Poland, Turkey or Slovakia, this without having made an analysis to see which location that would benefit the company the most. We have chosen to study the EU9-countries excluding Cyprus (Slovenia, the Czech Republic, Poland, Hungary, Estonia, Slovakia, Lithuania, and Latvia) but also Russia, Croatia, Romania, Turkey and Bulgaria so that we cover a full spectrum of possible so-called low cost countries in Central and Eastern Europe. We have excluded Cyprus since it is an island, which means that the producing company would be rather isolated there and besides that, Cyprus cannot be accounted for a low wage country<sup>113</sup>. If Automotive would move its production it would need a workforce of approximately 200 to 300 employees where the dividing between blue collars and white collars would be 80/20<sup>114</sup>.

Automotive is positioned in what is referred to in the theory as a global industry, where both international trade and FDI are high. Automotive has a global presence and a history of using acquisition to grow and expand worldwide. The reason for searching after new locations in low cost countries is that Automotive has a need to lower their costs, which is also the primary goal with the prospective investment. Hence it is not the search for new markets that is the driving force in this process, as according to the theory often is the case for MNE. With the goal of lowering the costs, Automotive may be resource seeking and efficiency seeking. In accordance with the theory the resource seeking company is investing abroad in order to acquire specific resources at a lower cost than they would be able to obtain in their home country. This is true for Automotive since they have a need to be more competitive than they are today in order to meet the demand from their customers on cutting prices. Knowing this, we find that further facts that joins Automotive to the resource seekers is that the company comes from a country with high real labour costs and the company sets up or acquires subsidiaries in countries with lower real labour costs, where the output is mainly sold and exported to manufacturer in industrialized countries.

Through taking advantages of the differences in both costs and availability Automotive could also be an efficiency seeker. Like many other companies in this group of seekers Automotive produces in both developed and developing countries, where labour and natural resources intensive activities are located in the latter. As mentioned in the theory, efficiency seeking can be done in both the process and the product area; where in Automotive's case it is efficiency seeking in the process area that is the motive. One could say that Automotive as a primary motive is resource seeking but as time goes on they may use the new and established subsidiary to raise their efficiency by taking advantages of economies of scale and scope, geographical diversification and international sourcing of inputs. Even market seeking could become a goal and motive

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<sup>113</sup> [www.swedishtrade.se](http://www.swedishtrade.se), 2004-11-16

<sup>114</sup> Interview with Stephane De Tavernier, 2004-01-10

once the subsidiary is established, since as we have already mentioned the demand for automobiles are growing in Eastern Europe.

### **7.3 Application of the decision model**

#### **7.3.1 Owner specific advantages**

The (O) specific advantages of Automotive are that it is market leader within most of the segments the company takes part in. This is possible through a successful growth, both organically and by acquisition. Another (O) advantage is the size and the global presence of Automotive, which render possibilities to serve clients with global production and sales. Automotive also takes advantage in their pronounced focus on the customer, giving them the opportunity to engage in for example product development, which adds value to the customer. Last but not least an (O) advantage is Automotives cost efficiency production that through economies of scale and focus on costs and production efficiency enables them to be competitive in a severe competitive environment and to meet the demand on low prices from their customers.

#### **7.3.2 Internalization incentive advantages**

Trelleborg AB and Automotive has pointed out the will to keep the production within the firm as a consequence from the risk of sensitive corporate information leaking out to other participants on the market. The will for (I) internalization is also due to the fact that Automotive possess possibilities to exploit the (O) advantage when keeping the production and technology internally. Also due to existing market failures in the suggested areas Automotive can strengthen the internalization process further and give the company a better position and higher internal effectiveness. Examples of these opportunities is that due to the size of Automotive and being a part of the Trelleborg group they are able to enjoy advantages over other firms as learning experience, economies of scope and obtaining inputs on favourable terms. This also enables them to exploit synergistic economies, not only in production but also in marketing, finance and other arrangements.

Knowing the (O) advantages and a motive for keeping the production and technology within the firm, the next step is to search for possible locations for their production facilities.

#### **7.3.3 Sourcing**

With the information from Automotive about location of their existing and potential customers (both Tier-1 suppliers and OEM) we narrowed down the potential countries to locate production in, from the originally thirteen to seven. We mapped out the customers

at a map of Europe that distinctly visualised the prevailing location structure of the automobile manufactures and their suppliers. Since Trelleborg AB is trying to strengthen its position as a subcontractor to the Tier-1 suppliers who are just as the OEM located in what has shown to be a quite demarcated area of Europe, we thought it would be wise for Automotive to also locate their production facilities in this area. Doing so they would be located where most industry activities in Europe take place. Especially since Tier-1 is not only customers to Automotive but also their competitors, sometimes they are both suppliers to OEM. This mapping process was revealing to us, excluding countries as for example the Baltic States that we in advanced thought would be quite appropriate locations due to its closeness to Sweden. We feel that this is a right decision to make and is defensible due to that theory, case companies and most important Automotive explain the necessity to be geographical close to its customers. The remaining countries that will be objects of further examination are the Czech Republic, Poland, Hungary, Slovakia, Slovenia, Romania and Turkey<sup>115</sup>.

Continuing the analysis of the sourcing possibilities we searched countries that had required natural resources for Automotives production. Both Turkey and Romania have coal and iron as natural resources. In Romania you can also find petroleum, but this is a source that is declining. The other suggested countries all possess coal as a natural resource<sup>116</sup>. This information is not enough to exclude or favour any of the considered countries.

#### **7.3.4 Stability**

The remaining countries must be able to fulfil the need of stability; hence we must examine how the general factors affect each country's suitability for obtaining a direct investment from Automotive.

Deregulations have reduced the former boundaries, opening new opportunities to firms. In less developed countries there are though still some obstacles, preventing the countries from obtaining the desired FDI. For Romania we find that this is the case. The country is in progress, but the political environment is unstable which especially shows in the widespread corruption that is present at all levels in the country's society. Another obstacle for foreign investments is the extensive poverty (there are a relatively large number of Romanians that are living below the limit of poverty) and the red tape that counteract a corporate friendly environment. Romania is making progress, but the expected economic and social improvements have been lower than expected and the switch to a functional market economy has been slow<sup>117</sup>. Given that, we find it too soon to perform a FDI in Romania. Even though it sometimes is important to be first on a new market, we find that the risks are too high and the outcome is too uncertain. We therefore exclude Romania from the list of alternative appropriate locations.

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115 Appendix 2

116 [www.cia.gov](http://www.cia.gov), 2005-01-03

117 [www.swedishtrade.se](http://www.swedishtrade.se), 2004-12-03

All of the six remaining countries, except Turkey, are members of the European Union, which means that they are striving towards a membership of the monetary union, EMU. This means for Swedish companies that the exchange is not a decisive factor when locating production in one of the EU9-countries. The exchange of Turkey, Turkish lira, seems to have been fairly stable the last years<sup>118</sup>. Perhaps even Turkey will become a member of EU in ten or fifteen years, since the country began its negotiations about membership in December 2004.

Political stability is a necessity when a foreign firm invest in a new country. An extended EU means a more stabile environment for the new members of the EU, also Turkey benefits from this since they have started their negotiations with the EU concerning their possibilities to become a new member. The Czech Republic is at the moment in a fairly unstable political environment. There are internal conflicts between the social democrats that are currently in the power position. To add to this is the high rate of organized crimes. Hungary is not showing signs of political instability; the country is lead by a coalition government but a functional one where everybody is working towards the same goal, namely the big budget deficit. A remark is that the country still has problems with money laundry and organized crimes. Poland is a country with a very weak government. Indications show that it will not be able to go ahead with necessary economical reforms. During 2004 the prime minister and the whole government resigned in protest against corruption scandals and the tough economical state the country is in. Indications show that the country will be forced to a new election in 2005. Slovenia has reached a high level of political stability since the parties in the country worked together in their common goal to become members of the EU. The opposition has today a relatively hidden role against the government parties. In Slovakia it was for a long time uncertain if the country would be able to join the EU but since Mikalás fell in 1998 the new government has been able to found a stabile ground for its politic and succeeded in its efforts. The still very high unemployment rate could become a threat against the government and the macro economic stability in the country. Slovakia also still has problems with corruption and criminality. One party governs Turkey and that is AKP. To have this kind of government is very unusual for Turkey. AKP describes themselves as a conservative none religious party. The drive to become an EU member is making the political climate seem very stabile at the moment<sup>119</sup>. There are big problems with drug traffic within the country<sup>120</sup>.

The liberalisation of trade facilitates the country's chances of obtaining FDI. The remaining six countries are on the way to accomplish the difficult task of a privatization of the economy. Hungary has shown a strong economic growth where the private sector accounts for over 80% of GDP. The Slovakian economy has exceeded most expectations and the major privatizations are almost complete. Slovenia has despite an economic slowdown maintained growth and the privatization of the economy proceeds. In Turkey the private sector is strong and fast growing, but even today the state plays a major role in

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<sup>118</sup> [www.oanda.com](http://www.oanda.com), 2005-01-10

<sup>119</sup> [www.swedishtrade.se](http://www.swedishtrade.se), 2004-12-03

<sup>120</sup> [www.cia.gov](http://www.cia.gov), 2005-01-03

for example banking and communication. The Czech Republic is one of the most stable economies of the former communist states. Actions taken to complete banking, telecommunications and energy privatization will increase the already large amount of foreign investment. The liberalization of the economy in Poland has been highly successful, yet the privatization of small and medium state-owned companies remains to be done<sup>121</sup>.

The culture of the country in which a company invests may not be a decisive factor, but a similar culture may facilitate the investment. Many of the EU9-countries have a history of communism, wars and have been cut off from Western Europe during a period of time that certainly has affected the culture and the way people live in these countries and it is an experience that most Swedes cannot relate to. The religion is also a contributing factor to the culture. The majority in Slovakia, Poland, Slovenia and Hungary are Catholics and hence their Christian faith is similar to ours in the Western Europe. In the Czech Republic the religion is much dispersed and at least 40% reports to be atheists. In Turkey 99% of the population has Islam as religion, which naturally has created a culture that are different from the Swedish culture and believes<sup>122</sup>.

It can be vital for a firm to know which language barriers there will be when entering a new location. All the countries we are analysing have their own languages as the primary language and in many cases the only language they have. Reports show that English are not a language spoken by the older population but are coming more and more; especially the younger generation are becoming better in understanding and making themselves understood<sup>123</sup>.

The usage of GDP in this analysis helps us to understand the extent of trade within the country. GDP growth and GDP per capita show a country's development rate on short term. FDI is a way for us to pick up how other companies apprehend the future possibilities in the country. This part shows which country that today has the highest GDP, FDI, GDP - growth rate and GDP per capita in the different countries. The country with the highest number is presented at the top.

<i>GDP in billion</i>	<i>GDP growth rate</i>	<i>FDI % of GDP</i>	<i>GDP per capita</i>
Turkey \$ 237,972	Turkey 5,8 %	Slovakia 16,9 %	Slovenia \$ 13380
Poland \$ 209,563	Slovakia 4,2 %	Czech Rep. 13,4 %	CzechRep.\$ 8375
Czech Rep. \$ 85,438	Poland 3,7 %	Slovenia 8,5%	Hungary \$ 8180
Hungary \$ 82,805	Czech Rep. 2,9 %	Poland 2,2 %	Slovakia \$ 5920
Slovakia \$ 31,868	Hungary 2,9 %	Hungary 1,3 %	Poland \$ 5485
Slovenia \$ 26,284	Slovenia 2,3 %	Turkey 0,6 %	Turkey \$ 3360

An important stability indicator of the country is the inflation rate. The general assumption is that the inflation should not exceed the level of two percent. We will below

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<sup>121</sup> [www.swedishtrade.se](http://www.swedishtrade.se), 2004-11-16

<sup>122</sup> [www.swedishtrade.se](http://www.swedishtrade.se), 2004-12-03

<sup>123</sup> Westerlind-Wigström, 2004 p 31

rank the countries according to their inflation level, starting with the country that possesses the lowest rate<sup>124</sup>.

*Inflation rate:*

Poland 1,8%  
Czech Rep. 3,0%  
Slovenia 5,6%  
Hungary 6,9%  
Slovakia 7,6%  
Turkey 13,7%

Considering these facts we will not exclude a country at this level, even though not yet all countries fully offer an optimal environment in accordance with the general factors stated we still find them acceptable. Especially since most countries are making progress and the terms for trade and production will become more favourable with time. The inflation rate in Turkey is though alarmingly high, also seeing the extremely low rate of FDI gives us another warning that it might be too soon to invest. On the other hand Turkey has the highest GDP growth but it is not remarkably higher than the other countries. According to GDP rates, FDI and Inflation Hungary is not the most stable country right now but on the other hand it has shown signs in the other areas to move towards a strong economic environment.

### **7.3.5 Infrastructure**

The next level in our decision model concerns the level of infrastructure in the different countries. To be able to establish that the countries infrastructure can fulfil the needs in this area; we have decided to look at communication possibilities, transportation routes (i.e. roads, railroads etc), education, electricity supply and investment rate of GDP.

*Communication possibilities*

The Czech Republic was late with updating its telephone network, but is now trying to compensate for it. So far is 86% digital and many subscribers are able to connect to Internet through ADSL. In Hungary has the telephone net been modified and given satisfactory service. Mobil phones are in heavy use and the possibility to Internet connections are steadily increasing. Poland has still an underdeveloped and outmoded telephone net. Around 20% only are able to get Internet and high-speed connections are not to think about at this time. Privatisations are on its way and are gaining ground. The mobile network is covering almost the entire country. A modernization and privatisation program is taken into action in Slovakia to increase the telephone service within the country. Mobile phones are working in the big cities but the networks are increasing all the time. Slovenia's telephone network has been fully digitalized since 2000. Turkey is facing rapid modernizations and expansions in the phone network, especially with

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<sup>124</sup> Appendix 3



cellular phones. Satellite systems are still used to be able to communicate with the countryside<sup>125</sup>.

*Electricity net between production and consumption.*

Poland; +16,2 billion kWh  
Czech Republic; + 14,44 kWh  
Slovakia; +5,88 billion kWh  
Turkey; + 4 billion kWh  
Hungary; -0,76 billion kWh  
Slovenia; -0,14 billion kWh<sup>126</sup>

*Transportation routes - Geographical notes*

The Czech Republic is landlocked and is controlling some of the most significant land routes in Europe. It is also the gate where the military corridor went between North and Central Europe. Hungary is landlocked and strategically located between Western Europe and Balkan, but also between Ukraine and the Mediterranean Basin. Poland lacks natural barriers; it has a very flat Terrain. Slovakia is also landlocked; most of the country is rugged and mountainous. Slovenia controls some of Europe's transit routes. Turkey is strategically controlling the Turkish Straits, but is located in the end of Europe<sup>127</sup>. The reports show that there is a satisfactory amount of roads, railroads, and airports in the investigated countries. When it comes to roads and airports all are not paved, but a substantially part is and the expressways are growing fast. Of course in the remote areas and in the countryside there is still a lot to ask for when it comes to the quality of the roads<sup>128</sup>.

*Education- Literacy*

The reports we have taken part of shows that the literacy level in the different countries are around 99-100% in each country except in Turkey who stands out with a literacy level of only 86.5%<sup>129</sup>. Following numbers show the level of people over the age of 18 that continues on higher education:

*Continuing with higher education*

Poland and Slovenia 78%  
Hungary 75%  
Czech Republic 70%  
Slovakia and Turkey have no available numbers<sup>130</sup>.

Altogether the infrastructure in the countries is tolerable, further development is desirable, which probably will be the case in following years. If there is a decisive factor that cannot be fulfilled by the country it would naturally mean an exclusion from the list

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<sup>125</sup> [www.cia.gov](http://www.cia.gov), 2005-01-03

<sup>126</sup> Ibid, 2005-01-03

<sup>127</sup> [www.cia.gov](http://www.cia.gov), 2005-01-03

<sup>128</sup> [www.landguiden.nu](http://www.landguiden.nu), 2005-01-03

<sup>129</sup> Appendix 3.

<sup>130</sup> [www.europa.eu.int](http://www.europa.eu.int), 2005-01-10

of alternative countries. If there is no such factor to look at one must look at the whole picture instead of small details. The communication possibilities in Poland raise a question mark, but knowing that there today are plenty of subsidiaries to Swedish and other companies who obviously cannot consider this a problem we will keep Poland as a candidate. Both Hungary and Slovenia consumes more electricity than they produces which at least in the case of Hungary raises some doubtfulness since that is a much larger country than Slovenia. All countries, despite Turkey, are located in the Eastern parts of Central Europe and the countries offer a variety of landscapes but they all offers acceptable roads and other transportation possibilities. The literacy in Turkey is surprisingly low in comparison with the other countries. This fact alone isn't a crucial factor but adding the fact that Turkey is the only country that has a totally different religion than Sweden, the fact that it has a more screened off location than the others, an very high inflation rate and finally the fact that it is the only country of the alternatives which today is not a member of the European Union makes us doubt the suitability of Turkey as an object for foreign investment. Despite these facts we will keep Turkey for closer examination in the next level of our model since none of these facts are alarming.

### 7.3.6 Location specific advantages

In the first part of the (L) section we will focus on a factor that contributes to high expenses in Automotive's production, namely the labour costs. According to Confederation of Swedish Enterprises report the labour cost where lowest in Slovakia followed by Hungary, Poland, Czech Republic and finally Slovenia. Turkey was unfortunately not available due to not being a EU member. To get some more sources for this important part we also took help from UBS that has published wage numbers for 50 countries and different occupations. The numbers presented are in USD and show the gross income including benefits, vacation and bonuses per year for a worker. When showing the difference in wage between high and low level workers the first one named is the one with the smallest variation<sup>131</sup>.

<i>Skilled Labour</i>	<i>Middle Managers</i>	<i>Engineers</i>
Slovakia \$ 5600	Slovakia \$ 9700	Slovakia \$ 9100
Czech Rep. \$ 6800	Czech Rep. \$ 11900	Czech Rep. \$ 10200
Poland \$ 6900	Poland \$ 15000	Poland \$ 11300
Hungary \$ 9400	Slovenia \$ 21700	Slovenia \$ 14100
Slovenia \$ 12000	Hungary \$ 25000	Hungary \$ 15100
Turkey \$ 15100	Turkey \$ 28800	Turkey \$ 18600

<i>Department heads</i>	<i>Income difference between High &amp; Low Educated</i>
Czech Rep. \$ 13800	Czech Rep.
Slovakia \$ 15800	Poland
Poland \$ 16400	Slovenia
Hungary \$ 18500	Slovakia

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<sup>131</sup> Report from UBS, 2003 p 40-44

Turkey \$ 21400      Hungary  
 Slovenia \$ 30600      Turkey

The productivity for the workers in the countries are rated as followed with the most productive in top, the numbers presented here is in comparison with the average productivity in the EU-15 countries<sup>132</sup>.

*Productivity/worked hour*

Slovenia 72%  
 Hungary 65%  
 Czech Rep. 56%  
 Slovakia 54%  
 Poland 49%  
 Turkey NA

Access to labour force is another vital factor that must be considered. It can be evaluated by percentage of the labour force that has industry as occupation and the unemployment rate. The number of the labour force is presented to make it easier visualize the already mentioned facts<sup>133</sup>.

<i>Labour force in million people</i>	<i>Have industry as occupation</i>	<i>Unemployment rate</i>
Czech Rep. 5,25	35,0%	7,5%
Hungary 4,164	27,0%	5,9%
Poland 19,92	22,1%	19,3%
Slovakia 2,58	29,3%	17,6%
Slovenia 0,875	NA	5,9%
Turkey 23,79	22,4%	10,1%

The material we have been able to gather on energy prices and taxes are unfortunately limited to the EU9-countries and presented bellow, with the cheapest option in top<sup>134</sup>. The last section is a general comparison over the prices in the country; also here the cheapest is presented first<sup>135</sup>.

<i>Electricity price and tax</i>	<i>Heavy burn oil price and tax</i>	<i>Diesel price and tax</i>	<i>Prices in general</i>
Czech Rep.	Poland	Slovakia	Slovakia
Poland	Slovenia	Hungary	Czech Rep.
Hungary	Czech Rep.	Poland	Poland
Slovakia	Slovakia	Czech Rep.	Hungary
Slovenia	Hungary	Slovenia	Slovenia

<sup>132</sup> Westerlind-Wigström, 2004 p 19

<sup>133</sup> Appendix 3

<sup>134</sup> Westerlind-Wigström, 2004 p21-23

<sup>135</sup> UBS, 2003 p 10

After making some inquiries among the big logistic companies such as DHL, FedEx and UPS it has become clear that the transportation issue will not be a problem in any of the six countries.

After going through this last part there are no longer any doubts about Turkey and Hungary not being the right place for Automotive to invest right now. They have shown signs earlier in the analysis that they are not the optimal place to invest in, but this final analysis has made it very clear. Unfortunately we have not been able to collect all the facts we would have needed on Turkey to make a fair analysis. On the other hand we think that the doubts that came up early in the analysis, which was reinforced by the high labour costs, gave a clear answer to the question about Turkey's suitability as an investment country for Automotives production. Hungary was the other country we could eliminate pretty soon after starting to look at the (L) factors. The uncertainty from the previous parts together with the high labour costs and energy prices removes them as a potential country. Slovenia has shown to be an expensive country to have employees in but they are the most productive ones among the countries. The high energy prices together with a low unemployment rate and small labour force make them fall behind in the race about where Automotive should make their investment.

The prospects left are Poland, Slovakia and the Czech Republic. Both Slovakia and the Czech Republic offer a substantially lower wage level than Poland. To consider in this analysis is that Poland has a much lower inflation rate than at least Slovakia. According to Slovakia's high inflation on 7,6% the wages and the prices can increase in a fast tempo. As a counterweight to the high inflation Slovakia has much higher FDI than Poland and that speaks for a stable price development. Continuing with the analysis we see that the productivity is highest in the Czech Republic followed by Slovakia and Poland. The assumptions we can draw from this is that Poland should if it would be worth to pay the extra money in wages be in the top of these countries.

When it comes to the supply of labour to Automotive's planned production facilities Poland has the highest rate of unemployment and also the largest available labour force. Unfortunately is not a rate of 19,3% especially trustworthy and that with the low rates of FDI makes us doubt how productive the work force really is. Poland also has the lowest skilled labour within the industry segment. Between Slovakia and Czech Republic the choice would fall on Czech Republic this due to that their labour force is bigger and the unemployment rate is high but not so high that you start to have doubts about the stability in the country. In both Slovakia and Czech Republic there is a high number of industry workers, where the Czech republic has the highest rate.

The energy prices are varying much between the kind of energy sources and the countries. Without fact about which source Automotive uses most it is hard to rank the countries. Instead we move on to see that in general the prices are lowest in Slovakia and thereafter Czech Republic followed by Poland.

Amongst the three remaining countries, Slovakia and the Czech Republic offer a substantially lower wage level than Poland. Poland on the other hand has a lower

inflation but still obtains less FDI when measured in percent of GDP with is an implication on the perceived attractiveness of the country. Add to this a very high unemployment rate and our choice will stand between The Czech Republic and Slovakia. Both are very attractive where Slovakia offers the lowest costs but the Czech Republic seems to offer a more stable environment.

#### **7.4 Summary of the application on Automotive**

Trelleborg AB and Automotive have with their history of performing acquisitions previously experience in making foreign investment. Formerly the motive has often been to gain access to new markets in order to have a global presence. This may still be a part of the goal but it is subordinated to the main motive of lowering the company's production costs. Having that as an arterial motive Automotive is a resource seeking company. This enables it to lower its costs due to the fact that in certain developing countries desired specific resources are offered to a lower price than in Sweden or other developed countries.

The general opinion in Automotive is that it would be best for the company to keep the technology and production within the firm, i.e. the possibility of obtaining production in a developing country through contractual arrangements is not an option. This leads us to establish that the best way of entry for the company will be trough acquisition or new establishment. To build or rent production premises is highly dependent on the availability of suitable existing buildings and of course on how much the company is prepared to invest in the country.

The next step is to secure available sourcing, not only the input but also the buyers of the output, i.e. it is not only important to secure suppliers but also customers in the intended region. If neglecting this dimension there is a risk that the company not will be able to lower the cost as much as expected. This since the money saved by lower production costs could be consumed by the higher transportations cost. This is especially true when handling with bulky products. The location of Automotive's customer, especially the Tier-1 suppliers, eliminated Russia, the Baltic States, Bulgaria and Croatia from being potential objects for investment.

When looking at the general factors we excluded Romania because of its widely spread corruption and the high bureaucracy that does not offer a corporate friendly environment. The remaining six countries did not completely satisfying fulfil the general factors but since there were none decisive factor that excluded a country we found that it was more important to look at the factors as a hole picture instead of going into details.

The infrastructure also reveals if a country has a corporate friendly environment suitable for business. The low literacy, the off location, the different culture, the non-membership in the EU and most importantly the very high inflation rate in Turkey raised some serious doubts about its suitability. These doubts were reinforced during the next step as high labour cost was added to the evaluation of the country and resulted with exclusion from the list of potential countries. After studying the (L) factors the second country to be

eliminated was Hungary. This motivated by uncertainty in previous parts combined with the high labour costs and energy prices. Slovenia showed to be an expensive country concerning wages though the most productive one. High energy prices together with a low unemployment rate and small labour force made the country less competitive in comparison with the other remaining countries.

The potential countries are now narrowed down to three, Poland, Slovakia and the Czech Republic. Poland has the lowest inflation rate but it also has the lowest FDI when measured in percent of GDP this implies that the attractiveness of the country is falling. Also contributing to our choice standing between Slovakia and the Czech Republic is that these countries offer a substantially lower wage level than Poland. Both countries are very attractive where Slovakia offers the lowest costs but the Czech Republic seems to offer a more stabile environment.

## 8. Conclusion

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*In this chapter we present our conclusions about the decision model and which country Automotive AVS should chose for its investment.*

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### 8.1 Evaluation of the results from Automotive

Our decision model could not offer an absolute answer to whether it is worthwhile for Automotive AVS to relocate their production to Poland, Slovakia or the Czech Republic. The decision is highly dependent on the risk the company is willing to take. Poland could be considered the safest choice due to the low inflation and the numerous Swedish direct investments already made. The highly reduced FDI rate does on the other hand indicate that other countries do not rank Poland as Swedes do. The information we have gathered tells us that in comparison with other Central European countries Poland is considered less favourable, which was also has been confirmed by our respondent at Flexenclosure. The reason is probably that it is too late in the game to start investing in Poland. Swedish Trade also states in their report that the FDI formerly obtained by Poland are now invested in either Slovakia or Czech Republic, confirming this hypothesis.

The economy of the Czech Republic has developed strongly and its growth is expected to continue. Most major Swedish companies have operations in the country today and it is considered to be one of the most important trade partners in the region. The numbers reveal that it is a competitive country, with a lower inflation rate than Slovakia, a larger and more industry experienced labour force. According to Swedish Trade the wage costs have increased in recent years and this indicates that Slovakia has become a serious competitor to the Czech Republic. The business climate in Slovakia, however, is not as stable as in the Czech Republic and the unemployment rate is very high. On the other hand it is the country with the most competitive wages, the FDI numbers are improving and it offers a favourable taxes. The production of automobiles in the country increased by 10% in 2002 and it is expected that the manufacturing of vehicles will play an important role in the country's future.

Our evaluation tells us Slovakia is the best option for Automotive to invest in. It is still a country in transition and implies a bigger risk for Automotive compared to establishing itself in the Czech Republic. Although, the automobile industry is investing heavily in Slovakia should mean a reduction of the risk for Automotive and an opportunity to profit from the lower costs the country can give at present. Automotive's next step should be to examine and compare the different production facilities offered by the two countries. If the possibilities and terms are equal in both countries we suggest that Slovakia should be to invest in.

## 8.2 About the model

The model has proven to fulfil its intended purpose. It brings up the aspects that need to be considered from Automotive's point of view, which was one of the criteria for the model and also a part of our problem formulation. The aspect with owner specific advantages is not only important to know for testing the model; it is a vital factor in the everyday competition.

The (I) part of the model provides a good procedure to evaluate if the intended country has some kind of market failure that the company can take advantage of, especially knowing its (O) advantages. But it is also a good way to analyse how best the company's technology can be adapted for the new market.

For choosing location the model takes several important factors into consideration. Being able to eliminate alternatives in several stages reduces the workload and excludes the poor alternatives early on. The ranking of the importance of the factors has done made after evaluation of the theories and empirical data and have so far proven to be accurate. What needs to be specified is when to exclude a country at this level. Since the model is made for qualitative data there are no direct answers for when exclusion shall be done. The model relies to a great extent on that the people using the mode are familiar with the current situation in the countries and also know what is considered acceptable. Foremost, however the people involved must know what the company is looking for and of course what it needs.

One of the location part (L) deals with factors that are easy to quantify, easing the evaluation process. The model is flexible and enables the user to add factors considered important in the context and that that could make a big difference when comparing the alternatives. Additionally this part can together with the other location parts (sourcing, stability and infrastructure) give a comprehensive picture and thereby clarify any doubts. The model is in other words able to help us establish where to make investments, as intended. With some fine-tuning of the different location areas the model can be made more user-friendly and easier to evaluate the selected countries. A quantitative evaluation system would be optimal, but when it comes to aspects such as a country's development and economical situation we believe it would be hard to find methods to accurately quantify and measure these factors while, simultaneously, trying to keep up with the fast and unexpected economical changes in the low cost countries.

We are aware that it might seem ignorant and wrong to exclude six countries at such an early stage due to the fact the sourcing is wrong, but sourcing is a factor that has been emphasized as decisive in theories, by case companies and by Automotive. Due to that fact we felt obligated to place sourcing high.

What we find interesting and worth thinking about is that both the theories and case studies state that stability and a good infrastructure is vital for companies to make FDI in a country. Although when push comes to shove, what it usually comes down to are the statistics. Automotive has already a production plant in Turkey and two of their



competitors have started production in Romania which does not at all fulfil the important demand on political stability and a good infrastructure, which was pointed out by both theories and case companies as vital factors in order to place an investment in the country.

Another interesting aspect is that none of our respondents states to have had any major problems when moving their production facilities. We find it hard to believe that there would be no problems in the process of making a foreign direct investment. This is an aspect that we hope will be object for further investigations since more research is needed to ease and increase the understanding of internalization and how it is affecting companies.

## 9. References

### 9.1 Published sources:

Alvesson Mats & Kaj Sköldbörg, *Tolkning och reflektion – Vetenskapsfilosofi och kvalitativ metod*, Studentlitteratur, 1998

Aronsson Leif, Hägg Ingemund & Wiedersheim-Paul Finn, *Att använda modeller i företagsekonomi*, LiberLäromedel, 1975

Bryman Alan, Bell Emma, *Business research methods*, Oxford University Press, 2003

Christensen Clayton M., Raynor Michael & Verlinden, Matt, *Skate to Where the Money Will Be*, Harvard Business Review, 2001

Cusomano Michael A. & Gawer Annabelle, *Elements of Platform Leadership*, Sloan Management Review, 2002

Day, George S., *Strategies for Surviving a Shakeout*, Harvard Business Review, 1997

Dunning John H, *Multinational enterprises and the global economy*, Addison-Wesley Publishing Company, 1993

Dunning & Narula, *Industrial development, globalization and multinational enterprises: new realities for developing countries*, Oxford Development Studies, 2000

Dunning John H., Kogut Bruce & Blomström Magnus, *Globalization of Firms and the Competitiveness of Nations*, Institute of Economic Research, 1990

Edlund Per-Olov, Högberg Olle, Leonardz Björn, *Beslutsmodeller-redskap för ekonomisk argumentation*, Studentlitteratur, 1999

Eriksson Lars Torsten & Finn Wiedersheim-Paul, *Att utreda, forska och rapportera*, Liber AB, 2001

Grant Robert M., *Contemporary Strategy Analysis – Concept, techniques, applications*, Blackwell Publisher Inc, 2002

Hagel III John & Singer Marc, *Unbundling the Corporation*, Harvard Business Review, 1999

Holme, Idar Magne & Solvang, Bernt Krohn, *Forskningsmetodik – Om kvalitativa och kvantitativa metoder*, Studentlitteratur, 2001

Hägg Ingemund & Wiedersheim-Paul Finn, *Modeller som redskap - att hantera företagsekonomiska problem*, Liber-Hermods AB, 1994

Lundahl, U & Skärvard, P-H, 1997, *Nya team i organisationernas värld*, Upplaga 1:1, Liber Ekonomi, Malmö

Patel Runa & Davidson Bo, *Forskningsmetodikens grunder – Att planera, genomföra och rapportera en undersökning*, Studentlitteratur, 1998

Schilling, Melissa, *Winning the standards race: Building installed base and the availability of complementary goods*, European Management Journal, 1999

Snyder Jesse, *Automotive News Europe*, Crain Communications GmbH, Issue: November 29, 2004

Strandell Anne-Christine, Granér Mats, Löf Philip, Hansson Pär, Karpaty Patrik, Lundberg Lars, Gustavsson Patrik, *Näringslivet internationalisering-effekter på sysselsättning, produktivitet och FoU*, Institutet för tillväxtpolitiska studier, 2004

UBS, *Prices and earnings-A comparison of purchasing power around the globe*, 2003

Wallén Göran, *Vetenskapsteori och forskningsmetodik*, Studentlitteratur, 2000

Westerlind Wigström, Christian, *Den stora utmaningen-En jämförelse av konkurrenskraft med de nya konkurrentländerna*, 2004

## **9.2 Electronic sources:**

CIA – The world Fact Book, 2005-01-03  
[www.cia.gov](http://www.cia.gov)

Electrolux AB, 2004-12-02  
[www.electrolux.com](http://www.electrolux.com)

Swedish Trade, 2004-11-16 & 2004-12-03  
[www.swedishtrade.se](http://www.swedishtrade.se)

FX converter, 2005-01-10  
[www.oanda.com](http://www.oanda.com)

Flexenclosure AB, 2004-11-25  
[www.flexenclosure.com](http://www.flexenclosure.com)

Landguiden, 2005-01-03  
[www.landguiden.nu](http://www.landguiden.nu)

Confederation of Swedish Enterprises, 2004-10-18  
[www.svensktnaringsliv.se](http://www.svensktnaringsliv.se)

Tranemo Textil AB, 2004-12-09

[www.tranemotextil.se](http://www.tranemotextil.se)

Trelleborg AB, 2004-11-18

[www.trelleborg.com](http://www.trelleborg.com)

### **9.3 Oral sources:**

Fredrik Meuller, Vice President Business Development, Trelleborg AB, first meeting 2004-11-06 (personal contact)

Dan Eisengarten, Business Development, Trelleborg AB, first meeting 2004-11-06 (personal and e-mail contact)

Stéphane de Tavernier, Business Development, Trelleborg AB, first meeting 2004-11-06 (personal, telephone and e-mail contact)

Jacob Broberg, Vice President Media Relations, Electrolux AB, 2004-12-02 (phone interview)

Max Larsson, Tranemo Textil AB, mail interview 2004-12-06

Johnny Olsson, Production Manager, Flexenclosure OÜ, mail & phone interview, 2004-12-16

Fabian Wallen, Economic Development Analyst, Confederation of Swedish Enterprises, 2004-11-17 (mail & phone interview)

Peringvar Östblom, responsible, Confederation of Swedish Enterprises, first contact 2004-10-06, (source of ideas)

### **9.4 Corporate internal sources:**

Annual Report, 2003, Trelleborg AB

Corporate internal material from Pharmadule-Emtunga, 2004-11-15

## **10. Appendixes**

Appendix 1, Questions to the companies'

Appendix 2, Map over Tier-1 and OEM location in Central & Eastern Europe

Appendix 3, Diagram with country fact from Landguiden

## Appendix 1

1. Vilken är den största kostnaden för Ert företag vid produktion? (löner, energianvändning, materialkostnader etc.)
2. När kom första gången tanken upp om att flytta produktion?
3. Vad var de bakomliggande orsakerna till att Ni valde att flytta produktionen och vad var Ert motiv med flytten?
4. Vilka faktorer tittar Ni på när Ni sökte efter regioner att lägga ut produktion till?
5. Är det viktigt för Er att ha leverantörer nära Er produktions anläggning? När Ni flyttar Er produktion byter Ni då leverantörer?
6. I vilka länder har Ert företag produktion i idag?
7. Vilka var de avgörande faktorerna som gjorde att Ni valde att flytta till det land/länder i Östeuropa Ni slutligen placerade er i?
8. Vilken form av företagsetablering använde Ni för att komma in på marknaden? (outsourcing, nyetablering, förvärv etc.)
9. Vem är inom företaget ansvarig för beslut om flytt och val av lokalisering samt anlitar Ni hjälp utifrån för att komma till den bästa lösningen?
10. Känner Ni att det är några dimensioner Ni förbisett i processerna, som hade varit viktig att utreda?
11. Känner Ni att Ni uppnått de mål ni vill nå med en produktionsflytt? Vilken erfarenhet känner Ni är viktig att ta med sig i en liknande beslutsprocess?

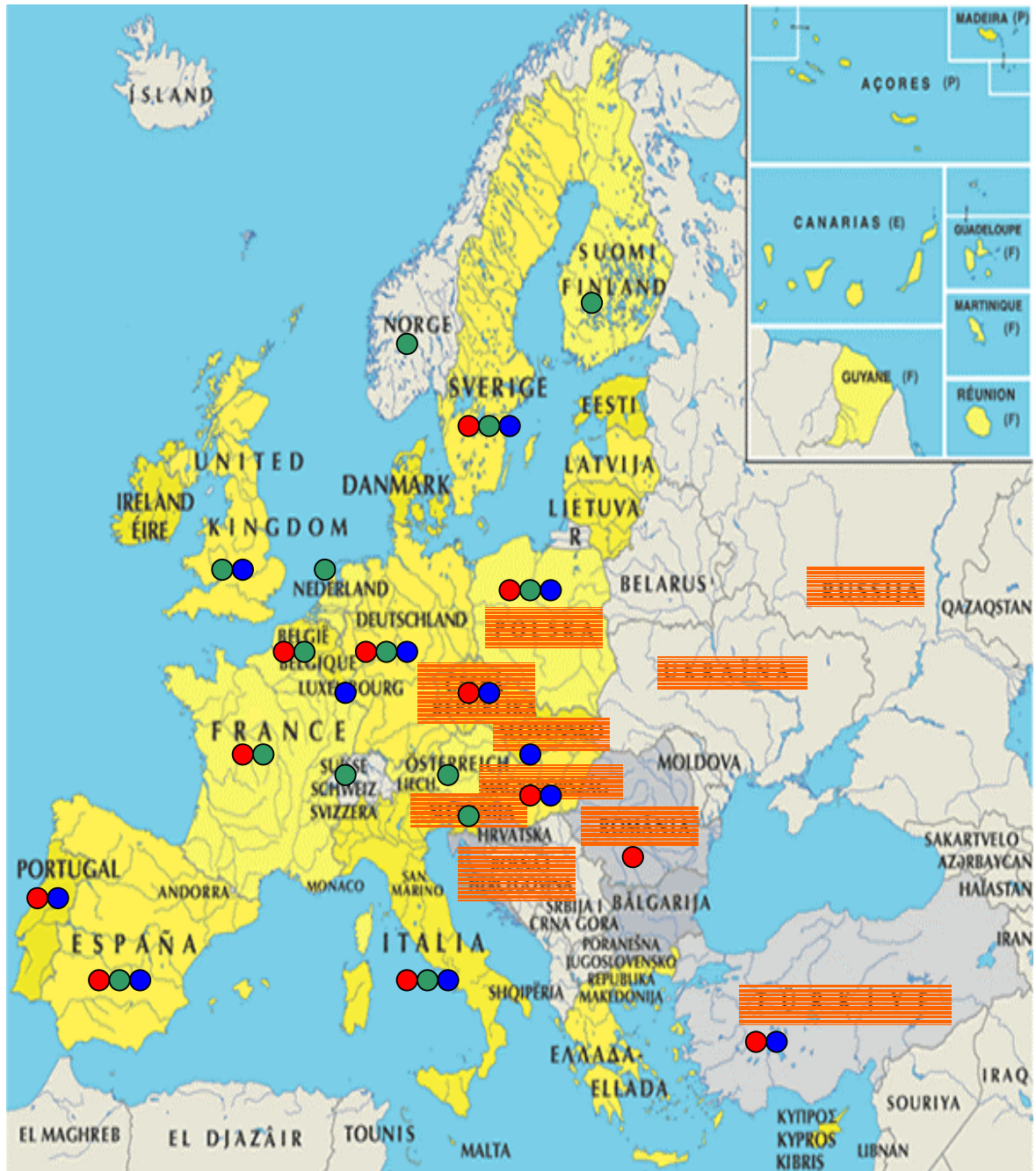
Vi hoppas att Ni inte känner att dessa frågor är för betungande att svara på. Vidare undrar vi om Ni kanske har nåt tips till oss om material eller personer vi kan ha hjälp av i vårt uppsats arbete.


Vi hoppas även att det är ok med Er om vi efter att Ni svarat kanske kontakter Er igen för att utveckla eller komplettera de svar NI lämnat.


Tack på förhand och vi är hemskt tacksamma för att Ni vill hjälpa oss!


Mvh / Sara Bertram och Hanna Svensson


Appendix 2



 Represents manufacturing of the OEMs

 Represents any kind of activity of Valeo

 Represents any kind of activity of GKN

 Represents any kind of activity of Delphi

Source; Automotive Euro News, 2004 and the homepages of Valeo, GKN and Delphi 2005-01-10

### Appendix 3

<b>Country</b>	<b>GDP</b>	<b>GDP from industry</b>	<b>GDP-real growth rate</b>	<b>GDP - per capita (PPP)</b>	<b>FDI of GDP</b>
<b>Bulgaria</b>	\$19,859 billion	28%	4,30%	\$2640	3,90%
<b>Czech republic</b>	\$85,438 billion	40,00%	2,90%	\$8375	13,40%
<b>Croatia</b>	\$28,322 billion	30%	4,30%	\$6355	4,40%
<b>Estonia</b>	\$8,383 billion	30,00%	4,70%	\$8383	4,40%
<b>Hungary</b>	\$82,805 billion	31,00%	2,90%	\$8180	1,30%
<b>Latvia</b>	\$18,213 billion	31,00%	7,40%	\$4170	4,50%
<b>Lithuania</b>	\$9,671 billion	25,00%	<b>6,50%</b>	\$5270	5,20%
<b>Poland</b>	\$209,563 billion	30%	3,70%	\$5485	2,20%
<b>Romania</b>	\$60,358 billion	38,00%	7,60%	\$2720	2,50%
<b>Russia</b>	\$433,491 billion	34,00%	7,30%	\$3020	0,90%
<b>Slovakia</b>	\$31,868 billion	29,00%	4,20%	\$5920	16,90%
<b>Slovenia</b>	\$26,284 billion	36,00%	2,30%	\$13380	8,50%
<b>Sweden</b>	\$300,795 billion	28,00%	1,60%	\$33585	4,90%
<b>Turkey</b>	\$237,972 billion	27,00%	5,80%	\$3360	0,60%
<b>Ukraine</b>	\$49,537 billion	38,00%	9,40%	\$1025	1,70%



<b>Country</b>	<b>FDI</b>	<b>Inflation rate</b>	<b>Labour force</b>	<b>Part of labour force by trade in industry</b>	<b>Unemployment</b>
<b>Bulgaria</b>	\$600 million	2,20%	3,333 million	31%	16,30%
<b>Czech republic</b>	\$9323 million	3,00%	5,25 million	35%	7,50%
<b>Croatia</b>	\$980 million	0,10%	1,69 million	25,40%	22,30%
<b>Estonia</b>	\$285 million	1,30%	0,654 million	20%	5,90%
<b>Hungary</b>	\$854 million	6,90%	4,164 million	27%	5,90%
<b>Latvia</b>	\$382 million	2,90%	1,18 million	25%	8,50%
<b>Lithuania</b>	\$712 million	-1,20%	1,642 million	30%	10,90%
<b>Poland</b>	\$4131 million	1,80%	16,92 million	22,10%	19,30%
<b>Romania</b>	\$1144 million	15,30%	9,28 million	27,30%	8,10%
<b>Russia</b>	\$3009 million	13,70%	71,68 million	22,70%	8,90%
<b>Slovakia</b>	\$4012 million	7,60%	2,58 million	29,30%	17,60%
<b>Slovenia</b>	\$1865 million	5,60%	0,875 million	NA	5,90%
<b>Sweden</b>	\$11828 million	0,50%	4,449 million	15,70%	4,80%
<b>Turkey</b>	\$1037 million	13,70%	23,79million	22,40%	10,20%
<b>Ukraine</b>	\$693 million	5,20%	21,29 million	32%	10,10%

Source: Landguiden, [www.landguiden.nu](http://www.landguiden.nu), 2005-01-03

(except labour force and part of labour force by trade in industry, [www.cia.gov](http://www.cia.gov), 2005-01-03)

The numbers shown in the diagram are from 2003 and 2004.