

International Business
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Strategic Level of Involvement

- How to approach the UK Internet security industry -

A Case Study of Todos Data System AB

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Gothenburg, December 17th, 2001

Behram Khan

Steven Velander

ABSTRACT

The popularity of Internet banking services has increased significantly over the last couple of years. At the same time computer crime is on the rise and this has created security concerns among the online banking customers. As a result the demand for Internet security solutions has risen dramatically. The United Kingdom is home to some of the largest banks in the world. Many of these banks offer a variety of Internet services although security, in certain areas, has not been up to standard.

The purpose of this thesis is to design an appropriate entry strategy for a foreign SME wishing to enter the Internet banking security industry in the UK. Todos Data System AB is a Swedish firm offering authentication solutions to Internet banks, and it has been used as a case company when writing this thesis.

With the purpose of gaining an overview of the business environment in the UK we have started by studying the UK macro and micro environments. The outcome of these studies has then provided the foundation for deciding an appropriate entry strategy. The results of our research show that the best entry mode would be to use an export strategy. This should be done either through indirect exporting using an export management strategy or through direct exporting using a manufacturer's representative strategy.

Keywords:

The United Kingdom, Todos Data Systems AB, Entry Strategy, Internet Banking, Internet Security Solution, Industry Analysis, Level of Strategic Involvement

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INTRODUCTION AND OVERVIEW

1. Introduction and Overview

In this chapter we are going to introduce and give an overview of the thesis. We will start by presenting the topic of the thesis and the research background. We will then discuss our problem statement and the purpose of the study. Moreover, we will present and explain some of the important terminology that was used throughout the research. Finally, we will provide a presentation of our case company, discuss some delimitations of the research and show the outline of the thesis.

1.1 Background

1.1.1 Thesis Topic

The Traditional Approach

Traditional processes for assisting a company in the development of its expansion into international markets are well documented. One can be read about them in many books on international marketing. They provide the novice with insight into internationalization with security as they provide comfort to the inexperienced international manager. The problem is that they represent a set of rules, almost like a “toolkit”¹. However, in reality they are not especially helpful in guaranteeing that the company is sufficiently differentiated from competitors in the eyes of potential customers.

Moreover, Housden and Lewis make an interesting statement regarding past scholars: “*in an obscure and fast changing international environment the traditional planning models become more of a pitfall than a helpful guideline for the internationalizing company, they represent little more than sufficient reporting systems.*” Benchmarking can create and verify mediocrity; and research reports on history and explains the past. Additionally, since almost every company competing in a market sector uses the same research methods they, much too often, end up with duplicated processes and products. What matters is not the process itself but the quality and originality of the thinking within these boundaries, and the ability of the organization to respond to the

¹ Griffin and Pustay, 1996

changes taking place, both in the global environment and in the minds of customers. That is what creates real advantage, not the fact that the company has developed a SWOT analysis from information to which most of its competitors also have access.²

The New Approach

The increasing complexity of the international environment means that many business leaders are beginning to rethink the value of traditional planning frameworks.³ They have seen that the process of planning in many organizations is a difficult and boring task, which just has to be done. The pace of change in international marketing is extreme and the amount of information about international markets is staggering. Rather than using planning to deliver the insight and discipline to enable profitable business activity, simply completing the planning process becomes, for many companies a goal in itself.⁴

In international markets, planning and control are vital to inform everyday operations and the development of sustainable long-term strategic direction for any organization. In addition, plans must be flexible enough to deal with the uncertainty that is an inevitable part of business in international marketing. For smaller companies this might not be as important, as it is possible to “survive” in the home market simply because they are familiar with the market and can react to situations as they occur. In overseas markets, however, small companies can fail to react to problems and, just as importantly, not be prepared for successes. Success can be jeopardizing for cash flows and production planning, as many firms have been known to fail with full order books.⁵

If done properly, planning can provide a structure and approach to international activity or other types of business activity. It is not a solution in itself, but helps companies to reach solutions to various business problems. There is, of course,

² Housden and Lewis, 1998

³ Hwang and Kim, 1992

⁴ Hohenthal, 1996

⁵ Cateora and Graham, 1999

no complete international marketing solution or approach to planning that can be used for every company or situation. What works for one firm may or may not work for another. Or as Larimo and Mainela puts it: “*certainty is not a raw ingredient of marketing that easily can be found; it requires a framework that embraces and accepts uncertainty and which provides companies with means of incorporating uncertainty into plans for growth.*”

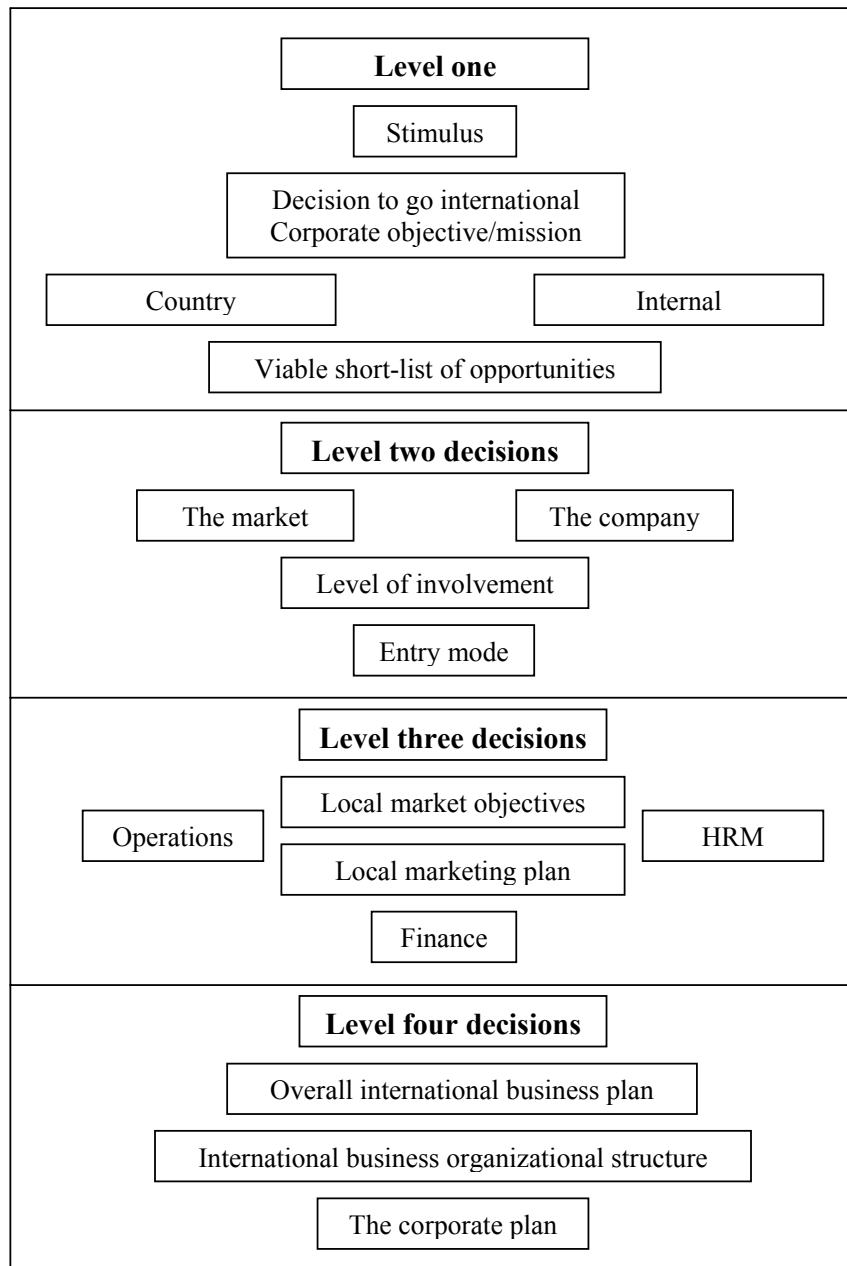
Planning for the International Market

Most companies are familiar with planning process in the local market, which reflects the local culture. Firms are at ease with a customer base with which they are familiar, and in which self-reference criteria help rather than hinder the planning process. The international dimension adds to the complexity of the planning process.⁶

Nevertheless, before becoming too poetic about the whole concept of planning and international marketing, we turn our attention to something a bit more concrete. Housden and Lewis have developed an international marketing planning framework (see Figure 1.1), which gives a good picture of the whole process. This framework identifies four levels of decision making, and dealing with the key components of this framework is essential for success in international marketing. However, as this thesis main problem is an issue of approaching a market rather than the whole international marketing process, the concentration of the study is mainly on decisions in the first two levels.

⁶ Cateora and Graham, 1999

Figure 1.1 Planning for International Markets



Source: Housden and Lewis 1998, 9. 45

1.1.2 Research Background

The United Kingdom is the fourth largest economy in the world⁷. It is the home of more big-name international corporations than any other European country, and London is seen as Europe's top business city. Moreover, London has been stated as the e-capital of Europe by recent international surveys⁸. This makes the UK a highly attractive market for any company dealing within the Internet industry.

The Internet is becoming more commonly used as a business medium in modern society, and along with it the issue of Internet security is emerging. Presently, the Internet banking industry is one of the areas in which the pressure on proper security is very high. A rising number of individuals are finding it faster, smoother and cheaper to carry out banking errands on-line rather than of physically attending the bank⁹. But, as Internet banking is gaining popularity, so has the pressure for complete security. This has especially been the case in the Scandinavian market where on-line banking is widely used and the issue of security well developed. What distinguishes this market from the UK market is that there is more concern for security, both among the banks and their customers. In the UK, Internet banking has shown a steady growth during the latter years¹⁰. However, security when it comes to the authentication procedures is just starting to become a topic, and the banks are increasingly willing to deploy extra resources into the upgrading of their systems.

1.2 Problem Statement

The authentication solutions industry for Internet banks is still in the start up stage and therefore there have not been so many academic studies carried out in the field. Due to the rapid development of the Internet and relating industries there is also a need to continuously update the information available. This therefore means that material written on the industry will quickly be outdated and research conducted only a few years ago will already be obsolete. In order

⁷ <http://www.usatrade.gov>

⁸ *ibid*

⁹ Amjad Beg, Handelsbanken

¹⁰ <http://www.computerwire.com>

to create an updated and fresh source of information of the rapidly changing industry we have decided to conduct research in the field. As the UK market is one of the hottest e-commerce areas at the moment it would be beneficial to conduct the research in this market.

Therefore, in conjunction with our case company, we found it interesting and suitable to focus our study on, from the viewpoint of an SME, how to enter the British Internet security industry. In order to do this we find it important to study the UK macro environment and relevant industries in the microenvironment that will have an affect on an SME when entering the UK market. The study and analysis of both the macro and micro environments will then provide a basis for selecting a proper entry mode into the market.

1.2.1 Research Problems

Based on the above reasoning we find it interesting to study the Internet banking security industry in the UK, and which entry strategies that can be used when entering the market. In order to do this we have developed some research problems, which will guide us in the writing of this thesis. The following main problem has been established; and it will be the essence of this study:

Main Problem

Main Problem:

How can a foreign SME, supplying security solutions to the Internet industry, approach the British market?

As we can see the main problem is customized in order to suit small to medium sized enterprises (SMEs) working within the Internet security industry. The problem also has a specific focus on the British market. In order to solve the main problem we have identified three fundamental research problems, which will provide an investigation into important areas of the research. These three problems will reflect areas, which we feel are important to study in order to be able to solve our main problem.

Research Problem 1

Research Problem 1:

How will factors in the macro-environment influence foreign SMEs approaching the British Internet security industry?

The first research problem deals with the issue of macro environmental influences. We feel that it is important to study the macro environment of a country since there are various forces in it that have an impact on the overall performance of the business. These forces will have an influence on the industry that we are going to study, and therefore they will have an indirect impact on our case company's ability to operate in the market. A proper understanding of the macro environment will provide the company with an overview of what to consider before it attempts to approach the UK market. We will, of course, stress those factors that are of particular interest for our specific industry and case company.

Research Problem 2

Research Problem 2:

How does the Internet security industry present itself, and how will it evolve?

In the second research problem we will study the Internet security industry (microenvironment) and how it is developing. When the microenvironment is analyzed, the industry of interest is carefully scrutinized. Matters such as competitors, customers, suppliers and distributors are studied. This will then provide the company with an understanding of how attractive the Industry is and whether it would be profitable to enter it.

Research Problem 3

Research Problem 3:

What is the appropriate establishment strategy for a foreign SME wanting to approach the British Internet security industry?

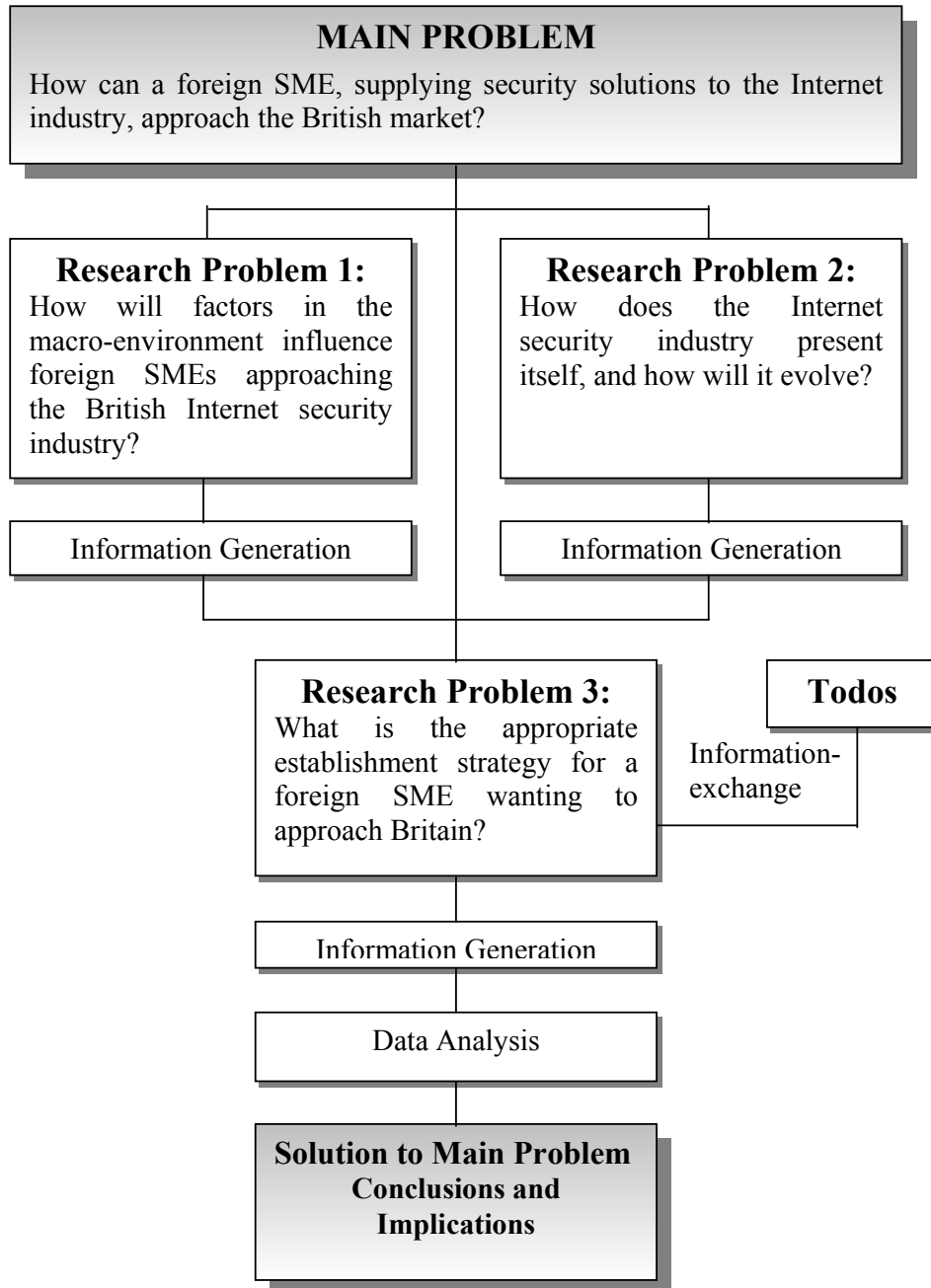
The third and final research problem relates to the strategies that should be utilized by foreign SMEs who desire to enter the Internet security industry in Britain. There are several different entry strategies available and each and every alternative will carefully be described and analyzed, in order to find the most appropriate one(s) for our specific case. For the more promising entry strategies, we will aim at locating the relating challenges and problems and how to overcome or avoid them.

By analyzing these three research problems, which include the macro and micro environments, as well as entry strategies, we then aim to solve the main problem.

1.2.2 Research Model

We have combined all our research problems and created a research model, which will provide the overall guideline for our research. This research model, which will be used as the general framework for our study, is shown below.

Figure 1.2 Research Model



Source: Own

1.2.3 Purpose

The purpose of this thesis is to, by conducting a theoretical and empirical study, recognize the most appropriate strategy for SMEs that intend to enter the British Internet security industry. The intention is to examine the UK macro and micro environments in order to see how they will influence a foreign SME wanting to enter the market. Based on the analysis of the macro and micro environments an appropriate entry strategy will be presented. This will in turn provide our case company with some possible answers on how to approach the UK Internet security market in an appropriate way.

1.3 Terminology

This section will introduce some terms that will be used throughout this thesis. A short explanation of each will be given in order to get the reader acquainted with some of the important terminology in the thesis.

Authentication

Authentication makes it possible to verify the identity of a user when the person logs-on to a secure Website.

Cookie

A cookie is a piece of information sent to your PC when you access a website. When you return to that site, it recognizes your user name. Cookies are generally used so that websites can identify which page they should send to the user next. Cookies also help the system recognize that the person who is asking for the next page in the secure area is actually the same person who passed the customer login.

Digital Signature

A digital signature makes it possible for a user to prove that he is actually the author of a given message, and to ensure the recipient that the message received has not been modified.

Dynamic passwords

A dynamic password is one that changes every time you logon. Normally a dynamic password is generated with the help of some kind of device such as the Todos eCode. Since a new password is used each time a person logs on to the network or web page it is more difficult for hackers to gain unauthorized access and there is therefore a greater security at the site.

PKI

A PKI (public key infrastructure) enables users of a basically insecure public network such as the Internet to securely and privately exchange data and money through the use of a cryptographic key that is obtained from a trusted authority. The public key infrastructure provides a digital certificate that can identify an individual and provide access to network it can also when necessary, revoke these certificates.

Static Password

A static password never changes. It is the same every time you logon to a website or network. An example of a static password is the pin number you use when accessing your ATM machine.

Token

This is a hardware device that generates a one-time password to authenticate its owner, it is also sometimes applied to software programs that generate one-time passwords.

Trojan horse

Program that secretly access information without the operator's knowledge, usually to circumvent security protections.

1.4 The Case Company – Todos Data System AB¹¹

We have decided to solve the research problems at hand by using a Swedish enterprise as our case company. The company - Todos Data System AB - is suitable since part of its business is in the Internet security industry. Moreover, it is at the same time interested in entering the UK market.

Mr. Maw-Tsong Lin founded Todos Data System AB, 1987 in Gothenburg, Sweden. The core business is communication equipment and terminals for electronic commerce. Products offered include: Smart card terminals for secure e-commerce, Internet banking and telephone banking, ISDN telephones and terminal adapters, ADSL modems, X.25 equipment, chip card payphones etc.

Since its founding in 1987, the company has grown rapidly and Todos is now present in markets in 15 countries. It has gained some recognition over the past few years although it is still relatively small and unknown. There are 27 people employed at the headquarters in Gothenburg where R&D and marketing is handled, 7 employees in a research center in China and 1 employee in Taiwan (see Appendix 1 for organizational chart). Production is taken care of by Taiwanese partners and it is located in China and Taiwan. Through their partners Todos gains access to a large production capacity that can be increased on a very short notice. 80 percent of the products are sold outside Sweden in countries such as Norway, the UK, Germany, China, Taiwan, Macedonia, Malaysia, Pakistan, and the USA. The largest market is at present the Scandinavian market, and some of the largest customers are Telia, MeritaNordbanken, ICA Handlarna and Telenor.

¹¹ Based mainly on interviews with Per Skygebjerg and Reneza Kungulovski at Todos Data System AB, internal company material, and information from Todos website.

Todos Strategy

Todos main strategy is to develop high quality custom designed products and solutions at competitive prices that meet the needs of individual customers.

There are three fundamental factors that form the base of the strategy:

- Swedish innovation and quality – Todos follows the Scandinavian tradition of quality thinking and product design and it implements strict quality control in R&D and production together with its partners.
- Competitive Prices – The effectiveness of the R&D and marketing HQ in Gothenburg together with the low cost production facilities provided by the Taiwanese partners enables Todos to charge highly competitive prices on their products and solutions.
- Customization – One of the most important parts of Todos strategy is the customization of its offerings according to each customer's requirements. Solutions are provided that fit the exact needs of each particular customer and upgrading, maintenance and after sales of the solutions are of vital strategic importance.

Todos follow a similar global expansion strategy for its new products when expanding sales internationally. The strategy can be divided into four steps, 1). Development of the sales market in Sweden 2). Expansion into other Nordic countries 3). Development of certain other key European markets 4). Expansion of sales on a global scale. Although this is the normal expansion procedure, Todos choice of market entry is highly dependant on the size and growth potential of prospective markets. Normally Todos makes use of agents in each country to sell their products. One of Todos main competitive strengths is its ability to sell products with extra value added features at the same prices as competing products.

Todos eCode Solution

The Todos eCode is a solution that enables secure e-banking and global e-commerce. It provides remote identification and digital signatures for applications that require secure identification. It can be used for services offered via PC, cellular Phone, PSTN, IA or any other kind of media. The system can easily be merged into existing systems for Internet banks, call

centers or telephone banks etc. The solution makes use of One Time Codes (OTC) and digital signatures for remote access control. It offers: user authentication, user authorization, data integrity, data confidentiality and non-repudiation. The main advantages with the eCode are that it is very cheap and that the smart card reader (Todos eCode Signature) is not user specific. This means that a user can use any eCode device, and this together with his smart card and PIN code enables him to logon to his banking Web page from any computer that is connected to the Internet.

Todos eCode Solution consists of three parts:

- A smart card application, i.e., a piece of software that is placed on the smart card (bank card etc.) and this software then generates a one-time code or a digital signature when it is inserted into the smart card reader.
- A smart card reader: Todos eCode Reader or Todos eCode Signature. The Todos eCode reader is not user specific and can be used by any customer who has a smart card application. The reader will display the OTC that is generated by the smart card application.
- A host system: The Todos Central System verifies the OTC or digital signature that is generated by the smart card application.



The Todos eCode™ signature

1.5 Delimitations

- The focus of our thesis will be on our case company's (Todos) new security solution the eCode, and we have therefore excluded all its other products from our analysis.

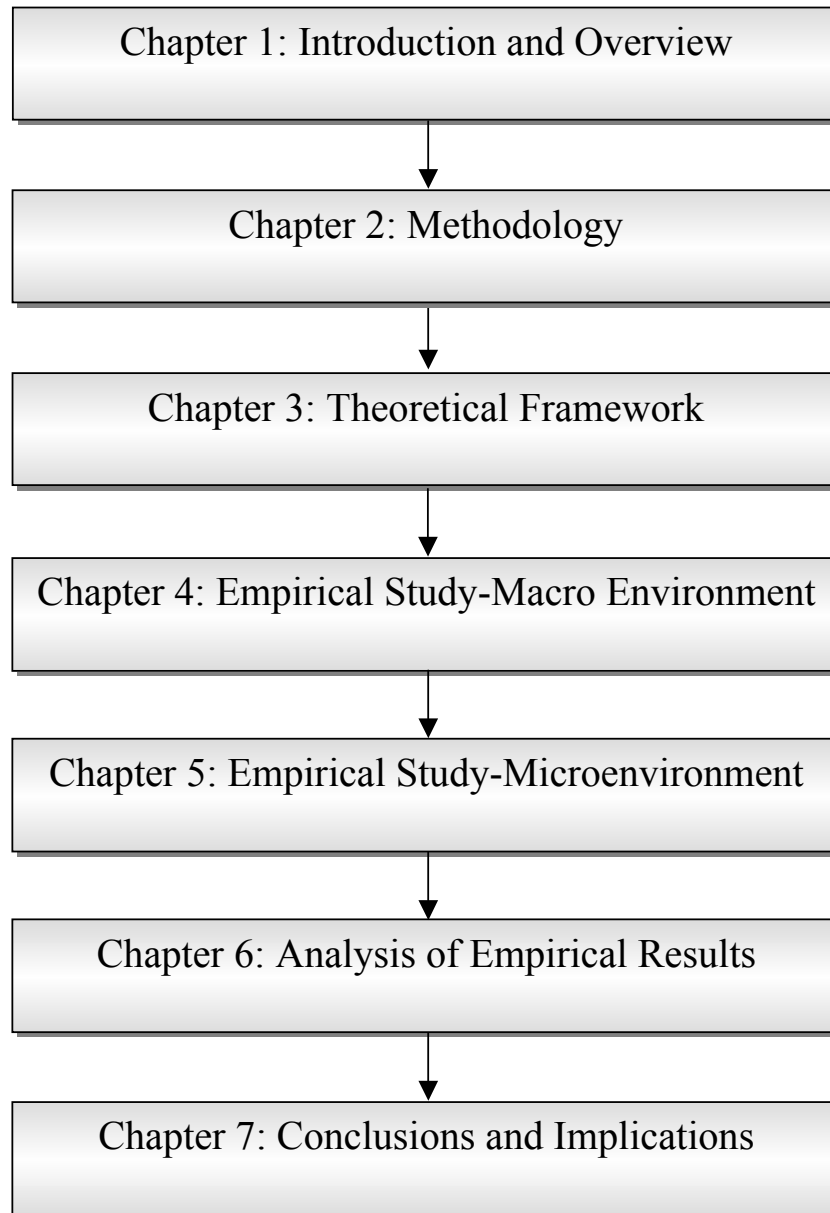
- Introduction and Overview -

- Todos has previously sold products such as the ADSL, ISDN, payphones etc in the UK. The company therefore has some connections on the market. The new eCode solution is very different from the existing ones and would require totally different sales channels. We have therefore made the assumption that Todos does not have any current presence in or relations with the UK market.
- The Internet security industry involves many different areas. Examples include control over the traffic to and from a network, identification and authentication of users, protection of the network from viruses and hackers, etc. We are going to focus on the user identification and authentication part where a user needs to be authorized before gaining access a network or a site on the Internet. The reason is that our case company's product, the Todos eCode is a solution developed for this particular area.
- There are many potential customers for the Todos eCode, which include insurance firms, online brokerage firms, Internet banks and large corporations. We have decided to focus on the Internet bank customers since we see this as the industry with the greatest potential. This is due to the fact that it is a very large market segment, which is very underdeveloped when it comes to user identification and authentication procedures, and it has faced a couple of security problems in the past.
- We aim to provide general strategies for Internet security companies wanting to enter the UK market. Since most of these companies are small to medium sized we have limited our research to SMEs in the Internet security industry wanting to enter the British market.
- Todos is a small company that outsources all its manufacturing processes to firms located in Taiwan. Its small size will therefore not allow it to consider the establishment of production facilities or any FDI in the UK. Due to these facts, our thesis only deals with the different modes of export entry strategies available. Both alternatives of indirect and direct exporting are included.

1.6 Thesis Outline

The figure below shows the outline of this thesis.

Figure 1.3 Thesis Outline



Source: Own

METHODOLOGY

2. Methodology

In this chapter we are going to give an overview of the research methodology used when writing the thesis. An explanation and justification will be given regarding the various methods and approaches chosen. At the beginning of each section we will introduce the various alternatives available, we will then go deeper into the analysis of the chosen one and explain why we have selected it. We will also discuss the process of searching for information and selecting the data. Finally, the quality level of the study will be discussed.

2.1 Research Strategy

There are five major types of research strategies: experiment, survey, archival analysis, history and case study¹². When choosing a specific strategy there are several factors to consider: what type of research questions are to be answered, the amount of control the researcher has over behavioral events and the degree of focus on contemporary versus historical events. Each strategy has its own advantages and disadvantages and the researcher has to have a clear understanding of the problem he wishes to solve before choosing a strategy.

We have chosen to conduct a case study design in order to solve our research problems. A case study design was chosen because we felt that this was the most appropriate method to use for solving the research problems that we had in hand. The case study is designed to gain an in-depth understanding of a specific situation for those involved¹³. It gives a holistic view over a certain issue by examining real-life events. By examining real life events we feel that we can come to more realistic and accurate conclusions in our study. It also enables the readers to apply our findings practically, and not only in a theoretical context.

¹² Yin, 1994

¹³ Merriam, 1998

- Methodology -

Furthermore, a case study has got certain boundaries within which the research has to be conducted¹⁴. These boundaries make it easier for the researcher to focus on the specific task that has to be solved and it helps him get an in-depth understanding of the situation. In our research the boundaries are that we use a single case company and that we focus on a single market and market segment.

There are however certain critical points that can be raised over the usage of a case study design. Lack of rigor in the research design is one of the major issues raised. This means that the researchers bias against certain things might influence the outcome of the findings and conclusions. This bias is often harder to overcome in case studies than in other forms of research. A second critical point raised is that case studies do not provide sufficient material in order for people to draw scientific generalizations from it. The third issue raised is that case studies take a lot of time to perform.

Although these critiques exist we feel that a case study design has been the best research method to use when writing this thesis. We have done everything we can to try to keep a neutral stand when drawing conclusions from our research. Moreover, even though we have faced some time constraints we have been able to finish our thesis within the predetermined time schedule.

¹⁴ Merriam, 1998

2.2 Case Study Design

There are four different types of case studies¹⁵. There can be single case or multiple case designs and they can in turn be either holistic or embedded units. Holistic and embedded units refer to the number of units that are analyzed within the studied case. An overview of the different designs is given in the following figure.

Figure 2.1 Case Study Design

	Single Design	Multiple Design
Holistic Design	Single Holistic Design	Multiple Holistic Design
Embedded Design	Single Embedded Design	Multiple Embedded Design

Source: Yin, 1994

One single case company has been used in our analysis and it is therefore a single design. Furthermore, we have focused on one specific industry and market, that is the UK security market for Internet banks and it is therefore a holistic design. Combining these two aspects we find that our research falls under the upper left hand square on the figure above, and it is therefore a single holistic case study design.

¹⁵ Yin, 1994

2.3 Research Method

A researcher can choose to use a qualitative or a quantitative method or a combination of the two. A qualitative approach uses methods such as common sense and personal understanding of things. On the other hand, a quantitative approach requires the researcher to use standardized methods, and it is more a method used for counting, scaling and abstract reasoning.

We have chosen to use a qualitative method since we feel that it is difficult to quantify and standardize any of the information we used in our study. Characteristics of qualitative research are that the goals of the study, the design, the data collection, and the findings tend to be holistic and very descriptive¹⁶. Moreover, a qualitative method gives the researcher an ability to gain a total perspective over things. The purpose of our research has been to get an overview of the business environment and the Internet security industry in Britain. By using a qualitative method we were able to gain in-depth information that could not be quantified from these specific areas. Furthermore, a qualitative method enables us to see how various areas are linked together¹⁷.

2.4 Research Approach

Three different research approaches can be used in case studies: inductive, deductive or abductive. In an inductive approach a specific phenomenon is explained with the help of an existing theory. On the other hand, a deductive approach is used when a researcher tries to find information that fit existing theories. An abductive approach is a combination of both the inductive and deductive approaches; it is therefore built on both existing and newly developed theories.

We have chosen to use an abductive approach since we use several existing theories but at the same time we have developed and used new ones. The reason for this is that we feel that many of the existing theories were not well

¹⁶ Merriam, 1998

¹⁷ *ibid*

suited for the problems statements that we had in hand. We have therefore used traditional theories, modified existing theories and created new ones that suit the specific needs of this study.

2.5 Scientific Approach

Scientific approaches can be divided according to the type of knowledge of reality that the study aims to produce¹⁸. There are three main approaches to choose from: exploratory, descriptive and explanatory. Often a combination of these approaches is used in order to carry out a complete study.

2.5.1 Exploratory Approach

An explorative approach is often used at the start of the research process, when the aim is to identify, define and structure the problem. We used this approach in order to get a better understanding of the Internet security industry. This was done by gathering information from secondary sources and conducting interviews with persons involved in the field.

2.5.2 Descriptive Approach

A descriptive approach is used to describe an investigated event. The aim is to study the developments of the event rather than to generalize the findings. We used this approach when we studied the various factors that might influence Todos ability to enter the UK market. It was therefore used mainly for the analysis of the macro environment, the competitive environment and the customer environment.

2.5.3 Explanatory Approach

An explanatory approach is used to explain the cause and effect relationship between different factors. It is used when there is a great knowledge in the field and when well-developed theories exist. We have this approach when we analyze the findings of our study in order to answer our research problems. This means that we have used it to explain how the various factors studied

¹⁸ Kinnear and Taylor, 1996

affect Todos ability to enter the Internet security market in the United Kingdom.

2.6 Data Collection

There are two main categories of data: primary and secondary data. Primary data refers to the data that has been collected specifically for the ongoing research while secondary data has been collected previously on another occasion. Collecting data for our research has been very difficult, we have not been able to use as much material as we had hoped to do when writing our thesis. One of the reasons for this is that the Internet security and the online banking industries are relatively new so there is not so much material available. Although we did not get as much material as we hoped to we were able to gather enough data to conduct a good-quality research. A more detailed explanation of our problems will be given in the following subsections where we will explain how we collected our secondary and primary data.

2.6.1 Secondary Data

At the beginning of our study we tried to collect and read a large amount of secondary information in order to become acquainted with the relevant industries of our study. This was done by looking for case studies in textbooks, going through articles in various journals and magazines, searching the Internet etc. We quickly found out that there was not so much written material available on neither the Internet security nor the Internet banking industries. As mentioned earlier the industries on hand are relatively new, and therefore there has not been so much research conducted in those fields. This created a lot of problems for us since it was difficult to get adequate information, which could make us more acquainted with the industries and their developments. The industrial data that we were able to find was mainly taken from WebPages and articles that have been published in various magazines.

Even though the material was not as much as we hoped for it enabled us to get a better insight in the task at hand, and it helped us provide an understanding of how our research problems could be solved. Furthermore, all the theoretical models, entry strategies and most of the information on the British macro

environment were taken from secondary sources. We were able to find vast amounts of data for these topics and it was therefore much easier to get a proper understanding and to write about them. The secondary sources used include books, WebPages and articles.

2.6.2 Primary Data

Due to the lack of secondary data availability we were hoping to rely mostly on primary data. But even when trying to collect primary data we faced a lot of problems. We found that the firms involved in the Internet security industry were very hesitant to let us interview them. This might be due the fact that they are very scared that they might divulge any information that can be used by competitors against them. When it comes to interviewing the Internet banks that are active on the UK market we faced even more problems. We approached a lot of banks via both e-mails and phone calls but almost all of them declined to be interviewed giving the reason that they are very busy, and therefore have a policy not to help students with interviews. Some people agreed to be interviewed via e-mail and we therefore sent out a lot of questionnaires. Unfortunately, most of the questionnaires were not answered despite the fact that we persistently reminded the persons several times.

Although we had a lot of problems we managed to conduct some interviews, which came to be very helpful in our research. These interviews were conducted with various people involved in the relevant industries of our study. Firstly interviews were made with our contact person at Todos in order to discuss the purpose of the study and to get us acquainted with the Internet security industry. Then after reviewing some secondary sources we conducted a field study in the UK. Interviews were made with various people who could give us a valuable insight how both the Internet security and online banking industries look like and how they are developing in the country. We conducted a total of 5 interviews in the UK each being about 1 to 2 hours long. A list over all the interviewees is provided in the reference pages. All the interviews conducted both in Sweden and in the UK gave us valuable information, which has aided us in the writing of this thesis.

2.7 Quality of research

A research has to obtain a certain quality level before it can be of any use for the reader. A below standard research can provide the reader with false conclusions to the problem in hand, and it can therefore be of more damage than help. In the sections that follow we have taken up issues that help the reader determine the quality level of this thesis.

2.7.1 Validity

Validity determines whether or not the research has been able to measure what it is supposed to measure. There are three different categories of validity: internal, external and construct validity.

Internal validity evaluates how well the results of a study match the actual reality. In order to reach a high level of internal validity we have used a vast amount of information sources. We have collected material from many different sources such as books, articles, and WebPages. We have also conducted a number of interviews where the interviewees have confirmed the reliability of our findings. The information generated from the various sources was found to be consistent with the reality and this indicates a strong internal validity.

External validity evaluates to what extent the results from a study can be applied to other situations. In our case study we have never had the intention to achieve a high external validity. The study has been tailor made to suit the specific needs of Todos and it is therefore fairly low in external validity. However, our findings could be generalized and used for other companies working within the Internet security industry.

Construct validity evaluates whether or not the researcher has used appropriate operational measures in the study, and if there has been an objective judgment when collecting data. We have chosen theories that best suit the needs of this study. In certain instances we have also modified the theories in order for them to suit the specific needs of our thesis. Furthermore, since we have no personal gain in how the study turns out we feel that we have been able to collect and

analyze the data objectively in order to come up with accurate conclusions. Due to these facts we believe that this study is one of high construct validity.

2.7.2 Reliability

Reliability refers to the extent to which the outcome of this study can be replicated by another researcher. A highly reliable study would be the one where other researchers using the same methodology would get the same findings¹⁹. There are many things that can affect the reliability of the findings, for example: misinterpretations of interviews, collection of unreliable secondary data and improper implementation of the chosen theories.

We have taken many measures to ensure the reliability of this thesis. Important secondary information has been collected from more than one source before it has been used. Moreover the secondary data has been verified through our interviews and through discussions with people working within the field. Both of us have taken proper notes from each interview, we have thereafter compared each other's notes and ensured that they were consistent. We also feel that we have had a good knowledge of the theories used, and that we have been able to implement them in a correct way. Due to these facts we are confident that any other researcher would get the same results as we got if the study was conducted under similar circumstances.

2.7.3 Possible Sources of Errors

Even though we have taken every possible measure to ensure the reliability of this study there might be some possible sources of errors. The findings in our study were found to be consistent but never the less we might have misinterpreted some of the information collected. One factor might be that we had a lack of knowledge of the industry prior to conducting this study.

Another source of error might be the information gained from the interviewees. The respondents might answer some questions in a certain way in order to show the better sides of their company and not to divulge any sensitive information. Although this might be the case we feel that our respondents have

¹⁹ Yin, 1994

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been very honest in our discussions. They have answered the questions straight away and if there was any sensitive question raised they just simply told us that they don't want to answer it, instead of giving us wrong information.

Due to these facts we really think that there are no major sources of errors in this report although the reader has to be aware of the possibility that there might be some minor sources of error.

THEORETICAL FRAMEWORK

3. Theoretical Framework

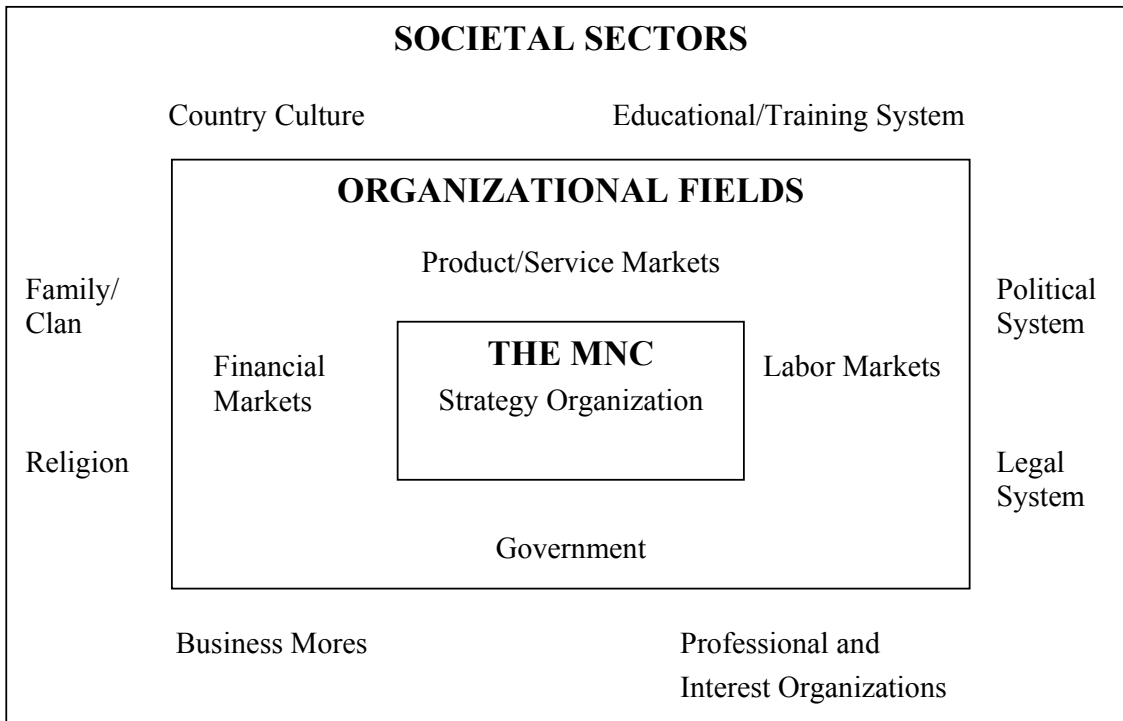
In this chapter, we will give an overview of all the theories used in the thesis. We will start by describing Jansson's Basic Institutions Model, which was used to analyze the UK macro environment. We will then discuss various models such as Porter's five forces, the industry life cycle model etc., that were used in our Industry analysis. Finally, theories that were used on various entry strategies will be presented.

3.1 The Basic Institutional Model

The Basic Institutional Model²⁰ was developed for MNCs looking into the prospect of entering emerging markets. It is a tool used to analyze the environment in these markets before making a decision whether or not to enter them. Although it was specifically developed for MNCs trying to enter emerging markets, it is possible to modify the theory to ones specific needs so that it can be used in many other situations. The Basic Institutional Model in its original form is shown in Figure 3.1.

²⁰ Jansson, 2000

Figure 3.1 The Basic Institutions Model



Source: Jansson, 2000, page 11

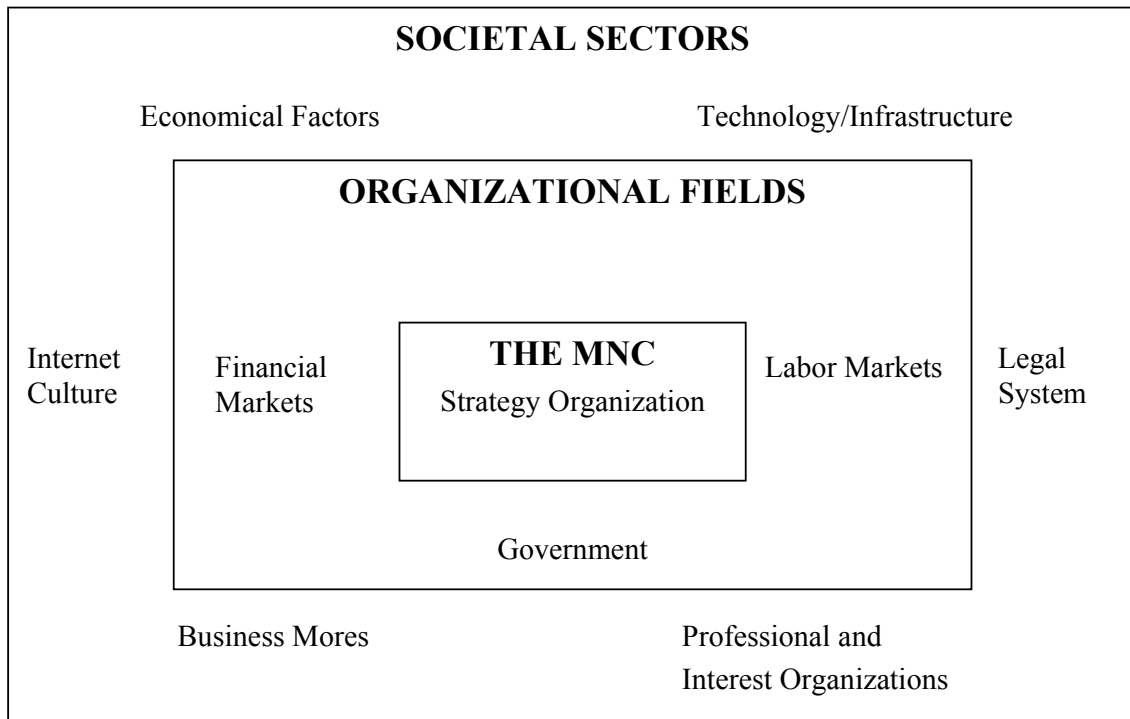
As can be seen in Figure 3.1, the model is divided into three rectangles. In the center triangle the MNC that wants to start operations in the country of focus is shown. The other two rectangles contain institutions in the country that will have an impact on the MNC's operations once it is entering the marketplace. The second and third rectangles contain two fields, namely the societal sector and the organizational fields. The company does not interact directly with the institutions in the societal sector, although the institutions will have an important impact on the MNC while operating in the market. On the other hand, the MNC will actively interact with the institutions in the organizational fields.

3.2 Modified Basic Institutions Model

The Basic Institutions model has been modified in order to suit the specific needs of this study. It has been modified so that it can be used for an SME that is operating in an Internet related businesses on a western capitalistic economy. As can be seen in Figure 3.2, the SME is in the central rectangle surrounded by

the same outer rectangles as in the original model. Some institutions have been added while others have been taken away. The model has been modified in order to analyze the macro environment, and therefore we have omitted the product/service sector, which will be analyzed in our microenvironment chapter instead. The modified model and an explanation of the institutions follow.

Figure 3.2 Modified Basic Institutions Model



Source: Jansson, 2000, chapter 1, page 11, modified

3.2.1 Government

The government will always have some kind of influence over how business is conducted in a country. This can be done through many different ways, for example through exchange controls, privatization processes, tax rates, governmental subsidiaries, local or national grants etc. All of these will then affect how well a company is able to conduct its business in the country. It is therefore important to gather information on how governmental policies might affect the company when doing business in a country.

3.2.2 Financial Markets

It is always important to have a proper understanding of the financial markets in a country in which one intends to do business in. This understanding enables the company to run its operations more smoothly especially when it uses financial management to analyze potential investment areas. Issues such as monetary conversions from the local currency to the home currency, money flows, insurance markets etc., will be important areas for the company to consider.

3.2.3 Labor Markets

A proper understanding of how the labor market works, and what it has to offer, can always be of help for a company wishing to establish itself in a country. Certain companies might require many engineers or other skilled workers, and it is therefore important to know whether they are available in the country. It is also important to know the rate of unemployment, job-hopping culture, wage levels etc. This will help to get an understanding of how difficult it might be to attract new recruits, and what the possibilities are to keep them in the company for a longer period of time.

3.2.4 Legal System

The legal system is often very different from market to market, and each country tends to have its own way of controlling the business environment. The rules and regulations in a country will greatly affect an SME's strategic planning process and its ability to act on the market. Proper understanding of the country's legal system is therefore of vital importance when one intends to do business in a certain country. There are many legal factors that will have an impact on an SME once it is active in the market, and it is important to investigate all these factors in detail before making a move to enter the country.

3.2.5 Economical Factors

The economy of the country has a strong impact on the SME's ability to generate healthy profits. It determines the country's purchasing power, and therefore affects the SME's ability to sell in the market. It is essential to consider both the current and the future state of the economy to make sure that

it will be profitable to enter the market over the long term. Entering a new market where the economy is currently experiencing a recession or even a slowdown can have disastrous impact on sales for the SME.

3.2.6 Professional and Interest Organizations

There are many different organizations that might influence directly or indirectly the SME when it is attempting to enter a specific market. It is important to consider all of them that might affect the SME's way of doing business in the country. Many of these organizations might pose a threat to the company while others can be used to generate competitive advantages. Identification and analysis of these institutes will therefore be of outmost importance when scanning and analyzing a potential market.

3.2.7 Technological/Infrastructure

It is important to have a proper understanding of the country's infrastructure in order to know its limitations and the opportunities it might pose. A lack of a well-developed infrastructure might hamper a technologically advanced firm. On the other hand a firm with lower technological skills might find it difficult to compete in a country whose infrastructure might provide great benefits for more technologically advanced competitors. Being able to take advantage of the country's infrastructure benefits fully might create a competitive advantage for the firm. Therefore proper knowledge of the technology and the infrastructure of the country is needed.

3.2.8 Business Mores

In each country people have their own specific way of conducting business. Understanding these differences will help expatriates to avoid misunderstandings that might arise while doing business in a foreign market. This might include misunderstandings when negotiating or discussing contracts etc., in a foreign market. A proper knowledge of the specific business mores in a country will make sure that no small or silly mistakes are made. This will in turn enable the SME to act more like a local company, and as a result, it might make it more accepted by many companies on the market.

3.2.9 Internet Culture

Understanding the country's Internet culture is of great importance for firms operating within or dealing with the Internet industry. The amount of Internet usage in countries is often measured by traffic rate, number of homes with Internet connections etc. This can often be misleading since there is not much consideration taken as to what areas the people use the Internet for. In certain countries there might be a deep-rooted cultural heritage that slows down the progress of starting to do certain things via the Internet. It is therefore important to find out more about the specific usage patterns for a certain country that one wishes to do business in.

3.3 Industry Analysis

Theories on industry analysis are manifold and they seldom vary a lot. Researchers call it everything from Micro Environmental Analysis, Game Theory, Hypercompetition, Schumpeterian Competition and Industry Attractiveness; nevertheless, most center their focus on the same variables, namely competitors, customers and suppliers²¹.

Probably the most known and widely used theory regarding industry analysis is Porter's Five Forces of Competition framework, which helps to determine the intensity of competition and level of profitability of an industry. Porter's framework views the profitability of an industry as determined by five sources of competitive pressure. These five forces of competition include sources of "horizontal" competition: competition from substitutes, competition from entrants, and competition from established rivals; and two sources of "vertical" competition: the bargaining power of suppliers and buyers²².

However, his theoretical framework leaves room for some degree of criticism. The Five Forces is often blamed for having too static a nature, as it views industry structure as stable and externally determined. This decides the concentration of competition, which in turn affects the extent of industry profitability. But as Grant puts it, "*competition is not some constrained process*

²¹ Grant, 1998

²² Porter, 1980

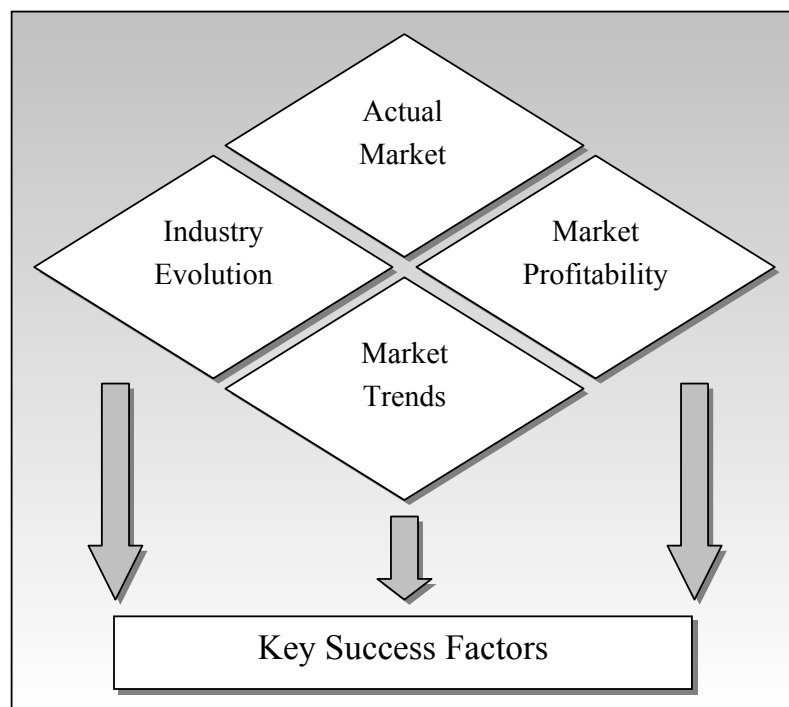
that determines prices and profits and leaves industry structure unchanged. Competition is a dynamic process through which industry structure itself and changes through evolution and transformation”²³. Hence, a model that does not take these elements into account falls short in acknowledging that competition alters industry structure both consciously by firms’ strategic choices and as a result of the consequential competitive interaction.

3.3.1 Industry Analysis Model

With this in mind, Porter’s Five Forces of Competition framework has been modified and altered to better fit the objectives of this study. Therefore, a number of features will only briefly be mentioned due to their lack of relevance while some will be added in order to develop a model that is tailored to the specific needs of the project.

The model below only appreciates Porter’s five forces as one of four major elements (market profitability) that must be analyzed in order to achieve an overall understanding of the specific industry, as well as realizing the key success factors.

Figure 3.3 Industry Analysis Model



Source: Own

²³ Grant, 1998

3.3.2 Actual Market

A basic starting point for the analysis of the industry is the actual market. This includes mainly addressing potential customers and competitors. These are fundamental factors for the whole industrial analysis and should, therefore, be thoroughly identified and scrutinized. However, defining them will be enough in this section, as they will, be analyzed more in depth, in the industry profitability section.

3.3.3 Industry Evolution

Firms should carefully scrutinize the evolvement of its specific industry in order to reduce uncertainties, recognize opportunities and formulate appropriate strategies.

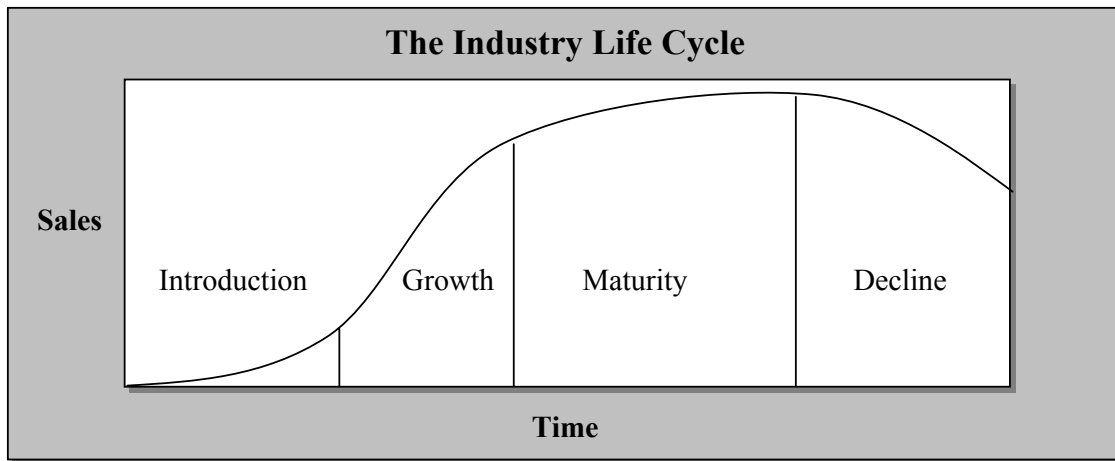
Driving forces

In many contexts, the most important strategic uncertainty involves the prediction of market evolution. An essential strategic decision, often an investment one, can hinge not only on being correct but also understanding the driving forces behind market dynamics. Addressing most key strategic uncertainties starts with asking on what the answer depends. In the case of industry evolution, the need is to determine what forces will drive the development. It is especially important in fast-changing industries to identify the driving forces, as this will enable firms to better forecast the future.

Industry life cycle

One approach that can be used to investigate the industry evolution is the industry life cycle. As with products, industries also pass through a number of phases. If analyzed accurately, the life cycle is valuable tool when making strategic decisions for the specific industry. The phases that are included in the life cycle, as can be seen in Figure 3.4, are introduction, growth, maturity and decline.

Figure 3.4 The Industry Life Cycle



Source: Grant 1998, p. 243

In the *introduction stage* of the industry, sales are small, market penetration low and customers few. At this stage, innovation is the basis for initial entry and for subsequent success. Customers for new products tend to be prosperous, innovation-oriented and risk accepting. The *growth stage* is characterized by accelerating market penetration as product technology becomes more standardized and prices fall. When the industry enters the *maturity stage* market saturation increases and growth declines as new demand gives way to replacement demand. In the last and final stage, the *decline stage*, the industry becomes challenged by new ones that produce technologically superior substitute products²⁴.

3.3.4 Industry Profitability

Next follows the theory that will be used in order to determine industry profitability. As mentioned earlier, most of Porter's five forces will be used to achieve this. However, suppliers will be left out as they are of no or little interest for this specific case and, hence, only four out of Porter's five forces will be utilized.

²⁴ Grant, 1998

Competition From Substitutes

Regarding competition from substitutes, this aspect has been included in our industrial analysis model since it, to some extent, can influence the attractiveness of the specific industry. The price customers are inclined to pay for a product depends partly on the availability of substitute products. The scarcity of close substitutes for a product means that consumers are relatively insensitive to price, i.e., the demand is inelastic with respect to price. The existence of near substitutes implies that customers will switch to substitutes in response to price increases for the product, i.e., demand is elastic with respect to price.

The extent to which substitutes limit prices and profits depends on the ability of buyers to substitute between choices. This, in turn, is dependent on their price performance attributes. The more complex the needs being fulfilled by the product and the harder it is to discern performance variances, the lesser the extent of substitution by customers on the ground of price differences.

Threat of Entry

According to Porter, if an industry earns a return on capital in excess of its cost of capital, that industry attracts firms outside the industry. Unless the entry of new firms is barred, the rate of profit will drop in the direction of its competitive level²⁵. The *threat of entry* rather than the physical entry may be enough to make sure that established firms restrain their prices to the competitive level. The author also states that an industry where no barriers to entry or exit exist is *contestable*; namely when prices and profits linger at the totally competitive level, no matter what the number of firms within the industry may be. If this is the case, then it depends on the absence of what Porter calls *sunk costs*. Sunk costs exist where entry requires investment in industry-specific assets whose value cannot be recovered on exit. An absence of sunk costs make an industry vulnerable to “hit-and-run” entry whenever established firms raise their prices above the competitive level.

²⁵ Porter, 1980

In most industries, however, new entrants cannot enter on the same conditions with those of established firms. The dimension of the advantage of established over entrant firm measures the height of *barriers to entry*, which illustrates the degree to which the industry can benefit from profit above the competitive level in the long run. The key sources of barriers to entry are, according to Porter: capital requirements, economies of scale, cost advantages, product differentiation, access to channels of distribution, governmental and legal barriers, and retaliation.

Sources of Entry Barriers

The capital cost of entering an industry can be significant enough to discourage all but the largest companies. Moreover, in industries that are capital, research or advertising intensive, efficiency requires large-scale operations. The difficulty for new entrants is that they are confronted with the option of either entering on a small scale and accepting high unit costs, or entering on a large scale and running the risk of radical underutilization of capacity while they generate a sales volume. Except for economies of scale, established firms can possess a cost advantage over entrants merely since they entered at an earlier time. Unconditional cost advantages have a tendency to be related to the acquirement of low cost sources of raw material or economies of learning.

Another source of entry barriers can be found in industries where products are differentiated, in this case established firms have the benefit of brand recognition and customer loyalty. While lack of brand awareness among consumers function as a barrier to entry, a more direct barrier for the new company is probably to gain adequate distribution channels. Furthermore, some economists argue that the only actual barriers to entry are those carried out by government; for instance: licenses, patents, copyrights, and trade secrets. The efficiency of the barriers to entry also depends on the entrants' probabilities to be faced with retaliation by established firms. Retaliation against a new entrant may take form of aggressive price-cutting, increased advertising, sales promotion, or litigation²⁶.

²⁶ Grant, 1998, p. 59

Conclusively, studies show that profitability was higher in industries with “very high entry barriers” than in those with “substantial” or “moderate to low” barriers. Capital intensive and advertising are vital aspects that increase entry barriers and inflate industry profitability²⁷.

Rivalry Between Established Competitors

For most industries, the main source for the entire competitive environment and the overall level of profitability is competition among the companies in the industry²⁸. In some industries there is intensive competition; and in others, price competition is minimal and rivalry concentrates on advertising, innovation and other non-price dimensions. Grant focuses on six factors that play a vital part in forming the nature and dilution of rivalry between firms in an industry, namely: concentration, the diversity of competitors, product differentiation, excess capacity, exit barriers and cost conditions.

Rivalry Conditions

Seller concentration studies the number and size of businesses competing within a market. Seller concentration is generally analyzed by the concentration ratio, which is the overall market share of the primary producers. Where a market is led by a small group of dominating companies (an oligopoly), price competition may also be controlled, either by clear agreement, or more commonly through “parallelism” of pricing decisions. Therefore, in markets dominated by few companies prices are inclined to be alike and competition focuses on advertising, promotion and product development. As the quantity of firms supplying a market increases, harmonization of price becomes harder, and the probability that one firm will initiate price-cutting ascends.

The ability of firms in an industry to avoid price competition also depends on their similarities in terms of origins, objectives, costs and strategies. The more these characteristics differ between the firms in an industry the higher the likelihood that price will be a major source of competition. Furthermore, the more similar the products are among competing companies, the more willing

²⁷ Grant, 1998

²⁸ *ibid*

customers are to substitute and firms are more motivated to cut prices in order to improve sales. Therefore, in an industry where competing firm's products are seen as commodities, price will be the sole basis for rivalry. By contrast, in industries where products are highly differentiated, price competition has a tendency to be weak.

Buyer Power

The companies in an industry operate in two types of markets, specifically either in the markets for inputs, where they make purchases from suppliers; or in the markets for outputs, where they sell their goods and services to customers. In both markets, the relative profitability of the two parties involved in a transaction depends on relative economic power. Considering the sales to customers, two sets of issues are of importance when settling the strength of buying power, namely buyers' price sensitivity and relative bargaining power.

Buyers' Price Sensitivity

The degree to which customers are sensitive to the price charged by the companies in an industry primarily depends upon four aspects.

- The more important an item is as a proportion of total cost, the more sensitive customers will be about the price they pay.
- The less differentiated the products are in an industry, the more prepared the customer is to change suppliers on the basis of price.
- The more intense the competition is among the customers, the higher pressure is put on the supplier to lower prices.
- The more important the suppliers offering is to the quality of the customer's own product or service, the less sensitive are customers for the price they are charged.

Relative Bargaining Power

Several factors influence the bargaining power of buyers relative to that of the sellers.

- *Size and concentration of buyers relative to suppliers.* The smaller the number of buyers and the larger their transactions, the greater the cost of losing one.
- *Buyers' information.* The better informed buyers are about suppliers and their prices and costs, the better they are able to bargain.
- *Ability to integrate vertically.* Another source of bargain is if the buyer has the opportunity to do-it-yourself instead of purchasing from the supplier.

3.3.5 Market Trends

Another most useful element of industrial analysis comes from addressing the question, what are the market trends?²⁹ According to Aaker, the question has two important qualities: primarily it focuses on change, and secondly it tends to recognize what is important. Strategically useful insights usually prove to be extremely beneficial. A discussion of market trends can prove to be a helpful summary of customer, competitor and market analyses. Consequently, the trends are identified near the end of the industrial analysis.

3.3.6 Key Success Factors

As the most critical market trends have been recognized, the concluding point of the industrial analysis is to identify the key success factors (KSFs). Although theorists differ some in their definition, these are basically criteria that must be met in order for a firm to survive and prosper³⁰. Turning to Aaker's approach, there are two types of key success factors, namely, strategic necessities and strategic strengths³¹. The strategic necessities do not necessarily provide an advantage, because others have them, but their absence will create a substantial weakness. Strategic strengths are those at which a firm excels, the assets or competencies that are superior to those of competitors and provide a source of

²⁹ Aaker, 1998

³⁰ Grant, 1998

³¹ Aaker, 1998

advantage. The set of assets and competencies developed in competitor analysis provides a base set from which key success factors can be identified. The points to consider are those which are the most critical assets and competencies now and, more important, which will be the most crucial in the future.

As mentioned above, it is important not only to identify key success factors, but also to project them into the future and, in particular, to identify emerging KSFs. Many firms have faltered when KSFs changed and the competencies and assets on which they were relying became less relevant.

3.4 Strategic Level of Involvement – Entry Strategies

Proper evaluation, selection and management of entry strategies are vital for success. Strategic decisions at this level represent the key link between a firm and its customer. Intermediaries, for instance are, in the eyes of customers, the organization. Careful management of the process is imperative. Furthermore, as real innovation is difficult, it has been said that channel management and the management of brand equity are the keys to success in the current marketing environment.³² The process of expanding the business internationally exposes the organization to risk in both these key business areas. Hence, it must be managed correctly.

While the key benefit of planning is to match resources and opportunities, it also attempts to minimize the risk to which the expanding firm will be exposed. Risk is an inevitable part of business activity, but through careful planning and the adoption of an appropriate strategy it can be minimized – or if not minimized, planned for.

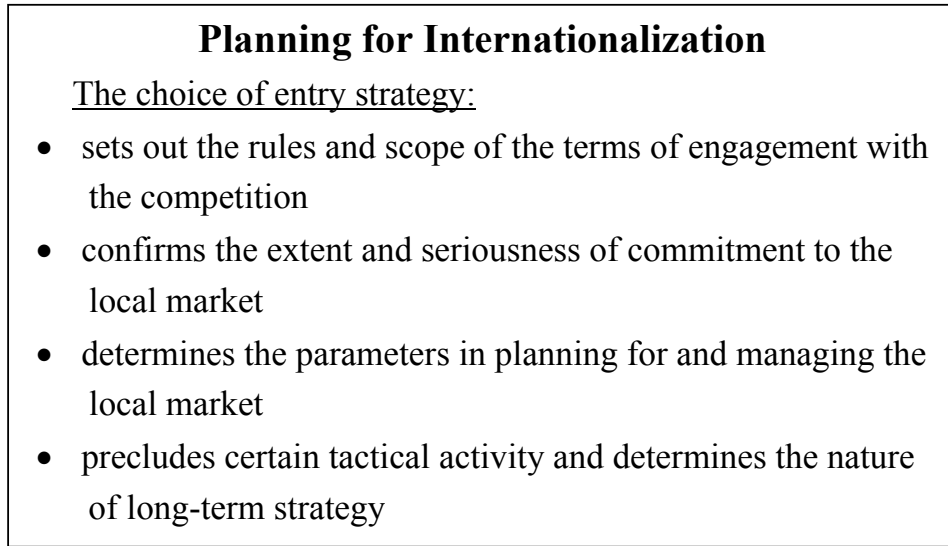
The entry strategies are about the relationship between a firm and its overseas customer. They provide the essential link between the parties in this relationship. It is also important to remember that the entry decision has far-reaching strategic implications. Essentially it revolves around the question: how close does the firm need to be to its customer in order to succeed?³³ Entry

³² Cateora and Graham, 1999

³³ Housden and Lewis, 1998

strategies are an important part of the strategic armory. Or as Housden and Lewis puts it “they are obviously offensive marketing weapons, but they involve greater or lesser degrees of risk and provide the marketer with a greater or lesser degree of control over this risk.”

Figure 3.5 Planning for Internationalization



Source: Aaker 1998, p. 56

3.4.1 The Company

Before an organization will be able to determine which entry strategy best fits its needs; it has to, in detail, consider the strengths of the company against the market targeted. Questions to be asked include.³⁴

- Does the firm understand its future customers' needs?
- Does the firm have experience of this market or similar markets?
- Is the management familiar with local business practices?
- Does the firm have access to sales support/services in the market?
- Can the firm sustain this post-sales activity?
- Can the firm recruit locally?
- Can the firm develop and sustain information systems to support local activity?

³⁴ Housden and Lewis, 1998

3.4.2 Level of Involvement

The strategic level of involvement in a market will differ as companies enter the international arena. The level of involvement selected will be defined by answering the following questions.³⁵

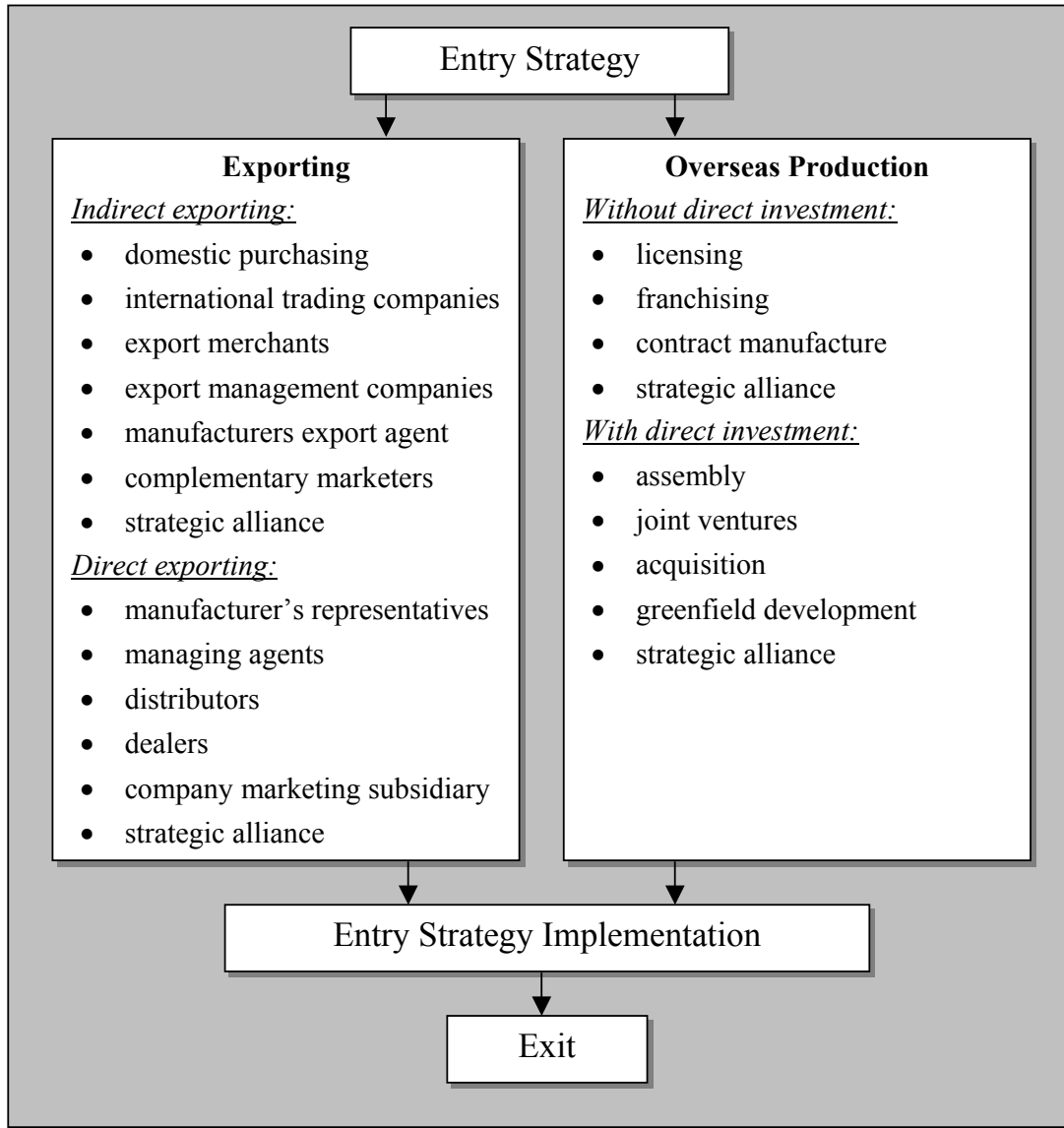
- Will it be sufficient to ensure customer satisfaction?
- Will it be appropriate to the need and resources of the company?
- Will it match resources with opportunities?
- Will it be sufficient to enter the market successfully?
- Is the level of risk at a manageable level?
- Is it consistent with the organization's objectives?
- What degree of flexibility is required?

3.4.3 Market Entry Strategies

It is the ability of the firm to configure the need for profit with exposure to risk through strategic control that will determine success or failure. As can be seen in Figure 3.6, there are a range of strategies available, and companies depending on their exposure in the international arena may be dealing with different levels of strategic involvement in different markets. For instance, if a firm was approaching a volatile market with an unstable political and economic environment, the degree of risk would be relatively high and strategies would be selected to reflect this. The converse would be the case if selecting a market with opposite characteristics.

³⁵ Housden and Lewis, 1998

Figure 3.6 Market Entry Strategies



Source: Housden and Lewis 1998, p. 57 (modified)

As shown in Figure 3.6, there is a full range of entry methods available to meet the need of the organization and its customers. These range from exporting indirectly through to direct investment in overseas production. What drives the choice is the match between the company's objectives and resources, customers needs and the macro/micro environment within which this relationship takes

place.³⁶ If the firm has carried out the analysis process correctly at this stage, it should be able to evaluate alternatives based on full appreciation of these essential variables.

Consideration of the Options

There are two broad options. The firm can make the product at home and transport it to the targeted market, or it can make the product overseas in the targeted market or country of choice. The first is described as exporting and the second as overseas production or foreign direct investment. The range of options appears in Figure 3.6. There is no sequential process or requirement to start with export and move to overseas production and foreign direct investment. Clearly, for the smaller company the resources available will preclude some options. However, a small company can gain a global presence quite quickly through the development of strategic alliances, licensing or franchise agreements.³⁷

In today's virtual reality market-place, smaller companies have access to global markets through a wide variety of channels – an option previously available only to major corporations.³⁸ The global imperative is therefore as much a concern for small companies as it is for the large players. The theory included in this section will focus on exporting options only, and not overseas production, since the characteristics of this report's case company more or less precludes overseas production.

Indirect Exporting – Using Domestic Middlemen

Indirect exporting can be explained as the utilization of domestic middlemen to perform the international function. These are located in the producing firm's country and provide marketing services from a domestic base. By selecting domestic middlemen as intermediaries in the distribution processes, companies relegate foreign-market distribution to others. Domestic middlemen offer many advantages for companies with small international sales volume, those

³⁶ Grant, 1998

³⁷ Cateora and Graham, 1999

³⁸ "Going Global" Nov 15, 1997

inexperienced with foreign markets, those not wanting to become immediately involved with the complexities of international marketing and those wanting to sell abroad with minimum financial and management commitment. A major trade-off for using domestic middlemen is limited control over the entire process.

The first entry strategies discussed will be those encompassing the lowest level of strategic involvement, control and risk, and then move along the continuum of deepening involvement.

Option 1: domestic purchasing

Domestic purchasing, also called global retailers, is a product sold to overseas companies represented in the home market and bought by them in the home market. In effect, the exporter is treating the overseas opportunity exactly as if it were a domestic one. This is a useful way to start international activity. It is the lowest level of involvement, but introduces the company to the needs of overseas customers. This may be a toehold in international markets, which can lead to deepening involvement and profitable relationships.

Option 2: international trading companies

International trading companies are conglomerates with wide-ranging activities in many markets. They are often based on colonial trading companies, but now with a substantial diversified portfolio. Large, established trading companies are generally located in developed countries; they sell manufactured goods to developing countries and buy raw materials and unprocessed goods. The size and geographic coverage of these substantial organizations make them attractive international partners.³⁹

Option 3: export merchants

Export merchants are essentially domestic merchants operating in foreign markets. As such, they operate much like the domestic purchaser (see option 1). Specifically, they purchase goods from a large number of manufacturers, ship them to foreign countries, and take full responsibility for their marketing.

³⁹ Housden and Lewis, 1998

Sometimes they utilize their own organizations, but more commonly, they sell through middlemen. They may carry competing lines, have full control over prices, and maintain little loyalty to suppliers, although they continue to handle products as long as they are profitable.⁴⁰

Option 4: export management companies

The *export management company* (EMC) is an important middleman for the firms with relatively small international volume or for those unwilling to involve their own personnel in the international function. EMCs range in size from one person up to 100 and handle about ten percent of the manufactured goods exported. The EMC's trademark is personalized service. Typically, the EMC becomes an integral part of the marketing operations of the client companies. Working under the names of the manufacturers, the EMC functions as a low-cost, independent marketing department with direct responsibility to the parent firm. The working relationship is so close that customers are often unaware they are not dealing directly with the export department of the company. Moreover, the EMC provides many services for the manufacturer; in all instances, however, the main functions are contact with foreign customers and negotiations for sales. An EMC's specialization in a given field often makes it possible to offer a level of services that could not be attained by the manufacturer without years of groundwork.⁴¹

Option 5: manufacturer's export agent

The manufacturer's export agent (MEA) is an individual agent middleman or an agent middleman firm providing a selling service for manufacturers. Unlike the EMC, the MEA does not serve as the producer's export department but has a short-term relationship, covers only a few markets and operates on a straight commission basis. Another principal difference is that MEAs do business in their own names rather than in the name of the client. Within a limited scope of operation, the MEAs provide services similar to those of the EMC.

⁴⁰ Housden and Lewis, 1998

⁴¹ Cateora and Graham, 1999

Option 6: complementary marketers

Companies with marketing facilities, or contacts in different countries with excess marketing capacity or desire for a broader product line sometimes take on additional lines for international distribution; although the generic name for such activities is *complementary marketing*, it is commonly called *piggybacking*. Most piggybacking arrangements are undertaken when firms want to fill their product line or keep its seasonal distribution channels functioning throughout the year. Companies may either work on an agency or merchant basis, but the greatest volume of piggyback business is handled on an ownership purchase-resale arrangement.⁴²

Option 7: strategic alliance

A *strategic alliance* is when two or more companies whose global goals are compatible combine formally or informally to develop their value chain activities in order to sustain and/or achieve significant competitive advantage. There is no equity exchange and the alliance is managed by agreement. They represent a variety of cooperative arrangements from marketing through to R&D across all aspects of the value chain. The aim is to develop critical competencies. Strategic alliances may be used at all stages of international development and can be used to support activity at all strategic levels of involvement. Competitors will often combine their talents at the R&D level to provide technological breakthroughs, which can then be exploited separately.

These are the main indirect exporting options available for firms looking to internationalize their businesses. Even though there are more alternatives that could have been considered, these are the most relevant and frequently used ones. Next, some of the most common direct exporting options will be discussed.

Direct Exporting – Using Foreign Middlemen

Indirect exporting is a low-risk strategy, which often approaches the international market as an extension of the domestic operation. Committed internationalization is far more complex than this. It involves a strategic, long-

⁴² Aaker, 1998

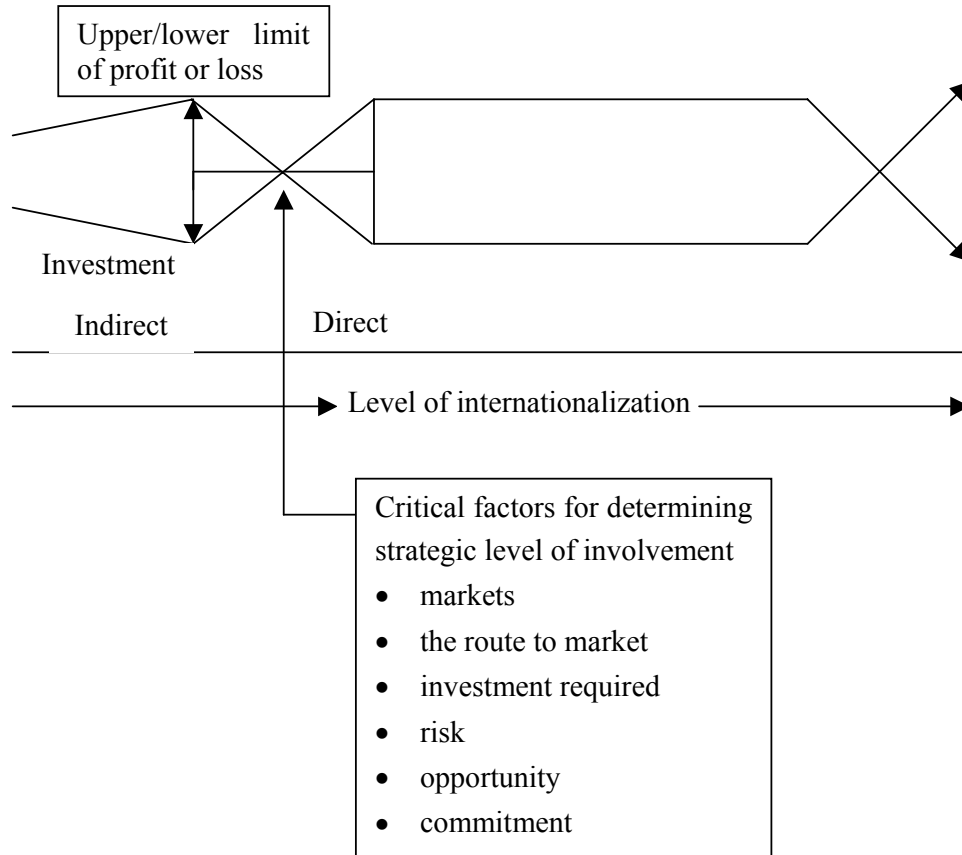
- Theoretical Framework -

term view of the identification, anticipation and satisfaction of customer needs. As this strategic approach is developed, it is clear that the levels of risk to which the organization is exposed might increase. Profitability may be compromised as a result of a more committed approach to the foreign market, at least in the short term. Entry strategies are selected against levels of opportunity. It may be that risk is so high as to preclude anything other than indirect exporting. However, this unusual according to Housden and Lewis and the option of direct exporting will reflect the strategic planning which informs a deeper level of involvement.

Although there may be a short-term improvement in profitability available through indirect exporting this is almost certainly not sustainable as the firm is remote from its customers. The key consideration is whether profitability increases despite greater involvement, since greater involvement usually means a larger exposure to risk.

An important factor revolves around the company's ability to handle the gearing up of all activity through the entire organization. This is necessary as the level of involvement increases. At this stage of involvement all the business functions become involved in the international marketing. This is the first stage in the independent management of the international process. The company must be prepared for the challenges this will produce. Figure 3.7 presents in diagrammatic form the possible relationship between profit and investment as the company crosses the threshold from indirect to direct involvement in international market entry strategy.

Figure 3.7 The relationship between profit and investment, depending on international market entry strategy



Source: Hwang and Kim 1992, p. 35

Option 8: manufacturer's representatives

Manufacturer's representatives (MR) are agent middlemen who take responsibility for a producer's goods in a city, regional market area, entire country or several adjacent countries. When responsible for an entire country, the middleman is often called a sole agent. A well-chosen, well-motivated, well-controlled manufacturer's representative can provide excellent market coverage for the manufacturer in certain circumstances. Moreover, MRs have a variety of titles, including sales agent, resident sales agent, exclusive agent, commission agent and indent agent. They take no credit, exchange or market risk but deal strictly as field representatives. Neither do they arrange for shipping or handling and usually do not take physical possession.

Option 9: managing agents

A *managing agent* conducts business within a foreign nation under an exclusive contract agreement with the parent company. The managing agent in some cases invests in the operation and in most instances operates under a contract with the parent company. Compensation is usually on the basis of cost plus a specified percentage of the profits of the managed company.

Option 10: distributors

Distributors differ from manufacturer's representatives in that they take title to the product and sell on their own account. Effectively the distributor becomes the customer. The distributor takes the risk, whereas agents take no risk. It is generally a higher involvement strategy. Additionally, there is more involvement for the manufacturer in the marketing and support of the product; as it often permits the manufacturer a reasonable degree of control over prices, promotional efforts, inventories, servicing and other distribution functions. Distributors will usually be closer to the manufacturer and will allow greater knowledge to be gained about the overseas market.⁴³

Option 11: dealers

Dealers are middlemen selling industrial goods or durable consumer goods direct to customers; they are the last step in the channel of distribution. Dealers have continuing, close working relationships with their suppliers and exclusive selling rights for their producer's products within a given geographic area. Moreover, they derive a large portion of their sales volume from the products of a single supplier firm. Usually a dealer is an independent middleman, but sometimes the supplier company has an equity in its dealers.

Option 12: company marketing subsidiary

Entering another country by setting up a *company marketing subsidiary* involves setting up a local operation to work within the overseas market via a locally recruited sales force or expatriate staff. This market entry option can cover all activity with the exception of manufacturing, and will usually cover importing, marketing and possibly distribution locally. This is a major

⁴³ Housden and Lewis, 1998

fundamental step forward in the level of involvement. It is the first step into a foreign market involving the organization's direct commitment to money, people and logistics. The cost escalates dramatically, and this step should only be undertaken if the firm has achieved a high degree of learning, insight and understanding of the market and its culture, business etiquette, laws, etc. The level of risk has jumped to a high magnitude.⁴⁴

Option 13: Strategic alliance

Strategic alliance is an entry mode which can be applied for both indirect and direct exporting and has, therefore, already been defined in the previous section (see option 7).

3.4.4 Exit Strategies and Strategic Development

Opportunities and risks exist and change over time. Profit optimization, which is the ultimate deciding factor in market entry, will inevitably involve either exit or development strategies. Part of the activity of managing the entry process is that exit and development strategies must be incorporated within the international marketing plan. International strategic choice will reflect the company's level of involvement, and at each level an appropriate exit strategy must be in place to ensure that the business can survive in case an adverse scenario should develop. Flexibility is the key, and in a rapidly evolving environment strategic flexibility, which allows for the need to change, adjust and tailor activity is a core advantage.⁴⁵

⁴⁴ Cateora and Graham, 1999

⁴⁵ Housden and Lewis, 1998

**EMPIRICAL STUDY –
MACRO ENVIRONMENT**

4. Empirical Study - Macro Environment

In this chapter we will present the UK macro environment. Firstly we will introduce the country in general. We then analyze the various institutions that might have an effect on a SME entering the UK market. The modified version of Jansson's Basic Institutions Model will be used to analyze the institutions that are relevant.

4.1 Introduction

The United Kingdom (UK) is trading nation with general open market policies and it is currently the world's fourth largest economy. The UK is home to more big-name international corporations than any other European country, and London is seen as Europe's top business city. 130 of the top 500 global companies have got their headquarters located in London. Some basic facts of the UK can be seen in Table 4.1.


THE UNITED KINGDOM	
Area: 244,820 sq km	
Population: 59,647,790 (2001 est.)	
Capital: London, (11,800,000 inhabitants – metro area)	
Monetary unit: Pound sterling (£)	
GDP per capita: \$21,800. (1999 est.)	
Real growth rate: 1.9%.	
Inflation: 2.3% (1999)	
Unemployment: 6% (1999)	
Labor force: 29.2 million (1999)	

Table 4.1, source: <http://www.infoplease.com>

4.2 Government

Executive government rests supposedly with the Monarch but actually is exercised by a Committee of Ministers (Cabinet). The Prime Minister who is normally the leader of the largest party in the Commons appoints the Cabinet. The current Labour Government has continued economic reforms such as privatization, deregulation, and support for competition that was started by the previous government. These reforms have continued with only a few cases of government intervention. These interventions have come in some areas such as coal vs. gas for electricity generation and the adoption of the EU's Social Chapter (statutory leave, minimum wage and maximum working hours legislation)⁴⁶. There are only a few sensitive sectors in which foreign ownership is restricted, while there are no government restrictions concerning the repatriation of capital and profits. The government supports the rights of any EU company registered in the UK irrespective of the nationality of the parent company.

The Labour Government's stand when it come to joining the EMU is that if certain economic conditions are met then there should be a referendum on whether to join or not. The Conservatives on the other hand are opposed to any such referendum⁴⁷. There are also wide differences of within the parties when it comes to the implementation of the EMU. When it comes to another EU issue, the harmonization of direct tax policies among member states both the Labour and the Conservatives oppose it. Instead both the political parties are in favor of defending individual EU member states tax powers. The main corporate tax rate is at 31 percent while the small companies' rate is at 21 percent⁴⁸.

4.3 Financial Markets

The United Kingdom is recognized as one of the world's leading financial centers. The financial activity is concentrated primarily in London, and it is continuously growing in importance as a center of international financial

⁴⁶ <http://www.state.gov>

⁴⁷ <http://www.usatrade.gov>

⁴⁸ <http://www.tradeport.com>

operations. Capital flows are increasing, so have foreign exchange and securities trading, and as a consequence all the major foreign banks and insurance companies are represented there. The Bank of England is the central bank in the United Kingdom. It is the provider of licenses to retail banks, merchant banks, discount houses, and other British or foreign banks⁴⁹.

Financial institutions normally specialize in certain areas for example: finance houses provide home mortgages and corporate lending and leasing, factoring companies provide immediate cash to creditors and finance corporations supplement the medium and long-term capital markets. But many of these institutions fall under the same corporate umbrella. This is due to the fact that most of the major retail banks have diversified into merchant banking, mortgage banking, insurance, securities dealing, unit trusts, leasing, and factoring.

Private persons are more likely to have a savings account in a building society than in a bank. A building society is a public finance company that lends money for mortgages and accepts investments that earn interest. Building societies nowadays offer a great variety of financial services and they are therefore almost identical in their operations as those of conventional banks.

There are a number of organized financial markets in the United Kingdom. The securities markets consist of the International Stock Exchange, which deals in officially listed stocks and shares, the Unlisted Securities Market that is for smaller companies, and the Third Market that is for small unlisted companies. The London Stock Exchange is the largest market in Europe and it is the world's most international exchange. There were 1,945 UK and 499 foreign firms listed on the main market at the end of 1999. Money market activities include the trading of bills, certificates of deposit, short-term deposits and sterling commercial paper. Other markets are those dealing in Eurocurrency, Eurobonds, foreign exchange, financial futures, gold, ship brokerage, freight futures, and agricultural and other commodity futures.⁵⁰

⁴⁹ Britannica, 2000

⁵⁰ *ibid*

There are currently no foreign exchange controls restricting the transfer of funds into or out of the United Kingdom. When exporting goods to the UK payments can be made on open account, payment in advance, letter of credit, documentary drafts, or consignment sale. Normally a letter of credit payment is used as payment terms until a trading relationship has been established between the companies. UK customers generally ask for 60, 90 or 180 days credit, depending on the industry sector in which they trade⁵¹.

Increased developments in technology have accelerated the change of the financial markets and have driven the UK into an electronic commerce revolution. People are purchasing more and more goods via the Internet, but for certain areas in the finance market this channel has not been so effective especially for sales of more complex products such as mortgages and loans. One of the main reasons is that people prefer to be able to speak to an advisor in person when making such a major investment⁵².

4.4 Labor Markets

The labor market has changed significantly over the past years from having more manufacturing focus to becoming more service oriented. Currently over three quarters of the employees work in the services sector⁵³. The Labor force consists of 29.2 million people and the unemployment rate stands at 6 percent (1999 figures)⁵⁴. Most of the people in the work force are employees, although lately there has been a large increase in self employed small businesses. More recent trends include a growth in part-time employment and an increase of short-term contracting instead of permanent jobs. The trade unions power has decreased since the 1980's and currently only 29 percent of the employees are members of a trade union⁵⁵. The UK does not have minimum wage although some legislation has been implemented that imposes some minimum protection

⁵¹ <http://www.usatrade.gov>

⁵² <http://www.btignitesolutions.com>

⁵³ Encarta, 2000

⁵⁴ <http://www.infoplease.com>

⁵⁵ Encarta, 2000

for employment⁵⁶. Much of this has been EU legislation resulting in a number of new labor laws, such as working time directives etc. Some of the current labor laws include:

- Written terms of employment must be provided to all employees.
- Employees with more than 2 years service are entitled to compensation on dismissal (unless the dismissal is fair) and on redundancy.
- Discrimination on grounds of sex, race or disability will result in high penalties for the employer.
- Female employees are entitled to a period of maternity leave.
- The provision of benefits is largely optional and unregulated.

4.5 Legal System

England and Wales, Scotland, and Northern Ireland all have their own legal systems with significant differences in law, organization, and practices. They have separate prosecution, prisons, and police services. Common law or judicial precedent is however important in all the countries. Under all the systems the Parliament at Westminster is the supreme authority and the House of Lords is the final court of appeal. There is no written constitution instead the equivalent body of law is based on statute, common law, and “traditional rights”⁵⁷.

European community law takes precedence over domestic law in certain areas primarily in economic and social matters. Commercial contracts are subject to UK and EU competition law. Efforts are currently being made in the process of trying to bring the UK competition legislation into line with the EU system but this process will still take some time. This means that the business laws are currently based on both the UK and EU legislation. There are no legislative restrictions concerning foreign investments in the United Kingdom. Foreign companies may establish or acquire businesses within the country, and buy securities, land or mortgages without any special license or permissions.

⁵⁶ <http://peterlevine.ru/eng/guide>

⁵⁷ <http://www.tradeport.org>

Legislation concerning the setting up of various types of business in the UK include⁵⁸:

- Agents are entitled to compensation for loss of agency in certain specified circumstances.
- Distributors are not entitled to compensation in case the distributorship is properly terminated.
- Franchise networks have to be constructed in order to comply with anti-trust legislation.
- Joint ventures must have legal agreements to clarify their operation in order to reduce eventual conflicts concerning their objectives.
- Direct sales to customers may carry significant liabilities although they can be limited with the help of well-designed contracts.

E-commerce is becoming one of the most heavily regulated sectors in modern business as more laws on digital trading are introduced. The EU has imposed a 19th July 2001 deadline for the member states to introduce a legislation to govern the way electronic communications are authenticated⁵⁹. The UK had already introduced its own act in July 2000, called the Electronic Communications Act. This act gives legal recognition to digital signatures and provides an approval scheme for firms offering cryptography services. The digital signatures are now as legally binding as their paper counterparts and this opens up more possibilities for e-commerce. Consumers and businesses are now able to sign cheques, complete loan applications and contract services online. Previously consumers could apply mortgages or get a quote on a life insurance policy online but when it was time to close the deal, they had to physically sign the contract. The approval of digital signatures will therefore enable the whole process to be done via the Internet.

4.6 Economical Factors

The United Kingdom is one of the world's strongest economies, in terms of gross national product it ranks fifth in the world, after the United States, Japan,

⁵⁸ <http://peterlevine.ru/eng/guide>

⁵⁹ Gareth Morgan, IT Week

Germany, and France⁶⁰. It is an industrialized market economy where the government has greatly reduced public ownership during the past two decades⁶¹. The increase in the privatization process has created a lot of extra business opportunities in the country. But even so the public sector still remains the most important part of the economy with 39.4 percent of gross domestic product coming from government spending.

The share of manufacturing's contribution to gross domestic product has declined to about one-fourth of the total, with services providing the source of greatest growth⁶². Services, particularly banking, insurance, and business services now account for around 70 percent of the GDP.

The British Pound's high exchange rate against the US Dollar and the EURO has contributed to a slow down in growth relative to other economies within the European Union⁶³. The average growth rate over the last several years has been around 3 percent⁶⁴. The GDP growth was expected to be at 2.9 percent in 2000 and the inflation rate in the early 2001 was at 2.3 percent⁶⁵. The economy's future growth is highly dependant on the service sector, which is expected to be even more important for the British economy in years to come. A lot of emphasis is therefore being placed on the development of e-commerce and Internet services⁶⁶.

Currently, one of the major economic questions in the UK is whether the country should participate in the European Monetary Union. Some key economic tests have been identified to determine whether the UK should join the common currency system, but it is more likely to be a political decision.

⁶⁰ Encarta, 2000

⁶¹ <http://www.tradeport.org>

⁶² Britannica, 2000

⁶³ <http://www.state.gov>

⁶⁴ <http://www.odci.gov>

⁶⁵ Doing Business in the United Kingdom, 2001

⁶⁶ <http://www.countrywatch.com>

4.7 Professional and Interest Organizations

The United Kingdom plays an important role in international relations and associations. The country is one of five permanent members in the United Nations Security Council, it is a member state of the European Union and it is a member of the Commonwealth of Nations. Furthermore, it is a signatory of the General Agreement of Tariffs and Trade (GATT) and the World Trade Organization (WTO). Since the UK is a member of the European Union it follows most the EU business laws and regulations. But there are still some organizations in the UK that influence companies on the market and foreign business dealing with UK companies.

The Office of Fair Trading is a government agency that has the responsibility for regulating the competition policies in the UK. The office has the power to break up mergers and monopolistic situations when a company has a too high market share⁶⁷.

The Financial and Services Authority (FSA) supervise all commercial banks. It was established in 1997 and it is a single regulator for all financial firms and markets.

HM Customs and Excise is responsible for overseeing all international exports to the UK and for the collection of import duties. This includes the collection, care and management of customs duties, excise duties, value added tax, insurance premium tax and landfill tax⁶⁸.

Various other independent regulatory bodies have the responsibility to oversee privatized utilities. This includes industries such as telecommunications, electricity, water and gas supply and passenger rail transportation. The bodies impose annual real price reductions on the industries in order to create improvements in efficiency.

⁶⁷ <http://www.offt.gov.uk>

⁶⁸ <http://www.hmce.gov.uk>

4.8 Technological/Infrastructure

Much of the public area infrastructure in the UK has been transferred to the private sector and to different independent executive agencies that are accountable to government departments. The transportation, warehousing, communications, and distribution facilities in the U.K. are good, although there might be a need for repair and replacement in certain areas⁶⁹.

There have been great efforts made in the development of infrastructure that can support e-commerce activities in the country. This can be attributed to the government's policy of making the UK "*the most desirable country in the world in which to conduct e-business*"⁷⁰. Recent international surveys have also confirmed London as being the e-capital of Europe⁷¹. The telecommunications industry is very deregulated, which has had a result that competition in Internet service provision and telephony is intense. Internet penetration, both in the home and in businesses, is relatively high when compared to other countries in the EU. In 2000 there were 245 Internet service providers and 19,5 million Internet users in the UK⁷². However the rollout of broadband technologies (both wired and wireless) has been very slow and the UK lags behind many other developed countries in this respect.

4.9 Business Mores

When attending a business meeting, negotiation, dinner or a social event with business partners in the UK there are several business mores that need to be considered.

When introduced to people in the UK, it is customary for both parties to say: "How do you do?" an answer is however not expected. People should normally be addressed using "Mr", "Mrs", or "Miss", followed by their surname. Sometimes first names can be used but one has to wait until being given permission before using first names. The general term of courtesy such as "Sir"

⁶⁹ <http://www.state.gov>

⁷⁰ <http://www.usatrade.gov>

⁷¹ *ibid*

⁷² <http://www.odci.gov>

or "Madam" is usually regarded as inadequate. Executives normally like to communicate more by letter and fax than by telephone, although e-mail is also becoming more common⁷³. Conservative business dress for men and women are the norm in the UK business culture. This means for example dark color suits with ties for men, and skirted suits or pantsuits for women⁷⁴.

When sending people for business meetings it is often better to send some older representatives since older people are better able to assume the air of authority that is respected UK business culture. The meeting usually starts by exchanging business cards. When meeting with business people personal questions should normally be avoided. Moreover, one should refrain from getting into discussions about politics and the Royal Family. Business people are generally interested in long-term relationships rather than quick deals. When conducting the business negotiations aggressive sales techniques such as the "hard sell" or denigrating another company's product or service will not be well-received by the counterpart. Decision-making tends to be slow but rushing or putting pressure on the decision-making process is usually counterproductive. Normally a proposal stands a better chance if it conforms to the way things have been done in the past. Moreover, there is often an emphasis on short-term results rather than long-range objectives.

The giving of gifts is normally not part of the UK business culture, although gifts are sometimes exchanged at Christmas. If a gift is received, one has to be sure to return one to the giver. The gift should not be expensive, normally smaller things such as desk items, quality pens, and books are good choices. If one wishes to thank someone for something it would be a good idea to invite him or her out for a meal or to a theatre etc., instead of giving a gift. However a business associate should not be invited out until one knows him or her fairly well. When inviting someone out one should refrain from discussing work unless the guests bring up the subject. If one is invited to someone's home for a dinner it is appropriate to bring things such as flowers, liquor or champagne, and chocolates.

⁷³ <http://www.usatrade.gov>

⁷⁴ <http://www.xerox-emea.com>

If staying in someone's home a small gift should be given and these can include, for example, coffee table books about ones home country, or anything that reflects the interests of the host, and is representative of ones country. After being a guest in a home a thank-you letter or postcard should be sent to the hosts. Holiday cards are good to send normally as an expression of thanks to business associates.

Some other cultural factors to consider when conducting business in the UK include:

- Spouses are often included in business dinners.
- Do not toast those who are older or more senior than you.
- Try to maintain a low, moderate tone of voice at all times.
- Emotional displays negative and positive, are generally discouraged.
- Maintaining eye contact is necessary, especially when you are trying to emphasize important points.
- Gestures such as backslapping and hugging are not appropriate.
- Do not seat yourself at a gathering, wait instead to be told where to sit.
- Third-party introductions are often preferred whenever possible. Moreover, in certain situations, it may not be appropriate to introduce oneself.

4.10 Internet Culture

As mentioned earlier there are currently around 19,5 million Internet users regularly online in the UK⁷⁵. Men make up around 49 percent, women 36 percent, and children 15 percent of the home Internet users (September 2000)⁷⁶. The mean age of the Web users in the UK is 34.2 years, and this is one of the highest mean ages in Europe. UK surfers do not spend as much time online as their European counterparts, although the average time spent on the Internet is increasing. Some of the most popular online activities are music and games,

⁷⁵ Claudia Natanson, BT Ignite

⁷⁶ <http://www.zdnet.co.uk>

around 37 per cent of all UK web surfers listen to music and 27 percent play games.

The Internet accessibility in the UK is improving and this has lead to an increase in online transactions with Internet sales rising 35 percent from 1999 to 2000⁷⁷. Although Internet sales are increasing a survey published by Frederick Schneiders Research found that 85 percent of respondents had concerns about transmitting personal information, such as credit card and financial information, over the Internet. Even if there are some concerns, services such as online banking are on the rise. A survey of 1,002 people found that 47 percent thought Internet banking would help them manage their personal finances more effectively. Convenience and time saved were the main reasons given for going online⁷⁸.

⁷⁷ <http://www.vasco.com>

⁷⁸ <http://www.zdnet.co.uk>

**EMPIRICAL STUDY -
MICROENVIRONMENT**

5. Empirical Study - Microenvironment

In this chapter we are going present our empirical findings of the UK microenvironment and the security industry. We will start by giving an overview of the security industry in general. We will then show our empirical findings of the security industry in the UK, followed by a presentation of Todos potential competitors there. The UK Internet banking industry will also be presented, since it is the target market for Todos and its eCode solution. Finally we have presented some Internet banks and their operations in order to get a more detailed understanding of how the UK banking sector functions.

5.1 The Security Industry in General

Data security is an issue for anyone connecting to the Internet, whether surfing at home at work or via some kind of wireless device. There are several different areas of online security, these include the protection against viruses, keeping intruders from accessing private networks or websites, preventing the interception of information sent via the Internet etc. There is no single security solution that can protect all the different areas, and as a result there are several different companies that produce a variety of products that address different aspects of security. Todos eCode solution is made for the authentication segment of the security industry. Authentication control is the process of keeping out unauthorized parties and holding legitimate users accountable for their actions when surfing on the secure websites. An example of an authentication procedure is when someone is asked to provide a user ID and a password before gaining access to a banking websites services. There are several authentication solutions available on the market, we will discuss three of them that are applicable to the Internet banking industry, namely static passwords, tokens and smart card solutions.

5.1.1 Static Passwords

Many of today's authentication solutions are based upon the using of static passwords. Static passwords are passwords that never change, they are the same every time you logon to a website etc. An example of a static password is the pin number you use when accessing your ATM machine. User-

identification on the Internet is done when the user provides an ID and an individual password before accessing a secure website. The main advantages of static passwords are that it can be implemented entirely within software, there is therefore no need for any additional hardware, it is easy for the end user to use, and it is cheap and easy to implement. The disadvantages are that passwords run a greater risk of being hacked, which enables unauthorized users to use them. Moreover there is a risk of password guessing, eavesdropping when passwords are sent over the Internet, that Trojan horses can capture passwords under false pretences, they can be stolen or observed etc. The usage of static passwords is therefore the least secure authentication solution available. Most of the companies use it because they can save money and because it is easy and fast to implement.

5.1.2 Simple Tokens

A token is a hardware that produces a dynamic password. A dynamic password is one that changes every time you want to logon to a website. It is done through the combination of the token together with a PIN code in order generate a dynamic password. Moreover, there is only one PIN code to remember. The main advantage is enhanced security since a hacker would need both the PIN and the token to gain unauthorized access. Disadvantages are that end users have to carry a token with them in order to use Internet banking facilities anywhere and the tokens need to be replaced on average every 4th year. Moreover, it is a quite expensive solution since the banks need to purchase and distribute the tokens. But overall a security solution using tokens is safer than the use of static passwords since the user uses a new password each time he/she logs on to the website.

5.1.3 Smart Card Solutions

A smart card solution consists of a smart card and a smart card reader. The smart card is a credit card sized plastic card that has a microprocessor chip embedded in it. This card is inserted into the smart card reader and a PIN Code is typed in order to generate dynamic passwords. The smart card solution has more abilities than the regular tokens since there is a microchip embedded in the card. Smart cards can for example also generate digital signatures that

enable a particular user to electronically sign a document. The advantages of smart cards are that a much higher level of security can be achieved thanks to security checking firstly between the smart card and reader and then between the reader and PC. Secret key information is stored on the card and therefore no Trojan horses can get the secret key from the PC. Moreover digital signatures can be generated and multiple applications can be carried i.e. since a single card can be used for multiple functions in an organization or by multiple organizations. Disadvantages are that a special smart card and a smart card reader have to be bought by the banks at high costs, costs that are even higher than the purchasing of tokens⁷⁹. The end users have to carry the smart card and the reader along if they want to do bank errands everywhere.

5.1.4 Summary of the Various Authentication Solutions

Authentication solutions based on static passwords often provides inadequate protection, although they are cheap and easy to use. Token-based solutions provide better protection but are more costly than static passwords, moreover the end users have to carry a token along with them. The smart card solution is as reliable as tokens although it has more features such as the ability to provide digital signatures, which makes them more attractive. To conclude we can therefore say that smart card solutions are the best of the three although they are quite expensive.

5.2 The UK Security Industry

Demand for security solutions in the UK is on the rise, mainly due to the rise of e-commerce and the merging of private and public networks. Moreover, hackers are becoming increasingly sophisticated in their methods and this puts further pressure on the corporations to brush up their network security. More and more companies are therefore beginning to realize the advantages of deploying extra resources into the upgrading of their online security systems.

In the UK banking industry, there has been a lack of security measures taken when it comes to authentication of the Internet banking users when accessing

⁷⁹ <http://www.sans.org>

the online services. When it comes to security in this process British banks are currently far behind their Swedish counterparts. But since some banks have suffered embarrassing security lapses recently the demand for proper logon security solutions is on the rise. All the banks in the UK currently use static passwords when their private customers logon to the online bank services. This is also the case for business customers although there are exceptions. Some banks provide dynamic password logon procedures (tokens) for the business customers and some have it for their own staff when they logon to the banks private network. This means that the usage of dynamic passwords is not so widespread and that no bank is currently using logon procedures that generate one-time codes for their private customers. Cost factors are the main reason the UK banks use static passwords.

But the increased security concerns creates an opportunity for Todos to sell its eCode solution on the UK market. Many of Todos competitors also have similar solutions that they are trying to sell in the UK. These solutions are based on the generation of dynamic passwords that enable authorization to secure websites and they include both tokens and smart card solutions. There are many products on the market providing these solutions but there are several differences among them. The differences are mainly seen in the end-user tokens/smart card readers and they can be categorized into three major parts.

1). Platform – The product can have either an independent or a personalized platform. An independent platform means that customers can share and use each other's authentication readers. A reader together with a personalized smart card will then generate a dynamic password or an e-signature. A personalized platform will on the other hand require each authentication device to be personalized for every individual user. The use of independent platforms is therefore better in most cases.

2). Size – All the products are portable, but even so there are size differences among them. Some are very small and can often be used as key chains, while other larger products are the size of a calculator and are therefore more difficult to carry along. Moreover, it is more expensive to produce a larger token than a

smaller one. So in this case we would say that *size does matter* (the smaller the better).

3). Digital Signature Enabled – Some solutions provide the users with the capability of performing digital signatures over the Internet. A digital signature makes it possible for a user to prove that he/she is actually the author of a given message and to ensure the recipient that the message received has not been modified. This is therefore a feature that provides the solution with a differentiation advantage over the other ones that do not have this feature.

As mentioned earlier there are many companies providing security solutions to UK's online banking industry. Although this is the case no bank has yet implemented the usage of solutions for its mainstream customers that provides dynamic passwords. But many of Todos competitors on the market are actively trying to sell their solutions to the UK Internet banks. We have decided to analyze six of Todos main competitors. The reason that these companies have been chosen are that 1). They have solutions that can compete with the Todos eCode. 2). They have some kind of business relationships with British Internet banks, which means that they already have a foothold on the UK market.

5.2.1 VASCO

VASCO is a public listed company that was founded in 1986. The headquarters is located in Chicago and Brussels and VASCO has 120 employees worldwide⁸⁰. The company provides security solutions for enterprises, and more than 5 million people worldwide use their products. The company's main products are the Digipass[®] and the VACMAN[®]. These products enable companies to protect sensitive information, safeguard the identity of users and secure e-business and e-commerce over the Internet⁸¹. VASCO's customers include hundreds of financial institutions, blue-chip corporations and government agencies in more than 50 countries⁸².

⁸⁰ <http://www.vasco.com>

⁸¹ Annemieke Blondeel, VASCO

⁸² <http://www.vasco.com>

The Product

The Digipass[®] is the product from VASCO that is competing directly with the TODOS eCode[™]. It is a product that delivers authentication passwords and digital signatures through a portable device. It is easy to integrate into any computing environment and it is relatively inexpensive⁸³. It works in combination with software on a bank's system to generate a one-time code that ensures authentication when the customer does his transaction. The customer can use any Digipass[®] and by inserting his personal smart card he can generate a one time code. This means that the product does not require any personalization.



*The
Digipass 800*

VASCO's presence on the UK market

Vasco opened a sales office in the United Kingdom in the beginning of 2001. This was a response to the high growth rate the company was experiencing in the region. VASCO has quite a strong position in the market and VASCO has, for example, sold its security solutions to NatWest⁸⁴. Other customers in the UK include remote banking and corporate network customers such as Beneficial Bank, Fullers Brewery, Futuristic Technology, Kemira, Natwest Life Insurance, P&O Stena Lines and Titmuss Deckert⁸⁵.

5.2.2 ActivCard

ActivCard was founded in France 1987, and it is a company dealing with digital identity and electronic certification technology for e-business communication and transactions. ActivCard has more than 200 employees worldwide and its current headquarter is located in California, USA⁸⁶. The products are designed for authenticating and managing the digital identities of employees, suppliers, partners, and customers accessing e-business resources online. More than 2 million people worldwide use ActivCard patented products

⁸³ Annemieke Blondeel, VASCO

⁸⁴ *ibid*

⁸⁵ <http://www.vasco.com>

⁸⁶ <http://www.activcard.com/activ/>

and technology for secure Internet banking, Web access and remote access to corporate networks⁸⁷.

The Product

ActivCard's solution for secure logon procedures involves a software that is installed in the bank's computer system coupled with a end-user token providing one-time passwords. This token is personalized for each individual customer and it can only be used to logon to a specific bank account. The small handheld token enables the customer to do his banking errands from any computer connected to the Internet. It works with a PIN number that is entered into the token which then generates a one-time code that is used by the customer to logon his banking website.



*ActivCard's
end user token*

ActivCard's presence on the UK market

ActivCard makes use of resellers on the UK market. It currently has 5 different resellers spread all over the United Kingdom. The company is also actively searching for a sales manager that is to be responsible for developing and sustaining the business within the UK, Ireland and Benelux. This sales manager will be acting in the capacity of a key account manager and will be based in the London area⁸⁸. Bank's in the UK using ActivCard's solutions include Barclays and Lloyds TSB.

5.2.3 RSA Security Inc

RSA Security Inc. is a company providing security solutions for e-businesses through authentication, authorization, encryption and public key management systems⁸⁹. The company started operations in 1986 and it currently employs

⁸⁷ <http://www.activcard.com/activ/>

⁸⁸ *ibid*

⁸⁹ <http://www.rsasecurity.com>

1093 people⁹⁰. RSA's headquarter is located in Massachusetts, USA and it has a lot of offices all around the world.

The Product

The SecurID[®] is RSA's main competing product to the TODOS eCode[™]. It consists of a software that is installed on the bank's server and a hardware token that the user uses to generate a one-time code. The end user does not have to install any software on his computer, which means that he can access the banking site from any Internet connected computer. The user combines his secret PIN with the code generated by his token in order to gain access to his Internet banking. A new one-time code is generated by the SecurID[®] every 60 seconds for the programmed life of the fob⁹¹.



The SecurID[®]

RSA's presence on the UK market

RSA has got a great presence on the UK market. There is a sales office in Bracknell, UK with 120 employees, which serves the UK and Ireland region. There is also a wide geographic network of accredited reseller partners who provide sales and technical consulting services to customers across both countries. Some of the customers in the UK include Egg, BT Ignite and HSBC.

5.2.4 Xiring

Xiring is a French company that was created in 1998. The main business is security solutions in the form of personal readers, which make the use of smart cards to enhance security. The company is one of the world leaders in this area and more than 3 million of their smart card readers are in use worldwide⁹². The most important customers for Xiring include banks, payment operators and distribution companies. The product that competes directly with the Todos eCode is called the X-Sign. The solution is made up of a smart card, a smart card reader and a server. The smart cards



The X-Sign

⁹⁰ RSA, Annual Report, 2000

⁹¹ <http://www.rsasecurity.com>

⁹² www.xiring.com

together with the reader generates a one time code which is then used to logon to an Internet banking site etc. The X-Sign smart card reader is very similar to the Todos eCode since it does not require any additional personalization. The personalization is instead imbedded into the smart card chip. Moreover, it is very small and can be used as a key ring.

5.2.5 Nexus

Nexus is one of the leading actors in the Nordic region when it comes to IT security solutions. The company's headquarter is situated located in Linköping, Sweden and there are approximately 370 employees in the organization⁹³. One of the major bank customers is the Swedish bank Föreningsparbanken. Nexus and RSA Security signed a partnership agreement concerning IT security solutions in June 2001. The agreement comprises the authentication products RSA SecurID[®] and RSA Keon, as well as PKI solutions⁹⁴. This means that Nexus will be providing the RSA SecurID[®] to their customers.

5.2.6 VeriSign

VeriSign, Inc. is a provider of digital trust services that enable secure commerce over the Internet. The company's headquarter is located in the US and there are over 2,400 people employees worldwide⁹⁵. VeriSign's product is in form of a software that is installed on the bank's server, and on the customers home PC. This means that there is no end user token, and that the secure logon process is made possible through a software instead.

VeriSign makes use of global affiliates that serve various regions around the world. The affiliate that serves the UK market is BT Ignite, this company is also responsible for 11 other countries in Europe. BT Ignite has supplied various security solutions to many banks in the UK. Although this is the case, none of these banks have purchased an authentication solution that is equivalent or similar to the Todos eCode. BT Ignite business with the banks has therefore been in other security areas. Some of the bank customers in the

⁹³ www.nexus.se

⁹⁴ *ibid*

⁹⁵ www.verisign.com

UK include: Abbey National, Barclays, Royal Bank of Scotland Plc, Lloyds TSB, Halifax, Nationwide, HSBC etc.

5.3 The Internet Banking Industry

With nearly 400 banks London is recognized as the world's banking center, it is also one of the world's most active e-commerce areas. The United Kingdom has Europe's third largest online trading market and it is estimated that 9 million people will embrace online banking by 2004⁹⁶. One reason for the high usage rate of Internet bank services in the UK is that they are generally free of charge.

In the eagerness to cash in on the UK's dot-com boom, banks have rushed to get Internet services up and running and this has often been at the expense of security⁹⁷. Many analysts have therefore warned that online banking will become successful only when greater steps are taken to ensure the security of online transactions⁹⁸. Big banks such as Barclays, Egg and Halifax have suffered breaches in their online banking facilities and this has led to some decline in customer and investor confidence in the security of Britain's online banks.

In order to get a better understanding of how Internet banks operate in Britain, and how the relevant security issues are being implemented a selected number of banks have been analyzed. The banks have been selected based on size, and popularity of their Internet services and they represent the general Internet banking market in the UK.

5.3.1 Nationwide

Nationwide is a building society and it has a mutual status, which means that it is owned by its members and not by shareholders. It is the ninth largest bank in the UK based by asset size⁹⁹. Nationwide was the first British bank to offer

⁹⁶ As Estimated by a Forrester Research

⁹⁷ <http://news.zdnet.co.uk>

⁹⁸ <http://www.vasco.com>

⁹⁹ <http://www.nationwide.co.uk>

online banking services and these services are free of charge. It is one of few banks that has carried its name to the Internet which means that its reputation is on stake if anything goes wrong with its Internet banking services¹⁰⁰. The logon procedure requires a customer to fill in three static passwords: his ID number, security number and a password before getting access to the services. One security problem is that the website asks whether one wants a cookie to remember some of your user numbers after logging on to the site¹⁰¹. Even though this is the case Nationwide assures that its Internet banking site is very secure. It has therefore come up with the Nationwide's Internet Banking Promise: *“We will refund any money taken from your account if you innocently suffer fraudulent use of Nationwide's Internet Banking service, To limit the potential for fraud you should take all sensible precautions such as not divulging your security data.”*¹⁰².

5.3.2 Barclays

Barclays is a financial services group engaged primarily in banking, investment banking and investment management. It is one of the largest financial services groups in the United Kingdom in terms of assets employed. Barclays operates in over 60 countries and has 75,800 employees worldwide¹⁰³. Barclays Internet bank services are free of charge and they are available 24 hours a day. The logon procedure requires a customer to fill-in four static passwords: his membership number, passcode, surname and a password before getting access to the banking services. Barclay have had some security problems in the past, for example in August, 2000 two Barclays customers were accidentally allotted the same account within the bank's online system and were able to view each other's information online. When it comes to staff within the company, Barclays themselves do use even more secure logon procedures. Barclays have purchased ActivCard's smart card solution to manage its corporate managers' digital identity when they remotely access internal resources from all over the world. This means that the corporate managers make use of dynamic

¹⁰⁰ PC PRO, September 2001, page 198

¹⁰¹ ibid

¹⁰² <http://www.nationwide.co.uk>

¹⁰³ <http://www.barclays.co.uk>

passwords, which is a more secure procedure while the customers of Barclays still use static passwords. Although the customers still use static passwords they are covered by Barclays Online Banking Guarantee: *“our promise that if you should suffer Internet fraud on your account, any losses (whatever the amount) will be covered by us”*¹⁰⁴.

5.3.3 Lloyds TSB

Lloyds TSB is one of Europe's largest financial firms, providing a comprehensive range of banking and financial services. It has 16 million customers and over 2,000 branches worldwide. Lloyds has 1.2 million registered Internet customers and it is the most visited financial Web site in the United Kingdom¹⁰⁵. The online banking service is free of charge. The logon procedure requires a customer to fill-in his user ID and a password before getting access to the online banking service. Lloyds TSB has guarantees that the service is safe and has therefore come up with the Online Banking Guarantee: *“We protect you against fraud on Lloyds TSB Internet banking. We use industry standard levels of security. In the unlikely event of fraud, we will refund your money”*¹⁰⁶ Lloyds is currently piloting a smart card-based PKI system provided by ActivCard for its online business banking services. This will be the first large-scale deployment of smart card-based PKI for Internet banking in the U.K. Customer research has shown that about three quarters of the bank's business clients would like to use the new system because of the extra security¹⁰⁷.

5.3.4 Smile

Smile is a pure Internet bank that started two years ago¹⁰⁸. It is part of a co-operative movement, which means that it is not quoted on the stock exchange. Smile has been voted the best Internet bank in the UK¹⁰⁹ and there are currently

¹⁰⁴ <https://ibankon.barclays.co.uk/>

¹⁰⁵ <http://www.activcard.com/activ>

¹⁰⁶ <http://www.lloydstsb.com>

¹⁰⁷ <http://www.activcard.com/activ>

¹⁰⁸ PC PRO, September 2001, page 201

¹⁰⁹ <http://www.uk.gomez.com/index.asp>

400,000 account holders¹¹⁰. The logon procedure requires a customer to fill in a username, password and one of five rotational questions before getting access to the online banking services.

5.3.5 Royal Bank of Scotland (RBS) and NatWest

The Royal Bank of Scotland Group is the second largest bank in the UK, and it ranks sixth in the world. In March 2000, the RBS group acquired NatWest, and this was the largest takeover in British banking history. The enlarged RBS group has more than 18 million UK personal customers, and more than 2,300 UK branches. It employs over 95,000 staff worldwide, most of them in the UK¹¹¹. The logon procedures for the two banks are a little different although they both make use of static passwords. RBS requires the customer to type an ID number, security number and password, while NatWest requires a 14-digit number, passcode and password before one is able to get access to the online banking services¹¹². The customers in both banks will not be liable for any fraudulent transactions involving their accounts as long as they have not revealed their passwords to anybody. NatWest has also recently purchased security solutions from VASCO¹¹³.

5.3.6 HSBC Holdings plc and First Direct

HSBC Holdings plc is one of the largest banking and financial services organizations in the world. It has its headquarters in London, and the group's international network comprises of 6,500 offices in 78 countries all over the world¹¹⁴. One of the companies within the group is First Direct. Both HSBC and First Direct make use of static passwords in the logon procedures. HSBC requires the user to type an ID number and a security number while First Direct requires a username and a password¹¹⁵.

¹¹⁰ <http://www.smile.co.uk>

¹¹¹ <http://www.royalbankscot.co.uk>

¹¹² PC PRO, September 2001, page 198

¹¹³ Annemieke Blondeel, VASCO

¹¹⁴ <http://www.hsbc.co.uk>

¹¹⁵ <http://www.firstdirect.com>

5.3.7 Abbey National and Cahoot

Abbey National Plc provides an extensive range of personal financial services to its over 15 million customers¹¹⁶. Abbey National has its own e-banking service and it has also created a stand-alone Internet bank called Cahoot. Cahoot is just one of a growing number of online banks being set up by established players in British financial services to defend themselves against new Internet providers. Abbey National makes use of static password for both its own e-bank and the stand-alone bank Cahoot. Abbey National asks the customer for his card number, passcode and registration number while Cahoot asks for the username, password, memorable year/place or mothers maiden name before the user is able to logon to the online banking services.

5.3.8 Egg

Egg is an e-commerce company with 2000 employees that was established in October 1998. The company has over 1 million customers and it deals in four main areas - banking, investments, insurance and online shopping¹¹⁷. The online bank's logon procedure requires a customer type his first name, surname, date of birth, postcode, mother's maiden name and his password in order to gain access to the banking services. Egg has faced a couple of concerns over its security standards since its interception. Concerns have been raised after Egg accidentally mailed out credit card details over the net and when there was a security breach, which allowed a user to access another customer's account¹¹⁸. The internal security seems to be more important for Egg, with RSA's SecurID[®] technology being used by their employees' to access the company's network¹¹⁹.

¹¹⁶ <http://www.abbeynational.co.uk>

¹¹⁷ <http://www.egg.com>

¹¹⁸ <http://news.zdnet.co.uk>

¹¹⁹ <http://www.rsa.com>

ANALYSIS OF EMPIRICAL RESULTS

6. Analysis of Empirical Results

In this chapter we are going to present an analysis of the empirical findings. We will start by an analysis of the macro environment followed by an analysis of the microenvironment. We will then go through our analysis of the various entry strategies available for Todos.

6.1 Macro Environment Analysis

In this section we have analyzed our empirical findings of the macro environment. We have analyzed the findings, and presented what kind of effect they might have on Todos if it tries to establish itself on the UK market.

6.1.1 Government

The UK government provides foreign companies with excellent opportunities to conduct business in the country. The government's extensive privatization process has created a more open business environment and boosted the economy in general. Other government policies have enabled companies from EU member states to conduct business in the UK on equal terms as local corporations. This will therefore provide Todos with an excellent environment to conduct business, and furthermore it might enable it to gain some advantages over non-EU firms. Furthermore, government policies on making the country the world's best place to conduct e-business will increase demand for Internet security solutions and in turn create business opportunities for Todos.

6.1.2 Financial Markets

The UK's highly active financial market is continuing to grow in importance as a world financial center. Increased technological development is moving much of the financial transactions to the Internet thus the need for proper e-security is increasing. This is therefore opening up enormous opportunities for Todos to sell its eCode solution on the market. Many of the large banks have diversified into insurance, unit trusts, factoring etc. This means that if Todos is able to sell its solution to a bank it then will have some kind of relationships with the corporation, which in turn might help it to sell the eCode to other business areas of that bank. When it comes to withdrawing profits out of the UK Todos

will not encounter any problems since there are no monetary exchange controls or other restrictions preventing it of doing so.

6.1.3 Labor Markets

The UK labor market will be able to supply Todos with enough skillful employees if needed. But, as recent trends show that more and more people are interested in short term contracting, and part time jobs, instead of full time permanent jobs. Todos has to be aware of the fact that it might be difficult to employ certain skilled people on long-term basis. There are also several other factors that need to be taken into consideration. Even if the UK does not have any minimum wage laws there are some legislative measures taken in the country, which will affect businesses and in turn might lead to some kind of requirement of minimum wages etc. Furthermore, the UK is starting to adopt more EU legislations and this will lead to changes in the current labor laws. As a consequence Todos has to be aware of the changes that might evolve in the near future when setting pay and benefit packages etc.

6.1.4 Legal System

Although it is a basic principle of UK law that the parties to an agreement are free to contract in whatever way they wish, this principle is has been eroded by the intervention of both national and international legislation. It is absolutely essential when going into any business relationship to make sure that the effect of this intervention is properly understood and taken into consideration. Business relationships will have implications for the success of the company, and they should therefore always be properly documented preferably in a formal legally binding contract. Moreover, Todos should have a profound understanding of the legal system or else it might encounter legal disputes even though both parties have signed contracts of agreement.

The UK is currently in the process of trying to bring its own competition legislation into line with the EU system but this process is likely to take some time. This means that UK commercial contracts are currently subject to both UK and EU competition laws. Accordingly, it is still necessary to consider both

UK and EU competition law when setting up any kind of commercial relationship in the country.

The combination of legal and technological complexities means firms can become embroiled in protracted legal disputes if they do not make sure their contractual agreements are watertight. Many companies are increasingly willing to spend extra resources in making sure that their e-commerce activities are legally binding. This therefore makes the UK market attractive for Internet security companies. The implementation of the Electronic Communications Act has further created increased business opportunities for firms providing solutions that enable digital signatures. Many banks will have to look over their online banking schemes and restructure them in order to enable the usage of digital signatures. This will provide Todos with great opportunities to enter the market. Furthermore since some of the competing products only provide authentication and no digital signatures the eCode solution will have with a clear differentiation advantage over them.

6.1.5 Economical Factors

The UK is one of the world's strongest economies, in which services such as banking play a major part. The fact that banking and other IT related services, make up such a large part of the UK economy makes the market very attractive for Todos. Moreover due to the strong British pound it has been easier for foreign firms to sell their products in the UK, since the potential customers have a stronger purchasing power and foreign products are cheaper than ever.

6.1.6 Professional and Interest Organizations

There are a couple of organizations that will influence Todos when conducting business in the UK. Some of the more important ones include the EU, FSA, HM Customs and Excise. The EU membership will control the way business is conducted in the country to a great extent since EU laws and regulations will have to be followed. The Financial and Service Authority (FSA) will supervise and have some kind of control over all the Internet banks in the country. This means that the organization have an influence over Todos potential customers, and it therefore has an indirect influence over Todos ability to conduct business

in the country. The HM Customs and Excise will oversee Todos exports to the country and collect any potential taxes. It is therefore important for Todos to understand how these organizations work and how they might influence Todos once it is active in the country.

6.1.7 Technological/Infrastructure

The UK infrastructure is well developed and supportive for companies doing business in the country. The good transportation and communication networks will facilitate and make it easy for Todos to conduct business in the country. Furthermore government efforts are made in the development of the Internet infrastructure that supports e-commerce. This will then provide Todos with further opportunities to sell its eCode solution.

6.1.8 Business Mores

A proper understanding of the business mores in the UK will be very helpful or even vital for Todos ability to establish itself on the market. Todos have to be aware of the fact that even if the UK is close to Sweden, and even if the way of doing business is often similar, there are certain issues that need to be taken into consideration when operating on the market.

The employees of Todos are used to a very informal, decentralized structure where people come to work in their jeans and call each other by their first names. If establishing on the market, a more formal structure could be used in the UK where the employees wear proper business suits and use “Mr”, “Mrs” and “Miss” when addressing people. This is of course also vital if a person from the Swedish headquarters is sent for business negotiations with someone in the UK. When sending a person to the UK for negotiations it would be better if Todos sends someone older since people in the UK seem to have a greater respect and listen more to older people. It would be unadvisable to send a 25 year old to negotiate with a 55 years old bank director since the person might not be able to draw the same kind of attention, as would an older person.

The sales people from Todos have to be aware of the fact that it takes a relatively longer time and more effort to sell products in the UK. This is due to

the fact that in the UK long-term relationships are more valued and decision-making often tends to be slow. Since hard selling techniques are not well received it is imperative that the sales people do not try to “push” the products on the seller, thus it is better to create some kind of pull demand from the customers. Moreover, it is not good to downgrade competing products by for example saying that VASCO’s Digipass is useless etc. It is of course vital to try to point out the advantages of the eCode, but one has to make sure that it is not done in a manner where one denigrates competing products since this is not well perceived in UK business culture. Since, there is a focus on long-term relationships, it is good for Todos to keep contact with old customers and potential new ones.

6.1.9 Internet Culture

People in the UK are generally well acquainted to the Internet. People are becoming more and more interested to conduct their businesses via the Internet. As a result the Internet banking is increasing and this will provide Todos with increased business opportunities in the country. Moreover 85 percent of the Internet users are concerned about transmitting confidential information over the Internet, and this therefore creates opportunities for firms that can provide security solutions to prevent information leakages.

6.2 Micro Environment Analysis

In this section we have analyzed our empirical findings of the microenvironment. This has been done with the help of the theories that were discussed in the theoretical framework.

6.2.1 Industry Evolution

The evolution of the security industry within Internet banking has been analyzed in the following section. We will start out by applying the industry lifecycle model we will then also discuss what are the driving forces of the industry.

Industry Life Cycle

The Internet security industry can be placed in the beginning of the growth stage on the industry life cycle model. The technology is becoming more and more widespread and the demand from companies dealing on the Internet is increasing. The prices of authentication solutions such as the eCode are falling and this in turn opens up for new potential customers.

Currently banks and large corporations in the UK use dynamic password tokens only for their own staff or for their big customers. A typical trait of the growth stage is that the products become more available for the mass market. One can therefore predict that the authentication solutions might become a more common feature for the “ordinary person”. With this we mean as the prices fall and the demand for greater security increases it might be inevitable that many Internet banks start using dynamic passwords for all their customers.

Driving Forces

The driving forces that help speed up the development of the Internet banking security industry can be summarized in the following points:

- Increased security concerns among the end users.
- Increased awareness among the banks of the financial benefits and increase in reputation that improved security provides.
- Price reductions of the security solutions provided.
- Increased standardization among the various security solutions.
- Development of products/solutions that are easy to use and implement.
- Increased research and technological knowledge in the subject.

6.2.2 Competition From Substitutes

The main competing products to the Todos eCode are: the SecurID[®] from RSA security, the Digipass[®] from VASCO, the X-Sign from Xiring and ActivCard's end user token. All of the above products provide the customers with a logon procedure that generates dynamic passwords. Although all the products generate one-time codes there are, as mentioned in our empirical findings, a few differences among them.

- Analysis of Empirical Results -

SecurID[®] and Activcard's tokens are products that have to be personalized for each individual customer. On the other hand the eCode, Digipass[®] 800 and the X-Sign are end user products that can be used by any customer in combination with a personal smart card. The X-Sign, eCode and the SecurID all are small in size and can be used as a key chain by the end users. Finally the Digipass, the X-Sign and the eCode are all able to provide digital signatures. A table comparing the various tokens and their extra value added features is shown below:

	Independent Platform	Digital Signature Enabled	Small Size (Key chain Format)
Digipass [®] 800	X	X	
ActivCard's end user token			
SecurID [®]			X
X-Sign [®]	X	X	X
eCode	X	X	X

The eCode, Digipass[®] 800 and the X-Sign all have an independent platform with a smart card reader and they are all able to provide digital signatures. This can be seen as clear differentiation advantages over the other substitute products. Moreover since the eCode and the X-Sign are available in a key chain format we would consider these two products as the most attractive ones available. We can also see that ActivCard's end user token does not have a single extra value added feature and it would therefore be rated as the least competitive among the above products.

Although certain products might have some differentiation advantages over other solutions, these advantages are not enough to create an inelastic demand with respect to price increases. The customers are very price sensitive and would chose to purchase a competing product if the price differences are too high. This means that the demand for the eCode solution and the other competing solutions are relatively elastic and that no company can charge a much higher price on their products than the price of the substitutes. The competition among the various products would therefore be based mainly on

price. If Todos is able to convince potential customers about the advantages of its solution, then a slightly higher price might be possible to charge.

We can conclude by saying that the various substitute products all deliver an acceptable secure solution and although some solutions might be better than others the differences are not big enough to create an inelastic demand. Overall the buyers' propensity to chose a cheaper solution over a more expensive one is very high.

6.2.3 Threat of Entry

In the Internet security industry the most important asset is the technical knowledge the firms possess that enables them to provide security solutions. A firm that possesses this knowledge does not need very large amounts of financial backing if it wants to compete in the industry. There are no major capital requirements since all the firm needs is the software solution that it has developed internally and end user tokens which is often produced externally at very low costs. No major economics of scale prevail although there might be some in the R&D stage of the solutions. Even though the economics of scale in the production stage is not very high it is of course evident that larger volume sales will generate higher profit margins due to the R&D costs. Brand recognition is not very important in the industry, customers are willing to buy products from any firm that can provide a cheap and secure solution. The lack of brand recognition can be due to the fact that the industry is relatively new and most of the companies are very young and therefore no company has been able to build a strong enough brand in the short period of time. The UK government is very open and promotes a market economy, one implication is that it does not impose any restrictions or harsh regulations when it comes to the Internet security industry.

Due to the facts discussed above we believe that the Internet security industry is vulnerable to the threat of new companies entering the market. As mentioned earlier if a company possesses the knowledge of developing secure solutions there are not any other major threats that will keep it from being able to enter the market. Moreover, since entering the industry does not require a lot of capital investments there are no specific sunk costs that cannot be recovered at

exit. This means that the industry is vulnerable to hit and run entry where firms with knowledge will enter as soon as they see that the industry earns a high return on capital and exit when the return on capital is lower. To conclude we would therefore say the Internet security industry will probably see many new small companies popping up and entering the UK market. Todos will have to be aware of this fact and carefully monitor the competitive situation not only from existing competitors but also from potential new entrants.

6.2.4 Rivalry Between Established Competitors

In the Internet security industry there are many small companies competing on a big market. A few firms do not dominate the market, rather the industry is made up of these small companies competing amongst each other. This has therefore lead to greater competition among the firms and as a result it is more difficult for them to charge prices that will generate excessive profits. Since there are many companies operating in the market this has made it difficult for the firms to coordinate prices amongst each other, and it is more likely that they will initiate price cuttings individually. Although there are differences in the products offered the competition still tends to be based to a great extent on price. A quick analysis of the 6 main competitors and their potential threat follows.

VASCO

VASCO is already present in the UK market, it has for example sold security solutions to several banks and institutions. This means that the company has gained some valuable experience in how the UK Internet security market functions etc. The Digipass[®] is similar to the eCode with the exception that the size is a bit bigger. This means that eCode has to compete mainly on price basis with the Digipass[®]. Due to VASCO's experience in the UK Internet security market and the fact that its product is very similar to the eCode we would categorize the company as a very strong competitor if Todos enters the UK market.

ActivCard

ActivCard currently has 5 different resellers spread all over the United Kingdom and it has sold security solutions to big banks such as Barlays and

Lloyds TSB. The ActivCard token has to be personalized before it can be used and it does not provide the opportunity to make digital signatures. The product is not as good as the eCode but it still fulfills the basic need of authorization. Due to the fact that the ActivCard is present in the UK and that the company can deliver an acceptable product solution it will be a potential threat for Todos.

RSA Security

RSA Security is highly established in the UK with 120 employees in the country and a wide geographic network of reseller partners. Some of its customers in the UK include Egg, BT Ignite and HSBC. The RSA SecurID[®] is similar to the eCode although it has to be personalized for each individual end user and it cannot provide a function for digital signatures. RSA Security's main competitive advantage is therefore its great presence in the UK market. This together with a product that is somewhat similar to the eCode makes the company a dangerous threat for Todos ability to establish itself on the UK market.

Verisign

Verisign's affiliate in the UK is BT Ignite, which is a division of BT (British Telecom). Since BT ignite is a company from the UK it has got a great deal of knowledge of the market, moreover it has supplied several banks with some kind of security solutions. Furthermore, the company has a competitive advantage in its name (British Telecom) that is known to virtually every Englishman. The disadvantage for BT Ignite is that it does not have any product that can compete directly to the eCode. Even though it does not have a similar product, BT Ignite can offer customers RSA's SecureID[®] token together with its current security software. The disadvantage then is that this will be very expensive for the customer¹²⁰. We would therefore say that when it comes to the market segment that demands a similar solution as the eCode, BT Ignite would not be a major threat for Todos. But even if BT Ignite is currently not able to compete directly with Todos the company cannot be taken lightly due to its strong knowledge of the market and its very strong "brand name".

¹²⁰ Claudia Natanson, BT Ignite

Nexus

Nexus has got operations in the UK although it has not sold any security solutions to any major banks in the country. The company does not have an own product that can compete with eCode but it has a strategic partnership with RSA Security and can therefore offer the SecurID[®] to its customers. But since RSA Security is active on the UK market it is unlikely that Nexus will try to sell the SecurID[®] in the country. We would therefore say that Nexus would not be a major competitor for the eCode segment in the UK market.

Xiring

Xiring does not have any major presence in the UK. The X-Sign product is almost identical in its features as the eCode. The X-Sign offers a non-personalized product platform in a key chain format that provides both authentication and digital signatures. This means that the competition between the eCode and the X-Sign will almost only be based on price. The potential threat therefore depends on Xiring's future presence on the UK market. If Xiring is able to penetrate the market to a greater degree then the company can become a very big threat for Todos in the UK.

6.2.5 Buyer Power

Buyers Prices Sensitivity

British banks are in general very price conscious, they do not like to spend extra money on things that they feel are unnecessary or not so important¹²¹. One of the reasons for this is that the UK banking market is very competitive and they are therefore under pressure to reduce spending. This can be clearly seen in the case of security solutions for secure logon procedures. The price of purchasing a security solution will only take a minor portion of the bank's total expenditure. Even though this is the case the cost factor still is one of the major reasons that the British Internet banks have not yet implemented the usage of non-static passwords.

But as some banks have faced security lapses in the logon process the awareness of the advantages of non-static passwords is becoming more and

¹²¹ Ramsin Yacob, American Express

more evident. Secure logon procedures are becoming increasingly important for the quality of the Internet banking services and this is in turn making the buyers slightly less price sensitive towards the purchases of non-static password solutions. As the banks are discovering the differentiation advantages provided by these solutions they are becoming more willing to spend extra money on their logon procedures.

We can conclude by saying that the UK banks price sensitivity is very high at the moment, although there are tendencies that this sensitivity is declining at present and even more so in the future.

Relative Bargaining Power

As mentioned earlier the UK banking industry is very concentrated with over 400 banks present in London. This means that there are many potential customers for Todos to approach. With this in mind we know that the cost of losing one contract will not affect Todos as much as if they were to lose a contract in a market with very few potential customers. This will therefore decrease the relative bargaining power of the smaller banks, although the larger ones might still be able to use a high degree of bargaining power against Todos.

When we look at the information that the banks have regarding the various potential non-static password solutions we feel that they are relatively well informed. Many of Todos competitors have approached the banks and tried to sell their solutions to them, furthermore some of the banks are already using these kind of solutions for their own staff. Although the banks might not have a thorough understanding of all the different solutions available they are well enough informed to know what various price ranges they might expect to pay.

6.2.6 Market Trends

The analysis of the UK market, customers and competitors has led to the identification of the certain market trends. The market trends have been listed below followed by a discussion of how they affect Todos.

- An increased concern for security issues both among the banks and among their customers has increased demand for security solutions.

- Analysis of Empirical Results -

- Banks are more willing to spend extra resources in the maintenance of secure logon processes for their Internet banking schemes.
- Increased demand for products that are easy to use for both the banks and the customers.
- Competitive pressures are forcing companies to lower prices.
- The security solution products are becoming smaller in size.
- Increased demand for products that do not require personalization.
- Demand for banking via mobile phones is increasing.
- Banks are trying to make it easier for their customers to reach them at any time and place and they are therefore demanding security solutions that are more mobile.

The increased demand for security solutions opens up a larger potential market for Todos. The banks are willing to spend extra money on security and this makes it easier to sell the eCode, which is more expensive than the static password procedures currently used by the banks. Furthermore the eCode complies with trends that ask for small and mobile products, which do not require personalization and that can be used at any time anywhere. From a more negative perspective we can see that the increased competitiveness on the UK market pushes prices down. Therefore Todos might have to lower their prices and expect less profits if it is to succeed on the market.

To conclude we would say that most of the market trends are positive from Todos point of view although it has to beware of the intense price competition that is prevailing on the UK market.

6.2.7 Key Success Factors

After analyzing the UK security market for Internet banking and its market trends we have identified certain key success factors. These factors consist of assets and capabilities that will provide the basis for Todos ability to operate successfully on the UK market. The key success factors are listed below, followed by a discussion of how well Todos is able to fulfill them.

Strategic Necessities

- Expertise in the development of secure logon procedures.
- Having a product solution that is secure and reliable.

Strategic Strengths

- Ability to compete on price.
- Ability to provide products that are user friendly both for the bank and for the end users.
- Having products that are small in size and are therefore very mobile.
- Having products that do not require any personalization.
- Name recognition – Having a well-known brand name is always helpful.
- Prior relationships with the targeted banks.

Todos has the required expertise to develop a solution that is secure and reliable (the eCode). It therefore fulfills both the strategic necessities that are required to be able to compete on the market.

Todos closely follows competitors' price levels and changes its own price levels when necessary. This means that it has the ability to compete on price. The eCode is very user friendly, it is small and mobile, and it does not require any personalization. The product therefore has all the strategic strengths that enable the company to gain a competitive edge over most of the other competing products.

The only areas in which Todos is lacking is that it does not have any current relationships with banks in the UK, and the fact that the company is relatively unknown in the country. Most of the competitors have sold some kind of security solutions to banks in the UK and this means that they have some kind of first mover advantage over Todos. Many banks might choose to buy solutions from companies that they already have established business with, and it will therefore be more difficult for Todos to approach those banks.

To summarize we can say that Todos has got an excellent product that will fulfill the needs and requirements demanded by the banks in the UK. The only

problem will be that it will difficult to convince banks that they should buy from Todos since the company does not have prior relationships with banks and it is relatively unknown in the UK.

Based on the above analysis we have ranked the competitors after the degree of threat they might pose for Todos when it wants to enter the UK market. We have stated the reasons for our ranking in the parenthesis. The companies are divided into three main groups.

Group 1: Company that would pose the biggest threat for Todos.

- VASCO (strong presence in the UK, very competitive product).

Group 2: Companies that will pose a big threat for Todos.

- Xiring (small presence in the UK, very competitive product).
- ActivCard (strong presence in the UK, medium competitive product).
- RSA Security (strong presence in the UK, medium competitive product).

Group 3: Companies that will only pose a minor threat for Todos.

- Nexus (no directly competitive product).
- BT Ignite (no directly competitive product).

6.3 Entry Analysis

Before determining the precise details of market entry into the British Internet security industry, we have to focus on the answers to the following questions.

- What level of profit is available in the British market?
- Over what time-scale?
- What assets does the firm require in terms of capital, labor and human resource requirements?
- What are the affordable financial commitments in the short and long run?
- What costs, both direct and indirect, are involved in the implementation?

At this point we have tried to make carefully considered judgments on these key factors and relate its decisions to the options available for entry.

When trying to comprehend the magnitude of profits available for Todos in the UK it is, of course, impossible to give an exact figure. Instead, one could with confidence predict that, if approached successfully, Britain offers possibilities far greater than most other markets. As was revealed in the macro and microanalysis, the size and characteristics of the UK market makes it an obvious next step in the process of internationalizing the company's e-code. Its geographic location, elevated number of on-line banks, other on-line transaction institutions and relatively low degree of competition unconditionally supports the idea that significant profits are available for Todos if the firm executes a well-planned entry strategy. Furthermore, although the Internet security industry in UK is not as developed as the Scandinavian, it has emerged over the last years and within the next five years will probably be where its northeastern neighbors are today. Therefore, as the British market reaches that level, the time-scale for how long Todos will be able reap profits from this market is unlimited.

Moreover, a company of Todos' size has to preclude many of the entry strategies available simply because it does not have enough assets to support such a strategy. Todos does not have the ability or the desire to obtain any substantial fixed costs before gaining a real foothold in the British market. Therefore, the initial investment in capital, labor and human resources should not be extensive. However, as the short-term objectives of gaining a presence are met, the financial commitments will have to increase.

6.3.1 The Company

Before we will be able to determine which entry strategy best fits the needs of Todos; we have to consider the strengths of the company against the market targeted. It is important not to forget that about 80 percent of the company's sales take place outside the boundaries of the Swedish market. Even though eCode is somewhat dissimilar to earlier exported products with regard to being a service solution that requires technical support; it indicates that Todos has experience and knowledge of similar situations and, therefore, should be well aware of the difficulties involved of internationalizing one of its products. The company will also benefit of knowing exactly what potential customers' needs are in the UK market, since identical customers already have been served in the

Scandinavian market. Moreover, as Todos occasionally have been selling other products to the UK, as well as frequently visiting tradeshows, management has the required familiarity with the British business practices.

6.3.2 Level of Strategic Involvement

The next stage of the entry mode analysis is to see if Todos has the necessary resources and knowledge to achieve the appropriate level of strategic involvement in the UK market that is required to gain an initial foothold. At the initial stage of establishing operations in the UK, it will be sufficient for Todos use domestically based technical support personnel to serve the customers.¹²² These technicians will have frequent communications with the customer and if a situation cannot be solved over the phone or via e-mail, then it will not be considerably time or cost consuming to send supporting personnel from Sweden to the UK. Even though it might have to be altered as the company further penetrates the market, it indicates that, regarding post-sales activities, a relatively low level of strategic involvement will be required.

Closeness to the customer is the main issue regarding the strategic involvement, as the potential customer does not necessarily demand Todos to have domestically based personnel. However, the fact that the firm is relatively modest in size and, consequently, lack sizeable funds to be used for the entry process, further signifies that Todos will be considering entry mode alternatives that are characterized by a relatively low degree of strategic involvement. In conclusion, one can also imply that, because of where the UK Internet security industry is presently, there is no need for deep involvement, since it may show that there still are many years left before it reaches its full potential.

However, even though many of the above mentioned aspects indicate that the appropriate level of strategic involvement for Todos in the UK is relatively low, there are some factors that demonstrate the opposite. The two predominant arguments in this category are first that Todos is inclined not to let anyone change the name of its eCode, and second that it requires a high degree of

¹²² Reneza Kungulovski, Todos

control over pricing.¹²³ This will only be possible if the company allows to commit itself and increase its level of strategic involvement more than first was indicated.

6.3.3 Entry Strategy Alternatives

As was highlighted in the theoretical section (see Figure 3.6), there are two broad options available for Todos when approaching the British Internet security industry. First exporting, which includes indirect and direct exporting and second overseas production, which can be divided into with or without direct investment. The analysis has thus far revealed that exporting is the most appropriate alternative for Todos and therefore, the remainder of this section will focus on analyzing the different indirect and direct exporting options. With *direct exporting* Todos would sell to a customer in the UK market. This is the most common approach employed by companies taking their first international step because the risk of financial loss can be minimized. In contrast, *indirect exporting* usually means that Todos would sell to a buyer in Sweden who in turn exports the product, and this option includes an even lower degree of financial risk than direct exporting. Each of the two sub-categories can further be divided into a number of options; these will now be applied and analyzed within the framework of this specific case.

Just as in the theoretical framework, the first entry strategies discussed and analyzed will be those that involve the lowest level of strategic involvement, control and risk, and then move along the continuum of deepening involvement.

Indirect Exporting

Option 1: domestic purchasing

The first entry strategy option available for Todos is domestic purchasing. If the company chooses this entry mode then it would sell the eCode to, for instance, a Swedish Internet bank with operations in the UK which then would apply the solution to its on-line bank in the British market. In effect, Todos

¹²³ Reneza Kungulovski, Todos

would be treating the UK opportunity exactly as if it was a Swedish one. This could have been a useful way to start international activity, since it is the lowest level of involvement and still introduces the company to the needs of the British customers. However, this alternative falls short since the Swedish banks that have on-line operations in the UK already have been pursued by Todos. It is primarily the major British on-line banks that are of interest for the company; and with this in mind, entering the UK Internet security industry by utilizing domestic purchasing is not an option for Todos.

Option 2: international trading companies

If Todos were to engage in an international partnership with a trading company, it would mean that eCode would be sold as one of the trading company's own products. This would not only give Todos access to the British market, but many more since a trading company often has wide geographic coverage. However, it would take title and do all the promotion of the product by itself and therefore, take a larger piece of the profits. The trading company often carries a broad and wide range of mass produced products, which could result in that the eCode would not receive the attention and effort that is necessary to successfully market a product. Another factor that further denies the trading company as a potential option is that the profits made from the eCode will not be based on the selling from the physical product, but rather from the service that is offered. Trading companies are always looking for large volumes to sell and that will not be case with eCode following the customer's initial purchase.

Option 3: Export merchants

Export merchants, as an alternative for Todos, would also denote low commitment to the UK market. Specifically, the export merchant would purchase the eCode from Todos, ship it to the foreign market and take full responsibility for its marketing. The selling process could be carried out through the export merchant's own organization but, more probably, through a middleman. This alternative would also entail that Todos would lose control over prices and the title of its product. Moreover, as the export merchant carries a broad line of products, it would not allocate sufficient time and resources that are needed for promoting the eCode. Based on these facts, an export merchant

is an option that encompasses few of the predetermined requirements that are necessary for Todos when approaching the UK market.

Option 4: export management companies

By using an export management company (EMC), Todos will be able to reach the overseas market without having to involve its own personnel. Even though promoting a small volume of products, the EMC will offer a personalized service and become an integral part of the company's marketing operations. Working under the name of Todos, the EMC functions as low-cost, independent marketing department with direct responsibility to the company. The working relationship between Todos and the EMC could be so close that customers would be unaware they are not dealing directly with the export department of the company. Although the EMC could provide numerous services for Todos, the main function would be contact with the customers and negotiations for sales. Moreover, an EMC's specialization in a given field often makes it possible to offer a level of services that could not be attained by Todos without years of groundwork. Hence, upon analyzing these characteristics of the EMC, it appears to be an interesting entry mode for Todos when desiring to penetrate the UK Internet security industry.

Option 5: manufacturer's export agent

Utilizing a manufacturer's export agent (MEA), Todos would be provided with a selling service from an individual agent middleman or an agent middleman firm. Contrary to the EMC, an MEA would not serve as Todos' export department, but rather engage in a short-term relationship on a straight commission basis with the company. Moreover, even though the MEA would not take title of the eCode, it would be selling it under its own name. Other than that, using an MEA would give Todos similar services to those offered by the EMC. Hence, it is clear that even though comparable with the EMC, the alternative for Todos of using an MEA is less attractive; mainly since it gives Todos less control of the selling process.

Option 6: complementary marketers

If Todos could locate a company in the UK that is active in the Internet security industry but does not carry a product similar to the eCode, then perhaps

complementary marketing, also called piggy-backing, could be an option. The eCode would then complement the British firm's overall offering and add to the basic distribution strength of the company itself. In this sense it resembles a strategic alliance and Todos would quickly gain access to the UK market without much groundwork or major risks. However, Todos involvement and control over the promotion process will be low and the company will have difficulties influencing the results. It will have to accept that its eCode is, more or less, only one of the partner's other products. Another downside of option would be the risk of losing important know-how. Therefore, piggy-backing probably is not a hot prospect as an entry mode, since Todos is a relatively small company and cannot afford to share the profits from any of its products or accept that the eCode will not receive the special attention that is necessary for success.

Option 7: strategic alliance

If Todos engaged in a strategic alliance with an UK based firm, then it could establish a variety of cooperative arrangements from marketing through to R&D across all aspects of the value chain. A strategic alliance could be used by Todos at all stages of international development and can be used to support activity at all strategic levels of involvement. Todos could also benefit from the potential partner's reputation and position, especially existing distribution and sales channels, in the British market. There are also a number of potential obstacles linked to the choice of a strategic alliance; however, these are dependent Todo's involvement in the alleged alliance. Either way, if the strategic alliance were to be dissolved, then Todos would be left alone without the important activities of the partnership. The firm would also probably be lacking essential information of the UK market, since the operations until then have been, to some degree, the responsibility of the partner. Moreover, even if British Internet security yet has to flourish, it is doubtful whether or not Todos will be able to locate, approach and initiate cooperation with an appropriate partner before competition has reaped a too large portion of the market. Thus, a strategic alliance could be a future option for Todos if it desires to increase the level of involvement in the UK market; but for the time being, it is not one of the more interesting alternatives for entry.

These are the main indirect exporting options available for Todos when wishing to introduce its eCode to the UK market. Even though there are more alternatives that could have been considered, these are the most relevant and frequently used ones. Next, some of the different direct exporting options available will be discussed; and even if the level of strategic involvement is generally higher for these alternatives, the differences do not have to be too significant between indirect options with the highest commitment and the direct ones with the lowest.

Direct Exporting

Option 8: manufacturer's representatives

If Todos desires to approach the UK market with its eCode without becoming too involved, while not wanting to engage any Swedish middlemen in the process, then employing a manufacturer's representative could be a good strategic choice. Manufacturer's representatives, commonly also called agents, have a variety of titles, including sales agent, exclusive agent, commission agent and indent agent. However, if Todos decided for this entry mode, then the representative would be a so-called *sole agent*, as this often is the title when responsible for a whole country. If the company is able to find, motivate and control a fitting manufacturer's representative, then the sole agent can provide excellent market coverage in the UK. Moreover, the sole agent takes no credit, exchange, or market risk but would strictly work as a field sales representative for Todos. So, if Todos wants the type of control and market coverage that is offered by a sole agent, it may find the manufacturer's representative a satisfactory choice.

Option 9: managing agents

The next direct exporting option considered is managing agents. A managing agent would conduct business with the UK under an exclusive contract arrangement with Todos. As is done in some cases, the managing agent could invest in the operation and, consequently, share responsibility for some of the risk. This would further increase the involvement for Todos, since the managing agent would have some decision making authority, depending on the level of the investment, and make it more complicated for the company to

withdraw from the market. Furthermore, compensation would be on the basis of cost plus a specified percentage of the profits received from eCode in the UK. The main aspect that contradicts a managing agent from a manufacturer's representative is that the former represents the buyer. Hence, this would not be the prime solution for Todos if it wishes to reach a comprehensive number of customers. This alternative would neither provide the company with the option of receiving assistance with promotional or selling efforts.

Option 10: distributors

If Todos wants to commit itself further to the British Internet security industry than would be the case with a manufacturer's representative, then using a foreign distributor could be an option. This intermediary would then probably have exclusive sales rights in the UK market and work in close cooperation with Todos. Unlike the manufacturer's representative, the distributor would have a relatively high degree of dependence on the company, and the arrangement would likely be on a long-run, continuous basis. Working through distributors would permit Todos a reasonable degree over prices, promotional efforts, inventories, servicing and other distribution functions. If the eCode would be profitable for the distributor, then the middleman would be dependent on handling it in a manner closely approximating the desires of Todos. However, while manufacturer's representatives often are more appropriate for low volume products, distributors are appropriate for wide-distribution high-volume products. Therefore, in this specific case with eCode as the product to be sold, using a foreign distributor is probably a less attractive alternative than the above discussed option.

Option 11: dealers

By increasing the strategic level of involvement further the analysis comes to Todos eleventh option, the dealers. Dealers are middlemen selling products directly to the customer; they are the last step in the channel of distribution. The dealer would provide Todos with a continuing, close working relationship and have exclusive selling rights for the company's eCode in the UK. As dealers often obtain a major share of their sales volume from the products of a single firm, they will be relatively dependent on Todos and, hence, easier to influence and control. Even though a dealer can be an effective entry

alternative for Todos for any of its other products, the eCode is not a product that will provide the dealer with a particularly large sales volume. As the dealer probably is the only option that conveys both extensive market information and provide remarkable selling and promotion services, it is more appropriate to be a part of Todos' development strategy rather than a mode of entering the UK.

Option 12: company marketing subsidiary

If Todos desired to really commit itself to the UK market, then setting up a company marketing subsidiary probably is the best choice. Todos would then be able to have local operations that worked within the overseas market via a locally recruited sales force or expatriate staff. This option could cover all activity around the eCode with exception of manufacturing, and usually include importing, marketing and possibly distribution on a local level. Settling on this alternative would be a major step forward in the strategic level of involvement, as it is the closest exporting option available before engaging in overseas production. Todos would definitely have to increase its direct commitment to money, people and logistics in the British market. As the cost would escalate dramatically, and the company has yet to develop a high degree of learning, insight and understanding of the UK market, this step would mean too high a degree of strategic involvement. This alternative could be more appropriate at a later stage, when Todos has been able to establish a market position for its eCode and desires to commit itself further into the British market on a more long-term basis.

Option 13: strategic alliance

Strategic alliance is an entry mode, which can be applied for both indirect and direct exporting and has, therefore, already been analyzed in the previous section (see option 7).

6.3.4 Summary of Entry Mode Analysis

In this last section of the analysis of the entry strategies, the options have been analyzed in comparison with each other. This will enable us to filter out the not so attractive ones, but also more importantly, locate the best alternatives. Below is a table where most of the analyzed options are included; and where most of the crucial characteristics of each can be compared and contrasted.

- Analysis of Empirical Results -

Types of Duties	Indirect Exporting - Domestic Middlemen					Direct Exporting - Foreign Middlemen			
	International Trading Companies	Export Merchant	Export Management Companies	Manufacturer's Export Agent	Complementary Markets	Manufacturer's Representative	Distributor	Managing Agent	Dealer
Take title	Yes	Yes	No	No	Yes	No	Yes	No	Yes
Take possession	Yes	Yes	Yes	Yes	Yes	Seldom	Yes	Seldom	Yes
Continuing relationship	Yes	No	Yes	Yes	Yes	With buyer, not seller	Yes	With buyer, not seller	Yes
Share of foreign output	Any	Any	All	All	Most	n.a.	All, for certain countries	n.a.	Assignment area
Degree of control by principal	Nil	None	Fair	Fair	Fair	None	High	None	High
Price authority	No	Yes	Advisory	Advisory	Some	Nil	Partial	Nil	Partial
Represent buyer or seller	Self	Self	Seller	Seller	Self	Buyer - seller	Seller	Buyer	Seller
Number of principals	Many sources	Many sources	Few - many	Few - many	One per product	Many	Small	Many	Few major
Arrange shipping	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Type of goods	Manufactured goods	Manufactured goods	Manufactured goods and commodities	Staples and commodities	Complementary to line	Manufactured goods	Manufactured goods	All types manufactured	Manufactured goods
Breadth of line	Broad	Broad	Specialty - wide	All types of staples	Narrow	Allied lines	Narrow to broad	Broad	Narrow
Handle competitive lines	Yes	Yes	No	No	No	No	No	Yes	No
Extent of promotion and selling effort	Good	Nil	Good	Good	Good	Fair	Fair	Nil	Good
Extend credit to principal	Seldom	Occasionally	Occasionally	Occasionally	Seldom	No	Sometimes	No	No
Market information	Fair	Nil	Fair	Fair	Good	Good	Fair	Nil	Good

Upon reaching this far in the analysis of all the different options presented in the table above, we decided to put them into three different categories (see Figure 6.1): “potential entry mode”, “potential development strategy” and “no potential.” The options placed in the first category are those that are the most attractive entry strategies for Todos when approaching the UK market, while those in the second are regarded as alternatives for the company in case it decides that a deeper involvement is needed. In the final category, are those entry modes that do not have the requirements needed for Todos to successfully approach the UK’s Internet security industry with its eCode.

Figure 6.1 Classification of Entry Modes

Classification of Entry Modes		
Potential Entry Strategy	Potential Dev. Strategy	No Potential
Export managem. companies Manufactur. representative	Complementary markets Strategic alliance Marketing subsidiary	Domestic purchasing Int. trading companies Export merchants Manufacturer’s export agent Managing agent Distributor Dealer

Source: Own

Potential Entry Strategies

Even though differing to some extent, the options presented in the first category clearly had more of the essential features than the others. Both alternatives also include the appropriate level of strategic involvement that we found suitable; however, these are primarily seen as modes of entry into the UK market, not necessarily long-term solutions of how the company competes.

The first, export management companies (EMC), is clearly the best choice among the indirect exporting options. This is mainly because minimum investment would be required from Todos to get into the British market, but also that no personnel or major expenditure of managerial effort would be necessary. Moreover, without committing itself too much to the foreign country, Todos would obtain a channel of distribution that functions as a low-

cost, independent marketing department with direct responsibility to the company. The eCode will receive the extent of special attention that is required for such a complicated product. It is important, however, not to forget that since the EMC is ultimately dependent on sales volume for compensation, it will not push the eCode if it does not generate sufficient sales volume. On the contrary, if the eCode becomes a success in the British market, then the EMC can be more than an entry mode; it could instead become a continuing relationship, in which Todos pushes for further market share.

While the EMC was the best choice for Todos regarding indirect exporting, we found that the manufacturer's representative (MR) was the most attractive direct exporting option available. Even though it includes a somewhat higher degree of commitment by Todos than with the EMC, it is still at a rather low and appropriate level. As the MR would not take any risk (no title or possession of the product) in Todos' overseas operations and only deal strictly as field sales representatives who could assist the company's own sales people, the company would be able to receive the desired level of control. Furthermore, this option would also provide the eCode with extensive market coverage and fairly good promotional efforts. The main drawback with using an MR is that the relationship with an MR is seldom continuous, since the MR is more oriented towards locating the customer and finalizing the deal than building a long-term relationship with the customer.

Potential Development Strategies

The three options included in this category: complementary markets, strategic alliance and company marketing subsidiary were all seen to have good potential, however, not as entry modes but merely as approaches to further increase Todos commitment to the British market. This was mainly because they concerned more risk and strategic involvement than we found appropriate in our analysis earlier in the chapter. Hence, if Todos reaches the stage of its UK operations where it desires to further commit itself, then any of these alternatives could be an option.

No Potential

Finally, in the last category we gathered all the alternatives that lacked the sufficient characteristics that are required in order to successfully approach the UK market. Examples of these criteria could be that they were not appropriate for manufactured goods, that they took title of the product or that Todos would lose too much control of its overseas operations. Other reasons to why these options are not attractive could be that they encompassed a too high or low level of strategic involvement that was appropriate or that middleman merely dealt with mass-produced products.

6.3.5 Exit Strategies and Strategic Development

Once Todos has decided which entry mode best fits the specific needs of its eCode, the firm has to implement the strategy. When the process of implementing the entry strategy is done the company will sooner or later reach the stage where it will be able to evaluate if the chosen entry mode met the goals and objectives that were initially set up. Upon completing the evaluation, Todos will be able to reach two possible conclusions. If the entry process turned out to be satisfactory, then the company will have to come up with development strategies, which clearly state how Todos can push its business operations further in the UK market. Exit strategies also need to be in place to ensure that the business can survive in case an unfavorable scenario should develop. Development and exit strategies should, however, be considered at each level of entry process, since these may have to be implemented at any time.

This completes the analysis of the different entry strategies available for Todos as it wishes to approach the UK market. In the next section, conclusions and implications, the most appealing entry modes in this analysis will be discussed further.

CONCLUSIONS AND IMPLICATIONS

7. Conclusions and Implications

This final chapter aims at answering our main problem. We will start out by providing a general conclusion of the thesis results. We will then discuss some of the theoretical findings that we made during the process of writing this thesis. Furthermore, some implications for our case company Todos will be discussed. Finally, we will conclude by bringing up the possibility of generalization and by providing some recommendations for future research.

7.1 General Conclusion

Main Problem:

How can a foreign SME, supplying security solutions to the Internet industry, approach the British market?

Choosing the correct entry strategy will be one of the most vital decisions for a firm trying to enter a new market. The company's success in the new market is highly dependant on the ability to choose the appropriate entry strategy alternative. A wrong choice might have disastrous economic implications for the firm. An example might be if the firm overestimates its ability to sell in market and therefore chooses an entry strategy, which involves the investment of large amounts of money in the country. When the firm is unable to sell as much as it expected, this investment might not be recovered since it will often involve some kind of sunk costs. On the other hand, if the firm has underestimated the market and entered with less resources it might loose a lot of market share to competitors who have a greater presence in the country. It is, of course, not only the issue of correctly predicting the market attractiveness, there are also many other factors that will have an influence over what the most appropriate entry strategy will be. In order to gain an understanding of which entry strategy is most suitable for Todos when it wants to enter the UK market, we analyzed the macro and micro environmental factors, as well as various entry strategies available. The following conclusions have been drawn.

7.1.1 Macro Environmental Level

The United Kingdom provides an excellent platform for international corporations wanting to do business in the country. It is one of the world's strongest economies and it has undergone a lot of economic reforms such as privatization, deregulation, and support for competition under the past few years. The UK legal system ensures that firms from other EU countries can more or less do business in the UK under the same terms as local British companies. The UK is one of the world's leading financial centers and its financial markets have undergone substantial technological developments, which have driven the UK into an electronic commerce revolution. Moreover, government policies of making the UK "*the most desirable country in the world in which to conduct e-business*" provides excellent opportunities for firms doing business in industries dependant on the availability of e-commerce. Furthermore, the implementation of the Electronic Communications Act, which makes digital signatures as legally binding as their paper counterparts open up even more possibilities for e-commerce in the country.

7.1.2 Micro Environmental Level

Along with the rapid developments of the e-commerce activities comes the need for security solutions that protect the online activities. This has therefore created increased opportunities for firms dealing within the Internet security industry. These developments along with the fact that the UK is home to an extremely large base of potential customers have made the market extremely attractive for security solution providers. In the Internet banking industry, which has been analyzed as the target market in this research, there has been a lack of security measures taken when it comes to authentication procedures of the online services. All the banks in the UK currently use static passwords when their private customers logon to the online bank services. But since some banks have suffered embarrassing security lapses recently the demand for proper authentication security solutions is on the rise. Although no banks have implemented the use of non-static passwords for their private customers there are several banks that currently have purchased other security solutions from various companies. These firms have therefore gained some kind of first mover

advantage in the fact that they have already established relationships with some banks. At present several of these firms are actively trying to sell their non-static password solutions to the banks. Figure 7.1 shows a ranking of some of the most Todos important potential competitors. This ranking is based on the degree threat they might pose for Todos when it wants to enter the UK market.

Figure 7.1 Competitive Ranking

Group 1 Companies being the biggest threat	Group 2 Companies being of medium threat	Group 3 Companies being only a minor threat
<ul style="list-style-type: none">• VASCO	<ul style="list-style-type: none">• Xiring• ActivCard• RSA Security	<ul style="list-style-type: none">• Nexus• BT Ignite

7.1.3 Entry Strategy Analysis

As it is time for Todos to make a move into the UK market before competing firms have tied up all the major customers, we have analyzed the different entry modes available. Perhaps the simplest mode of internationalizing a domestic business is exporting, the most common form of international business activity. For Todos exporting offers several advantages. First, it often involves less financial exposure than do some other entry modes. Little or no capital investment is normally necessary, although the company may incur some startup costs that are associated with the entry. Second, exporting permits Todos to enter the UK gradually, thereby allowing it to evaluate local conditions and fine-tune its product to meet the specific needs of the British market. If the eCode is well received by the foreign customers, the firm may use this experience as a basis for a more extensive entry into the market by increasing its strategic level of involvement. Thus, through exporting, Todos can gain experience in operating internationally and obtain information about the UK market without incurring any significant capital expenditures. Based on the above reasoning, we have therefore, reached the conclusion that an exporting mode would best fit the needs of Todos when approaching the British market.

We then decided to analysis a variety of exporting modes, both indirect and direct. Even though impossible to cover and analyze each and every exporting alternative, we were able include the most common and vital ones. These ranged from having the lowest possible commitment represented by domestic purchasing to the highest possible level of strategic involvement (within exporting) by means of a company marketing subsidiary. All the options had, of course, their pros and cons, but from the analysis we were able to find one mode each from indirect and direct exporting that for Todos' eCode looked more attractive than the others. The best prospect concerning indirect exporting was export management companies, while the most favorable alternative from direct exporting was manufacturer's representative. This conclusion was reached due to the fact that these options represented an appropriate level of strategic involvement, that the level of risk was moderately low and that they both had good potential to support Todos' own sales personnel in promoting and selling the eCode in the British market.

7.2 Theoretical Findings

There are plenty of theories concerning international marketing, however, even though often included, the entry strategy process seldom receives much attention. This aspect of international marketing is commonly dealt with by lining up the different alternatives, often only a few, and then moving on to the next stage. The theories in these books are usually explained by short definitions followed by some success stories, always regarding some MNCs. Moreover, overseas production is the focal point for most scholars, naturally because it is more complicated, and exporting alternatives are rarely further elaborated upon. The likelihood for small and medium sized firms to extract any kind of relevant and substantial information is, therefore, usually very narrow.

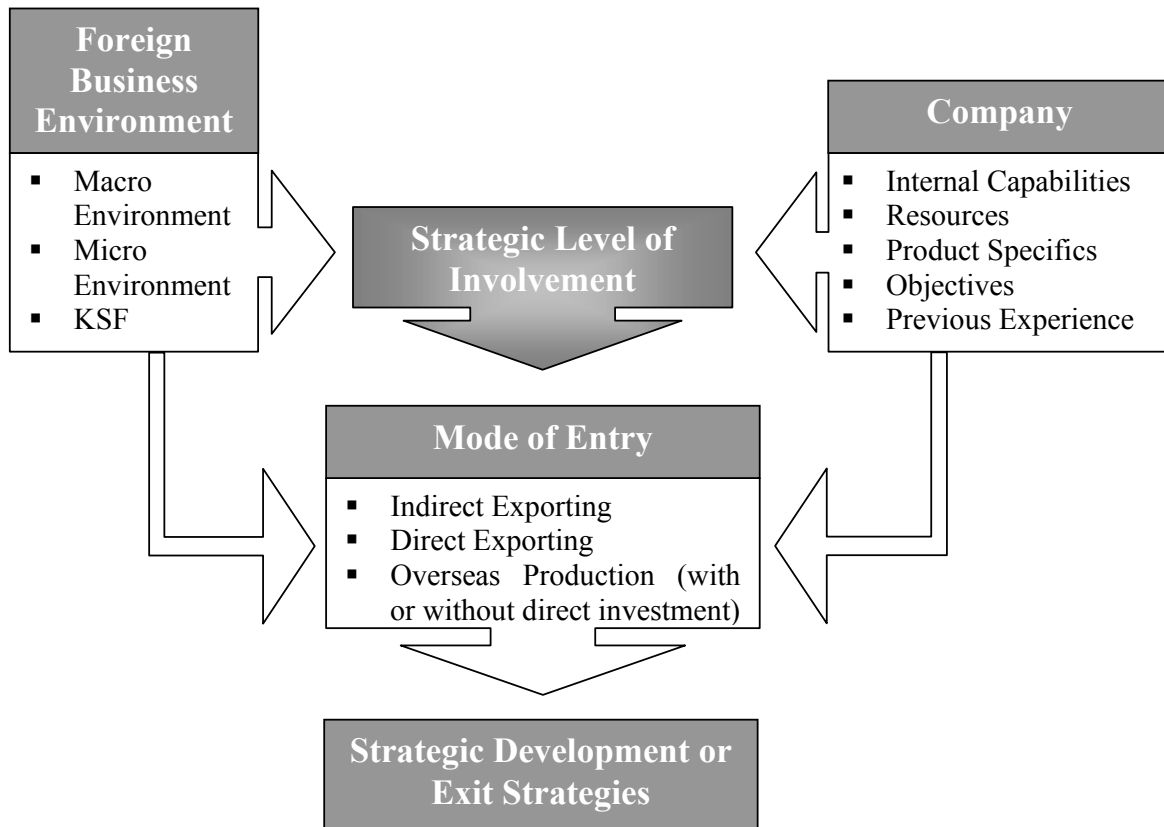
Linking these issues together generates a degree of complexity for the internationalizing SME. Although the theories have been regularly revised and updated to accommodate the changing focus of applied research, it is too much of a "paradigm" or "framework" and too little of a "model" to provide detailed

advice on the planning process for entering a foreign market. Complexity appears to have created a degree of confusion amongst scholars, which only a formal modeling exercise can dispel. Therefore, with this in mind, we have created, to best of our ability, a model that is somewhat similar to our research model but far more functional.

7.2.1 Rationalization of the Developed Model

The model that was developed, as can be seen below, centers its focus on strategic level involvement. During the time that we have spent conducting this study, we have to a greater extent understood the importance of this issue. It is the strategic involvement that should ultimately determine which entry mode the organization ought to utilize. The degree of involvement is mainly determined based on the analysis of two factors, namely the foreign business environment and the company itself. Moreover, as the level of strategic involvement has been determined, the company proceeds to the evaluation of the different entry modes. The lowest level of strategic involvement is represented in the some of the exporting options, while the contrary is available in foreign direct investment. Once the choice of entry has been decided and implemented the organization should evaluate its performance and strategic choice; and based on this evaluation progress on the last stage. If the scenario turns out to be favorable, then a development strategy should be undertaken in order to push for further market share. However, if the process of entering the foreign country is unsuccessful, then the company should have an exit strategy to turn to.

Figure 7.2 Strategic Level of Involvement – Entering a Foreign Market



Source: Own

Foreign Business Environment

The model presented above has five distinctive features. The first is based on a detailed analysis of the foreign macro and microenvironment. The analysis in this section will vary much depending on which industry and country the company is looking to approach. If the country of choice is comparatively similar to the firm's domestic environment, then the analysis will have less influence on the level of strategic involvement than if it differed to a greater extent. However, it is not to be forgotten that even the slightest difference can have a major impact on the entry process, and that nothing should be overlooked.

In the industry analysis elements such as the actual market, market profitability, industry development and market trends should be analyzed; nevertheless, it is the creation of key success factors based on the analysis of these four elements

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that ultimately decides the success of the whole micro environmental study. Because it is the key success factors that will have the highest impact on the level strategic involvement. These factors, if developed properly, are one of the main sources for the company when deciding upon its level of strategic involvement in the foreign market, as well as, when it comes to deciding a fitting entry mode.

Company Specifics

A proper evaluation of the company's competencies are also an important source of information when deciding the strategic involvement. Does the company have what it takes to go international or does it need assistance? Does the product have any special characteristics that require a higher degree of involvement? Is the company's objective to be a major player at once or does it desire to grow gradually? Does the company have financial constraints that in any way rule out a high degree of involvement? These and various other questions should be asked by the company in order to get an overall view of which level of strategic involvement best represents the needs of the company.

Strategic Level of Involvement

We have now reached the most crucial part of the model, namely where the level of strategic involvement should be decided. As mentioned before, this will be decided on the results from the foreign business environment analysis, and the answers from the questions included in the company evaluation. It is the outcome of the analysis of these two components that will dictate the strategic level of involvement. Upon deciding the degree commitment it will be a rather uncomplicated process of narrowing the options until the most appropriate one is found.

Mode of Entry – Implementation

The fourth feature of the model includes deciding which entry mode best fulfills the needs of the company's decided, and consequently required level of strategic involvement. If the organization is able to clearly define its commitment to the foreign market, as it will if the above analysis is properly done, then identifying the optimum entry mode will be a fairly effortless task. Once the mode of entry is decided then the process of planning is more or less

over and the company will be able to move into the implementation stage. The complexity of this stage will mainly depend on the company's degree of commitment to the foreign market. If it is content with finding an exclusive importer or selling agent for the given country, channel building may not be too difficult; but as it intensifies its level of strategic involvement and goes for more closer and long-term relationships, it is taking on a tremendous task which is far more complicated.

Strategic Development or Exit Strategies

The last and final feature of our developed model is the phase where the company needs to consider either looking into further developing the market or finding a way out of it. This should not be done before the organization has completed a thorough analysis of its operation in the "new" market. Has the company met its objectives and goals this far; and, if not, will it be able to do it in a not to distant future. If it turns out to be a less attractive scenario than first was foreseen, then the company may have to terminate its operations before too much is lost; or maybe it will be enough to make savings by lowering its commitment. Either way, this is not the time for management to be proud and stick with the initial choice and wishing for a quick turnaround, being flexible and accepting the defeat is important before it has too big a negative impact on the whole organization. On the contrary, if objectives and goals are met, or maybe even exceeded, then increasing its strategic involvement might be necessary for the company if it desires to further penetrate the foreign market; or else competition will. There are many routes to take once the organization gains an initial foothold, but finding the right one can be the difference between ultimate failure and grand success.

7.3 Implications

7.3.1 General Recommendations

Competitive Environment

Many of Todos competitors already have some kind of business relationships with banks in the UK. This means that they have gained some kind of first mover advantage over Todos in the market. Since the UK market has got such a high potential, it is of outmost importance for Todos to enter it as soon as

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possible. All the major banks in the world are present in the UK and if Todos wants to become a major supplier of authentication solutions and digital signature devices, it has to enter the UK market immediately. Every day that passes enables competitors to gain an even stronger foothold in the UK, and it gives them the opportunity to establish further business relationships with banks in the market. If Todos does not enter the UK market it will be difficult to establish a brand name that will be recognized worldwide, and it will almost certainly never be able to sell its solutions to the really big banks in the world. Therefore, it is a strategic necessity for Todos to enter the UK, market and we would recommend them to do it as soon as possible.

Price Factors

Banks in the UK are very price sensitive, and this is one of the major reasons why they have not yet implemented the more expensive authentication solutions using non-static passwords. The online services offered by the banks are generally free of charge and this puts further pressures on cost savings. It is, therefore, very important for Todos to take this into consideration when trying to sell the eCode to the banks. It would be difficult for Todos to charge prices that are higher than the solutions offered by their competitors. Todos should instead try to sell its eCode solution at a price that is lower or at maximum the same price level as those offered by its competitors. When negotiating with the banks, emphasis should be put on various economical benefits that can be gained by using the eCode compared to other competing solutions. The banks seem to be interested in buying one of the cheapest solutions available as long as it fulfills all the basic security demands and other required features. The ability to compete on price will therefore be one of the main key success factors in the UK market that Todos must compete on if it wants to prosper.

Electronic Communications Act

In July 2000 the UK introduced the Electronic Communications Act, which gives legal recognition to digital signatures and provides an approval scheme for firms offering cryptography services. Many of the banks still do not have the ability to offer its customers digital signature facilities. This opens up for further business opportunities for the eCode. Todos sales people should stress the fact that the eCode offers digital signatures and not only security

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authentication features. The eCode has therefore great differentiation advantages over authentication solutions that do not have this feature. It is vital for the sales persons to put this point across and to stress the fact that the banks need to implement digital signatures facilities sooner than later. The eCode should therefore be sold more as a digital signatures device that has an extra feature of providing dynamic passwords rather than an authentication device that has the extra feature of digital signatures. This will make the banks more willing to spend money, since in any case it is a must for them to upgrade its banking facilities to include digital signatures.

Business Relationships

Todos have to be aware of the fact that even if the UK is close to Sweden and even if the way of doing business is often similar there are certain business mores that can vary considerably. Todos must, therefore, carefully study the UK business culture before it approaches potential customers on the market. There is often a focus on long-term relationships and slow decision-making procedures in the UK. Todos should, therefore, maintain relationships with potential customers on a long-term basis, even though they have not been able to sell any products to them as yet. These potential customers might be willing to go into business relationships at a later stage.

It might be difficult to foster relationships in the first place since banks generally do not like to “waist time” by meeting sales people. If Todos faces this problem it should be persistent in trying to arrange a meeting since the contact persons at the banks tend to “loosen up” after a few phone calls. If this does not work Todos should invite the potential customers for lunch, since it is often easier to get the other party to agree to what, for them, is a free lunch and try to discuss business at that occasion.

When sending people for business negotiations to the UK, Todos should send a more senior sales person since they can invoke a greater level of respect and authority among the British than a younger one. Aggressive sales techniques should not be used, instead Todos sales people should try to present its eCode solution in such a way that a kind of pull demand is created. Moreover, ample time should be given for the customers to decide, so that they do not feel

stressed into making a decision as this will often turn out to be negative for the selling party. Todos sales person has to avoid downgrading competing products since this is considered rude in British business culture. It is of course vital for Todos sales people to point out the advantages of the eCode solution over other competing products, but this should not be done by talking badly about competing companies and products.

To summarize we would say that Todos must gain a proper understanding of how to conduct business in the UK. Even though one might think that the British business style is very similar to the Swedish one, there are a few differences and an understanding of these might be vital for Todos ability to succeed in the market.

7.3.2 Implementation Issues to the Chosen Entry Strategies

As the conclusion section points out, we have decided to recommend two different modes of entry into the UK market. These two, one each from direct and indirect exporting, were found to best suit the needs of Todos and its eCode. Here we will therefore, present some guidelines that Todos could make use of if it decides to implement any of these options.

Export Management Companies

Making it work:

- Setting up an agreement with an EMC is often complex and difficult, legal advice is, therefore, required.
- The relationship between Todos and the EMC will be close, thus working with individuals that the company can get along with is important.
- Locating and collaborating with the appropriate EMC can be both time consuming and complicated, hence focusing on sustaining the relationship is essential.
- Planning for success in the partnership. Todos should plan how much business will be generated and set mutually acceptable objectives over the life of the collaboration.
- In order to avoid future disputes Todos should, of course, at an early stage decide how the profits would be shared.

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Things to watch out for:

- Todos must make sure that the relationship is equal and sustainable.
- Contracts need to be carefully drawn up.
- The company should be careful with outsourcing the development of critical expertise.
- If the EMC succeeds, it is in danger of doing itself out of a good job. This relationship needs to be managed on both sides.
- Todos should look out for EMCs with market expertise as well as product knowledge. Technical skills are no substitute for insight and knowledge of the British market.
- Different EMCs may be required for different regional markets.

Manufacturer's Representative

Making it work:

- Todos must draw up contracts with care and take legal advice. An example of why this is so crucial is that EU law now favors the MR above the principle.
- Todos should also build the relationship and look to manage the contract. Collaboration should be the key.
- Todos must make clear what the important issues are.
- Great care must be taken by the company in selecting, appointing, managing and motivating the partnership.
- The extent of activity across markets and product areas is another important consideration for Todos if it wants to avoid confusion and parallel import activity.
- It is also vital that the financial commitment of both Todos and the MR is determined. Moreover, discount structures must clearly be defined and the manner and time of payment must be specified.
- Todos also has to make clear which country's law will prevail in case of a dispute and arbitration must be decided in advance.
- Finally, the duration of the agreement and termination procedures must be established.

Things to watch out for

- Todos should make sure to avoid MRs that are handling competing products.
- The company should look out for MRs that are inexperienced in marketing.
- Todos should also be aware that the ability to terminate the contract might be difficult.
- The company should also look over the financial/credit rating of the MR.
- Also find out about the MR's relationship with local influencers and institutions.

These were some of the more basic recommendations that we found important when considering either of these options. Swedish trade is always a good source of help for companies that are looking to internationalize a product. Hence, contacting Swedish trade in London could be good first step for Todos. If the company is searching for an export management company, then export consultants registered with the Chartered Institute of Marketing (CIM) could be of good use. If Todos is instead looking for a manufacturer's representative, then the Department of Trade and Industry publishes information, as well as it provides an evaluation service for locating appropriate MRs.

7.4 Generalization

This thesis focused on the UK Internet banking security market and most of the findings are industry specific. Therefore some of the general findings of the thesis cannot be directly applicable to other industrial studies. However, certain parts of the study may be more applicable than other parts. The thesis findings can be divided into three parts (the three research problems) and from there we can see that the degree of generalization is different in each part.

7.4.1 Macro Environment

There is a high possibility of generalization of the macro environment. This is especially true for companies operating in Internet related industries since we have studied macro environmental factors that are relevant for those industries. Moreover, when studying the various institutions we used a general approach and therefore the findings will be applicable for other companies and other

industries. We therefore feel that the macro environmental findings of this thesis can be used by other companies wanting to enter the UK market.

7.4.2 Micro Environment

The generalization possibilities of the microenvironment are smaller than those of the macro environment. We have focused on the Internet security and Internet banking industries only, and therefore the findings will not be applicable for firms that do not have any interaction with any of the above industries. However, since we have not based the micro environmental findings on our case company's internal environment we feel that the findings will be relevant for companies operating or interacting with one either one of the two industries. We therefore feel that the micro environmental findings of this thesis can be used by firms that are operating in or interacting with the Internet security or Internet banking industries in the UK.

7.4.3 Entry Strategies

The generalization possibilities of the entry strategy findings are relatively small. When analyzing the various entry modes available we have directly related them to Todos and its internal capabilities. The discussion of each entry strategy's advantages and disadvantages were directly linked to Todos situation. We therefore feel that the entry strategy analysis of this thesis cannot be used by other firms to a greater extent. However, generalization might be possible for some companies that are in a similar situation as the one Todos was in when trying to enter the UK market.

7.5 Areas For Future Research

During the writing of this thesis we encountered a few aspects, which we believe can be of interest for further research. We have not had the time or the capabilities to investigate these areas. We would therefore suggest other researchers to conduct further investigations in order to gain broader understanding of the relevant topics. We have divided up our suggestions for future research into two main parts. The first deals with issues that would be relevant to study for Todos. The second part brings up suggestions for further research concerning the theoretical models used in our thesis.

7.5.1 Suggestions of Future Research for Todos

- The research in this study was limited to potential customers within the Internet banking industry. There are several other corporations in different business areas, which are prospective buyers of the eCode solution. Examples of these include online brokerage firms, insurance companies, investment companies and other large corporations etc. We would therefore consider it interesting to investigate these markets since they can provide huge business opportunities for Todos.
- Two other areas of importance, which was partly neglected by this thesis, are strategic development and exit strategies. Not that the reader should have any difficulties understanding the relevance of these, but that we in depth have not included them in our research. It would be relevant to study these areas in order to provide Todos with a long-term plan that goes beyond the immediate entry into the UK market. Especially development strategies are well covered in theoretical texts, and analyzing them would be a whole new thesis by itself.

7.5.2 Suggestions for Future Research of Theoretical Models

- While going through and reading about entry strategy and international marketing theory, we soon realized that it lacked appropriate literature to with regard to SMEs. Most, if not all, of the scholars have tailored their research towards MNCs. Since a larger corporation's approach to a foreign market is totally different than an SME approach, existing process and models are not always useful tools for SMEs desiring to internationalize. Hence, we recommend that academics and scholars should to a greater extent, be looking into the entry and internationalizing process of SMEs.
- One way to improve our own theoretical model (Figure 7.2) would be to make it more dynamic. This would be especially relevant for the Internet security industry since it is a very fast changing industry. It could be done by including some kind of scenario analysis into the model whereby it would be possible to forecast potential outcomes of different alternative entry strategies.

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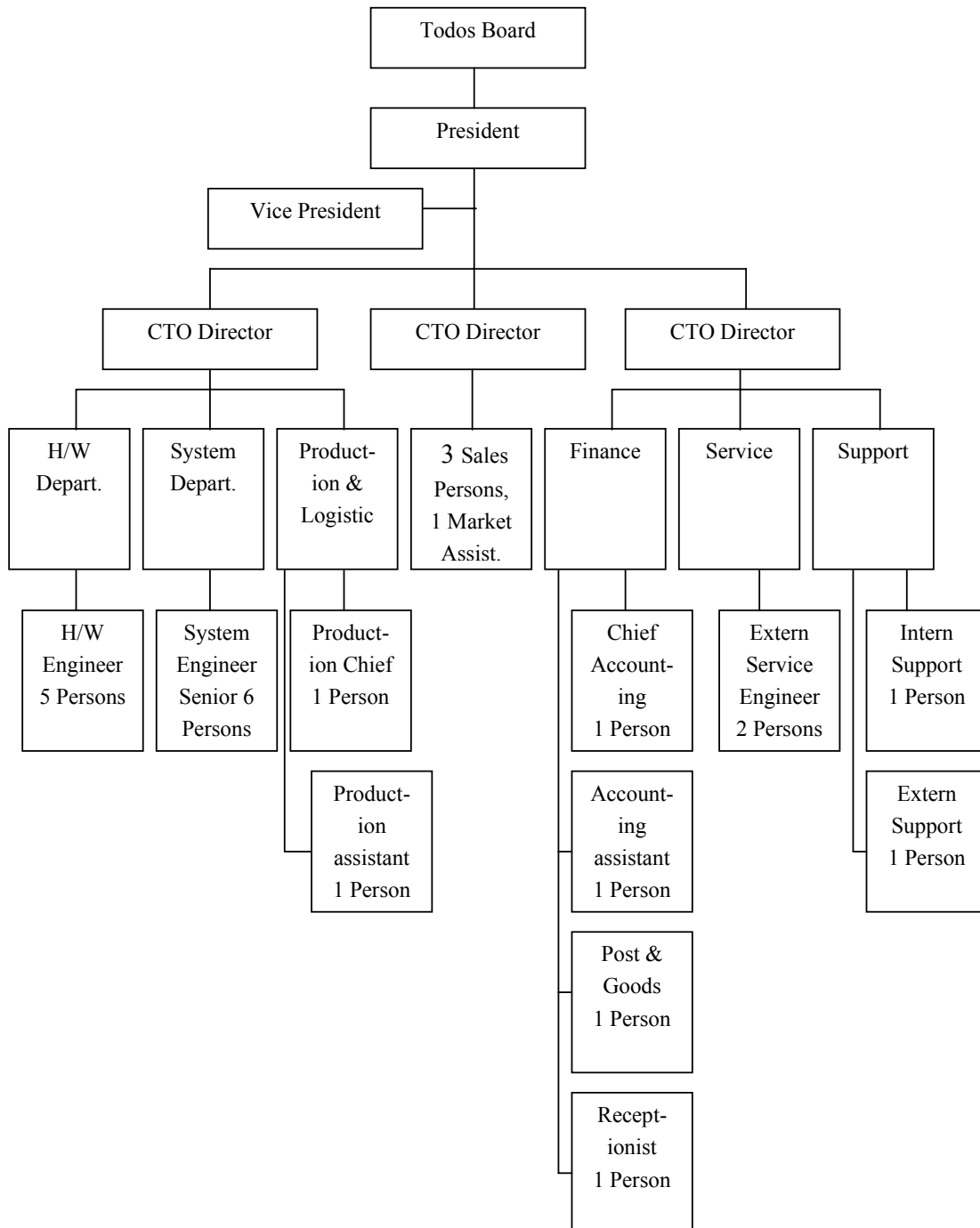
APPENDICES

9. Appendices

9.1 Todos Organizational Chart

Todos Organisation (2001)

Sweden: 27persons, Taiwan: 1 person, China: 7 persons.



9.2 Interview Questions

- What is the size of the British online banking market (how many potential customers do you have)?
- Where is the British market today (with regard to development and security preference) and how is it developing?
- Is there a special emphasis on founding strong relationships with your customers?
- Is it common that online banks and other Internet transaction companies take care of their own security solutions or do they all hire external capabilities?
- Who are your main competitors on the British market?
- Are there a whole lot of actors in the British Internet security solution industry or is it just concentrated to a few major players?
- Do most companies only have one security solution to offer to its customers, or do they offer a choice?
- Presently, who are your major customers in the British market and do you predict a change in your customer portfolio in the future?
- Which are the largest online banks in England and who are potential customers?
- What do you feel is the end users preference when it comes to online security (do they care at all)?
- How big percentage (to your estimation) of the British population does some kind of banking transactions online?
- The online banks that you approach, how do you feel that the power balance between buyer and seller is (are they approached by many similar companies and do they believe that their size entitles them to better deals)?
- Is price the biggest factor for your customers, or do they priorities other factors?
- To your knowledge, what percentage of the online banks are still using static password?
- Is there a major cost for your customer to switch from a static password system to a dynamic password system?