Risks in the Swedish Forest, Paper & Packaging Industry

Master Thesis within Business Administration

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Abstract

Background: In today’s more challenging business environment companies operating in a global market are faced by uncountable numbers of risks. The foundation of this report is based on the scenario of risks within one of the most important industries for the Swedish economy, namely the Forest, Paper and Packaging (FPP) industry. Sweden is one of the most forested countries in Europe and despite being a small country Sweden alone stands for 7 percent of the world’s total FPP production. However, it has been argued that the FPP industry might be in the midst of change where several articles and reports have commented on the upcoming challenges within the industry.

Problem discussion & Purpose: Globalization, shifting economical paradigm, a rising interest for sustainability, increased raw material prices and tougher market conditions have in combination lead to a change in today’s view of how to handle risks. FPP companies have to deal with countless number of issues facing business today and the question of how to manage risks across organizations are becoming increasingly important. The purpose of this thesis is to identify risks faced by the Swedish FPP industry and thereafter assess the most crucial risks impact and likelihood of occurrence and how they are linked to the dilemma of holding forestland or not.

Method: This study has its origin in interpretivism along with the ontological assumptions of constructionism. An abductive research approach has been applied that has features from both deduction and induction. The study has applied the three research strategies; descriptive, explanatory and exploratory study in order to produce a true representation, describe relationships and in the same time seek new insight into the researched phenomena. A qualitative research strategy was applied where several semi-structured interviews were carried out, with respondents selected through a purposive sample of the Swedish FPP industry. Thereafter complementary material was sent out in form of a self-administrative questionnaire regarding the identified risks and their significance.

Theoretical framework: Consist of general theories concerning macro environment and risk analysis theories for understanding industries along with previous reports concerning the FPP industry. In order to determent the nature and scale of the risk the Risk radar model will be applied along with an assessment of impact and likelihood of occurrence.

Conclusion: The Swedish FPP industry today faces the following risks; Globalization & Shift of Capital to the Emerging Markets, Overcapacity, Foreign Exchange Impact & Currency Risks, Export & Import Taxes, Raw Material, Energy & Transportation Costs, Sustainability & Increased Environmental Awareness and Climate Change & Unforeseen Events. Out of these risks the most crucial where proven to be Raw Material and Energy & Transportation Costs hence there high impact and likelihood of occurrence. Given the pros and cons of holding forestland in relation to the most crucial risks identified the ownership of forestland can be seen as a strategic way of reducing the threat from these risks, turning them into opportunities.
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1 Introduction

Chapter one will introduce the reader to the thesis providing a foundation of the research area along with previous studies as background. Thereafter a problem discussion will follow discussing what problems that are targeted and what focus will be upon. Then a disposition of the study will be presented to clarify the structure.

1.1 Background

There are about 4 billion hectares of forest in the world, which make up approximately one third of the total land area, where the most forested countries are Russia, Brazil, Canada, the United States and China. When it comes to Europe, Sweden with its 23 million hectares of forestland along with Finland (excluding Russia) is the most forested countries. Despite being a small country Sweden alone stands for 7 percent of the world’s total forest, paper and packaging production (Swedish Forest Agency, 2007). Wood and recovered paper are amongst the most sustainable raw materials in the world because they are renewable and recyclable. These unique qualities are central to the sustainable nature of the FPP industry, which is currently increasing by an area equivalent to 1.5 million football pitches every year (Swedish Forest Agency, 2007). The FPP industry is one of the most important industries for the Swedish economy and accounted for 12.2 percent of total export value of products during 2004 and 4.3 percent of the total GNP (Swedish Forest Agency, 2007).

“The forest industry is one of the most important sectors of industry in Sweden. It does, after all, accounts for such a high proportion of our export income” quoted by King Carl XVI Gustaf (In The Swedish Forest Industries Federation, 2007)

Due to the FPP industry’s high importance for the Swedish economy there have been several articles and reports written about current and upcoming challenges for the industry. Some of the economic factors that have impacted the industry and that have been discussed are the depreciation of the US dollar, continuing overcapacity in particularly for the European market, the shift of investment focus towards emerging markets as well as increased costs relating to energy, transportation and raw material (PwC, 2007). The increasing competition about bio-energy and increase production costs for the FPP industry along with the European Union’s (EU) energy targets to be fulfilled by 2020 represents new challenges and risks of high relevance in today’s market (CEPI, 2008). This can be seen as a risk, where Vaughan (1997) describes risks to be about future events occurrences or outcomes. However, he further adds that there is no single definition of risk hence its complexity and differentiation from cases to case. Deloach (2000) argues that what makes risk such a challenge is that the concept and scope will vary depending upon whose perspective you take. Risks that comes along with new challenges have resulted in an increased attention towards risk management and how companies can adapt to more demanding market

1 FPP - Forest, Paper & Packaging industry; includes companies operating within the business areas of pulp and paper, sawmills, wood boards, manufacturing of wood, paper and cardboard packages. The single largest section is the paper industry.

2 GNP – Gross National Product
conditions as well as future changes (PwC, 2008). Risk management has been defined in a variety of ways but Vaughan (1997) argues that a unified theme in virtually all definitions is that risk management concerns risk where there involves the chance of loss and how to managing those risks. While the term risk could have a simple meaning in the sense that it means exposure to diversity, however when putting into the context of economics, statistics, decision making and insurance theories the definition becomes complex and there is no single definition that will be applicable to all fields (Vaughan, 1997). However, risks do not solely have to be seen as negative. This is argued by Damodaran (2002) that explains risk to be a mix of danger and opportunity.

According to The Swedish Forest Industries Federation (2008) Sweden is a great global FPP industry and is one of the third largest exporters in the world when it comes to paper and saw timber as well as the fourth largest exporter of pulp. The FPP industry is a worldwide industry and there are an uncountable number of risks that may impact financial position and performance for companies operating on a local as well as on the global market. The goal of PwC’s published report: Global Forest, Paper and Packaging Industry Survey - 2007 Edition is to provide insight into the major companies, issues and events shaping the FPP industry. This survey comments on the major challenges in the industry and identifies a number of potential risks that could impact future profitability and development within the FPP industry (PwC, 2007).

There has also been an increased interest in how to handle risk in recent years, where large research institutions and independent firms have published national and international reports within this field. One up to date report published by E&Y (2008) is a global report on strategic business risks with focus on strategically risks facing some of the world’s most important industries. In order to assess the identified risks E&Y (2008) has formed the model Strategic business risk radar that classifies and ranks identified risks. This report inspired to further explore this subject, hence focusing on the FPP industry only, which will be analyzed with the help of theories regarding risk and the macro environment. PwC (2008) argues that the FPP industry is in a midst of change where costs were continuously increasing and there were mixed believes in whether the industry had faced a turning point in its profitability. According to Vaughan (1997) a basis for risk control is to risk analyze, which consists of two elements; risk identification and risk assessment. Identification refers to the task of discover and list the risks to which a business might be exposed to. Assessment means assessing how probable the risk is and its magnitude (Vaughan, 1997).

1.2 Problem Discussion

Globalization, shifting economical paradigm, increased commodity prices and violate market conditions as well as future that holds large environmental difficulties have all combined lead to a change in today’s view of how to handle risk (PwC, 2008). Managing risk has become increasingly complex due to the resolving of country boarders, corporate regulations, increased dependence on other economies and the emerging risks arising from sustainability. Companies have to deal with a countless number of issues facing business today and the question of how to manage risks across your organization is an increasingly issue for managers. Through foresee potential financial and strategic risks companies around the

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3 PwC – PricewaterhouseCoopers

4 E&Y – Ernst & Young
globe will be able to better measure, manage and control risk to enhance activities and processes throughout the enterprise (E&Y, 2008).

The development towards integrated risk awareness within companies has a more strategic perspective and Deloach (2000) argues that in this stage risk is not only seen as something negative but also as a link to new opportunities. When key risks are clearly identified, risk management efforts can focus on the risks that could have the most significant impact on the organization (Deloach, 2000). The chosen focus on the Swedish FPP industry has its foundation in the up to date discussion regarding the increasing challenges within this industry, as Lindsten (2008) argues it to be one of the most pressured industries in Sweden right now. Most Swedes probably remember the devastating storms that knocked out the south of Sweden in 2005 and 2007, which both had tremendous affect on the forest owners in the south of Sweden but also the whole FPP industry. Further on, countries worldwide are becoming more and more aware of the environmental threats that the world is facing, which has lead to the discussion around energy solutions. For industries the energy challenge also relates to soaring energy costs and alternative energy sources. Another topic discussed is the ongoing increase of export taxes on forest products from Russia that brings along the threat of increased raw material costs and supply shortage. The above mentioned problems together with the Swedish Forest Agency's (2008) argument regarding the increased importance of risk awareness in the Swedish FPP industry, leads to the first two research question of this thesis;

✓ What major risks does the Swedish FPP industry face today, with focus on the seven largest FPP companies in Sweden?

✓ Which of the identified risks are most crucial to the FPP companies in focus and what impact and likelihood of occurrence do they have?

In PwC’s 2008 edition on CEO Perspectives in the FPP industry worldwide their conclusion was that, the FPP industry might be in a midst of change. Historically seen FPP companies controlled the whole supply chain from forestland to production. Moreover a trend of selling of forestland along the specialization of the FPP industry has been visible in previous years (Swedish Forest Industries Federation, 2008). Throughout the gathering of empirical data and identification of risks within the Swedish FPP industry a linkage between some of the risks and the dilemma of holding forestland or not was visualized. This leads to the third research question of this study;

✓ How do the most crucial risks identified relate to the pros and cons of holding forestland?

1.3 Purpose

The purpose of this thesis is to identify the major risks faced by the Swedish FPP industry, assess the most crucial risks impact and likelihood of occurrence and relate them to the pros and cons of holding forestland or not.
1.4 Delimitations & Focus

In order to conduct a research study of appropriate size and depth one has to make certain
delimitations, whereas this research has been narrowed to focus on the FPP industry in
Sweden. Further delimitations have been made based on PWC’s (2007) global ranking of
the 100 largest FPP companies in the world, where the seven companies representing
Swedish FPP companies have been chosen, namely: Stora Enso, SCA, Holmen, Södra, Bil-
lerud, Korsnäs (Kinnevik) and Sveaskog. Moreover the FPP industry includes a high vari-
ety of different business areas, products and services where the chosen companies are
somewhat different to one another, which can result in a difficulty to compare and set
them in relation to each other. We do not attempt to generalize the whole FPP industry
since there are large differences between the sections, what affects one section negatively
might in fact have a positive effect for another section. However, we do need to constrain
the scoop in this research and we will therefore look at the FPP industry in a broad-
spectrum, but still highlight certain differences between the segments. Further on the focus
will lie on the risks directly related to the FPP industry, ignoring performance, trends and
other risks that could affect the companies selected, thus not relevant for the purpose of
this research. The persons selected as representatives for each company or objective or-
ganization for the qualitative data gathering have been chosen hence relevant position con-
ected to the company’s wood supply, or risk management along with external experts.
Even though if the key-persons in question possess great knowledge of the FPP industry
there will always be a lack in information provided hence the human factor along with sub-
jectivity.

In order to work in more depth with one manageable research area the authors of this the-
sis have furthermore chosen to delimitate the focus area even more, namely the dilemma of
forest ownership. Hence focusing on one specific dilemma result in a delimitation in the
scope of the study since the other identified risk are also of great importance even that they
will not be brought up to an equal extend.
1.5 Disposition of Study

In order to give a clear flow throughout the thesis figure 1.1 below has been constructed to give the reader an overview of the disposition of the study. First and for most chapter one, as being displayed, has the purpose of giving a proper introduction to the research done including background, problem discussion and purpose along with delimitations and focus to give the reader an understanding of what is researched and why it is researched. This will be followed by the research method, starting with a deeper methodological viewpoint followed by how this study has been conducted in detail. As seen in figure 1.1 this section permeates the whole study, describing the execution of the study as well as giving the reader a notification of what to expect. Chapter three thereafter includes a theoretical frame as foundation for the empirical findings described in chapter four. These two chapters will then be analysed in chapter five by adapting the findings to the context of the framework. Last but not least a conclusion will be launched where both suggestions and further discussion will be touched upon.
2 Methodology

Chapter two will provide the reader with a guideline how the research study has been approached and applied, throughout the whole research process. The overall method used goes in line with the qualitative research where interviews from a selected sample representing key persons acting within the Swedish FPP industry.

2.1 Methodological Viewpoint

According to Collins and Hussey (2003) methodology is the approach to the entire process of research study. Marschan-Piekari and Welch (2004) describe methodology in a more detail context, namely as a system of ontological and epistemological assumptions that research is based on. The terms of epistemological and ontological considerations are also discussed by Bryman and Bell (2007), described as follows: Epistemological issues concerns the question of what is (or should be) regarded as acceptable knowledge in discipline. One frequently discussed issue is whether or not the social world can or should be studied according to the same principles, procedures and methods as natural science. There are two different kinds of epistemological considerations; positivism and interpretivism, also referred to as Hermeneutics.

Bryman and Bell (2007) further describe positivism as an epistemological view in favour of the methods of natural science, whereas interpretivism is an alternative to positivism that also takes the differences between people and the objects of the natural science into thought. When it comes to the epistemological considerations this research study take the interpretivism in to consideration since the data gathered and the described areas of the FPP industry is highly related to reality and the ongoing development of the world, which changes continuously and is more of a social science then the natural science that is linked to positivism.

Moreover Bryman and Bell (2007) also take social ontology into consideration, whereas the question of whether social entities should be considered objective entities that have a reality external to social actors or if they should be considered as social constructions built on perceptions and actions of social actors. These two views are further divided into objectivism respectively constructionism. Objectivism implies that social phenomena confront us as external facts that are beyond our reach or influence, whereas constructionism takes the position that entails that social phenomena and their meanings are continually being achieved by the social actors. Ontological assumptions and commitments cannot be divorced from issues concerning the conduct of business research, moreover it will feed into the ways in which research questions are formulated and research is carried out. This report is dependent upon active involved key persons selected to give in-depth and personal opinions regarding risks within the FPP industry in Sweden, which means that the ontological assumptions used is the constructionism.

Moreover Collins & Hussey (2003) discuss the two main research paradigms as: positivistic paradigm versus phenomenological paradigm. Features specific for the positivistic paradigm are: producing quantitative data, large samples, hypothesis testing, highly specific and precise data, location is artificial along with that it generalises from sample to population. Phenomenological paradigms on the contrary seems more likely produce qualitative data, use small samples, generate theories, data is rich and subjective, location is natural and it generalises from one setting to another. This research study represents the phenomenol-
logical paradigm hence the gathering of qualitative data through a small selected sample with key persons from the FPP industry. Moreover one need to consider that business research does not exist in a vacuum, in contrary it is shaped by the world’s ongoing development along with several different intellectual traditions and different sciences at once. Hence this, the link between theory and research is by no means a straight forward matter according to Bryman and Bell (2007). When it comes to this research study there have been a lot of studies in the past regarding risk and risk management as well as the FPP industry in general. However, there has not been as much research done fusing these two areas together. Therefore, in line with Bryman and Bell (2007), the empirical findings in this study are not fully applicable to the formed theoretical framework. With this statement one can argue that there is never a perfect match between the two but the theories used in this study are chosen to be as applicably as possible to this research.

2.2 Research Approach

When having discussed the methodological view of this research one should narrow the dialogue down to the more practical method of the research. Here one can use theory as a guideline and influence when collecting and analysing data. Bryman and Bell (2003) describe this view by further explaining that research is done in order to answer questions posted by theoretical considerations. The alternative position is to view theory as something that is created after the data collection and analysis (Bryman & Bell, 2003). This research study started off by forming a theoretical frame in order to know what questions to ask and how to structure the research conducted. However, the research scoop changed over time as more data and findings where gathered. Hence this additional theory was needed in order to follow the rearranged structure of the frame, meaning that both previous paths described by Bryman and Bell (2007) have been used. Saunders et al (2003) believe there to be two different research approaches; deductive and inductive. Deductive approach has theory as a foundation to research, testing if it agrees with reality by stating a hypothesis. Whereas the inductive approach on the other hand involves a development of theory resulting from the observation of empirical data. Bryman and Bell (2003), in line with Saunders, argue that when it comes to the deductive approach the researcher most commonly test an already existing theory whereas when using an inductive approach the theory is the outcome of the research. One can see the great difference between the two approaches below put together by Bryman and Bell (2003):

<table>
<thead>
<tr>
<th>Deduction</th>
<th>Induction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory</td>
<td>Observations/Findings</td>
</tr>
<tr>
<td></td>
<td>Observations/Findings</td>
</tr>
<tr>
<td></td>
<td>Theory</td>
</tr>
</tbody>
</table>

The research approach applied in this study can on one hand be seen as deductive, hence the fact of testing which risks that are most crucial for the FPP industry in Sweden with a theoretical frame as a foundation. On the other hand the approach applied can also be seen as somewhat inductive since its nature of collecting findings through interviews in order to add value to previous research done. These are general theories concerning risk and risk management, macro environmental theories for understanding industries along with previous reports about the FPP industry. Still neither of the deductive nor inductive research approach goes truly in line with this research study in particular. Alvesson and Sköldberg (2008) on the other hand add a third approach, Abduction, which has features from both deduction and induction. Although one need to bear in mind that this is not a simple combination of the two more commonly used approaches: deduction and induction, instead it brings a totally new approach with added value different from the other two. Abduction
does, as in line with induction; start with empirical findings, although it does not forbid a preformed theoretical framework. Therefore the analysis of the empirical findings can in combination with previous research be used as a source of inspiration to give a better understanding and deeper research. When it comes to this particular research study the deductive approach is not applicable since it aims to investigate the stated problem and purpose through theories rather than testing a theory neither is its opposite inductive approach since this study will not form a totally new theory. Instead the abductive approach is used, since empirical findings will be gathered and analyzed with the foundation of already established theories, which will result in a deeper understanding within this area.

2.3 Research Strategy: Quantitative versus Qualitative

When having decided upon what research approach to conduct one should take the research method further by discussing what kind of research strategy to adapt? Bryman and Bell (2007) defines research strategy as a general orientation to the conduct of business research. In order to be clear and keep focus throughout the research one suggestion is to start by dividing the method into the two distinctive clusters of research strategies namely: quantitative and qualitative. Quantitative research is a research strategy that emphasizes quantification in the collection and analysis of data while qualitative research is a research strategy that more likely emphasizes words rather than quantification in the collection and analysis of data. In this study the second strategy is most applicable hence the complexity and diversity of the FPP industry, which gives the qualitative strategy an advantage in the sense of the ability to seek deeper answers from respondents. Due to the two research strategies distinguished features Bryman and Bell (2007) have constructed table 2.1 below connecting the two strategies to the research approach (theory in relation to research), epistemological orientation as well as ontological orientation.

<table>
<thead>
<tr>
<th>Principal of orientation to the role of theory in relation to research</th>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deductive; testing theory</td>
<td>Inductive; generation of theory</td>
<td></td>
</tr>
<tr>
<td>Natural Science model, in particular positivism</td>
<td>Interpretivism, in particular constructivism</td>
<td></td>
</tr>
<tr>
<td>Objectivism</td>
<td>Constructionism</td>
<td></td>
</tr>
</tbody>
</table>

Table 2.1 Quantitative versus Qualitative research strategy

As previously discussed the qualitative research strategy is considered to be the best choice for this research study, still as one can see in the table above the abductive research approach, which is used in this study, has been excluded. This is not a major issue when it comes to choosing whether to use a quantitative or qualitative strategy since the abductive approach is as earlier stated a mix between deductive and inductive approach viewed in the table in question and therefore either use a quantitative or qualitative strategy. Hence this along with that this research goes along with the interpretivism and constructionism when it comes to the epistemological and ontological orientations the usage of a qualitative research strategy is a rather natural approach. Moreover Ghauri, Gronhaug and Kristianslund (1995) push the fact that one should focus on understanding from respondent’s point of view when conducting a qualitative study. This relates to the fact that the researchers can form the study along the research is carried out, which means that if one find an interesting
area to examine further or go into in more depth, the researcher is allowed to do so. This goes in line with the latter focus area in this thesis, where the choice of scrutinizing the certain dilemma of forest ownership is looked upon.

2.4 Purpose of Research Strategy

When it comes to choosing which research strategy to use Saunders et al (2003) points out three different strategies but they also notify that the boarders between them are unclear along with the possibility of using more than one strategy for the same study. The three strategies to choose from according to Saunders et al (2003) are: explanatory, exploratory or descriptive study. When studying a situation or a problem by explaining the relationship between variables one conducts an explanatory study. When it comes to using an exploratory study one instead tries to seek new insights into phenomena by asking questions and to assess the phenomena in new light. The descriptive study on the other hand has the purpose to produce a true representation of persons, events or situations. However, Collis and Hussey (2003) state that it is important to recognize that one research can be described in a number of ways and that you may use qualitative and quantitative approaches, deductive and inductive methods, and you will move from exploratory and descriptive research to analytical and predictive research within the same project. This research has a slight tendency to be descriptive since first and foremost identifies risks within the Swedish FPP industry. The risks are partly shaped by the characteristics and the environment of the FPP industry along with the world economy giving a description of this reality. A descriptive approach will therefore initially be implemented when it come to understanding the macro environment along with the risks the Swedish FPP industry is facing. Still an explanatory study goes much deeper than a descriptive study along with aiming to not only tell how things are, but also why (Saunders et al, 2003). In that sense this research study will not only identify the risks in the Swedish FPP industry, but also their relation to one another along with assessing likelihood of occurrence and impact. This is in accordance to the explanatory strategy where the aim is to identify and understand the current risks by discovering and looking at their relation to one another. The purpose of this research will to some extent develop a theory by adapting existing general theories fusing them with up to date reports relevant to the FPP industry in particular and thereby add value to previous work done. However, when going deeper into one focus area with the purpose to seek deeper understanding and gain new insight one would most likely use the exploratory strategy. The choice of looking at the dilemma of holding forestland in more dept can be related the exploratory strategy that Saunders et al (2003) explain as used when wanting to seek a deeper understanding in one area along with assess the phenomena in new light.

As noticed this study has applied all three research strategies in order to answer the research questions. Still the explanatory and exploratory research strategies have been mostly looked upon, hence the qualitative depth in this study’s nature.
2.5 Data Collection

According to Collins and Hussey (2003) method is the various means by which data can be collected and/or analyzed. When conducting a qualitative research of this kind data collection is of high importance and needed in order to give a high-quality result. Saunders et al (2003) as many others describe data collection as being either primary or secondary. Primary data is collected exclusively for the particular research whereas secondary data is collected for other purposes. In this research study both ways of collecting data will be used, but with focus on the primary data.

2.5.1 Secondary Sources

There are two main types of secondary data where Bryman and Bell (2007) explains that one type of secondary data is information collected by other researchers to use for commercial or academic purposes. The other main type is collected by governmental departments in the form of official statistics. The secondary data gathered in this research originates from annual reports, published reports from PwC and E&Y, the Internet, databases accessed through Jönköping University’s library, published literatures as well as articles from magazines and other published sources. The theoretical framework is mainly composed through the use of printed literature from Jönköping University’s library. Nevertheless, the experience of lacking updated and relevant theoretical reports relating to the FPP industry more recently published and applicable theoretical reports were gathered by sources such as PWC and E&Y. Still most of these reports have been created with a global view, which increases the risk for drawing failing links between the studies. Data from the Internet have been used to gather background information about companies and organizations interviewed and looked upon in the empirical findings. The targeted companies and organizations most recent published annual reports have been used to gather data of the company in question but also to find information regarding important events and developments as well as future investments. The secondary data has been collected over time and in relation with the gathering of primary data from the interviewed persons and organizations. The availability of secondary data sources is almost unlimited, which bring along advantages as well as disadvantages. Bryant & Bell (2003) suggest that advantages are the saving of cost and time and it is argued that the data generally is of high quality. The disadvantages can be that there is too much data available where researches can experience and Bryant & Bell (2003) bring up the disadvantages associated with the complexity and low familiarisation with the data as well as losing control of the quantity of data.

2.5.2 Primary Data – Interviews

Data can be collected in various ways where Sekaran (2003) describes available data collection methods to be: interviews, questionnaires, observation or other motivational techniques. In the case for interviews Sakaran (2003) suggests that they can be either face-to-face, through telephones, computer-assisted or through electronic media. While questionnaires can either be personal administered, sent through the mail or electronic administered (Sekaran, 2003). This research will make use of both interviews and questionnaires. Riley et al (2000) suggests that a qualitative approach should provide a richness of data that is not possible with a questionnaire approach. Therefore the main part of the primary data will be collected through face-to-face and telephone interviews. The choice of executing interviews rest on the condition that, the research is seeking insight into how individuals think and perceives their environment and reality. Riley et al further argues that interview serves the purpose of giving explanatory insight that this research is in the quest for. Moreover com-
plementary material in form of a self-administrative questionnaire will be sent out by email with the purpose to follow up parts of the interviews (See section 2.6.4).

The development of this research interviews were undertaken following a number of actions where the first step is the so called pre-planning step, which includes clarifying what to seek, discussing what the potential interviewees could possibly know of the topic chosen along with how to structure the methodology objectivities. When deciding upon what type of interviews that would be appropriate in this research Saunders et al (2003) suggest three different kinds depending on their level of structure; Structured, semi-structured and in-depth interviews. Saunders et al (2003) explain that structured interviews includes standardized questions and recording of answers, semi-structured interviews are less standardized and may include a interview agenda or list of questions or topics to be discussed through the interview session. The data is usually recorded through notes or tape-recorded and the interviewers have the possibility to add questions and go deeper into specific topics and subjects. In the case for in-depth interviews Saunders et al (2003) describes that these are informal where there is no preset questions and the interview session will circulate around the clear idea and purpose with the interview. Saunders et al state that semi-structured interviews may be used in an explanatory study in order to understand the relationship between variables and it is the most frequent. For the exploratory study the in-depth interview is more frequent but the semi-structured interview may also be used. Hence the fact that this research has a mixture of both the above mentioned approaches one could argue for using either one of the interview types. Sakaran (2003) suggests that the choice of data collection methods depends on the facilities available, the researchers expertise, the time span of the study as well as costs and resources associated with the data gathering. Both verbal and non-verbal components are a part of the interview, thus the objective was to carry out a face-to-face interview with our first respondents to get a broad idea of the main areas of the FPP industry as well as developments and trends within the industry. Also the interview with a second respondent was carried out face-to-face due to the respondents’ convenient location in the city of Jönköping. Unfortunately, the barriers of time and distance where the targeted interviewees are mainly located in the north of Sweden enforced the authors to telephone interviews with these respondents. Therefore, this study will use semi-structured interviews since it is hard to fully adapt an in-depth interview structure when conducting telephone interviews. The choice of semi-structured interviews gives the allowance to compare the findings from the different interview sessions along with the ability to keep the interviews open, allowing spontaneous discussions.

All the interviewees were first contacted by telephone to give them a brief presentation of the scoop and purpose of the research. They were further asked if they agreed on an interview and if they regarded themselves to hold knowledge of this area and therefore could assist in answering the research questions of this study. Interview agendas containing topics, questions and areas to be discussed and covered, were constructed and sent out by email to the respondent before the interview was carried out. The interview agendas (see appendix 8.1-8.11) were based on the same structure, but the questions were to some extent different depending on the respondent’s position and organisation. All the interviews were conducted by the two researchers of this thesis and the sessions were tape-recorded. By doing so the risk of missing out important information and misinterpretations were minimized, that is a possible when just taking notes. As a further insurance for not lacking information along with misunderstandings or if further question arose all respondents approved on follow-up contact. All the interviews were conducted in Swedish for an easier understanding and communication between the interviewees and the interviewed. This reduces the risk of misunderstanding while undertaking the interview, nevertheless this lead
to the possibility of wrong interpretation and translation during the work on the material, especially when it comes to the quotes.

2.6 Selected Sample

Ghauri, Grønhaug and Kristianslund (1995) believe the purpose of sampling to be that the sampling design should result in valid and reliable inferences for the population at a low cost, which is one of the reasons why sampling will be necessary in this research. The sampling for this study is based on the objective and the chosen research strategy and not statistically chosen at random, which according to Saunders et al (2003) means that non-probability sampling is employed. Several techniques are available within non-probability sampling and the one most applicable is purposive sampling. This technique allows the authors to choose the selection of sample according to what best enables an answer to the research questions. Ghauri et al (1995) further on suggest the three following different types of non-probability sampling: convenience sample, judgment sample and quota sample. In this research the judgment sampling method is mainly used in order to get a sample representative of the population. Moreover the interviewees chosen have been selected due to having relevant connections to the FPP industry in Sweden and therefore possess valuable information about the research area in question. The key persons selected hold either of the following positions in the FPP industry:

- Manager or CEO of forest or wood supply for one of the largest companies acting in the Swedish FPP industry.
- Risk manager within any of the largest companies acting in the Swedish FPP industry area mentioned above
- Professionals with an objective view with direct contact to the FPP industry in Sweden

Together all interviewees have given the authors an overview of the FPP industry in Sweden along with sharing their strategic views and opinions on risks, ownership of forest and the FPP industry in general. The FPP companies selected are based upon PwC’s (2007) global ranking list of the FPP companies, where the seven largest Swedish FPP companies are: Stora Enso (Swedish/finish), SCA, Holmen, Södra, Billerud, Korsnäs (Kinnevik) and Sveaskog. The interviewees from each company where first and for most chosen due to the companies themselves chosen them as representatives as possessing most knowledge about how the company view risks along with a strategic overview of the companies. This resulted in interviews with the risk managers’ within the companies having one whereas the other companies referred to the CEO of forest or wood supply, hence there general knowledge of this particular area within the company. The objective experts on the other hand where chosen from a wider range of different key persons within the Swedish FPP industry, where the first interview was held with the Swedish Forest Industries Federation, where all FPP companies mentioned above are members. Thereafter a representative from LRF Konsult in Jönköping where interviewed to give further understanding of the FPP industry in specific topics related to the risks identified along with giving the perspective of a private owner of forest land.

2.6.1 Targeted Companies

The companies targeted for this research study has been selected according to PWC’s (2007) global ranking of the 100 largest FPP companies in the world. Seven companies on this list are Swedish, namely: Stora Enso, SCA, Holmen, Södra, Billerud, Korsnäs (Kin-
nevik) and Sveaskog, which was decided to be the requirement to be applied in this study (The position is shown within the brackets below). In line with this ranking list all the FPP companies represented will be investigated in this thesis hence their size and importance in the Swedish FPP industry, despite their difference in focus area in the industry. A short presentation of the companies investigated follows below;

**Stora Enso (3)** is the world’s oldest limited company that has operated uninterruptedly since its founding for over 700 years ago. Stora Enso is an integrated paper, packaging and forest products company producing publication papers, packaging, graphic products, office papers, market pulp and wood products. Stora Enso has around 38,000 employees in more than 40 countries on five continents and had a net turnover SEK 126,695 million in 2007. The cooperation Stora Enso is although a young company that was founded 1998 through the Swedish/Finish merger of Finish Enso Oyj and Swedish Stora Kopparbergs Bergslags Aktiebolag (STORA). Stora Enso’s divisions in Sweden need around 12 million cubic metres of raw material, which is around half a million fully loaded railway wagons. In order to fulfil this huge amount of raw material Stora Enso buys raw material from many different suppliers such as private owners larger forestland owners like Bergvik Skog AB or other forest companies (Stora Enso, 2008).

**SCA (5)** was founded in 1929 and has since then developed from a pure forest company to a global company that also offers consumer goods such as baby diapers, incontinence care, feminine care, toilet paper, kitchen rolls, handkerchiefs, napkins, packaging and forest products along with forest based bio-fuel in more than 90 countries all over the world. SCA has about 50,000 employees in approximately 50 countries with a net turnover SEK 105,913 million in 2007. Share of sales by SCA four business areas were in 2007: Personal care 21 percent, Tissue 31 percent, Packaging 31 percent and Forest products 17 percent. SCA control of its own wood raw material is a key part of the group’s long-term strategy. It provides a stable cash flow, reliable supplies and facilitates quality and cost control. SCA’s forest holdings total 2.6 million hectares. The forest is managed on a long-term basis and provides the base of SCA’s raw material integration (SCA, 2008).

**Holmen (38)** is a forest products industry group with an annual production capacity of about 2.8 million tons of paper and paperboard. The predominant market is Europe, and the group’s net turnover in 2007 amounted to some SEK 19,159 million and employs about 5,000 persons. Holmen is a forest products group manufacturing publication papers, solid bleached board, folding box board (packaging & graphical applications), and redwood sawn timber. Holmen is Europe’s fifth largest producer of printing paper with its total capacity of 2,185,000 tons per year. Further on Holmen is divided into five divisions: Holmen Paper, Iggesund Paperboard, Holmen Timber, Holmen Skog and last Holmen Energi, which is responsibility for the supply of electricity for Holmen’s Swedish mills and for the group’s hydroelectric power stations. Holmen posses almost 1.3 million hectares of forestland, were more than 1 million hectares are productive forestland (Holmen, 2008).

**Södra (44)** is an economic association that is managed by the firm Södra but owned by its members that are individual private owners of forestland. Södra has built up a considerable production of paper pulp, wood products and bio-fuels and is divided into five sections: Södra Skog (timber raw products, forestry services), Södra Timber (wood products), Södra Cell (paper pulp), Gapro (interior wood products) and Södra Windpower AB. The products are mainly sold on the international market with their major production in Sweden, but also Norway. The members supply forest raw materials to their industry at market prices. In so doing, this promotes profitability in the members’ forestry management.
basis of the economic association is the 31 forestry areas. Södra has a total of 35,000 forest properties owned by their over 50,000 members. A total of 700 elected representatives take care of our members’ interests. The timber from Södra’s membership area is equivalent to about 13 percent of the total felling in Sweden. Södra Skog’s timber purchases are mainly from Södra’s members, but also from other suppliers. Södra employs approximately 3,700 persons and net turnover estimated 17,794 million in 2007 (Södra, 2008).

Billerud (79) is a packaging paper company that is a leading supplier of materials to specific segments of the packaging market. Billerud’s production takes place at the group’s three integrated pulp and paper mills in Sweden – Gruvön, Karlsborg and Skärblacka – and at the UK paper mill, Beetham. Their products offered are: packaging, specialty paper, packaging boards and market pulp. Billerud AB was formed in 2001 through a merger of AssiDomän’s Skärblacka and Karlsborg paper mills and Stora Enso’s Gruvön paper mill. Billerud Skog AB is responsible for Billeruds support of raw material and bio-fuel. The total need to support their own manufacturing is 5.5 million cubic metres raw materials (mostly pulp wood) together with around 350 GWh bio-fuel a year. Since Billerud don’t hold any own forestland they are dependent upon external suppliers. The more part of the raw materials is bought from Sveaskog and Holmen. Around 20 to 25 percent of all raw material is imported mostly from Balticum. Billerud employs around 2,400 persons and had a net turnover off almost SEK 3,989 million in 2007 along with having an annual production capacity of 1.4 million ton (Billerud, 2008).

Korsnäs (88) is owned by the investment company Kinnevik, which consists of different listed and unlisted operating companies (Kinnevik, 2008). Korsnäs for that matter is an unlisted carton board and paper producer that was founded in 1855. The company has chosen to specify in products with highly added value in the five different product areas; liquid packaging board, white top kraft liner, kraft paper, sack kraft paper and folding carton board. In 2006 Kinnevik bought the carton board company AssiDomän Cartonboard by Sveaskog, which is now called Korsnäs Frövi. At the moment the company employs 1,919 persons and had SEK 7,519 million in net sales 2007. Korsnäs sold their majority of Swedish forestland in two transactions on 2002 and 2004. First they sold one third of their total holdings to Sveaskog and thereafter the remaining parts of 300,000 hectares to Bergvik Skog AB. Korsnäs still holds 5 percent of this meaning that they manage forest holdings of some 15,000 hectares, located from Uppland to Jämtland province (Kinnevik, Korsnäs, 2008). Today Korsnäs has two mills that requires 4 million cubic metres of wood supply.

Sveaskog (90) has a rather different approach then the other FPP companies presented above, hence the fact that they are owned by the Swedish state. The forest is managed in an exemplary way to secure long-term sustainable development by leading the way in the development of forest values for the other actors within the FPP industry. After selling of AssiDomän Carton-board 2006 Sveaskog is now focusing on forestry. Their only connection to the production part of the FPP industry is their jointly owned sawmill firm Setra Group. Sveaskog is the largest forestland owner in Sweden holding some 4.5 million hectares, which is around 15 percent of the total Swedish forestland. These include 3.4 million hectares of productive forestland. Nevertheless Sveaskog is not self-sufficient when it comes to wood supply and therefore purchase and exchange raw material in order to be a leading supplier in saw-logs, pulpwod and bio-fuels. Sveaskog employs approximately 730 persons in Sweden and had a net turnover at SEK 7,263 million (Sveaskog, 2008).
2.6.2 Interviewees

The below presentations of the interviewees were obtained from their own presentations during the interview sessions. In the empirical findings the respondents will be referred to in a similar way as other references used, i.e. surname and date.

Mårten Ericsson is Development Manager at the Swedish Forest Industries Federation in Jönköping, which is the trade and employers’ organization for the FPP industry in Sweden. The organization’s purpose is to foster the competitiveness of its members and promote greater use of wood-based products. The Federation is involved, in association with its member companies, in Swedish and European industrial policy, in market issues on wood mechanical products, and in employer issues. The Federation represents around 85 companies with sawmills and about 60 pulp and paper mills owned by 29 groups of companies along with number of companies that have close ties with the production of pulp, paper and sawn timber. The Federations board consists of representatives from different member companies, as for example, Stora Enso, SCA, Bergkvist-Insjön, Södra, Holmen, Rottneros, Billerud and VIDA. Ericsson has a background as a certified forester and nowadays he mainly works with development issues where he is responsible for the competence support in the FPP industry. This gives him a broad view and knowledge of the whole FPP industry, in where he needs to be up dated on trends, challenges and developments.

Fredrik Fornander holds two titles at LRF Konsult in Jönköping that is Forest Estate Agent and Forest Engineer. LRF Konsult main task is to support LRF, but still be profitable through their consultancy services mainly in economic questions. He has previously worked at Södra Forest as a purchaser of wood supply as well as worked for a valuation company before he joined LRF Konsult two years ago. At LRF Konsult Fornander works with questions concerning forestland sales, valuation, and property law among other consultancy questions associated with economic concerns in the FPP industry. Through his work at LRF Konsult he has much contact with private forestland owners in the region along with holding forestland himself.

Carina Håkansson is CEO of Wood Supply Sweden for Stora Enso and is located in middle of Sweden. Håkansson has been working for Stora Enso since 1990 where she became CEO of Wood Supply Sweden in 2004 just in time for the storm Gudrun. She is responsible for the wood supply to Stora Enso’s Swedish industry production. Håkansson’s closest manager is the CEO of the European Wood supply, Salander-Björklund, whereas both stand for a small percentage of female managers in the FPP industry. As CEO of Wood Supply in Sweden Håkansson has a general responsibility as a manager when it comes to wood supply, felling forest, employees, transport and so forth in order to make sure the production plants in Sweden get the resources they need.

Jerker Karlsson is the CEO of SCA Forest that is the organisation within SCA responsible for the wood supply. Karlsson is also the vice-CEO for SCA Forest Products where there production comprises publication papers, pulp and solid wood products. The business area also supplies the group with raw material from SCA’s own forests. Karlsson is a certified forester and has worked within SCA for 38 years. His previous positions within the group have been as IT and system developer as well as forest manager where he was responsible for the forest activities within a certain area. Karlsson has been the CEO of SCA Forest since 1988 and during one period he was also responsible for sawmills and the resent five years. Karlsson has also held the position as chairman for logistics and transportation of the end products with SCA Forest.
**Björn Andrén** CEO of **Holmen** Forest has a long history within the FPP industry and therefore possesses much information hence his experience of the FPP industry’s development. He is a certified forester and has been working in operational parts of the forest production within the company as well as working with forest management for seventeen years. He previously worked for MODO that through a fusion in 1988 integrated Iggesund and Holmen that later changed name to Holmen 2000. He became the CEO for Holmen Forest in 1997 where his main responsibilities are to handling all the wood supply for the group and to manage Holmen's own forest resources.

**Jonas Berg** has the title Risk Manager at **Holmen**. Berg has worked at Holmen since 2000 and is responsible for the risk management and insurance matters for the group. He has a business degree and has previously worked at Trygg Hansa and AssiDomän. As the risk manager at Holmen, Berg’s main task is to manage the group’s insurance matters that he refers to the groups “householders’ comprehensive insurance”. Berg’s task of risk managing can be described as a structural approach to manage risks and uncertainties through strategies, where he is more of a traditional risk manager since his job is to focus on risks streaming from physical or legal sources, such as fires, accidents and natural disasters.

**Mats Sandgren** is the CEO at **Södra** Forest. He is a certified forester and has previously worked 20 years within SCA, towards both the wood supply as well as sawmills industry. He started to work for Södra in year 2003 and as CEO for Södra Forest, he is responsible for supplying Södra’s industries with wood and timber. The role as a CEO mostly involves strategic matters and how to manage the business in a long-term perspective. He also explains that it is important to follow the operations, so that it will develops according to the plans and to take care of the competence support with his business area.

**Lars Becher** is the Risk Manager at **Södra**. He has a business degree within economics and has previously worked with insurances and financial inquiries at Södra for 20 years. At his present position as risk manager he is responsible for insurance and financial matters in different forms. Södra has its own insurance company that is a so called captive-company where Becher is the manager. He is also has general responsibility for the group’s risk and protection matters. According to Becher many years within the FPP industry he possesses a wide knowledge of Södra, the FPP industry and its surrounding in broad. He can therefore add information concerning development and trends that has shaped the industry over the years.

**Johan Sakari** is the CEO of **Billerud** Forest that is a subsidiary of Billerud and that was started-up in the year 2007 with the purpose of managing the group’s wood supply. Billerud Forest is a purchasing organisation that is responsible for the wood supply to the group’s Swedish mills with fibre materials and bio-fuel. Before the start-up of Billerud Forest, Sakari was the forest manager at Billerud for six years, where he was responsible for the raw material supply of all of Billeruds factories and he became the CEO of Billerud Forest in 1997. He has a background as certified forester and he has been working within the FPP industry even since graduation, where he previously has been the raw material manager at Moelven Dalaträ and forest manger at Weda Forest.

**Uno Brinnen** is CEO of **Korsnäs** Forest, which is a subsidiary of the investment company **Kinnevik**. Brinnen is a certified forester and has previously worked within the areas of IT and R&D. He started to work for Korsnäs in 1988 in the IT-group, whereas he transferred to the group’s handling of forestland in 1994. He later became a part of Korsnäs wood supply group and has since 2001 been responsible in this area holding the title of Director of Forestry.
Claes Mellström is responsible for the wood supply at Sveaskog. Hence being a state owned company Sveaskog has a rather different position in the FPP industry compared to the other FPP companies. Mellström is a certified forester and has previous work experience as a consultant for 7 to 8 years outside the FPP industry. He also has been regional manager and wood supply responsible for Holmen Forest (previously MODO). He started to work at Sveaskog in 2004 by first taking the position as coordinator for the wood supply from private owners. Today he is responsible for the wood supply for Sveaskog in the matters of buying from private owners, importing from abroad along with bartering for raw material from other geographical areas and so forth.

The interviewees are listed in table 2.2 below in order to get an overview of the respondents position in the Swedish FPP industry along with other relevant information regarding the interviews conducted.

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
<th>Position</th>
<th>Location, Date &amp; Length</th>
<th>Structure</th>
<th>Interview Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mårten Ericsson</td>
<td>Swedish Forest Industries Federation</td>
<td>Development Manager</td>
<td>Jönköping, 080406, 1 hour 15 min</td>
<td>Semi-structured</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>Carina Håkansson</td>
<td>Stora Enso Wood Supply Sweden</td>
<td>CEO of Wood Supply Sweden</td>
<td>Jönköping, 080415, 1 hour</td>
<td>Semi-structured</td>
<td>Telephone</td>
</tr>
<tr>
<td>Johan Sakari</td>
<td>Billerud</td>
<td>CEO of Billerud Forest</td>
<td>Jönköping, 080416, 40 min</td>
<td>Semi-structured</td>
<td>Telephone</td>
</tr>
<tr>
<td>Lars Becher</td>
<td>Soda</td>
<td>Risk Manager</td>
<td>Jönköping, 080423, 1 hour</td>
<td>Semi-structured</td>
<td>Telephone</td>
</tr>
<tr>
<td>Jerker Karlsson</td>
<td>SCA</td>
<td>CEO of SCA Forest</td>
<td>Jönköping, 080424, 1 hour</td>
<td>Semi-structured</td>
<td>Telephone</td>
</tr>
<tr>
<td>Jonas Berg</td>
<td>Holmen</td>
<td>Risk Manager</td>
<td>Jönköping, 080502, 1 hour</td>
<td>Semi-structured</td>
<td>Telephone</td>
</tr>
<tr>
<td>Claes Mellström</td>
<td>Sveaskog</td>
<td>Wood Supply Responsible</td>
<td>Jönköping, 080503, 1 hour 10 min</td>
<td>Semi-structured</td>
<td>Telephone</td>
</tr>
<tr>
<td>Fredrik Romander</td>
<td>LRF Konsult Forest &amp; Forest engeener</td>
<td>Jönköping, 080512, 1 hour 10 min</td>
<td>Semi-structured</td>
<td>Face-to-face</td>
<td></td>
</tr>
<tr>
<td>Mats Sandgren</td>
<td>Södra</td>
<td>CEO of Södra Forest</td>
<td>Jönköping, 080513, 1 hour</td>
<td>Semi-structured</td>
<td>Telephone</td>
</tr>
<tr>
<td>Björn Andren</td>
<td>Holmen</td>
<td>CEO of Holmen Forest</td>
<td>Jönköping, 080513, 1 hour 10 min</td>
<td>Semi-structured</td>
<td>Telephone</td>
</tr>
<tr>
<td>Uno Brimmen</td>
<td>Korsnäs (Kinnvik)</td>
<td>CEO of Korsnäs Forest</td>
<td>Jönköping, 080519, 30 min</td>
<td>Semi-structured</td>
<td>Telephone</td>
</tr>
</tbody>
</table>

Table 2.2 Interviewees

2.6.3 Confidentiality & Anonymity
The issues of confidentiality and anonymity raises difficulties in many forms of qualitative research, where particular care has to be taken with regard to the identification of persons or organisations (Bryman & Bell, 2003). The interviewees in this research approved that their name could be mentioned in the thesis and that we could draw citations. However, the interviewees were only representing their point of view and not the point of view of their organisation. Hence, when it comes to the supplementary material in form of the risk
radar, we choose to keep the individual answers confidential to preserve the anonymity of the respondents and to not link their answers to a general view point from the organisation.

### 2.6.4 Complementary Interview Material

To improve the results of the data collected through the semi-structured interviews as well as get a clearer view of the nature and the scale of the identified risks in Swedish FPP industry. In order to enhance and clarify the empirical findings a complementary material was sent out by email (See appendix 8.12). This is in line with Saunders et al (2003) definition of a self-administrative questionnaire, were respondents are suppose to complete a task without anymore involvement from the researcher then the instructions given. However, in this research the respondents were pre-informed on how to approach the given task along with the ability to contact the administrators collecting the findings at any time. To increase the quality of the gathered result the questionnaire was constructed in Swedish along with tested in several pilot shots before sending the task by email to the respondents. The feedback resulted in some modifications and clarifications of the questionnaire, to ensure that the final complementary material sent out was as easy understood as possible. This is a time and cost efficient way to gather data along with having no interviewer variability (Bryman & Bell, 2003). Questionnaires like this can also provide the researchers with a potential comparative view of the respondents’ answers, where one can relate and compare them to one another. Even though if the respondents’ results were considered as an important part of the analysis the complied result displayed in figure 5.2 also reflects the researchers of this thesis overall impression when gathering all findings. By taking this approach subjectivity was minimized and therefore the result will give a general overview of the risks within the Swedish FPP industry.

### 2.7 Limitations of Method

Delimitation explains how the scope of a study is focused upon one particular area (Collis & Hussey, 2003). The delimitations in this report relates to physical limitation about the study, where as the authors have choose to focus on the Swedish FPP industry and the FPP companies activities in Sweden. Moreover the FPP industry consist of many business areas, products, services and companies that are classified as actors in the FPP industry are also conducting businesses in other areas with different products. In line with Collis & Hussey (2003) this research constrains the enquiries in a number of ways and excludes some potential areas of investigation. This thesis will only consider the activities that directly relates to the FPP and ignore performances, trends and risks that could affect the sampled company but that is not within the scope of the FPP industry and thus not relevant for the purpose of this research.

In order to work with a manageable research area the authors of this thesis have chosen to moreover delimitate the area into the current question regarding the ownership of forestland. When looking upon the FPP industry one can tell that it is of a great size and is affected and dependent on multiple risks, whereas this study cannot focus on all the current risks. The decision on focus on one specific dilemma leads to a delimitation in the scope of the study since the other identified risk are also of great importance even that they will not be brought up to an equal extend.

A limitation identifies potential weaknesses in the research (Collis & Hussey, 2003). One weakness of this study is that because of the sampling structure where only companies operating within the FPP industry was considered, we cannot generalize the research findings.
to include actors within other industries or companies with different products or services. Limitations in this study also involves weaknesses of the study concept and difficulties in finding theoretical foundations that could be applied to the FPP industry as well as the specific focus on the research. To find a theoretical framework that addressed this issue were difficult since the most data and information that were available could only be used as secondary sources and not as a general theory.

A limitation to mention relating to the source of data and whether the results would have been different if other respondents’ had been chosen instead. When it comes to the chosen respondents and targeted companies just two companies had a person holding the title risk manager, therefore it could be seen as a limitation that only two risk managers could be interviewed. An additional limitation that relates to the source of data is that the findings can be linked to the current time and actions. Some of the identified risks can be linked to the current state of the world economy and event that are critical at the time being. In another time period these risks might not have been identified as crucial and instead the industry could be affected by risks that were not identified at this point of time.

Further limitations can be related to the assumed connecting between some of the risks within the Swedish FPP industry and the dilemma of holding forestland or rely on external supply. As the research prolonged this connection started to arise, but in order to confirm this suspicion more knowledge and in-depth understanding of the industry and its actors had to be gained. Under these circumstances it can be argued that you are striving to confirm your initial belief and therefore not seek contradicting views and that the results can be biased. However, to insure the quality of the findings and results, measures seen in section 2.8 have been undertaken.

### 2.7.1 Critique against Method

One should always critically review the own research strategy along with the literature used (Saunders et al, 2003). All delimitations previously mentioned leave the floor open for critique towards the method chosen in this report. Although the theoretical foundation have been built on trustworthy previous studies of high quality data with a high variety, there will always be some criticism as well as gap in between the theoretical frame and the empirical findings. The major criticisms towards this paper according to the authors of this thesis are: First, the previous studies made by E&Y and PwC can be questioned if they are natural or not hence their potential subjectivity of an underlying agenda of selling their services to companies at risk. Second, the research structure can be criticized when it comes to the chosen latter focus on forest ownership, where a linkage is drawn between risks identified and the up to date dilemma of forestland ownership can be hard to see for a reader with little knowledge of the FPP industry. This moreover results in a range of difference in understanding the focus chosen, dependent upon previous knowledge of the reader. Third, the data collected can always be improved through adding more interviewees resulting in higher quality and more diversity. Fourth, the subjectivity of the respondents interviewed can be questioned since they might put higher emphasis on the risk related to their area of expertise. Last, hence the choice to most part collect the findings through telephone interviews might have affected the results in a negative way because of information getting lost or miss-understandings.
2.8 Quality Standard

When conducting a study it is important to minimize the possibility to get incorrect answers that leads to inaccurate results and conclusions. Saunders et al (2003), points out that in order to make sure that the results are reliable and that a similar study would generate the same conclusion the study’s quality standard has to be adequate. Therefore the research design should emphasize validity and reliability when collecting and analyzing data. Saunders et al (2003) describes that validity involves whether the result agrees with reality while reliability indicates the stability and consistency in the measurement of the data and results across time along with the various items in the instrument. Sekaran (2003) stresses the importance that the conclusions drawn through the interpretations of the data analysis should be objective i.e. that they are based on the facts of the findings and not on individual values and opinions. Sekaran (2003) further emphasis the concept of generalizability, which refers to: the scope of the research findings in one organizational setting to another.

2.8.1 Reliability

When evaluating reliability of a research one can ask oneself if the research findings have the ability to be repeated by someone else would yield the same result. Further elaborations on the question whether similar observations and interpretations made under different circumstances would give a comparable answer in line with Riley et al (2000). In ensuring reliability this research is based on a large number of interviewed subjects where the relationship between the number of respondents and the derived empirical findings will ensure reliability in this research. To enhance the reliability further respondents with a high diversity has been chosen in order to reflect the industry’s different sides. To keep in mind is that this qualitative analysis is based on interviews, which mean that it has been dependent on humans in the data collection. Reliability may be failing due to peoples’ individual opinions, experiences and the fact that the same thing can be perceived differently. In order to further ensure reliability in this study, interview guides along with more specific questions were made and both researchers were present during all the interviews. To have in mind is that it cannot be ensured that respondents will have the same opinion in several years time. Since the issues researched in this study relates to the current environment and developments. Therefore is it not guaranteed that a future study would lead to the same results regardless if the same or new respondents were choosen. The method section in this study is important in order to gain reliability since the documentation informs how this research has been executed and how a similar study can be undertaken. The choice of methodology and descriptions on how this study has been structured and implemented is presented thoroughly in order to secure reliable results.

2.8.2 Validity

It is important to make sure that the research findings represent what actually happens in the situation (Bryman and Bell, 2007). This is done by the minimizing of research errors. To ensure validity in this study the data and gathered information have been worked through by both researchers of this study in order to minimize the risk of misinterpretation. The tape recording further ensured validity since it gave the opportunity to go back and listen to the interview sessions several times to clarify potential ambiguities. Misinterpretations or misunderstandings where also reduced where all the interviews were conducting by both researchers in this thesis. To have in mind is thus that the executed telephone interviews could mean deteriorated validity since the non-verbal components and potential underlying assumptions could not be documented.
According to Riley et al (2000) research error that may affect the validity of the research could further arise from poor or wrong samples. In this research the persons holding the greatest knowledge of the considered area have been interviewed, with no rejection from the selected sample. Moreover, if the selected companies turned out to have a risk manager these have further been interviewed to get another dimension towards risk management and how the organization handles risks. This ensures validity, since choosing a person holding another position within the selected company might yield a different result. Still, not a result with a better answer for the research question of this thesis.

2.8.3 Objectivity

Sekaran (2008) stresses the importance of objectivity and argues that the more objective interpretations of the data, the more scientific the research study becomes hence that fact that the data should be striped of personal values and bias. The research should strive to present results and conclusions that are as objectively as possible. However, the way people form categories in our mind and associate characterises with those categories is individual and relates to the problem of subjectivity (Riley et al, 2000). Kvale (1997) argues that there is no objectivity in the qualitative research method because it’s dependence on human communication and the fact that the researchers understanding relates to previous knowledge, experiences and personal interest. To tackle subjectivity the interviewers in this research had in mind from what point of view the interviewees were speaking, what comparison could be made and whether the context of the background was stated or implied. To further ensure a high level of objectivity the interview agendas have been formed using the same base of topics and questions. However, all of the respondents were employed in the company in question which may affect their answers and interpretation of the question in mind. One example that highlights this reasoning is that the respondents employed within the companies that hold forestland might emphasis more weight towards the risk directly associated to this while respondents working for a company that is highly depending on external wood supply might take up risks that relates more to this area. Thus two interviews were conducted with objective professionals in the FPP industry, namely the Swedish Forest Industries Federation and LRF Konsult, to achieve neutral opinions from persons looking at the industry without being actors in it. An additional action undertaken for the sake of objectivity is the broad field of Swedish FPP companies that has been selected. These represent several different sub-industries along with different ownership structures and objectives.

2.8.4 Generalizability

The wider the range of applicability of the conclusions generated in a study, the more useful the research will be to the user (Sekaran, 2003). Generalizability concerns whether the findings can be generalized beyond the confines of the particular context in which the research was conducted (Bryman & Bell, 2003). Since it was not feasible to interview the whole potential population i.e. all companies and actors in the FPP industry that could have add vital information in the subject of study a selected sample has been chosen. However, the representatives of the sample will represent the population from which it was selected according to Bryman and Bell (2003), meaning that one cannot generalize beyond the population. The sampled companies in this study is based on a selective sample where these companies represent the population in question, generalizability can not apply for companies outside the FPP industry. This also means that since the majority of the respondents were CEO’s of the forest division of companies in the FPP industry, one cannot
generalize the findings to the extent of the whole organization. There are no guarantees that the same results would have been achieved if the respondents were taken from another part of the organization. To make the sample as representative as possible, so that the findings were not unique to a particular respondent, the person holding the corresponding position within each of the chosen companies have been interviewed. These are the CEOs’ of the forest divisions along with the risk managers within the companies having such a position. Also representatives from the Swedish Forest Industries Federation and LRF Konsult have been interviewed in order to get the opinion of actors not employed within any of the FPP companies.
3 Theoretical Framework

In chapter three a theoretical frame will be structured in the following three parts; first the industry perspective will be brought up. Second, a discussion of risk will be presented. Last, a way to position risks within a chosen industry will be presented with the tool Risk radar.

The theoretical frame will be presented to the reader as figure 3.1 shows below.

![Theoretical Frame](image)

Figure 3.1 Theoretical Frame

3.1 Industry Identification

3.1.1 PESTEL Analysis

The PESTEL analysis gives an overview of different macro environmental factors that affect companies. It is a strategic tool for understanding and analyzing these factors where PESTEL stands for Political, Economic, Social, Technological, Environmental and Legal analysis. In some cases particular issues may fit into several categories (BPP, 2000).

However, since PESTEL bring up very broad factors it is important for a company to look at the factors that are; most likely to change, will have the greatest impact and identify the key factors in their own environment. Organizations must decide on the relative importance of various factors and one way of doing this is to rank or score the likelihood of a change occurring and also rate the impact if it. The higher the likelihood of a change occurring and the greater the impact, the more significant this factor will be to for the firm.

Politics in the international market are complex because of the interaction among domestic, foreign and international politics (Hollensen, 2007). Political factors refers to the political environment surrounding a company including governmental policy and areas such as
tax policy, industry-specific regulations, employment laws, environmental regulations, consumer protection, trade restrictions and tariffs, and political stability (Hollensen, 2007). BPP (2000) includes political risk within this factor where the concept refers to the possibility of turbulence in the political environment. The ideology of the government and its role in the economy will affect the trade legislations as well as export/import controls for example political, environmental and economical reasons where the governments may impose protectionism measures in order to prevent the influence of international trade (BPP, 2000). Brooks and Weatherston, (2000) further argue that the relationship between politics and businesses is not a ‘one-way street’ and governments are also keen to create closer alignments with business that will lead to advantages for the government or the nation.

**Economic** environment is a major determinant of market potential and opportunities (Hollensen, 2007). Economic factors include economic growth, government spending, disposable income, import/export ratios, interest rates, exchange rates and inflation rate. Economic changes can impact firms where for example; higher national income that can increase the demand for a certain products and a strong currency can slow down the exporting because it may raise the price in terms of foreign currency (Hollensen, 2007). International trading relationships results in a demand for and supply of currencies in the market for foreign exchange, where BPP (2000) states that most orders are quoted in hard currency with a persistently high demand, such as the US dollar. The cost of import or the value of export might increase or be reduced by movements in foreign exchange rates. Exchange risk results from paying or earning revenue in a foreign currency where the risk arises from adverse movements in foreign exchange rates (BPP, 2000).

**Social** factors includes areas reacting to demographics (age, gender, race, family size, etc.), education, population shifts, living standards, health consciousness, occupations and it often look at the cultural aspects and include career attitudes and emphasis on safety (Hollensen, 2007). Social factors relates to changes in trends that can impact the demand for a firm’s products where BPP (2000) writes that one of many social factors affecting companies are higher population rate and standard of living in developing countries that leads to business opportunities and new markets. Stern (2007) points out that there is a rising global trend: involving a higher awareness and interest for the climate, our global environment and sustainability. This affects peoples’ attitude and way of acting towards new trends along with becoming more aware.

**Technological** factors form the fourth factor in the PESTEL analysis and include aspects that relates to inventions, technological changes, innovations, R&D, energy usage/sources/cost, communications, production advances, transportation, recycling, and so forth. These factors can determine barriers to entry, production levels and influence investment decisions. The technology factors can also lead to reduced costs and improved quality where these developments can benefit consumers as well as organizations (Hollensen, 2007). Brooks and Weatherston (2000) suggest that technological development not only includes new inventions, but also process improvements and efficiency enhancements can be of equal importance and strengthen a company’s position in the market.

**Environmental** factors include the weather and climate change where Stern (2007) argues that the scientific evidence is now overwhelming that climate change is a serious global threat that demands attention. With major climate changes occurring due to global warming along with greater environmental awareness this external factor is becoming a significant issue for firms to consider. The increased interest for environmental issues and developments is having an impact on many industries. Stern (2007) explains that this impact will be greater for some industries but not so visible for others. One section that will be highly
negatively affected by political decisions regarding environmental matters is the transportation industries. Stern (2007) also suggests that in general there will be a higher demand towards more environmentally friendly products and processes that will affect demand patterns and either creating or threat business opportunities.

Legal factors are related to the legal environment that firms operate in. The legal aspects include consumer-, competition- and employment-laws as well as health and safety legislations (BPP, 2000). Legal changes can affect a firm’s costs and demand. Brooks and Weatherston (2000) argue that legislations can be of different importance depending on the industry and its business operations. In international markets BPP (2000) suggests that local as well as foreign legislation may affect a firm’s trade with a particular country. Each country may legislate for issues involving, export/import control, monopolies, environment, law of ownership, pricing regulations and many more.

3.1.2 Porter’s Five Forces

Competitive strategy is a subject that is at the essence of importance for the firm to become successful in an industry, which is where the competition occurs. What underlie the choice of competitive strategy are the dynamic questions of the attractiveness of the industry for long-term profitability, and the factors that determine it (Porter, 1980). Both industry attractiveness and competitive positions can be influenced or even changed by a firm, which concludes that a firm’s competitive strategy not only responding to the environment, but also attempts to shape that environment in favour of the firm. A basic determinant of a firm’s profitability is the attractiveness of the industry in which it is operating. Porter (1980) suggests that forces outside the industry are important primarily in a relative sense since external forces usually affects all firms, the key lies in the different abilities of firms to deal with them. The competitive strategy must rely on an in dept understanding of the rules which govern the competition and in turn determine an industry’s attractiveness. No matter what the industry may be, these rules are inherent in five competitive forces; the entry of new competitors, the threat of substitutes, the bargaining power of buyers, the bargaining power of suppliers, and the rivalry among the existing competitors. Porter (1980) argues that the collective strength of these forces determines the ultimate profit potential in the industry, measured in terms of long-term return on capital invested.

In order to strengthen Porter’s five forces additional theories will be applied to the following areas described. This is done hence the fact that Porter’s five forces aims to analyze the competitiveness of an industry in the perspective of one single firm.

The entry of new competitors: Porter (1980) describes that new entrances to an industry brings new capital, fight for market share and in some cases important resources. The threat of entry also places a limit to prices where tougher competition means lower prices and thus reduced profitability. The threat of entry into an industry depends on the barriers to entry such as; economies of scale, product differentiation, switching costs, access to distribution channels, governmental policy as well as cost disadvantages independent of scale, coupled with the reaction from existing competitors (Porter, 1980). This threat of new competitors may also arise from foreign firms where Johansson (2000) explains that as long as world markets remain open there is nothing stopping the spread of global competition. Brooks and Weatherston (2000) suggest that the profit potential in an industry depends on the number of firms and concentration, with increased internationalization this stretch to include the whole global market environment.
The threat of substitutes: All firms in an industry is according to Porter (1980) competing, in a broad sense with industries producing substitute products. Identifying substitute products or services is a matter of searching for products that has the same function as the products of the industry. Porter (1980) suggests that the most critical substitute products are those that are subject to trends improving their price-performance trade-off with the industry’s products or are produced by more profitable industries. The tendency of a buyer to substitute is a critical factor, which also depends on the nature of the product/service and the preferences of the buyers (Brooks & Weatherston, 2000).

The bargaining power of buyers: The power of the buyers has the ability to influence the prices the firms can charge as well as the costs and investments of the firms. Customers with high buying power are often more demanding, which can be reflected in the investments the competitors have to conduct to satisfy the market need (Porter, 1980). As Brooks and Weatherston (2000) argue there is always a struggle between the buyer and the supplier, whereas firms acting within both roles have the ability to weight the costs of inputs to the potential price charged towards customers.

The bargaining power of suppliers: The suppliers bargaining power affects the prices of raw materials and inputs. The pace rivalry occurs in the market has influences on prices as well as other areas such as R&D, advertising and product development (Porter, 1980). Brooks and Weatherston (2000) argue that the consumers demand and willingness to buy needs to meet the willingness by producers to supply. Supply is the propensity of producers to sell the commodity at a given price and time. However, Brooks and Weatherston (2000) explain that when it comes to demand it is not only price that determines the supply of a commodity it also depends on the firm’s objectives along with the price of the factors of production. BPP (2000) argues that resource limitation and price increases are reasons for a firm to exit a market. BPP (2000) declares that the structure of the supply market differs and that there are often very few potential suppliers of many important raw materials. He further argues that differences prevail between the market structures of the raw material, component, and capital equipment markets where the global market for raw material seems to be more dominated by foreign suppliers.

The rivalry among the existing competitors: Firms in an industry are mutually dependent according to Porter (1980) and the intensity of rivalry between companies in an industry is the result of numerous interacting factors where the firm needs to balance their own position against the well-being of the industry as a whole. Market conditions depends on factors such as the level of concentration of the industry, growth rate of the market and cost structure, where as high fixed costs tends to lead to price cuts in order to fill capacity (Hollensen, 2007). Market conditions also include exit barriers, switching costs or the degree of differentiation where Porter (1980) argues that with commodity products the buyer is largely dependent on price settings, which leads to encouraged rivalry and a pressure for intense prices. As the international trade increases the competition among actors in an industry will stretch beyond the country boarders where Brooks and Weatherston (2000) informs that firms can take advantage of lower costs of production and the usage of foreign suppliers to enhance their competitiveness.
3.2 Risk

Risk is about future events, occurrences, or outcomes. Some of these are expected, while others are not. Some risks are easily measured; others are more complex and difficult to measure while some may not be measurable by any meaningful accuracy (Fishkin, 2006). We are faced with risk in our everyday lives where risk is an abstract term that can be put into different contexts (Vaughan, 1997). In its broad sense the term risk means exposure to adversity (Vaughan, 1997). While the term risk could have a simple meaning in everyday usage when putting into the context of economics, statistics, decision making and insurance theories the definition becomes complex and there is no single definition that will be applicable to all fields. According to Vaughan (1997) the two common elements are the notion of an indeterminate outcome and that at least one of the possible outcomes is undesirable. Vaughan further states his own definition of risk as: a condition of the real world exposure to adversity where risk is a condition where there is a possibility of an adverse deviation from the desired outcome expected. Risk can also be viewed as the trade-off between risk and reward where the risk lies in how the expected outcome will differ from what actually will occur. The term uncertainty is often used in relation to risk where the meaning of uncertainty is a situation where there is a lack of knowledge about what will or will not happen in the future (Vaughan, 1997). According to Damodaran (2002) risk should not only be associated as a negative term. He refers to Merriam Webster’s Collegiate Dictionary that defines the verb risk as “to expose to hazard or danger”, instead Damodaran argues that the definition of risk in finance is better captured by the Chinese character for risk: 

危機

The first character is the symbol for danger while the second is the character for opportunity, which makes risk a mix of danger and opportunity (Damodaran, 2002).

Risk in not a new concept for business since all companies are exposed to traditional business risks where earnings will increase or decrease because of such things as changes in the global business environment, in the nature of competition, emerging technologies, the availability of resources, changing consumer values and in factors affecting suppliers (Deloach, 2000). To deal with these issues Deloach (2000) suggests that managers can respond in various ways, such as holding inventories of raw materials, signing long-term supply contracts at a fixed price, or another strategy could be to merge with competitors, suppliers, and distributors. Deloach (2000) argues that CEO’s are focused on investment and return, opportunities and growth and competitive advantage where business risk management is vital to their success. That the topic of risk management has become a critical component in many firms is further stressed by E&Y (2008) arguing that in order to gain further business advantages, companies must look at the extended risk universe, from financial risk to operational and finally strategic risk.

3.2.1 Risk Management

Risk management has been defined in a variety of ways, but Vaughan (1997) argues that a unified theme in almost all definitions is that risk management concerns risk involving the chance of loss and how to managing those risks. There are two broad approaches within this field, which are; risk control (in order to minimize the risk exposure) and risk financing (guaranteeing the availability of funds to meet those losses that do occur) (Vaughan, 1997).
It is inadequate to talk about a single objective of risk management still Vaughan (1997) suggests that there are two objectives that are: to minimize the adverse effects of risk and minimize the cost of doing so. Mehr and Hedges further (in Vaughan, 1997) classify the objectives of risk management into; pre-loss objectives and post-loss objectives, where pre-loss objectives relates to the economy and to avoid anxiety, while post-loss objectives relates to the speed of comprehensiveness and recovery (see table 3.1).

<table>
<thead>
<tr>
<th>Pre-Loss Objectives</th>
<th>Post-Loss Objectives</th>
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<tbody>
<tr>
<td>Survival</td>
<td>Economy</td>
</tr>
<tr>
<td>Continuity of operations</td>
<td>Reduction in anxiety</td>
</tr>
<tr>
<td>Earnings stability</td>
<td>Meeting externally imposed obligations</td>
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<tr>
<td>Continued growth</td>
<td>Social responsibility</td>
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<td>Social responsibility</td>
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Table 3.1 Pre-Loss Objectives & Post-Loss Objectives (Mehr, Hedges, 1974)

Vaughan (1997) concludes that the general objective of risk management is survival that he puts into the context of preserving the operating effectiveness of the organization that he further defines as preventing losses that might arise out of risk.

Deloach (2000) argues that there are three development stages within risk management; that he divides into traditional-, business-, and enterprise-wide risk management. The traditional risk management has mainly been focusing on financial and insurable risks that can be managed through transactions and internal control. The second stage that is the development towards more integrated risk awareness within companies is business risk management that Deloach (2000) describes as having a more strategic perspective. In this stage risk is not only seen as something negative but also as a link to new opportunities. The latest development phase is termed enterprise-wide risk management where companies are implementing risk management at an enterprise-wide level and as a part of the foundation to strategic decision making. This makes it possible to handle risks in a more proactive way and to deal with potential risks before they occur. Deloach argues that companies then can create a more holistic understanding of how risks are affecting the operations, profit margins, economic growth and the outlook for the company.

3.2.2 Classifications of Risks

In general, business-related risks can be divided into three categories where Smullen (2000) categorises them as market risk, credit risk and operational risk. Market risk is a universal risk since all organisations are exposed to market movements, either directly or indirectly. These risks relates to variations in the value of financial contracts and the impacts in business performance as a result of changes in financial markets. Smullen (2000) suggests that several examples of risks, relating to this category, are the exposure from interest and exchange fluctuations as well as movements in the commodity markets. Credit risk is the risk associated with changes in creditworthiness of a specific company, industry, or sector (Smullen, 2000). Fishkin (2006) further explains that credit risk can include relationships with customers, suppliers, venture partners, alliances, or other related parties. Operational risk can be seen in terms of the relation to the activity of the organisation including inadequate or failed internal processes, people, and systems as well as risks from external events.
(Fishkin, 2006). Whereas Smullen (2000) further suggests that several different elements can be captured within the context of operational risk, due to its broad nature.

In order to measure risk one should first seek to identify the key factors that could be causing the volatility. In some cases it is possible to identify a single risk factor, but for most of the time the numbers of risk factors that are considered in a risk analysis are many (Crouhy, 2005). Further, a risk manager must also measure the influence of the risk factors on each other and the effects of multiple risk factors and measure the influence of each. This can be a complex task especially since there is often a distinct difference in the behaviour and relationship of risk factors during normal business conditions and during stressful conditions such as financial crises (Crouhy, 2005). Under relative stable market conditions, the behaviour of risk factors is less difficult to predict because it does not change significantly in the short term. This implies that future behaviours can be estimated based on historical performances. However, during worrying conditions, the behaviour of risk factors becomes more unpredictable, and past behaviour may be of no help in predicting future behaviour (Crouhy, 2005).

What makes risk such a challenge is that the concept and scope will vary depending upon whose perspective you take. When analyzing the risk exposure one could either measure it from the manager’s, the stockholder’s or the overall economy’s point of view (Deloach, 2000). Vaughan (1997) distinguishes between dynamic and static risk, where dynamic risks are those resulting from changes in the economy. The dynamic risks can either be external or internal. The external factors relate to the economy, industry, competitors, and consumers. Changes in these factors are uncontrollable, but all have the potential to lead to financial losses. The internal factors are connected to management decisions within the firm. The dynamic factors are generally less predictable and Vaughan (1997) continues by explaining that static risk involves those losses that would result even if there were no change in the economy. Static losses involve either the destruction of an asset or a negative change that results from human failure. These losses tend to occur more regularly and are therefore in general more predictable and can be adverse by insurance.

### 3.2.3 Risk Analysis

According to Vaughan (1997) risk analysis consists of two elements; risk identification and risk assessment. Risk identification refers to the task of discover and list the risks to which a business might be exposed to. Assessment means assessing how probable is the risk and the magnitude of the impact (Vaughan, 1997). The risks identified should be organised in the order of; high-impact and high-probability risk, high-impact and lower-probability risk, lower-impact with high-probability risk and lower-impact with lower-probability risk. The event with a higher probability of loss is considered riskier. Vaughan (1997) further suggests that the risk will be greater in some situations than in others. It can be difficult to precisely state what is meant when saying that one alternative involves more risk or less risk than another. The degree of risk can also indicate a measure of the possible size of the loss or as recognition of the magnitude of the potential loss (Vaughan, 1997). Pickford (2001) refers to the task of aggregating all the risks faced by a company, because it is the company’s total exposure that determines the impact on the overall business objectives and performance goal.
3.2.3.1 Risk Identification

As argued above, risk identification is one of the first steps to take in the risk management process. However, risk identification is an ongoing process and as the business environment and the organization change and develops so does the risk exposure. Pickford (2001) highlights that it is important that the identified risks are specific to the market sectors in which the business operates and circumstances at that time. There are several techniques that can be used in the risk identification progression. According to Vaughan (1997) risk identification techniques have been developed as part of loss-prevention and control efforts and it is fundamental that before a risk can be treated it must be recognized. Vaughan (1997) continues by stating that the primary methodology of risk identification has been based on observations of risks and losses that had already occurred. However, there is no single approach to risk identification and the process could be implemented by using a variation of tools such as; questioners, checklists, and procedure guidelines (Vaughan, 1997). Vaughan (1997) suggests that the key tool in the risk identification process is the risk analysis questionnaire that are designed based on information that is gained from documents, interviews, and inspections. Another common tool is a risk exposure checklist which a list of common exposures that can range from very short to very detailed. Deloach (2000) states that companies from a broad range of industries are looking for new ways to identify the risk associated with their business activities. He continues by suggesting that one of the most pervasive involves the process of identifying and prioritizing risks so that opportunities can be discovered and the risks can be assigned appropriate action plans. Vaughan (1997) also describes the development of a new approach to risk identification with the emphasis on identifying possible causes of accidents before the accident occurs, rather than attempting to determine causations by analysing past accidents.

3.2.3.2 Risk Assessment

Pickford (2001) foretells that there are an uncountable number of risks that could impact the future of a company and all cannot be assigned equal weight. The difference between risk assessment and risk management is that in the risk assessment stage each potential risk is evaluated so that the most critical risks will be prioritized when it comes to risk management and the implementation of strategies that deals with these risks. Once identified, the likelihood of occurrences and the impact have to be accessed where one way to do this is by examining the probability of occurrence of a certain event or situation with an estimate of its impact (Pickford, 2001). The potential impact should be assessed not only in financial terms but also on its potential effect on the corporation and its objectives. Pickford (2001) describes a two-by-two diagram as seen in figure 3.2 where box A shows risks that requires immediate action, box B for which a contingency plan is needed, box C are for those that actions should be considered, and box D are those risks that are of less concerns but nevertheless requires periodic review. Pickford (2001) points out that risk assessment of this kind can be subjective and that the uncertainty associated with each risk will not be identical.
3.3 Previous Studies of the FPP Industry

Despite the fact that theories in section 3.1 connects to the macro environment of an industry, it tends to be too general. Hence this, the third theoretical part will introduce the reader to an extended theoretical framework, where previous studies and published reports will be used in order to get a more appropriate link towards the chosen research area. By gathering prior reports describing the FPP industry in a global aspect the following factors and risks have been brought up to discussion. PwC (2007) has previously identified a number of potential challenges that could impact future profitability and development within the FPP industry. General matters such as GDP changes are not included in this case, whereas only challenges specific for actors in the FPP industry will be brought up.

Many of the companies in the FPP industry are global actors exposed to different kinds of market risks such as currency risk, funding risk, interest rate risk and financial credit risk. FPP companies are subjects to fluctuations in foreign exchange rates, often incurring because the costs of production is in one currency while trade is in another (PwC, 2007). Due to the companies’ international business activities, the exchange rate fluctuations may change the trade patterns that affects financial results for industries in different countries. Trade in most FPP products is commonly denominated in US dollars. Due to the volatility in the US dollar over the past several years, foreign exchange rate movements have significant impacted the flow in both raw material and finished products in the industry as well as affecting the financial results (PwC, 2007).

In their global FPP industry survey PwC (2007) further reports on results that relates to the differences in the FPP industry’s geographical location. The Western European FPP industry is continuously facing overcapacity and increased global competition. The underlying reason for this is the decline in the US dollar in comparison to the Euro along with the growth and influence of the Eastern European countries (PwC, 2007). This has forced the FPP companies to cut costs and increase efficiency where overcapacity has been reduced to some extent through reduced production and plant closures. PwC (2007) explains their concerns that when the Western European industry is stagnating, the major producers probably will switch their investment focus to the emerging markets.

Brooks and Weatherston (2000) comment on the effect of economic factors with a focus on a firm’s macro environment where they describe that the growth of emerging markets
have had a great effect on many organizations. Brooks and Weatherston (2000) bring up both opportunities and threats since the emerging markets provide new potential business possibilities along with the potential to relocate production to low cost production countries. In PwC’s (2007) global FPP industry survey the conclusion is that the shift of an economic paradigm resulting in increased capital towards the emerging markets continues to affect the FPP industry. This means that the competitive advantage continues to shift towards countries with low cost fibre production along with being important players for the total growth of the FPP industry. The emerging markets growth has also lead to a higher demand for raw material in both internal consumption and export manufacturing, resulting in significant pressure on raw material price and supply. PwC (2007) believes that this development cannot be underestimated, whereas one example given is that China has become the world’s second largest producer of wood and paper products, after the US. Brooks and Weatherston (2000) declare that governmental policies are a source of entry barrier to new markets hence governments can limit or even close entry into industries with control such as introducing regulations or limiting access to raw material. Putting this in relation to the FPP industry one may bring up the subject of export and import taxes affecting the trade hence political influence (PwC, 2007).

One emerging trend affecting companies across several industries are the increased environmental awareness and attention to sustainability (E&Y, 2008). Hopkins (2007) defines corporate sustainability as meeting society’s expectation that companies add social, environmental and economic value from their operations, products and services. United Nations (1987) definition of sustainable development is stated in the Brundtland Commission report as: “Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs”. PwC (2008) presents that sustainability has become a part of the business mainstream, where FPP companies are under increased pressure on operating in a sustainable manner. PwC highlights one emerging and significant development of the concept of total supply-chain responsibility, which brings along an increasing pressure to ensure that the entire supply chain is ‘green’. E&Y (2008) applies the term of radical greening to the increasing environmental concerns which could be the result of a wide range of pressures arising from areas such as, the voluntary world of corporate social responsibility and harder regulatory and economic requirement. PwC (2008) relates these issues to the risk of a change in consumer preference that may boost or have an adverse effect on demand for certain products and hence profitability. There are a number of examples of such shifts, where E&Y (2008) indicates that perhaps the most obvious is the increased environmental awareness and demand for ‘green’ products or services. E&Y (2008) is further describing this radical greening as a strategic risk, partly driven by the responses to climate change and weather events. E&Y continuous by telling that climate change and weather events could be an important strategic risk for companies in the future and the same argument is supported by Stern (2007). Stern (2007) also argues that the carbon dioxide is changing the world’s climate where the worlds average temperature have been rising, thus increasing the frequency of extreme weather patterns. He further adds that scientists have estimated that the ongoing climate change leads to warmer climate with more storms and precipitation.

According to PwC (2007) a significant risk for companies in the Western European FPP industry is the increased costs in raw materials such as wood, pulp and recycled paper. End product prices and raw material costs are cyclical, so a period of low product prices and/or high raw material costs could affect profitability. Companies relying on external wood supply have less control over their costs associated with the higher price for raw material. Ex-
cept dependence for raw material the supply risk also lies in companies’ dependency on suppliers and their ability to deliver a product in time and to a set quality (Brindley, 2004).

PwC (2007) reports that energy costs are important to the industry organizations in general. Energy costs can be cyclic, whereas these costs have increased significantly during the last years due to many factors. Fluctuations in the energy price and access to supply pose a clear challenge to companies in the FPP industry where a large swing in prices can lead to economic downturn (PwC, 2007). Since the FPP industry is depending on high energy consumption, this has had a significant impact on earnings. Reliance on external suppliers for the majority of energy needs leaves the companies vulnerable to changes in the energy price and shortage of supply. The heavy increase in energy price is followed by increasing fuel prices resulting in a raise in transport costs. This has had impact on the FPP industry, which is heavily reliant on transportations such as road, rail and shipping for both inward and outward transports (PwC, 2007).

The forestlands of the world represent a vast potential source of raw material that yields energy where Richardson, Björheden, Hakkila, Lowe and Smith (2002) explain that the use of forest as a source of ‘green energy’ in developed countries is becoming increasingly important. This energy source is renewable and almost neutral when it comes to greenhouse gases that affect the climate change. Richardson et al (2002) write that ongoing developments lead to increased usage of biomass as a source of energy. Bio-energy production can be based on forest biomass that would otherwise be with traditional timber products. This sort of renewable energy form is receiving greater emphasis in many countries as a way on improving the carbon balance and minimizes global climate change. Richardson et al (2002) explain that there has been a growing demand for forest raw material not only as a source of wood and fibres, but also in terms of a renewable energy source. In some cases the FPP industry can undertake co-generation based on wood waste, thus becoming self-sufficient of energy which also can open up the opportunity for energy surplus (Richardson et al, 2002).

3.3.1 Risk Radar

E&Y (2008) has in collaboration with Oxford Analytical published the report “Strategic Business Risk 2008 – the Top 10 Risks for Businesses” where they explore the area of strategic risk facing some of the world’s most important sectors. Derived from this research they constructed the Strategic business risk radar that shows the scale of the risk and its nature. The Strategic business risk radar is thus providing a snapshot of the risks for a specific sector. The definition of risk used in E&Y’s research is; “Strategic risk - a risk that could cause severe financial loss or fundamentally undermine the competitive position of a company” (E&Y, 2008).

The design of the Strategic business risk radar can be seen in figure 3.3 and shows that the risks appearing in the centre of the radar are those that could cause the greatest challenge in the future. Those on the outer edge are still considered to be of importance but of slightly lower prioritize (E&Y, 2008).

The conclusion of E&Y’s research is that there are differences in the nature of the strategic business risks, where as the radar is divided into three broad sections. The first sector reflects the Macro threats that affect nearly all businesses and that result from the general geopolitical and macro economical environment. The second zone represents Sector threats emerging from trends and uncertainties that will impact and re-shape a specific sector or industry. The third part represents the Operational threats influencing the strategic operations of the firm (E&Y, 2008).
Even that there is a clear categorization between the natures of the risks into macro, sector and operational threats, E&Y’s Strategic business risk radar makes it possible to display variation in the nature of the specific risks. Having this design the identified risk can be placed in one sector but still possess the flexibility to move towards any of the other two sectors, thus reflecting its tendency to lean more towards one sector then another. In E&Y’s research the macro threats relate to risks that cannot be controlled by one single company and the impact will be individual for each industry and company. Generally these threats result from; changes in the wellbeing of the global economy, currency fluctuations, changes in the price of raw materials, increased environmental pressure and climate changes, uncertain energy and fuel prices, single catastrophic events and demographic shift in core market. The sector threats are specific for each sector and will result from the risks relating to changes in the growth of alternatives, shifting consumer demands, pricing pressure, regulatory compliance, among many others. The operational threats identified in E&Y’s report will also depend on each industry but can generally relate to cost and pricing control, difficulties of raising capital, supply chain risk, human capital deficit and corporate governance and functioning threats (E&Y, 2008).

![Figure 3.3 Strategic business risk radar (E&Y, 2008)](image)
3.4 Theoretical Summary

An introduction of the general PESTEL model gives an overview of different macro environmental factors that affect companies. PESTEL stands for Political, Economic, Social, Technological, Environmental and Legal factors (BPP, 2000). Having described the environment in general, Porter (1980) explains a basic determinant of a firm’s profitability is the attractiveness of the industry in which it is operating. The essence of Porter’s model describes the industry competitiveness inherent in the five forces; the entry of new competitors, the threat of substitutes, the bargaining power of buyers, the bargaining power of suppliers, and the rivalry among the existing competitors.

Risk can be described in multiple ways. In general risk is about: future events, occurrences or outcomes whereas some are expected while others are not (Fishkin, 2006). Damodaran (2002) believes risk in many cases to be wrongly associated with negative terms. Instead he argues that the definition of risk is better captured by the Chinese character defining risk as a mixture of danger and opportunity. The challenge with risk is the fact that the concept and scope will vary depending on what perspective you take (Deloach, 2000). Vaughan (1997) describes risk analysis in the foundation on two elements; risk identification and risk assessment. Identification refers to the task of discover and list the risks to which a business might be exposed to. Once identified, the likelihood of occurrences and the impact have to be assessed (Vaughan, 1997) where one way to do this is by examining the probability of occurrence of a certain event or situation with an estimate of its impact (Pickford, 2001).

Previous studies and published reports have brought up several challenges and risks faced by the global FPP industry such as: exchange rate fluctuations, increased costs in raw materials, overcapacity in the European region and increased global competition especially from emerging markets (PwC, 2007). A rising trend brought up by E&Y (2008) is the increased environmental awareness and attention to sustainability driven by the climate change and weather events. E&Y’s Strategic business risk radar shows a scale of identified risks divided into the three broad sections of: Macro threats, Sector threats and Operational threats. Risks appearing in the centre of the risk radar are those that could cause the greatest challenge in the future.
4 Empirical Findings

Chapter four will guide the reader through the empirical findings gathered throughout this research study. Starting with an introduction to the FPP industry in Sweden followed by all risks identified along with a discussion regarding the dilemma of ownership of forestland.

The FPP industry is one of the most important industries for the Swedish economy and according to The Swedish Forest Industries Federation (2008). Sweden is a great global player in this industry being one of the third largest exporters in the world when it comes to paper and saw timber as well as the fourth largest exporter of pulp. In 2006 the value of all Swedish exports was SEK 1,085,331 million where SEK 121,624 million (11 percent) originated from the FPP industry (Swedish Forest Agency, 2007). However, the Swedish FPP industry is said to be under a large amount of pressure at the moment where there are many issues to be worried about (Lindsten, 2008).

The Swedish Forest Industries Federation (2008) reports that the global economy had a strong development during the year 2007 and the demand for paper and packaging in Europe were stable, with increased prices. There was also a high demand for pulp where the world market demand increased with 3.4 percent with several price increases during the year. The market for wood products was very strong, but became weaker in the end of the year due to increased supply in Europe and a weaker demand in USA and Japan. In Sweden the production of paper and packaging decreased by 2 percent to 11.9 million tonne, where one percent of the reduction can be assigned to the close-downs of mills. The production of wood products in Sweden reached a new record level during 2007 with a total of 18.6 million cubic metres, while the export showed a negative trend and decreased by 14 percent. Value of the total export from the Swedish FPP industry increased with 4 percent to SEK 128 billion. However, there are large deviation of the export development in the different segments with wood products 11 percent, pulp 7 percent and paper 1 percent (The Swedish Forest Industries Federation, 2008).

In 2007 the FPP industry was faced with substantial price increases for wood supply, recycling fibres and energy. A particular challenging situation was Russia’s decision to add a higher duty on their export of wood (The Swedish Forest Industries Federation, 2008). The first increase of 10 Euros per cubic metre was implemented and the worry of additional duty increase and supply shortage contributed to the price increases of wood raw material (Östlund, 2008). The Swedish Forest Industries Federation (2008) writes that several companies announced that they were looking over their production structures, reducing staff and closing down machines, factories and sawmills to prepare for increased costs, increase efficiency and the threat of raw material shortage. Despite the increased cost situation, many of the FPP companies showed a better result than previous year, due to increased deliveries and prices as well as implemented cost saving- and efficiency programs (The Swedish Forest Industries Federation, 2008). The FPP are facing a number of challenges and holds a future that involves an exposure to several risks that could jeopardize profitability. The purpose of this research is to identify these risks and clarify their link to the strategic decision of owning forestland or not.

To achieve the findings presented below, several interviews have been conducted in order to get an outlook for the Swedish FPP industry, the current and potential risks. When identifying the risks in the Swedish FPP industry some of the most vital risks were in one or
another way connected to the dilemma of holding own forestland or buy raw material from suppliers. Considering the large amount of capital that is tied to this matter where the total taxation value of standing forestland was SEK 292 billion in 2006 this subject of matter must be of long-term strategic importance for the actors within the Swedish FPP industry (The Swedish Forest Industries Federation, 2008).

This research will further focus upon the seven largest FPP companies in Sweden based on PWC’s (2007) global ranking of the 100 largest FPP companies in the world. The chosen companies are: Stora Enso, SCA, Holmen, Södra, Billerud, Korsnäs (Kinnevik) and Sveaskog. In line with this ranking all the FPP companies represented will be looked upon in relation to one another despite their difference in focus area in the Swedish FPP industry. In table 4.1 below one can see an overview of the companies reviewed in this study based on data from corresponding companies’ published annual reports from 2007.

<table>
<thead>
<tr>
<th>FPP company</th>
<th>Global Ranking*</th>
<th>Industry</th>
<th>Employees</th>
<th>Net Turnover SEK million</th>
<th>Operating Profit SEK million</th>
<th>Ownership of Swedish Forestland (hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stora Enso</td>
<td>3</td>
<td>Forest, Paper, Packaging</td>
<td>38,000</td>
<td>126,695 (133,738)**</td>
<td>11,100 (11,177)**</td>
<td>-</td>
</tr>
<tr>
<td>SCA</td>
<td>5</td>
<td>Forest, Paper, Packaging, Bio-fuel, Personal care</td>
<td>50,000</td>
<td>105,913</td>
<td>8,237</td>
<td>2,600,000</td>
</tr>
<tr>
<td>Holmen</td>
<td>38</td>
<td>Forest, Paper, Packaging, Hydroelectric power</td>
<td>5,000</td>
<td>19,159</td>
<td>2,286</td>
<td>1,300,000 (Productive: 1,000,000)</td>
</tr>
<tr>
<td>Södra</td>
<td>44</td>
<td>Forest, Paper, Bio-fuel</td>
<td>3,700</td>
<td>17,794</td>
<td>1,669</td>
<td>2,300,000 (Through its members)</td>
</tr>
<tr>
<td>Billerud</td>
<td>79</td>
<td>Paper, Packaging</td>
<td>2,400</td>
<td>3,989</td>
<td>355</td>
<td>-</td>
</tr>
<tr>
<td>Korsnäs (Kinnevik)</td>
<td>88</td>
<td>Packaging, Paper</td>
<td>1,633</td>
<td>7,519</td>
<td>836</td>
<td>15,000</td>
</tr>
<tr>
<td>Sveaskog</td>
<td>90</td>
<td>Forest, Paper</td>
<td>730</td>
<td>7,265</td>
<td>1,361 (2,123)**</td>
<td>4,500,000 (Productive: 3,400,000)</td>
</tr>
</tbody>
</table>

*PwC (2007)  
** Converted from Danske Bank Markets, DKK/SEK, 2008-05-12  
*** Operating profit after changes in values of forest assets

Table 4.1 The five FPP companies investigated in Sweden (2007)
4.1 Risk within the Swedish FPP Industry

“The crises in the forest — shock rising export taxes, tougher competition, record low dollar, shutdown of industry mills and sky rocking energy prices” (Lindsten, 2008).

When it comes to the definition of risk, Becher (2008) that is risk manager at Södra refers to the negative aspects in risks and the positive aspects of opportunities. He continues, in financial aspects the term risk refers to the variation from expected outcome. This variation can be both positive and negative, but Becher uses the term risk to relate to the negative variation from the expected outcome and opportunity to the positive variation. Karlsson (2008) also thinks that risk is not only negative and he explains that the FPP industry has to adjust so they can turn the potential risks into opportunities. This goes in line with Fornander (2008) that relates to risk as in taking a chance. Berg (2008) refers to risk as an uncertainty and adds that there are many different kinds of risks that he broadly categorise into; business risk that directly will affect the business and static risk that is a part of everyday life. Becher (2008) however, would not refer to a specific classification of risk since risk is such a complex issue that depends on a large variety of factors. Brinnen (2008) explains that a part of risk management is to continuously assess the risks that exist and to look ahead of what potential risks that exists and how they could affect the company. Becher (2008) describes that the main goal with risk management is to be able to manage the risks and not to avoid them, so that you will not miss the opportunities.

“If you are trying to avoid the risks you are more likely to miss the opportunities. Risk management is to identify the risks and manage them, so that you can take advantage of the opportunities” (Becher, 2008)

In Billerud’s annual report 2007 the group reports; “If higher energy cost was the main theme of 2006, in 2007 it was wood costs”. The authors of this thesis are asking themselves - What will it be in 2008? This section will further on specify a number of identified risks for actors in the Swedish FPP industry.

4.1.1 Shift in Capital to Emerging Markets

When it comes to globalization and increased international trade Mellström (2008) thinks that: “One emerging trend is that we are becoming more internationalized and depending on other neighbour markets when it comes to price settings”, where a new trend is that the countries around the Baltic region is starting to operating on a mutual wood market. “Sveaskog is importing part of their wood, but we are also exporting to foreign countries, Finland, Germany and other countries in the Northern Europe. There have not been any major export volumes so far, but it is obvious that our competitor countries are starting to look towards Swedish raw material”. Mellström (2008) further adds; “We have reached a unique situation where we instead of importing is looking towards exporting raw material”.

When it comes to international competition Mellström (2008) do not thing that the lower production costs and availability of cheap raw material in emerging markets are a threat for Sveaskog due to long transportation distances. He says that there have to be much cheaper transportation if these markets should be regarded as threats. However, “On the other hand if you are building up new modern industries in South America where you get access to cheap raw materials, this could constitute a threat. Especially for the pulp industry” (Mellström, 2008). Håkansson (2008) brings up an interesting argument in the matter of globalization where she explains that there is two ways of viewing the future. Where one is the continued globalization and the other direction is towards higher protectionism. Håkansson (2008) further explains that Russia is one example related to this matter, where the increased export taxes can be seen as an expression of increased protectionism. She continues with another example, explain-
ing that China’s new role in the world market, being one of the greatest producing countries in the world, might lead to an increased protectionism towards the nation. Ericsson (2008) describes that while many industries have benefit from the economic growth in the emerging market the FPP industry has not been equal beneficial. This is agreed upon by Andrén (2008) that explains that China does not have much of own forestland in relation to its population, therefore a tactic has been to buy large volumes of recycling-paper from US and Europe. This matter has pushed up the prices for recycling-paper, which is why he sees China as a competitor when it comes to the fight for raw material. However, on the question of globalization Andrén (2008) answers: “*The ongoing globalisation enhance the worlds overall prosperity*”, he continues by saying that people that do not accept this development will paint themselves into a corner. Karlsson (2008) views globalization and the developments in the emerging markets as positive for the company, since SCA are receiving a higher demand from foreign markets. He concludes this by foretelling: “*You might receive tougher competition since someone can produce the same thing cheaper, but that is how the market is functioning and how the whole system is driving developments*” (Karlsson, 2008).

Becher (2008) believes that one of Södra’s upcoming competitors are the new emerging markets where new pulp mills are built, for example in South American countries. He explains that these countries have a cost advantage because of faster growing time of forestland and much lower production costs mainly from cheaper raw material. Scandinavian FPP companies on the other hand are more considered to be customers to Södra hence the fact of their focus on being a pulp supplier (Sandgren, 2008). Becher (2008) moreover explains that the South American and Indonesian forestland mainly consists of leaf trees whereas Sweden mostly has bark trees. To produce paper you need both types of fibres so in the future this could as well be an export opportunity for Södra, due to the need for bark trees. In a long-term perspective, Becher (2008) believes that globalization is positive, where there will be a higher consumption of paper and packaging products that will lead to a higher demand for Södra’s products. To add a third dimension to it, the emerging markets can not only be seen as competition and as an export opportunity, but also an important solution where Sandgren (2008) adds that it is profitable to import wood from South America where Södra buys half a million cubic metres of eucalyptus each year.

### 4.1.2 Overcapacity

The stagnated world market resulted in restocking and a decline in prices and in SCA’s annual report 2007 the group reported a year of improvements in a business environment with steadily intensifying challenges (SCA, 2008). Sakari (2008) states that the FPP industry characterises of a large variety of products, but a general theme is that there is over production in many areas. A trend because of the over production is that companies are becoming bigger and fewer, businesses are being closed down and productions are being streamlined. However, Sakari (2008) also points out that in a long-term perspective this will eventually smooth out. Ericsson (2008) further argues that overcapacity is a bit typical for the FPP industry and this has been the situation for the last years, but that it is cyclical and also affected by the state of the world economy. For example, now when the value of the US dollar is record low there is a shift in the business flow where it is cheaper to import from US than from Europe, which will further enhance the overcapacity situation in Europe (Ericsson, 2008).

Håkansson (2008) points out that overcapacity is one of the major challenges for Stora Enso pressing down the prices, even that the consumption continues to go up. This has forced Stora Enso to cut costs and increased efficiency in order to reduce excess produc-
tion to some extent, this has partly been done through production reductions and plant closures. Lindsten (2008) foretells that Stora Enso recently had to close their paper production in Norrsundet with around 300 employees, as well as their pulp mill in Kemijärvi in Finland. However, when discussing the matter of overcapacity in the Swedish FPP industry it is of high importance to keep the segments in the FPP industry separate, pointed out by Sandgren (2008) when reasoning:

“When it comes to the crises in the FPP industry you have to look at the different sections. Last year was one of the most beneficial years for the sawmill industry, so there were no crisis there. When looking at the pulp industry there have been 14 straight price increases during almost 4 years. The pulp industry has been strong for several years. Most problems are within the newspaper and printing paper industry. This partly depends on high productions and the fact that they have not been able to charge higher prices to customers. But it is not possible to generalize the whole industry, because there is no crisis within the whole FPP industry.”

4.1.3 Foreign Exchange Impact & Currency Risks

The weak trend in the US dollar, which has the most significant affect on the FPP industry compared to other currencies, have had an negative effect on earnings and the low exchange rate for the US dollar was increasing the pressure of supply on the European Market (Holmen, 2008). The risk that results from an increased exposure to currency risk mainly relates to the decline of the US dollar told by Berg (2008). He further describes that one of the most important currencies in the FPP industry is the US dollar, since the FPP industry is highly affected by the US market. This can be related to the fact that the US is one of the greatest importers of FPP products in the world along with its strong position in the world market (Swedish Forest Agency, 2007). In Stora Enso’s annual report 2007 the group states that; “The continued weakening of the US dollar put increasing pressure on margins, both directly and indirectly through the repatriation of European overseas volumes and the additional pressure of increasing dollar-based imports into European markets. This will remain a challenge in 2008 as well” (Stora Enso, 2008). Fornander (2008) also believes that the US dollar is highly important for the FPP industry in general and expresses that; “The US dollar is A and O”.

Ericsson (2008) lists the low US dollar exchange rate as one of the challenges with most influence on the Swedish FPP industry, but he also points out that the dollar exchange rate cannot be affected by a single company. Since its value depends on a large variety of factors and events where the only thing companies can do to prevent changes is to hedge against the volatility. When discussing the foreign exchange impact and currency risk with the respondents’ more part agreed upon their importance but referred to the set financial policy within their company that governs these matters in already outlined strategies.

4.1.4 Export & Import Taxes

“The first risk one can think of right now in the FPP industry is the issue of the Russian export tax”
(Fornander, 2008)

The Russian export tax was raised from 10 to 15 Euros for each cubic metre of wood in April 2008 and is expected to be raised to 50 Euro by the first of January 2009 (Östlund, 2008). Ostlund (2008) explains that during the last year the wood prices in Sweden have increased by 30 percent and one of the reasons is Russia’s imposed duties on the raw material. Ostlund (2008) further states that this will affect the FPP companies already pressured margins and the companies that are worse off is the ones that do not hold own forestland,
such as Stora Enso, while SCA and Holmen will be in a lightly better position. This can be put in relation to Lucas (2007) who discusses the potential threat of a continued increase of the Russian export tax as a devastating consequence for the FPP industry. Russia at the moment export around 20 million cubic metres of pulpwood to the Baltic region, which corresponds to the total supply for Stora Enso’s, Holmen’s and Billerud’s Swedish pulp and paper production according to Stefan Wirtén at the Swedish Forest Industries Federation (cited in Lucas, 2007).

Becher (2008) foretells that the Russian export tax on FPP products is something highly discussed in media at the moment, especially since the Scandinavian FPP industry import a high amount of raw material from Russia. Becher (2008) continues by explaining that a higher export tax will result in that companies previously importing pulpwood from Russia will stop. So even if Södra does not import from Russia, they will most likely be affected hence higher competition on wood supply in the area. Holmen previously bought pulp from Russia, but now with the increased export taxes Berg (2008) explains that both Finish and Swedish buyers have closed that supply source. Billerud buys around 25 percent of their forest supplies from abroad and even though not from Russia Sakari (2008) believes that the Russian export tax is highly alarming and will have a large effect on Billerud through higher price setting on the market. In this discussion Mellström (2008) adds that “The Russian tax has directly affected Sveaskog since we have businesses operations that imports from Russia. If you add 50 Euro/cubic metre that particular import volume will most likely disappear”. He continues; “To add power in this; with a lower volume on the wood market, the price for the remaining supply will increase. Since Sveaskog is a wood supplier, the price of the raw material that we support the industry with will then increase”. Mellström (2008) believes that it is both positive and negative, with emphasis on the positive side when it comes to Sveaskog’s situation hence their large amount of forestland. Fornander (2008) sees the Russian export tax from the stand point of the private forestland owners and argues that this is positive since it will strengthen their bargain power. Karlsson (2008) mentions the Russian export tax as a future risk for the FPP industry in general, but he does not see this as a big threat for a company such as SCA. Hence this he argues that SCA is less vulnerable since they hold own forestland and therefore has a stronger position than many other FPP companies. In this matter Lindsten (2008) foretells that Stora Enso has been forced to close down plants partly due to the drastic increase in wood supply prices. Stora Enso’s European wood supply CEO Salander cites (in Lindsten, 2008):

“It all started the warm Russian winter 2006/2007 that escalated the increase in the prices of wood. At the import from Baltic and Russia there were price increases up to 80 percent. And that was before the dramatic increase in the wood duties’ that Russia now has imposed. From the first of April this year the duties were raised with 50 percent to 15 Euros a cubic metre. But it looks like it is going to be even worse. From next year the duty’s can be raised to entire 50 Euros”

Håkansson (2008) clarifies that Stora Enso previously has bought raw material from Russia but not at the moment. Still the Russian taxes will affect Stora Enso indirect, since other actors that buy from Russia will change supplier and there will be a tougher fight for the wood supply.

Brinnen (2008) explains that one of the most alarming developments at the moment is the political risk. He states; “The situation with the Russian export tax is a typical political risk. This is very dramatic and evident”. He continues; “This can restrain the free trade but cannot be managed by an individual company and still it has a global impact on the whole industry”. Korsnäs is importing raw
material from Russia at the moment meaning that they continuously have to monitor the development and have a strategy on how to deal with the changes (Brinnen, 2008).

“We are not going to continue to import wood from Russia if they raise the duty to 50 Euros. With this increase probably no one will buy raw material from Russia anymore” (Brinnen, 2008).

4.1.5 Raw Material

“The general situation in the Scandinavia FPP industry is pretty tough right now. This comes from many reasons, whereas one is the imbalance between the market for raw material and industry capacity, in combination with the Russian export tax. The FPP industry has a high production capacity and there has been no raw material shortages as long as the Russians have been willing to supply the FPP raw material even that this has changed now. We have a tough competition between the finished products, where you cannot raise the prices as much as you might like. So every cost increase for the raw material will strike hard” He continues; “When it comes to the FPP companies’ results, the margin has been shrinking, so when looking at just a short-term perspective it does not look like it is great industry to be in at the moment. However, on a long-term perspective the FPP industry should be a prospective industry since we are using a sustainable raw material” (Brinnen, 2008)

From an industry perspective Berg (2008) explains that increased raw material prices in general include the price of; energy, electricity, pulp, oil, saw-timber, recyclable paper, water as well as timber. When referring to raw material in this section the focus will lie on wood/timber, pulp and recyclable paper. Section 4.1.6 will thereafter deal with risks concerning the raw materials of energy relating to electricity, water, wind and bio-energy.

At the moment Becher (2008) argues that the biggest challenge is the wood supply that he refers to as supply chain risk when companies are not able to get hold of raw material for their industries. He further explains that Södra has an advantageous position since they hold wood supply from their members. Still Becher (2008) points out that Södra cannot control the felling of the forestland in the same way as if they group would have owned the forestland. When looking at Södra from an organizational perspective the increase in raw material prices is negative since that leads to a weaker result for the organization. However, since they are owned by their members it is positive for each individual owner since they get more paid for their forest (Becher, 2008). Holmen also holds forestland and therefore holds a greater control over the supply chain according to Berg (2008) that further describes that this gives Holmen an advantage when the raw material price goes up. Berg (2008) continues that increased raw material prices will lead to an increased cost for the paper and packaging production, which result in a trade-off for Holmen hence being both forestland owner and in the same time raw material buyer. Increased profitability in one business area will thus result in a decreased profitability in other business areas (Berg, 2008). Billerud on the other hand buys 100 percent of their wood supply along with consuming around 5.5 million cubic metres of pulpwood and wood chips, there is large volumes in circulation. Since Billerud does not hold any forestland Sakari (2008) explains that the group is very vulnerable to market changes and price fluctuations in raw material. He continues; “If Billerud would have hold own forest, there would be an assurance of the supply of raw material needs and stabilising of the price settings” (Sakari, 2008)

Mellström (2008) that is responsible for wood supply at Sveaskog holds a somehow different opinion on the issue of high raw material prices; “It depends who you are asking and I guess that is what other that the raw material producer would say. If you are comparing with for example South
America, there are higher raw material costs in Sweden, but it is also a different type of raw materials. In comparing to other European countries Sweden has relatively low raw material prices”. This is supported by Andrén (2008) who explains that the price level for wood is lower in Sweden compared to other European countries, but he adds that Sweden has higher additional market costs. Andrén (2008) is convinced that the price level eventually will even out; whereas one argument for this is that the price level in Sweden will be pushed up by change in trade flow and increased competition of the raw material. This is not seen as positive for the FPP industry but Fornander (2008) adds that the industry has a rather dominant role in the market and for the individual forest owners a price increase in the raw material is only seen as positive. Karlsson (2008) describes the competition for raw material in the Swedish FPP industry in general by saying that “One has to fight for the sticks”. However, when it come to Brinnen’s (2008) stand in the raw material issue, he foretells; “This leads down to how competitive we can be against competitors producing to a lower cost. Here the market rules, and if we not get raw materials to reasonable prices this is a long-term risk for Korsnäs, but it also applies to all the companies’ in the FPP industry.” He further explains that Korsnäs needs around 4 million cubic metres wood for their production and since Korsnäs only possesses a small amount of forestland he sees increased raw material shortages and increased prices as the group’s most crucial risks.

Håkansson (2008) highlights that Stora Enso’s two main problems are: the increasing raw material prices and the overcapacity that is pressing down the prices. The biggest emphasis is however, placed on the challenges regarding the increased raw material price, whereas material costs for production have increased while Stora Enso has not been able to raise the end price to customers. Stora Enso holds no forestland making them vulnerable to shortage and changes in the raw material price. Stora Enso’s European wood supply CEO Salander states (in Lindsten, 2008): “The runaway wood prices can be seen as very sudden and it has indeed gone fast. The wood prices proportion of the total costs in Stora Enso has gone from 18 percent to 25 percent only the last three years”.

### 4.1.6 Energy & Transportation Costs

Ericsson (2008) states that energy costs and sources have an important part in the outlook for companies in the FPP industry. The energy situation can partly be controlled by the individual company where Ericsson (2008) explains that there are several strategies available. When it comes to rising energy prices companies can sign long-term agreements for energy supply. SCA for example has signed an agreement with the Norwegian energy company Statkraft to form a joint venture for a major investment in wind power (SCA, 2008). Billerud has also signed a long-term agreement concerning electricity supplies with Vattenfall in 2007, securing around 30 percent of the group’s electricity requirements at a fixed price (Billerud, 2008). Ericsson (2008) explains that companies are trying to find other ways of getting access to cheaper energy sources. One example of this is given by Andrén (2008) that explains that when producing pulp chemically you get a rest product called black liquor that can be used to create energy. Karlsson (2008) at SCA believes rising energy costs to be a risk since parts of the FPP industry is dependent on high energy consumption. Printing paper mills is most vulnerable to higher energy prices, due to high energy consumption, while the pulp production on the other hand is actually producing energy and the production process are energy self-sufficient. He continues by saying that one can also flip it
around and see this as an opportunity for other products, where the companies that hold own forestland can take advantage of the possibility to produce bio-energy. Karlsson (2008) explains that SCA has a bio-energy facility where 50 percent of the output goes internal and the other 50 percent external.

Berg (2008) explains Holmen’s great amount of energy consumption by putting it in the following context; “Holmen’s paper mill Braviken in Norrköping consumes more energy than the energy consumption in the whole city of Malmö”. Since the FPP industry is depending on high energy consumption an increase in the energy price will have a significant impact on its actors. According to Berg (2008) Holmen is 30 percent self supplied when it comes to energy whereas Holmen has signed a number of long term contracts in order to secure their energy shortage. This protects the company from price changes. Berg (2008) believes that companies that have to rely on outside suppliers for the majority of their energy will be more vulnerable to increased energy prices. Södra on the other hand can see increasing energy prices as solely positive since they are producing more energy than they are using in their production processes. Therefore Södra sells bio-energy on the market, meaning that rising energy prices are considered to be positive (Becher, 2008). Södra has a variety of energy sources such as bio-energy from remaining forest products, ‘green-energy’ from their pulp production as well as investments in wind power (Södra, 2008). Sandgren (2008) comment on Södra’s energy supply as follows; “Energy production is something we really believe in and energy in many forms will become Södra’s third leg”. Karlsson (2008) gives a different view on the bio-energy production where he explains that the increased usage of bio-energy can lead to an increased competition for the raw material. The same argument was brought up by Mellström (2008); “The FPP companies have to fight harder for their raw material. The large investments in this field will definitely lead to that a bigger amount of raw material will be burned into bio-energy and the raw material prices will be pushed up. Then the question is; if companies will be forced to close down on the traditional FPP industry. This is definitely a threat for the industry. However, for us as a raw material supplier, this is not a threat”. Here, Karlsson (2008) mentions the subvention on the bio-fuel side as a potential risk that could lead to a distorted competition. Karlsson (2008) then refers to the EU standard 2020 that could affect the FPP industry negatively since there will be a higher rivalry for the raw material, that might be burned instead of first being used in production. Karlsson (2008) does not directly will refer to this a as risk, still pointing out that in a way it is. Sandgren (2008) exemplifies; “By putting it into relation with each other; if burning one cubic metre of wood is worth 300 units, compared to one cubic metre pulp or produced paper that would be worth 3000 unit, one can see the incredible difference in value. This is something we have to be aware off, so that we don’t burn valuable raw material”. Ericsson (2008) describes that energy within the FPP industry is a very complex question and the outcome will vary from company to company and between the different segments, with the conclusion that the energy matter will play an important part in the future. “If you don’t have control over the energy supply, this will put a company in a vulnerable position, because this is a risk that could lead to very severe consequences” (Ericsson, 2008).

Another matter concerning the energy issue is the influence by governmental policies. This was brought up by Brinnen (2008) who discussed the implementation of the “kilometre charge” that can be seen as a threat for the FPP industry in general. This argument is agreed upon by Andrén (2008) highlighting that this regulation increase transportation costs for the FPP industry in particular hence the great usage of road logistics. Whereas he explains that the first area to be affected by this regulation is the bio-energy production. Since it will be more expensive to transport the leftovers from logging and therefore not be economic feasible to continue to use this as a bio-energy source. This is not positive from an environmental aspect hence it opposes the bio-energy usage and therefore according to
Andrén (2008) an incorrect political decision. Håkansson (2008) agrees upon the discussion on kilometre charge and adds the issue of the increased tax on diesel price escalating the transportation costs.

4.1.7 Sustainability & Increased Environmental Awareness

Becher (2008) believes that the increased attention on sustainability issues and the fact that forestland is a renewable resource is an opportunity since the FPP industry generates products that are recyclable along with creating energy. Karlsson’s (2008) outlook for the FPP industry is positive due to sustainability in the industry along with being based on a raw material that are growing and will continue to grow over time. He believes that a strong card for the future is the carbon dioxide matter, since forestland has the ability to absorb carbon dioxide and at the same delivers bio-energy. Berg (2008) believes that the increased interest for environment is positive for the FPP industry. Still, Berg (2008) brings up that some of the upcoming challenge for the FPP industry will be to decrease oil usage and improve their air pollution. Karlsson (2008) points out that on a long-term base, the sustainability issue will become more important, which is an opportunity for the FPP industry. The new sustainability standards set by EU to be fulfilled by 2020 requires that all countries should lower their carbon dioxide discharge with 20 percent as well as increase the use of renewable energy sources with 20 percent. Dagens Industri (2008) has estimated that Stora Enso will have to pay the largest bill due to their carbon dioxide discharge compared to other Swedish FPP companies and together with two other companies Stora Enso has been estimated to pay over SEK 1 billion a year due to the discharge (Dagens Industri, 2008). The fact that Sweden’s environmental minister has declared that Sweden should be the European country with the least discharge in 2020 can further affect the FPP industry in a negative way. This might result in that Swedish FPP companies will be forced abroad in order to produce in countries with lower environmental standards (Dagens Industri, 2008). Fornander (2008) adds that the high environmental standards set by the Swedish government can be seen as a set-back but also an opportunity for more environmental friendly products. In the same discussion Sandgren (2008) points out that the Swedish FPP industry will also be affected by the demand of bio-energy from other European countries. He further gives the example of Great Britain that needs to increase their bio-energy usage from 1.3 to 15 percent until 2020, which most likely will affect the future demand on the bio-energy market by distorting it. The EU standards can therefore be seen as both positive and negative depending on how one looks upon the situation.

The FPP companies have for a long time been known as being large polluters. Although Berg (2008) describes that the Swedish FPP industry has become much better at this point, whereas the most improvements have been done in the case of water pollution in connection to mills. He continues by foretelling that the FPP companies still are great air polluters, hence the usage of oil in production. Moreover the paper production is a large energy thief that requires large volumes of water in order dry and press the papers produced. In connection to the FPP industry’s work towards a greener production Fornander (2008) brings up the opportunity to invest in developing new FPP products. This can result in increased profitability for the firm along with favouring the total environmental development. Another way to invest in further development is brought up by Håkansson (2008) when talking about the importance of competent personnel within the FPP industry.

Sveaskog has a rather different position in the FPP industry when it comes to sustainability hence being owned by the state and therefore has more responsibility by managing forestland in an exemplary way to secure long-term sustainable development (Sveaskog, 2008).
The overall opinion on sustainability and increased environmental awareness can be captured by Andrén's (2008) statement;

“The forest has been given a position through the discussion of sustainability and climate change—it will lead to further developments in the FPP industry”

4.1.8 Climate Change & Unforeseen Events

In January 2005 the storm Gudrun hit the South of Sweden which resulted in a loss of a whole year profit, around 75 million cubic metres of forestland. The second natural catastrophe, in January 2007, was the hurricane Per which did not have such tremendous affect on the forest, but still damaged 16 million cubic metres of forest (SMHI, 2007). During 2005, the wood used by the FPP industry in Southern Sweden consisted entirely of timber felled by the storm, used continuously for another year or two (Swedish Forest Agency, 2006). Becher (2008) explains that after the storms almost six times the amount of what Södra usually fells on behalf of its members’ was felled, resulting in large amounts of raw material storages that stopped all import. Becher (2008) continues by saying that the storms did not result in a sever loss for Södra since they could store the excess supply to use for production in the years ahead. However, Sandgren (2008) points out that; “The storms are challenges that have occurred during the last years. If this continuous and we are getting more storms, it will in a long-term perspective be a risk for a company such as Södra, because of the negative effect on wood supply to the industry in the South of Sweden”.

Ericsson (2008) explains that storms usually have a great affect on private owners, but when it comes to the FPP companies this is not a major risk. Ericsson (2008) continues; “This is not something that will break the FPP industry”, instead the events can even be seen as positive for sawmills due to increased business. Berg (2008) describes that even if Holmen owns a large amount of forestland, they do not see storms as a major threat. Therefore Holmen have no forestland insurances and since their forestland is spread out they have concluded that the risk for damage is so unlikely. Sakari (2008) argues that in most times storms involves losses where the forestland owners will incur losses due to a lower quality of timber. For the industry the losses can relate to longer transportation distances for complementary wood supply and higher handling costs. However, Sakari (2008) concludes that;

“Storms come and go so this is something you just have to count with”

The fact that natural catastrophes do not have a great affect on the FPP industry was agreed upon by all interviewees in one or another way. Other aspects that can arise from storms and natural catastrophes are the potential increase of damaging insects such as the spruce bark beetle, damage from wildlife as well as increased forest fire risk (Swedish Forest Agency, 2006). Becher (2008) states that for Södra, insect attacks is a risk that they need to be aware off since if the forests get attacked, a large part of Södra’s raw material base will be damaged, that will lead to the destruction of forest and thus less raw material.

Forestlands have become more vulnerable since the start of the 20th century, not due to increasing storms rather due to several changes and damage to forest and forestry. Also the climate is changing when it comes to the average temperature, which is higher nowadays. This will eventually result in a longer growing season and less snow in the winter, which is positive for the growing of forests, but the prediction is also that the forestland will be exposed to more powerful winds according to the Swedish Forest Industries Federation (2006). Håkansson along with Fornander (2008) explain that the climate change can be
seen in different ways, whereas a warmer climate leads to higher growth, but it can also leads to more rain damaging the forestland. Concerning the risks that would result from climate change, the respondents were united in their beliefs that the shift in climate is not one of the most critical threats for the FPP industry or their companies.

4.1.9 Summary of the Risks within the Swedish FPP Industry

Rising export taxes, higher raw material price, supply shortage, tougher competition, record low dollar, overcapacity, sustainability issues and a soaring energy price. All these challenges impact the Swedish FPP industries and especially in combination with one another within the same time period will have a tremendous effect. Risks relating to financial matters such as currency exposure are not something that is new to companies acting in the global market, whereas most international companies have a financial policy dealing with risks in this matter. Another risk with close connection to the state of the global economy is overcapacity that is a typical trait within the FPP industry and easier for the FPP companies to manage. Globalization and the shift of capital to emerging markets involve both risks and opportunities where the net effect would be difficult to estimate. There is also the type of risks that one can never predict and not fully protect oneself from, such as unforeseen events. Risks given the most attention by the respondents’ where that the challenges that comes along with raw material shortages and the soaring energy price along with the up to date risk of increased export taxes.

4.2 Focus on Ownership of Forest

“To have control over its own wood raw material is a key part of the group’s long-term strategy. It provides a stable cash flow, reliable supplies and facilitates quality and cost control. This is becoming increasingly important with intensified competition for timber raw material in northern Europe and rising demand for biomass from energy sector, which confirms the value of the group’s long-term sustainability strategies” (SCA, 2008).

Forest is a unique investment that gives an investor the ability to regulate the cash-flow either by cash out the capital or let it grow. Still there is a trade-off when it comes to having own forest contrary buying forest raw material from others (LRF Konsult, 2008). Companies that hold forestland are less dependent on suppliers, the world market and currency shifts as the companies that buys raw material. Although a company holding forestland might face risks such as natural catastrophes and environmental issues that will arise as well as the disadvantage of having much capital tied up (Ericsson, 2008).

According to the Swedish Forest Agency (2007) Swedish forestland covered 23.0 million hectares in 2007 and the ownership classification of forestland was as shown in figure 4.1 as follows:

Figure 4.1 Classification of forestland ownership in Sweden
As one can see in figure 4.1 more part of the Swedish forestland is owned by private persons followed by forest companies and thereafter the Swedish state. In this research study the seven largest FPP companies in Sweden are investigated. These companies possess more than the 24 percent of the Swedish forestland as illustrated in figure 4.1. The companies described also represent both private persons' holdings forestland along with the state owned forest. As one can see in table 4.1 the majority of the seven FPP companies selected for investigation hold forestland in some way, whereas some hold forestland in Sweden and some abroad. Korsnäs, Holmen, SCA, Sveaskog and Södra all possess forestland in Sweden, whereas Stora Enso and Billerud do not. When it comes to Swedish forestland Mellström (2008) enlightens that Sveaskog is the outstanding largest owner with approximately 4.5 million hectares, standing for 15 percent of the total Swedish forestland, also shown in figure 4.1 as state forest. Out of this 3.4 million hectares are productive forestland, which will be the numbers considered for all FPP companies further on. Karlsson (2008) foretells that SCA possesses a total amount of 2.6 million hectares, whereas Andrén (2008) informs that Holmen holds 1 million hectares productive forestland. Brinnen (2008) adds that Korsnäs on the other hand holds only a small amount of 15,000 hectares of forestland after their two sale transactions of 300,000 hectares, first one third to Sveaskog in 2002 and thereafter the remaining parts except 5 percent to Bergvik Skog AB. He continues; “Korsnäs still manage more part of the foreland sold to Bergvik that also is their major supplier”. Becher (2008) informs that Södra has a rather different organization structure then the other FPP companies, hence being an economic association. One can discuss the matter if Södra own forestland or not, since Södra's only indirectly holds forestland through its members’. But since Södra is an organization representing its owners, which own 2.3 million hectares forestland Sandgren (2008) thinks that one can say that Södra holds forestland, but still indirect. Södra also holds forestland abroad in the Baltic region, more precise 12,000 hectares (Becher, 2008). Although he continues by pointing out the negative aspect that comes with being owned by its “suppliers” since Södra cannot control the felling activity of their members’ forestland as would have been the case if holding own forestland. Still they can stir their members through pricing by increasing the prices if the need more raw materials, thus more members are willing to sell their forest. Håkansson (2008) explains that Stora Enso also has made the strategic decision to invest in forestland abroad, located in South America and Asia where they also have plants. The only FPP company described in this research that never has hold any forestland neither in Sweden nor abroad is Billerud (Billerud, 2008). Stora Enso on the other hand did hold a large amount of Swedish forestland before they decided to sell it of in 2004 to the company Bergvik, told by Håkansson (2008) in line with Korsnäs explained by Brinnen (2008) above. Ericsson (2008) adds that Stora Enso probably would not have taken the same decision of selling of the forestland in question today, hence the increased awareness of wood supply control. Ericsson (2008) continues, telling that companies’ investing in forestland abroad has the advantage to diversify the company’s risk within the industry. He further discuss that Stora Enso’s recent bought forestland in Brazil along with starting up a pulp mill, which he believes to be a strategic good move to control wood supply despite the large start up costs. This can also be seen as a good investment for the future according to Håkansson (2008), due to the increased global competition on raw material. Karlsson (2008) agrees to some extent about the reasoning of controlling wood supply through investing in foreign forestland. Still he explains that SCA does not hold forestland abroad hence the high transportation costs along with other risks connected to the foreign market in question.
4.2.1 Self-sufficiency when it comes to Wood Supply

Even though if the majority of the seven FPP companies described in this research hold forestland it is only Södra that is said to be self-sufficient when it comes to wood supply, pointed out by Becher (2008). Still under normal circumstances Södra is not usually self-sufficient, but the recent storms resulted in extraordinary amounts of logging leading to excess storing of wood supply. Becher (2008) although foresees a different future, meaning that Södra will become dependent on suppliers to some extent again in the future since the forestland will take long time to grow up again. Stora Enso and Billerud that on the other hand hold no forestland in Sweden are totally dependent on wood suppliers (Håkansson, Sakari, 2008). Sakari (2008) states: “If Billerud had held own forestland, there would be an assurance of the raw material supply and stabilising of the price settings. Billerud has never possessed any forestland and has no plans to buy forestland at the moment since there are such large volumes that would be needed and thus too much money involved. There is approximately around 200,000 hectares of forest in connection to one mill and there is no market available to buy these kinds of volumes. Even though if Billerud import 25 percent of their wood supply we neither have any plans of buying forestland from abroad since that would involve too long transportations and if you are going to hold own forests it has to be in connection to the production mills”. He continues by explaining Billerud’s advantage of not tying up any capital by holding no forestland. Håkansson (2008) describes Stora Enso to be in a similar situation as Billerud hence not holding any forestland in Sweden is totally dependent upon their suppliers, where Bergvik is their largest supplier. She adds that Stora Enso holds 70 percent in the company Sydved, which supply Stora Enso with wood supply by purchasing from private owners in the south and middle of Sweden. Håkansson moreover foretells that Stora Enso does not only hold forestland abroad they also import wood supply, mostly from Scotland, South America, Norway and Denmark. Korsnäs that only holds a small amount of 15,000 hectares of forestland in Sweden can according to Brinnen (2008) be accounted as totally dependent upon their suppliers. SCA on the other hand did not sell their forest when many others did like Stora Enso and Korsnäs. Karlsson (2008) foretells that the underlying argument for this decision was that ownership of forestland secures part of their raw material supply and it also gives a stable cash-flow. Despite the fact that SCA holds 2.6 million hectares forestland in Sweden the company is only self-sufficient up to around 50 to 60 percent. Meaning that they buy wood supply from private forest owners to complement what they don’t have as Karlsson puts it. They mainly buy from Swedish private forest owners but also a small proportion is imported from Estonia, Lithuania and Russia. Holmen has in proportion to SCA similar self-sufficiency numbers at 55 to 60 percent, whereas they import 10 percent of their shortage. As most other FPP companies they have no forestland abroad but would be interested in buying if finding any of appropriate size according to Andrén (2008).

Despite the fact that Sveaskog is the outstanding largest owner of Swedish forestland according to Mellström (2008) the company is not self-sufficient when it comes to wood supply. Mellström continues to point out that Sveaskog is self-sufficient up to 43 per cent, therefore they also buy and trade raw material. Sveaskog import around 30 percent of the external wood supply where most volumes are bought from Russia, Finland and the Baltic region (Mellström, 2008). The fact that Sveaskog is owned by the Swedish state gives them a rather different approach to the industry since their strategy incorporates an overall interest in the prosperity of the FPP industry. As an example Mellström (2008) points out that Sveaskog actually sell of small parts of their own forestland to Swedish private persons in order to strengthen the private and local forestry. Still he believes that it would be preferable for Sveaskog to buy more forestland, or as he puts it: “Sell of smaller areas of forestland and then buy new large pieces of forestland”, in order to strengthen the Swedish FPP industry as a
whole. Mellström also thinks that it would be a strategic move to buy forestland abroad close to Sweden, as for example Baltic region but this has not been put in practice yet.

In order to give an overview of the Swedish FPP companies described in this study when it comes to how much forestland they hold in Sweden along with their self-sufficiency of wood supply figure 4.2 below has been formed.

![Wood Supply Control in the Swedish FPP industry](image)

**Figure 4.2 Wood supply control**

4.2.2 Energy & the Forest

When looking at the dilemma of holding forestland or not the energy aspect is of great importance, hence forestland can provide a company with bio-energy. Sandgren (2008) explains that since Södra’s main concept is to produce pulp they can at the same time yield energy through their production process. This results in more energy then they need for production, which they sell on the open market. He continues by arguing that forest owners can use the leftovers from the trees, like stumps and branches for burn into energy in the production mills. This has given Södra the advantage to be 100 percent self-sufficient when it comes to energy needs. This results in that the rising energy prices is positive for Södra, even thought at the same time it is not a big opportunity since they are not producing a very large amount of excess bio-energy (Becher, 2008).

Another situation can be seen in the companies’ Stora Enso, Billerud and Kornsäs that do not hold any forestland in Sweden or very small amounts and therefore no self-supply of bio-energy (Håkansson, Sakari, Brinnen, 2008). Ericsson (2008) discussed this matter by
bringing up the example of Stora Enso’s strategic choice to first sell off their previous self-supporting power system along with selling of all their forestland in Sweden. Billerud that is in the same situation as Stora Enso, but on the other hand never had either forest nor own energy support, buys bio-energy for their productions along with buying forest products to produce own bio-energy (Sakari, 2008). Ericsson continues to argue that the three companies mentioned above do not have the same control over the raw material supply nor the energy supply. Brinnen (2008) foretells that Korsnäs in similarity to Stora Enso sold their internal bio-energy production, giving them a more vulnerable position in the energy matter. Ericsson (2008) believes that Stora Enso’s strategy of selling of the energy production had the underlying purpose to free capital and to specialise on their core activities. Still he concludes that this was not a very good decision since they are now in a more vulnerable to increases in the energy price.

Karlsson (2008) foretells that SCA has a bio-energy facility that produces large amounts of energy, where 50 percent goes internal and the other 50 percent external. Berg (2008) explains that Holmen is 30 percent self-supplied when it comes to energy hence their production of pulp and great amount of forestland. Mellström (2008) continuously discusses the advantage of holding forestland when it comes to the energy question by foretelling that the companies with greater volumes of forestland, like Sveaskog, Södra and SCA can see increases in the energy price as positive, hence their advantage of holding such great bio-energy source. He also brings up the potential issue evolving from EU’s 2020 standard which will result in an increase in demand for bio-energy followed by a struggle for the forest raw material. This concern is shared by Karlsson (2008) hence the increased competition for raw material.

4.2.3 Pros & Cons of Holding Forestland

As previously stated and also seen in table 4.1 five out of seven FPP companies interviewed hold forestland in Sweden. The pros and cons of holding forestland will now be introduced, starting off with the arguments of not holding forestland followed by the arguments for holding forestland.

The consequences of holding forestland is partly discussed by Håkansson (2008) who considers that Stora Enso’s strategic decision to sell of their forestland to be a good way to cultivate their operations. She states: “Stora Enso is now specialists in what they do and can focus on the areas that they are best in, while outsourcing the other functions”. By doing so they have been able to specialize in their core business area that is producing paper products, packaging and forest products, leaving the handling of forestland to professionals in that area and therefore getting rid of the cost of controlling the whole supply chain along with better managed forests (Stora Enso, 2008). Korsnäs is another FPP company that has made the strategic decision of cultivating their operations by selling of their majority of forestland to Sveaskog and Bergvik told by Brinnen, (2008). Brinnen further explains: “If Korsnäs had been a company focusing on more general FPP products this decision might had been seen as odd”. But since Korsnäs’s area of expertise lies within packaging the capital gained from the sell-off can be seen as better invested in the carton board company AssiDomän Cartonboard now called Korsnäs Frövi (Brinnen, 2008). Becher (2008) agrees with Håkansson that it is better if people with expertise handle forestland as for example the private owners instead of large companies. He continues by saying that this is the case of Södra where the members hold the forest and also manage it. Another positive aspect of not holding forestland is according to Sakari and Mellström (2008) that the company in question does not tie up a large amount of capital, which gives more free capital to invest in other activities that could yield a higher rate of return and thus profitability. This is a potential way to grow faster and develop along
with set objectives (Karlsson, 2008). Also natural catastrophes that can destroy or damage forestland as for example the recent storms that had a negative effect on the forestland owners in the areas impacted. Hákansson (2008) points out that Stora Enso did not lose any forestland in the south of Sweden hence that they sold the forestland the year before. Although Ericson (2008) explains that storms are not a major risk or a reason not to hold forest for the FPP companies. He concludes the discussion by saying: “This is not something that will break the FPP industry”. Still there are of course other damages like fire, snow, rain along with insect attacks that can destroy large parts of forestland and by that much assets for the forestland owner. Brinnen (2008) moreover adds that if a company should hold forestland they need to hold huge volumes in order to take advantage from it depending on changes in the business cycle. This is agreed upon by Sakari (2008) that believes that “If one should possess forestland one need to have a lot”. He also argues that holding forestland during a recession can be risky hence decreasing demand along with having much capital tied up. Fornander (2008) continues by explaining the harsh situation a forestland owner can face when raw material prices decrease, pushing the owner to cut costs in the handling of forestland and therefore reduce the quality.

A positive aspect of holding forestland told by Becher (2008) is that forestland is a source for producing bio-energy, either from creating energy when producing or by using “leftovers” from trees, like stumps and branches to burn into energy in the production mills. Becher further points out the advantageous production of pulp, where much more energy is produced then being consumed and therefore sold to make profit from. Karlsson (2008) moreover states that: “Three to four years ago you where considered to be stupid if you did not sell of your forestland, whereas today it’s the other way around and you are considered to be genius that decided to keep your forest”, this proves the sensitiveness in the market but also that the decision of holding forest has proven to be the right choice in the end. He carries on by sharing his personal view on the reasoning for selling of forestland as a way to free capital that could be invested in other projects or areas. This is a potential way to grow faster and develop along with set objectives, still Karlsson argues: “But the question is if this way is a better way of using the money?” Moreover his personal opinion is that: “By holding forestland you can develop better ways of managing the forest and felling. By controlling the whole supply chain from forestland to the end product on can improve the process in several ways”. A more general opinion hold by LRF Konsult (2008) is that forest is an asset that has increased in value over time. By owning forestland one can gain tax benefits along with a stable future investment (LRF Konsult, 2008). Despite the fact that Billerud does not hold any forestland Sakari (2008) believes that there is a wish to do so. Sakari’s (2008) own opinion is that the ones who have sold their forest lately made the wrong decision, hence the control of wood supply and get bio-energy out of it.

Even if nature catastrophes can be seen as consequences for the forestland owners, there are ways to insure the forestland for such matter. When the storm Gudrun attacked Sweden forestland for SEK 30 billion was destroyed, still only 40 percent of the affected forestland owners were insurance against stroms (Swedish Forest Agency, 2006). In 2007 LRF Konsult and Swedbank’s (2008) reported that 13 percent of all forestland owners corresponding to 1.5 million hectares of forestland are lacking insurance. LRF Konsult (2008) believes the underlying reason for this is the increased price. Berg (2008) adds that the chances for a storm to occur are so small in relation to the price of insurance. Therefore Holmen does not insure any of their forestland (Berg, 2008). Fornander (2008) brings up the insurance matter by describing the increased insurance cost resulting from the abnormal attacks of storms having a negative effect on the forestland owners.
5 Analysis

Chapter five will present an analysis by applying the findings to the theoretical frame. Risks identified will first be introduced and classified by adapting the Risk radar along with an assessment. Thereafter the dilemma of holding forestland will be discussed.

5.1 Risks within the Swedish FPP Industry

Fishkin, (2006) states that risk is about future events, occurrences, or outcomes. Where risk is an abstract term that can be put into different contexts and that is complex as well as difficult to measure (Vaughan, 1997). This has become clear during the research process and it is almost impossible to state a definition of risk that applies to all the risks and challenges within the FPP industry. When it comes to the definition of risk, Becher refers to the negative aspects in risks and the positive aspects of opportunities. This variation can be both positive and negative, but Becher is using the term risk to relate to the negative variation from the expected outcome and opportunity to the positive variation. This reflects Vaughan (1997) opinion that the two common elements are the notion of an indeterminate outcome and that at least one of the possible outcomes is undesirable. It also matches Damodaran (2002) definition of risk that can be captured by the Chinese symbol for risk, where the first symbol is the symbol for danger while the second is the symbol for opportunity, which makes risk a mix of danger and opportunity. This corresponds to Karlsson’s believe that risks are not only negative risks and he explains that the forest industry has to adjust so that they can turn the potential risks into opportunities.

Vaughan (1997) argues that a unified theme in virtually all definitions of risk management is that it concerns risk, the chance of loss and how to manage risk. However, risk management is a very broad subject where the actual goals and implemented strategies depends on the nature of the risk and what area of the organization that it relates to. This thesis will adapt a general stand in this field that refers to Becher who describes that; “Risk management is to identify the risk, manage them, so that you can take advantage of the opportunities”. As understood after interviewing the risk managers, Becher and Berg there is no single objective of risk management corresponding to Vaughan’s (1997) opinion that it is inadequate to talk about a single objective of risk management. Vaughan suggests that there are two main objectives which is to minimizing the adverse effects of risk and minimize the cost of doing so. These two objectives incorporate many aspects that can involve anything from insurance matters to higher strategic decision makings within the organization. Brinnen’s opinion when it comes to risk management is that it involves a continuous assessment of existing and potential risks. Risk management within the described companies in this thesis is not solely the task of the persons entitled the position risk manger and it is just as much a part of the CEO’s task, since he/she needs to set the strategic direction of the organization and adjust operations to changed conditions and future uncertainties. Mehr and Hedges (in Vaughan, 1997) classifies the objectives of risk management into; pre-loss objectives and post-loss objectives. They further describe that pre-loss objectives relates to the economy and to avoid anxiety, which includes management of risks that relates to challenges that are able to prevent as for example through insure assets and plants along with being updated and educated in the areas of potential risk. When it comes to the FPP industry in Sweden pre-loss objectives Berg relates to insure forestland whereas Håkansson points out the importance of having well educated employees in order to prevent predictable issues. Mehr and Hedges
(in Vaughan, 1997) moreover explain post-loss objectives as relating to the speed of comprehensiveness and recovery. An example from the Swedish FPP industry was brought up by Ericsson when describing the recovery period after the storms attacking the south of Sweden as well as the clear up work and handling the damaged timber. Also here well educated employees are of high importance, hence handling unforeseen events along with being exposed for new situations. This discussion can be concluded by Deloach’s (2000) argument that the development within companies are going towards a more integrated risk awareness that has a more strategic perspective.

5.2 Identification of Risks

Vaughan (1997) describes risk analysis to consist of two elements; risk identification and risk assessment. Risk identification will be applied in this section whereas risk assessment will be dealt with in section 5.3. Vaughan (1997) further describes risk identification as an ongoing process; when the business environment and the organization change so does the risk exposure. He continues by reffering to identification as a task of discovering and listing the risks to which a business might be exposed to. Therefore this analysis will identify the major risks within the FPP industry in Sweden. There are an uncountable number of risks that may impact profit and performance for companies both acting on the local as well as global market (PwC, 2008). Lindsten (2008), foretells that the FPP industry is under a lot of pressure at the moment where there are many issues worrying the actors. In order to clarify the challenges and opportunities in today’s Swedish FPP industry figure 5.1 has been compiled to give an overview of the identified risks in this research.

Figure 5.1 Identified risks within the Swedish FPP industry
5.2.1 Shift in Capital to Emerging Markets

“The ongoing globalization enhance the world’s overall prosperity” (Andrén, 2008)

Andrén continues by saying that people not accepting this development will paint themselves into a corner. Johansson (2000) further explains that as long as world markets remain open there is no stopping the spread of global competition, which goes in line with PwC’s (2007) findings of an economic paradigm leading to increased capital towards the emerging markets. When it comes to the FPP industry PwC (2007) argues that the competitive advantage continues to shift towards the emerging markets. This corresponds to Becher’s description of Södra’s biggest competitors that are the new emerging countries, as for example the South American countries Brazil and Uruguay. In line with PwC’s (2007) findings Becher explains that these countries have cost advantages such as faster growing time of forestland and much lower production costs. This concern involves Porter’s (1980) force of the threat from new competitors that can push down the market price and thus lead to lower profitability. Mellström on the other hand does not thinks that lower raw material prices in the emerging markets are threat for Sveaskog due to long transportation distance. He argues that the transportation costs have to become much lower if these markets should be regarded as threats. However, he adds that: “On the other hand if you are building up new modern industries in South America where you get access to cheap raw materials, this could constitute a threat. Especially for the pulp industry”.

Andrén holds the opinion that China is an emerging market affecting the FPP industry, which goes in line with PwC’s argument that the FPP industry continues to be driven by the emerging markets, such as China that has become the world’s second largest producer of wood and paper products. PwC (2007) further argues that China’s continued growth and demand for raw materials has pressured the supply. This was also brought up by Andrén explaining that China has affected the FPP industry somewhat negative hence their buyouts of European recycle paper to support their own paper production in China. Håkansson agrees upon the major effect China has had on the world market, followed by an interesting future aspect of the possibility that this could result in an increased protectionism throughout the world economy. Ericsson also takes a cautious stand when it comes to the merge if the emerging markets’, explaining that in comparison to other industries companies acting within the FPP industry has not been able to take part of the advantages resulting from the economical boom in the emerging markets. Brooks and Weatherston (2000) bring both opportunities and threats when it comes to the growth of the emerging market. One of the opportunities Brooks and Weatherston mention is the possibility to get access to new markets, which can be linked to the case of SCA, where Karlsson views globalization as positive hence higher demand from foreign markets. Becher also sees the positive aspects that come with globalization. By explaining that; even if he sees emerging markets as threats in the way of increased competition he can also see the opportunities. He explains that production mills located in South America and Indonesia for example also can be seen as future export opportunities for Södra that produce much pulp. In a long-term perspective, Becher believes that globalization is positive, hence the increased future consumption of paper and packaging products that will lead to a higher demand for Södra’s products. Karlsson (2008) concludes this discussion by: “You might receive tougher competition since someone can produce the same thing cheaper, but that is how the market is functioning and how the whole system is driving developments”.
5.2.2 Overcapacity

PwC (2007) reports that the FPP companies in Western Europe still face overcapacity along with increased global competition. The same argument was brought up by Ericsson who argues that overcapacity is a bit typical for the FPP industry, but that it is cyclical and also affected by the state of the world economy. This depends upon market conditions where Hollensen (2007) describes that the growth rate of the market and cost structure tend to lead to price cuts in order to fill capacity. Sakari agrees with Ericsson saying that the FFP industry characteristics of a large variety of products, but a general theme is that there is over production in many areas. He further explains that a trend because of the over production is that companies are becoming bigger and fewer, mills are being closed down and productions are being streamlined. This corresponds to the findings of PwC (2007) that argues that the overcapacity has been reduced to some extent through production curtailments and plant closures. This was confirmed by Andrén and Håkansson with great concern. Håkansson further explains that Stora Enso has faced this matter through production reduction. Therefore the group has closed their paper production in Norrsundet as well as their pulp mill in Kemijärvi in Finland according to Lindsted (2008), whereas Holmen is streamlining their business to some extent. This can be linked to Porter’s (1980) argument that a firm needs to balance their own position against the state of the whole industry in order to overcome the intense rivalry. When it comes to the FPP industry one important feature is its diversity, where Sandgren points out the importance of not generalizing the whole industry in between the different sectors, hence one sector can take one turn not affecting the others and the other way around. However, Sakari points out that in a long-term perspective the overcapacity will eventually be smoothen out.

5.2.3 Foreign Exchange Impact & Currency Risks

According to Hollensen (2007) the economic factors affecting the macro environment are of great diversity and a major determent of market potentials. Hollensen further explains that currency movements can slowdown or enhance trade between countries because of price changes in terms of foreign currency. Many of the companies in the FPP industry are global companies that are exposed to different kinds of market risks where PwC (2007) argues that FPP companies are subjects to fluctuations in foreign exchange rates, often incurring because the costs of production is in one currency and selling is in another. PwC (2007) further states that trade in most FPP products is commonly denominated in US dollars and that the trend of the US dollar weakening relative to currencies of other FPP producing countries leads to a higher volatility against changes in the value of the US dollar. This was confirmed by Berg that describes that the most important currency in the FPP industry is the US dollar. Fornander further expressed; “The US dollar is A and O” hence its importance for the FPP industry in general along with the US’s high influence on the market. Most of the respondents mentioned the risk that results from an increased exposure to currency risk, but as pointed out by Ericsson the dollar exchange rate cannot be affected by a single company and that it depends on a large variety of factors and event. However, even that the drop in the US dollar has had great affects on earning, it is not considered being one of the most critical risks. This is something that impacts almost all actors in the world market and it is impossible to control or affect. These risks are govern by financial policies that exists at the chosen companies which means that the companies are well aware of the exchange rate risk and have therefore implemented policies in how to handle this matter.
5.2.4 Export & Import Taxes

“It all started the warm Russian winter 2006/2007 that escalated the increase in the prices of wood. At the import from Baltic and Russia there were price increases up to 80 percent. And that was before the dramatic increase in the wood duties’ that Russia now has imposed. From the first of April this year the duties were raised with 50 percent to 15 Euros a cubic metre. But it looks like it is going to be even worse. From next year the duty's can be raised to entire 50 Euros” (Salander cited in Lindsten, 2008)

Hollensen (2007) describes that politics in the international market are complex when it comes to governmental policies. This applies to the FPP industry in Sweden where one of the largest issues in this market right now is elevating Russian export tax. Brinnen states; “The situation with the Russian export tax is a typical political risk. This is very dramatic and evident”. Lucas (2007) further explains that the Russian export tax has since April 2008 been raised to 15 Euros for each cubic metre of wood and is expected to be raised to 50 Euro by the first of January 2009 (Lucas, 2007). Brooks and Weatherston (2000) declare that such governmental policies are a source of entry barrier to new markets where governments can limit or even close entry into industries with control such as introducing regulations or limiting access to raw material. Putting this in relation to the FPP industry one may bring up the subject of export and import taxes affecting the trade hence political influence (PwC, 2007). Östlund (2008) describes that the effects on the Swedish FPP industry so far has been that during the last year the wood prices in Sweden have increased by 30 percent and one of the reasons is Russia’s imposed duties on the raw material. Östlund (2008) further states that this will affect the FPP companies already pressured margins and the companies that are worse off is the ones that do not hold own forestland. The alarming situation with the Russian export tax was mentioned by all the interviewees where they believe this to affect the whole Swedish FPP industry. Brinnen continues “This can restrain the free trade but cannot be managed by an individual company and still it has a global impact on the whole industry”.

In international markets BPP (2000) suggests that foreign legislation may affect a firm’s trade with a particular country, where countries can legislate for import/export control. Becher states that the increased Russian export tax will result in that companies previously importing pulpwood from Russia will stop. Despite the fact that Södra does not import raw material from Russia, they will still be affected. In this discussion Mellström adds that “The Russian tax has directly affected Sveaskog since we have businesses operations that imports from Russia. If you add 50 Euro/cubic metre that particular import volume will most likely disappear”. Still he continues by explaining that this will affect the price setting of raw material and since Sveaskog possesses most forestland of the FPP companies in Sweden this can be seen as an advantage when prices are going up. Fornander that takes the standpoint of the private forest owners also argues that from their side the Russian tax gives them given them a stronger position in the market and it is therefore viewed as positive. Porter (1980) explains that when suppliers get higher bargain power they can charge higher prices. This is one of the rules that govern the competition within an industry and determents an industry’s attractiveness. Sakari, Karlsson, Becher and Håkansson all highlights the Russian export tax as a risk that is highly alarming and that it will have a large effect for the Swedish FPP industry through a higher price setting on the market. This will lead to higher competition for wood supply and when relating this to Porter (1980) the FPP industry will lose attractiveness and in the long-run profitability.
5.2.5 Raw Material

A significant risk for companies within the FPP industry in Western Europe is the increasing costs of raw material such as wood, pulp and recovered paper (PwC, 2007). Becher argues that today's biggest challenge is the raw material supply of wood that he is referring to as supply chain risk, meaning that companies are not able to get hold of raw material for their industries. Berg explains that increased raw material prices in general includes the price of; energy, electricity, pulp, oil, saw-timber, recyclable paper, water as well as timber. When referring to raw material in this section, the focus will lie on timber, pulp and recyclable paper where energy has a separate section in 5.2.6. Billerud that does not hold any forestland has a very vulnerable position when the market changes and price fluctuations occur according to Sakari. This is supported by PwC (2007) that argues that raw material costs are cyclical, so a period of low product prices or high raw material costs could affect profitability where companies that are relying on imported wood may be forced to pay higher prices for raw materials. This matter was further confirmed by Sakari that states; “If Billerud would have hold own forest, there would be an assurance of the supply of raw material needs and stabilizing of the price settings”. According to Brindley (2004) the dependence for raw material can also be connected to supplier risk where companies dependent on suppliers and their ability to deliver in time and to a set quality will be more vulnerable to harmful changes, as in Billeruds case. The above discussion also applies to Korsnäs as Brinnen describes that the company needs around 4 million cubic metres of wood for their production. Brinnen sees increased raw material and the threat of shortages as the biggest risk for the group and he describes that even small price increases are having a huge effect on profitability and the margins continues to shrink which in inline with PwC’s (2007) reasoning above.

Holmen on the other hand holds forestland and therefore has greater control over the supply chain according to Berg. He further describes that this gives Holmen an advantage when raw material prices for wood goes up. Södra also has an advantageous position compared to other competitors since they at the moment are 100 percent self-supplied when it comes to raw material from their members. Being an economic association, Södra has a rather different situation then other FPP companies told by Becher. For Södra as a company an increase in raw material prices is negative but since they are owned by their members it is positive for each individual owner since they get more paid for their forest. As described by Brooks and Weatherston (2000) there needs to be a balance between demand and supply and even if Södra is an economic association it is still managed as a profit maximizing company. This correlates to one of Porters five forces that set industry competitiveness, namely the bargaining power of suppliers. Porter (1980) describes that the suppliers bargaining power affects the prices of raw materials and inputs. This can also be put in practise by the case of Stora Enso since they buy all of their wood supply from external suppliers according to Håkansson. Håkansson highlights that both of Stora Enso’s main problems are related to the raw material issue hence being: increased raw material price and overcapacity. They are both crucial where increased costs in combination with a limit on the prices that they can charge, leads to shrinking margins and lower profit. The biggest emphasis is however, placed on the challenges regarding the increase in the raw material price. Stora Enso’s wood supply CEO Salander states (in Lindsten, 2008): “The runaway wood prices can be seen as very sudden and it has indeed increased fast. The wood prices proportion of the total costs in Stora Enso has gone from 18 percent to 25 percent only the last three years”. For Stora Enso the barging power of suppliers plays an important role for their competitiveness in the industry which is supporting Porters (1980) argument that the profitability of a firms is highly depending on the strength of this identified force. Karlsson also mentions the competition for raw material that could lead to a shortage of supply as one of the most impor-
tant risks within the Swedish FPP industry. Once again Porter’s force of bargain power of suppliers becomes relevant, however when it come to SCA Karlsson points out that the raw material supply is not one of their biggest risks compared to competitors’, since SCA holds own forestland. This gives SCA a stronger position on the market even that they are not totally sufficient in this matter. To secure parts of the supply goes in line with Porter’s (1980) argument that both industry attractiveness and competitive positions can be influenced or even changed by a firm.

However, it is also important to see the raw material prices from another perspective and Mellström holds a rather different opinion when it comes to this matter. On the question of the so posed high raw material price he answers: “It depends who you are asking and I guess that is what other actors that the raw material suppliers would say. If you are comparing with for example South America, there are higher raw material costs in Sweden, but it is also a different type of raw material. Compared to other European countries Sweden actually has relatively low raw material prices”.

Fornander continues by saying that the FPP companies have a dominant role in the Swedish FPP industry in comparison to the private forestland owners. When looking from that point of view the FPP companies holds the bargain power of buyers which is another factor that determines industry competitiveness according to Porter (1980). Andrén agrees that the price level for wood is lower in Sweden in comparison to other European countries, although he is convinced that the price levels eventually will even out. This could be interpreted that from the industry’s perspective will the bargain power of suppliers most likely be stronger in the future. From a general industry perspective, increased bargain power from the suppliers result in that supply, cost and quantity of raw materials becomes an important risk. According to PwC (2007) this is a risk for companies where it is argued that low product prices in combination with high raw material costs will push down the margins. This goes in line with Brooks and Weatherston (2000) that point out that the price of the factors of production such as costs of raw materials influence firms output decisions.

Hence this Stora Enso has taken the decision to slim down productions to meet the higher raw material costs (Stora Enso, 2008). This is a not just the situation for one company and this development has also been noticed by PwC (2007) that reports that companies have been forced to cut costs and increased efficiency that has resulted in production reduction and close downs of mills. However, the effect of the challenges in raw material shortages and increased raw material prices along with their extent has to be seen from each firm’s position alone; hence the different segments in the FPP industry. In line with Vaughan’s (1997) argument that risk is an abstract term that can be put into different contexts as well as Deloach (2000) opinion that the challenge with risks is that its context depends upon whose perspective you take. Holmen for example, holds around 1 million hectares forestland, meaning that an increase in raw material price is not seen as an immediate threat for the company. A price increase of this kind can even be seen as positive according to Berg. Simultaneously Berg points out that an increase in raw material price leads to increased cost for Holmen’s paper and packaging production. When being active in several sector of the FPP industry, as many of the companies described, increased profitability in one area can result in a decrease of profitability in another business area. Berg relates this matter of being a trade-off for Holmen, being both forestland owner and in the same time raw material buyer. The discussion above highlights Crouhy (2005) argument that risk is a complex term where you must measure the influence of the risk factors on each other. The punch-line when it comes to the challenge of raw material shortage and increased raw material prices will not have the same effect for the individual firms in the FPP industry and the different segments of the industry.
5.2.6 Energy & Transportation Costs

When it comes to technological factors Hollensen (2007) brings up the following with direct connection to the FPP industry in Sweden: energy usage, sources, and costs, transportation and R&D. All the respondents in this research study were agreed upon that increased energy costs has become a major theme in the development of the FPP industry lately. Some of the interviewees saw it as a major threat whereas others saw it as an opportunity to profit more from their bio-energy production. The energy concern is highlighted by PwC (2007) stating that fluctuations in energy prices and access to supplies pose a clear challenge to companies in the FPP industry where a large swing in prices could trigger economic shock. Another opinion that were commonly held by the interviewees are the fact that an increase in energy price would affect the FPP industry segments differently, where the paper production are considered to be most negatively affected hence the great amount of energy needed in the production process. Berg explains Holmen’s large amount of energy consumption when it comes to paper production by putting it in the following context; “Holmen’s paper mill Braviken in Norrköping consumes more energy than the energy consumption in the whole city of Malmö”. This enlightens that the FPP industry is depending on high energy consumption, which is in line with E&Y’s (2008) that believes that increased energy prices can have a significant impact on earnings and pose a clear challenge in the FPP industry. Despite the fact of being a part of the FPP industry the seven companies interviewed differs highly when it comes to product range resulting in a high difference of energy consumption. This highlights what Deloach (2000) argues when he says that what makes risk such a challenge is that the concept and scope will vary depending upon whose perspective you take. Karlsson explains that printing paper mills are most vulnerable to high energy prices while pulp mills actually produce more energy then they consume. Håkansson adds that the FPP industry is highly dependent on the energy price, causing difficulties when the prices are increasing like in today’s market. Karlsson on the other hand continues by explaining that if you flip it around the energy challenge can also be seen as an opportunity for new improved solutions. This can be connected to Hollensen (2007) who explains that technology factors can lead to reduced costs and improved quality where these developments can benefit the organizations. Brooks and Weatherston (2000) further suggest that technological development includes process improvements that can strengthen a company’s position in a market. Therefore technological factors such as innovation, technological changes and R&D have gained increased attention by the FPP industry. Andén enlightens the energy source black liquor, which can be regained when burning “left-over” from producing pulp. Fornander also brings up the opportunity for FPP companies to invest in developing FPP products with added value to increase the profitability of the firm along with the industry as a whole.

In some cases the forest industry may be able to undertake co-generation based on wood waste, thus becoming self-sufficient of energy which also can open up the opportunity for exporting energy surplus (Richardson et al, 2002). This agrees with SCA where Karlsson foretells that the company is one of the Swedish FPP companies that are self-sufficient when it comes to energy supply, since they has a bio-energy facility that produces a large amount of energy where 50 percent goes internal and the other 50 percent external. They have had a strong increase in the demand for bio-energy and Karlsson believes that SCA will grow in this market, especially since they have own forests. Berg states that Holmen is 30 percent self-supplied when it comes to energy although they buy the rest of their energy needs from the market. He believes that companies that have to rely on external suppliers for the majority of their energy need will be more vulnerable to increased energy prices. This discussion goes in line with PwC (2008) that explains that energy prices has increased.
and reliance on outside suppliers leaves companies vulnerable to changes in energy prices and shortage of supply. Södra has an advantage in the energy question just like SCA hence the fact that they mostly produce pulp that generates more energy than the production process utilizes and is therefore one of Sweden’s largest suppliers of bio-fuel and green electricity (Södra, 2008). Sandgren highlight Södra’s position when it comes to energy by saying; “Energy production is something we really believe in and energy in many forms will become Södra’s third leg”. This development goes in line with Richardson, Björheden, Hakkila, Lowe and Smith (2002) that state that forestland represents a potential source of raw material that can yield energy, arguing that the use of forest as a source of green energy is becoming increasingly important.

The energy question is very complex and the outcome will vary from company to company and between the different segments where Ericsson especially highlights that the energy matter will play an important part in the future. He continues by saying: “If you don’t have control over the energy supply, this will put a company in a vulnerable position, because this is a risk that could lead to very severe consequences”. Richardson et al (2002) explains that there has been a growing demand on forestlands not only as a source of wood and fibres, but also in terms of a renewable energy source. Due to the fact that, biomass that normally is used in traditional timber products can also be used to generate bio-energy. This relates to Karlsson who gives a different view on the bio-energy production. He explains that the usage of bio-energy as a base for fuel and energy can be also be seen from a negative aspect hence using forest resources to only generate energy instead of implement it to the production of FPP products. Karlsson moreover refers to the EU standard to be fulfilled by 2020, where he argues that the increased environmental standards will lead to higher usage of bio-energy, hence increased competition for raw material. This dilemma was also brought up by Mellström that explains that the increasing demand for bio-energy will affect the forest industry since; “The FPP companies have to fight harder for their raw material. The large investments in this field will definitely lead to that a bigger amount of raw material will be burned into bio-energy and the raw material prices will be pushed up. Then the question is; if companies will be forced to close down on the traditional FPP industry. This is definitely a threat for the industry. However, for us as a raw material supplier, this is not a threat”.

PwC, (2007) explains that the heavy increase in the energy price is followed by increasing fuel prices which in turn leads to higher transportation costs. They further describe that this impacts the FPP industry that is heavily reliant on transportations for transfers both inward and outward. This agrees to Håkansson discussion that the kilometre charge along with increased tax on diesel leads to rising transportation costs. Brinnen relates the implementation of the kilometre charge on transportations towards governmental policies and their influence on the industry. Stern (2007) argues that the increased interest for environmental issues is having an impact on many industries and one section that will be highly negatively affected by political decisions is the transportations. This directly affects the FPP industry where Brinnen argues that the implementation of the kilometre charge can be seen as a threat for the FPP industry. This argument is agreed upon by Andréén that highlights that the kilometer charge increases the transportation costs for the FPP industry hence the great usage of road logistics.
5.2.7 Sustainability & Increased Environmental Awareness

Stern (2007) argues that the scientific evidence of climate change along with increased environmental awareness have influenced companies around the world to operate in a sustainable matter. Becher believes that the increased attention on sustainability issues and the fact that forestland is a renewable resource is a great opportunity for the FPP industry. This discussion brings along the aspects of sustainability and increased environmental awareness, where corporate sustainability is referred to as; meeting society’s expectation that companies add social, environmental and economic value from their operations, products and services (Hopkins, 2007). The definition on sustainable development by the United Nations (1987) is on the other hand; “Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs”. Karlsson foretells that his outlook for the FPP industry is positive due to sustainability in the industry, which has its foundation in a raw material that is growing and will continue to grow over time. He continues by saying that an advantage for the FPP industry in the future is the carbon dioxide matter, since forestland has the ability to absorb carbon dioxide along with producing bio-energy. This follows PwC’s (2008) argument that sustainability has become part of the business mainstream, where FPP companies are under increased focus on operating in a sustainable manner. All the other respondents agreed upon that the increased attention on sustainability is positive for the FPP industry in general hence being based on forest, which is a renewable resource. Berg continues by also describing the increased interest for the environment as positive for the FPP industry. Still, he brings up that some of the upcoming challenge for the FPP industry will be to decrease oil usage and improve their air pollution. The recent introduced EU standards to be fulfilled by 2020 where all countries should lower their carbon dioxide discharge and increase the use of renewable energy are one example of how governments execute the environmental matter. This can be related to BPP’s (2000) explanation of factors relating the legal environment in which a firm operate but also the political aspects influencing it. The new standards will according to Dagens Industri (2008) have great affect on the Swedish industry since Sweden is taking a leading position in this matter. Another political factor affecting the industry is the influence of the government whereas an example from the Swedish FPP industry is Sveaskog, which is owned by the state and has by far the most forestland and therefore the ability to pervade the industry in several ways according to Mellström. The ideology of the government and its role in the economy will according to BPP (2000) affect the trade legislations relating to environmental standards. This can be linked to the Swedish government’s decision to take a leading stand in EU’s guidelines toward stricter environmental regulation. Fornander believes that the high environmental standards set by the Swedish state, which can be seen as a set-back but also an opportunity in providing highly environmental products. Somewhat surprising was that the majority of the respondents did not put so much emphasis on the EU standards, even that these can lead to higher costs for the companies along with potential high fees. Dagens Industri (2008) for example estimates that Stora Enso would have to pay the largest bill due to their carbon dioxide discharge, but when interviewing Håkansson at Stora Enso, she only mentions this briefly in comparison to other risks. Instead more part of the respondents discussed potential raw material shortage that the new standards might lead to, thus the indirect affect from other European countries that have to increase their usage of bio-energy. Sandgren gives the example of Great Britain that needs to increase their bio-energy usage from 1.3 to 15 percent, which will affect the future demand on the bio-energy market by distorting it. Karlsson further argues that this could further enhance the shortage of raw material within the FPP industry where a higher amount of forest based raw materials will be used to produce energy.
E&Y (2008) applies the term of radical greening to the increasing environmental concerns which could be the result of a wide range of pressures arising from areas such as, the voluntary world of corporate social responsibility and harder regulatory and economic requirement. Still most interviewees were positive towards the increased environmental awareness since they believed it would lead to an increased demand for green products or services. This corresponds to the strategic risks identified by E&Y (2008) that is the result of changed consumer preferences. This was considered to be a risk due to the difficulties in anticipate and respond to consumer demand shifts, but for the FPP industry it was rather viewed as an opportunity and not a threat.

Another factor contributing to the sustainability in the Swedish FPP industry is the importance of education to enhance the level of competence within the industry or as Håkansson puts it: competent employees. BPP (2000) along with E&Y (2008) further explain that social factors also impact the changes in consumer demand. E&Y continues by telling that one emerging trend is the increased environmental awareness and attention to sustainability, which where agreed upon as a great advantage by all the actors interviewed in the Swedish FPP industry. Andrén reflected upon this advantage by saying; “The forest has been given a golden position through the discussion of climate changes and sustainability –this will lead to a development of the FPP industry”.

5.2.8 Climate Change & Unforeseen Events

Weather and climate change are two of the environmental factors included in the PESTEL model (BPP, 2000) and are thus a part of industries and firms macro environment. Although, more part of the respondents argued that the risk incorporated with climate change and unforeseen events are something that is beyond the control of a single company. E&Y (2008) mentions climate changes and weather events as one important strategic risk for companies in the future and the same argument were supported by Stern (2007). Stern (2007) further argues that the carbon dioxide is changing the world’s climate where the worlds average temperature have been rising, thus increasing the frequency of extreme weather patterns. One issue with direct connection to the climate change that has been given a lot of attention in media is the storms that affected the south of Sweden a few years ago. Despite the large damages Ericsson comments this by saying “This is nothing that will break the FPP industry”, hence the occurrence is so seldom. Becher describes that the storms did not result in a sever loss for Södra and that the result was merely an irregular raw material supply, where they needed take care and store the high amount of felled timber. However, Sandgren further points out that; “The storms are challenges that have occurred during the last years. If this continuous and we are getting more storms, it will in a long-term perspective be a risk for a company such as Södra, because of the negative effect on wood supply to the industry in the South of Sweden”. Ericsson had a similar opinion where he argues that storms will have a great affect on private owners, but for companies this is not a major risk and for the sawmills the storm were even positive since it meant increased business. Neither did Berg see storms and climate change as a major threat, even that Holmen owns a fair amount of forestland. The same was argued by Sakari that concluded;

“Storms come and go so this is something you just have to count with”

The Swedish Forest Agency, (2006) describes that other aspects that can arise from storms and natural catastrophes are the potential increase of damaging insects, damage from wildlife as well as increased forest fire risk. Becher states that for Södra insect attacks are a risk that they need to be aware off. Continuing by explaining that if the forests get attacked, a
large part of Södra’s raw material base will be damaged leading to the destruction of forest and thus less raw material. But concerning these risks they are very unpredictable and have to be addressed on occurrence. Stern (2007) argues that the scientific evidence is now overwhelming that climate change is a serious global threat that needs immediate attention. For the FPP industry the climate changes can affect the forestland positively in a longer growing season and less snow in the winter, but also negatively on the prediction that the forest will be exposed to more powerful winds according to the Swedish Forest Agency (2006). However, concerning the risks that would result from climate change, the respondents were united in their belief that at time being, a shift in the climate was too far ahead in the future and not a critical threat for the industry or their company.

5.3 Risk assessment

Vaughan (1997) describes the second element of risk analysis is risk assessment that means assessing the probability of risk occurring and the magnitude of the impact. To get a better overview as well as being able to understand the nature of the risks identified one suggestion is to classify the risk before assessing.

5.3.1 Risk Radar & Classification of Risks

Vaughan (1997) distinguishes between static and dynamic risk, where dynamic risks are those resulting from changes in the economy while static risk involves those losses that would result even if there were no change in the economy. This classification of risks is in line with Berg that explains that there are many different kinds that he broadly categorizes into; business risks that directly will affect the business and static risks that is a part of everyday life. But as argued by the two risk managers’ interviewed there are no right or wrong when classify risks. Risks can also relate to several categories at the same time depending on the nature of the risk and from whose perspective you are looking from. Smullen (2000) divides business-related risks into the three categories of: market risk, credit risk and operational risk. Where risks such as currency risk as well as sustainability risk and increased environmental awareness relates to the category of market risk since they are universal risks that impact companies across different industries and markets. Several of the risks identified in the Swedish FPP industry can also be classified in line with Smullen’s (2000) category of operational risk that relates to the activities of the organization where as increased raw material prices, overcapacity and the import/export taxes is just a few. However, it is more accurate to say that risk is of a challenging matter since the concept and scope will vary depending from which perspective you look from. One can argue that most risk factors are integrated with one another, much depending on a specific situation and to the organization that the risk applies to. This argument can be strengthen by Crouhy (2005) that suggests that when categorizing risks one must also measure the influence that the risk factors have on one another and the effects of multiple risk factors and measure the influence of each. The same opinion is held by Becher that argues that risk is a very complex issue that depends on a large variety of factors.

When analyzing this research the Strategic business risk radar constructed by E&Y (2008) will be applied along with E&Y’s classification of risks into macro threats, sector threats and operational threats (See figure 3.3). This gives the advantage of being able to display both the nature of the risk as well as its scale, where the risks that appear in the centre of radar are those that could cause the greatest challenge in the future. As understood by the reasoning above there is no clear line between each categorization of the risks. When using
this model it is possible to display the variation in the nature of the identified risks, within and in between the different sectors. The result shown in figure 5.2 below is a summary relating to the findings gathered above along with the respondents’ individual opinions on the nature and the scale of the identified risks.

Figure 5.2 Risk radar over the Swedish FPP industry

E&Y (2008) explains that Macro threats affect all businesses and that result from the general geopolitical and macro economical environment. The risk that clearly belongs to this section is identified to this section is Foreign Exchange Impact & Currency Risks and Shift of Capital to the Emerging Markets. These risks affects many companies and industries across geographical distances which corresponds to E&Y (2008) that states that macro threats relates to risks that cannot be controlled by one single company and the impact will be individual for each industry and company. You could also see a connection between the international operation of the responding companies and the scale that these risk were assigned. A bit surprising was also that a few of the respondents had chosen to place the risk of Foreign Exchange Impact & Currency Risks as a sector threat, the explanation for this could be the drop in the US dollar that according to both PwC (2007) and Berg is the most important currency in the FPP industry. The classification of Shift of Capital to the Emerging Markets was also a bit mixed where some respondents believed it to be a mix of macro and sector threat, but the majority agreed that it related mostly towards the macro sector. Based on E&Y’s previous description of macro threats Sustainability & Increased Environmental Awareness could also be categorized to this section. However, this risk has more characteristics that relates to the definition of sector threats since it leads to shift in consumer demands. The same argument holds when it comes to the risk of Climate Change & Unforeseen Event where some of the respondents were classifying this risk as a macro threat while oth-
ers as a sector threat due to its close connection to forestlands. Also the risks; Energy & Transportation Costs, Raw Material and Export & Import Taxes could be categorized as macro threats. According to E&Y (2008) macro threats results from uncertainties in energy and fuel prices as well as changes in the price of raw material. However, when it comes to the risks of Energy & Transportation Costs and Raw Material neither of the interviewees agreed upon this. The case of Raw Material draw even more attention hence none of the respondents’ placed it under the classification of Macro threat.

Sector threats emerge from trends and uncertainties that will impact and re-shape a specific sector or industry (E&Y, 2008). Overcapacity was by a united front from the respondents’ side classified as a sector threat. This was also understood from the interviews were several respondents argued that the overcapacity where a typical trend within the European FPP industry where the Swedish industry is a player. An interesting notice is thus that in some cases this risk was placed in the inner circles, while in other cases it was places far out in the last circles. However, when further analyzing these findings the differences in the scale of this risk showed a link to the main operation of the company in question relating to which sub-industry they are active in. Another risk assigned to this categorisation is Climate Change & Unforeseen Events that has a very central role in the FPP industry and its future, since it is based on a natural resource that is sensitive to the environmental changes. Nevertheless it could be argued that the climate changes do not only affect the FPP industry and according to E&Y (2008) climate changes and single catastrophic events are a part of the macro threat. Even so as few of the respondents assigned this risk to the category of macro threats and regardless of the nature of the risk, most respondents had placed it in the outer circle of the risk radar. When looking at the link between the scale of this risk and individual companies it was also clear that the companies holding own forestland had assigned this risk closer to the centre of the radar. In line with E&Y’s (2008) explanation of sector threats as a result from regulatory compliance Sustainability & Increased Environmental Awareness could also be assigned to this section of the risk radar. This was also confirmed by most of the respondents and another trend in the results where that this risk had been placed in the outer part of the radar. Thus reflecting that this risk was not considered to a major threat and from the analysis above this matter was more viewed as an opportunity for the FPP industry. This is in line with E&Y (2008) description that this change leads to a shifting consumer demand that in this case is positive for the FPP industry because it involves the use of a renewable resource. The Export & Import Taxes have already been categorised as a macro threat, however it could also be seen as a sector threat. This can be explained by Fornander’s statement: “The first risk one can think of right now in the FPP industry is the issue of the Russian export tax” pushing the fact of being highly related to the FPP industry right now. This classification of this risk turned out to have most diverse result of all the risks and there was no mutual opinion of what classification it belonged to. However, it seems to be a combined judgment that this risk was of importance and the more part had placed it in one of the two inner circles of the risk radar.

The third sector in E&Y’s (2008) Strategic business risk radar represents the Operational threats that will influence the strategic operations of the firm. The risks assigned to this category relates to cost and pricing control as well as supply chain risk, therefore several of the risks could be classified to this threat. Where the identified risks Raw Material and Energy & Transportation Costs clearly affect the cost situation of a firm and thus relates to this section. Energy & Transportation Costs was in most cases placed in this section or in some cases it was also assigned more towards the macro division. Here the categorization and scale of the risk can clearly be related to the operation of the firms and what segment within the FPP industry their main production lie within. The companies that produced a
large amount of own energy or that are not as depending on energy consumption in their production had this risk placed further out on the radar. The placement of Raw Material was mixed where some believed it to be a operational threat while others had the opinion that it was more of a sector threat. When looking deeper into the relationship between the classification of Raw Material and the nature of the company, the placement was reflecting the dependency of raw material and if the company in question had a good control over their supply chain. Some respondents placed this risk in the inner circle while others placed it a bit further out. Nevertheless the conclusion was thus that this risk was of a high importance for many of the companies in the Swedish FPP industry. Moreover, Overcapacity and Export & Import Taxes relate to the operation of firms, hence it could be argued that these are operational threats. E&Y (2008) reports that risks identified as operational threats generally relates to cost and pricing control as well as corporate governance, where Overcapacity leads to lowered pricing control whereas the Russian export tax is a result of governmental policies having a negative effect on the FPP trade. However, these risks have characteristics making their classification to other sectors also appropriate confirmed by the respondents.

5.3.2 Impact & Likelihood of Occurrence

Even though if the risk radar in previous section identified the most crucial risks within the Swedish FPP industry it only measures the critical scale of the risk without any notice about its likelihood of occurrence or impact. Therefore Pickford’s (2001) two-by-two diagram will further be used in order to confirm the relationship between the risks impact and likelihood of occurrence to give another dimension in the danger of the risk’s nature. When looking at Pickford’s two-by-two model in figure 3.2 the risks located in box A require immediate action hence its crucial nature to the Swedish FPP industry. Risks positioned in box B on the other hand do not need immediate action but a contingency plan since is high impact once occurring. For risks positioned in box C actions should be considered at once even if not prioritized to other more crucial risks. Last, risks appearing in box D do not need instant action but nevertheless require periodic review preventing unpleasant surprises in the future (Pickford, 2001).
Figure 5.3 Impact and likelihood of risks occurring in the Swedish FPP industry

As seen in figure 5.3 above not all identified risks can be assigned equal weight, which is in line with Pickford (2001). One can also notice that more part of the risks in figure 5.3 does not belong to one box alone, instead they seem to overlap the different boxes. Therefore the risks will not be analyzed as they occur, either alone or in similarity to other risks.

Looking back at figure 5.2 one can see that the identified risks of Sustainability & Increased Environmental Awareness and Climate Change & Unforeseen Events are considered to be less critical for the FPP industry. This goes in line with the fact that both risks hold a relatively low position when it comes to impact and likelihood seen in figure 5.3 above. Still the risk of Climate Change & Unforeseen Events has a higher position on the impact axis along with the lowest result on likelihood of occurring. This can easily be exemplified by natural catastrophes that occur very seldom but with higher consequences. When it comes to Sustainability & Increased Environmental Awareness the negative effect is estimated to be lowest among the identified risks and can even be seen as positive for the FPP industry according to the respondents’. The risk of Shift of Capital to the Emerging Markets and the Foreign Exchange Impact & Currency Risks can both be connected to the ongoing globalization and increased international trade, which have affected the development of the FPP industry. The Shift of Capital to the Emerging Markets has a rather low likelihood to occur hence transportation costs, differentiation in raw material along with increasing demand resulting not only in a challenge but also an opportunity. The ongoing international trade brings along increased occurrence of Foreign Exchange Impact & Currency Risks having a rather low impact on the FPP companies hence their practise of expertise in handling this matter. As seen in figure 5.3 the four previous discussed risks are for the more part located in box D and therefore Pickford (2001) suggests that these risks are of less concern but nevertheless to be forgotten.

In the risk radar (see figure 5.2) both Overcapacity and Export & Import Taxes were positioned as Sector threats with high critical level. These risks also hold similar positions when it comes to likelihood of occurrence as seen in figure 5.3. However, the risk of Overcapacity is seen as less critical impact on the industry hence the familiarity with this issue that was told to be a common state for the FPP industry by some of the respondents in this re-
search. The risk of Export & Import Taxes on the other hand have a higher impact on the FPP industry and can at time being be related to the increased Russian export tax. This was referred to as a new and unexpected challenge for the FPP companies forcing them to find new channels for wood supply. To be able to manage these risks Pickford (2001) advises that no direct action is needed but a contingency plan is to be preferred.

Despite the diversity of the two theoretical models used for analyzing the risks identified in the Swedish FPP industry are the risks of Raw Material and Energy & Transportation Costs, which are pointed out of high importance to the industry in both cases. The risk of Energy & Transportation Costs pervades the whole global market of today hence its soaring price. When it comes to the FPP industry the energy situation can be seen in two different lights. Where parts of the FPP production is depending on high energy consumption whereas other production segments actually produce more energy then it consumes. This is reflected in figure 5.3 where high likelihood of occurrence mirrors the global energy dependency that leads to escalating prices. Still this risk has less impact then the Raw Material risk for example, hence the fact that some companies in the FPP industry are less dependent on external energy supplies. Raw Material has as said higher impact on the companies acting within the FPP industry since being the backbone within all the segments of the industry. However, this risk does not have as much likelihood of occurrence as the energy concern hence the fact that the Swedish FPP industry holds much forestland and therefore is less dependent upon the global raw material price in comparison to the energy. When risks occur in box A Pickford (2001) advises that these risks need immediate attention, which would be highly recommended for the FPP companies to follow in order to ensure future profitability.

5.4 The Dilemma of Holding Forestland

When looking at figure 5.2 one can see that four of the risks identified in the Swedish FPP industry are closer to the inner circle of the risk radar and therefore seen as more crucial in comparison to the other risks. These risks are; Energy & Transportation Costs, Export & Import taxes, Overcapacity and Raw material. Even though if the risk radar in figure 5.2 gives a picture of how the risks are classified along with their importance it does not foretell the true impact of each risk identified. When assessing these risks into the context of Pickford’s (2001) two-by-two model in figure 5.3 one can on the other hand see a clearer difference of importance since its displays both impact and likelihood to occur. As the risk analysis result in figure 5.3 one can see that two of the identified risks stick out, namely the risk Raw Material and Energy & Transportation costs. Why the risks Export & Import Taxes and Overcapacity did not occur in the most critical area in figure 5.3 can be explained by that their importance is more connected to the current situation of the FPP industry. This further depends on that Overcapacity can be seen as a cyclical risk that has its ups and downs. Although that the Export & Import Taxes is crucial at the moment hence the threat of even higher Russian export taxes it not an escalating duty nor is its implementation certain.

The two risks of Raw Material and Energy & Transportation costs on the other hand are more crucial to the Swedish FPP industry since they have a high impact and likelihood of occurrence that can be seen as a long-term threat to the industry. When following the risk analysis from section 5.2 to 5.3 one can easy see that all risks are connected to each other in one or another way where one risk will drive another resulting in no clear cuts. The same goes for Crouhy (2005) when he illustrates that there usually is a large number of risk factors to consider in a risk analysis as well as the fact that they might influence each other,
which can result in multiple risk factors. The same conclusion can be drawn from the iden-
tified risks in the Swedish FPP industry where the risks cannot be seen as such great matter
by themselves. This can be applied on the identified risks of Raw Material and Energy &
Transportation Costs where one brings the other along and the impact of one will affect
the other proving the multiple risk affect. These risks together bring light to the issue of
holding forestland where both risks could cause the greatest challenge in the future of this
matter.

5.4.1 The Risks of Holding Forestland

The Swedish Forest Industries Federation (2008) highlights their concern about the sub-
stantial price increases on wood supply, recycling fibres and energy in 2007. This argument
is supported by PwC (2007) that points out the significant risk for companies in the West-
ern European FPP industry as the increased cost in raw materials. They continue by giving
extra concern to the companies that are relying on external wood supply since they possess
less control over their costs associated with the higher price for raw material. Of the seven
FPP companies described in this thesis only one is said to be self-sufficient, and even so
only at time being (see figure 4.2). Therefore it is highly logical that all respondents in this
report believed increased raw material costs along with shortages of supply to be a great
risk for the future. This is also argued by Brindley (2004) who explains that companies rely-
ing wood supply have less power over the price development of raw material. He continues
by foretelling that the risk does not only lie in the raw material dependence but also the de-
pendence for the extended supply risk on the suppliers’ ability to deliver quality. Karlsson
adds that when it comes to the increasing raw material prices this applies to the general pic-
ture of the whole FPP industry, whereas SCA is one of the companies’ owning a lot of fo-
restland, namely 2.6 million hectares, and therefore not so reliant on this issue (see table
4.1). Deloach (2002) suggests that risk is not a new concept for businesses since all compa-
nies are exposed to traditional business risk that can arise from the unavailability of re-
sources. He further explains that, to deal with this issues managers can respond in various
ways. One way can be as in the case of SCA that has a diversified operation covering sever-
al sectors along with controlling their supply chain. Although managers in other situations
might handle challenges in other ways, as in Stora Enso’s case where Håkansson argues that
“Stora Enso is now specialists in what they do and can focus on the areas that they are best in, while
outsourcing the other functions”, after having made the strategic decision of specializing in their
core business area. Still she foretells that Stora Enso hence this is more sensitive to raw ma-
terial price then before and sees this along with raw material shortages as the most crucial
risks for the future. Vaughan (1997) adds that when it comes to risk management one ap-
proach is risk control in order to minimize the risk exposure. This goes along with Stora
Enso’s strategy as well as Brinnen’s description of Korsnäs’s strategy of cultivating their
operations by selling of their majority of forestland in order to specialize in their area of
expertise; packaging. Still when it comes to the Swedish FPP industry’s current state
Vaughan’s (1997) approach can be seen in favor of the FPP companies that own forestland
and therefore reduce their exposure to the risk of increased raw material prices. This issue
was also discussed by Sakari; “If Billerud had hold own forestland, there would be an assurance of the
raw material supply and stabilising of the price settings”. Still, he continues to argue that on the
other hand Billerud has an advantage of not tying up any large amounts of capital hence
holding no forestland. On the contrary SCA states: “To have control over its own wood raw ma-
terial is a key part of the group’s long-term strategy. It provides a stable cash flow, reliable supplies and faci-
litates quality and cost control. This is becoming increasingly important with intensified competition for tim-
ber raw material in northern Europe and rising demand for biomass from energy sector, which confirms the
value of the group’s long-term sustainability strategies” (SCA, 2008). Still Sandgren brings up the risk of natural catastrophes that can damage the forestland by saying: “The storms are challenges that have occurred during the last years. If this continuous and we are getting more storms, it will in a long-term perspective be a risk for a company such as Södra, because of the negative effect on wood supply to the industry in the South of Sweden”. This potential risk for forestland owners can be related to Stearn (2007) who argues that the ongoing climate changes due to global warming is an external factor that has become a significant issue for firms to consider. Still Berg explains that Holmen does not see storms as a major threat resulting in that they have not insured their forestland. Ericsson adds that storms usually have a great affect on private owners, but he does not see them as a major risk for the FPP companies. He states; “This is not something that will break the FPP industry”. The discussion above highlights Vaughan’s (1997) opinion that risk is an abstract term that can be put into different context. However, he concludes that a general objective with risk management is first and foremost survival of the organization, whereas this relies on the independent firm to take a stand in which strategy to use for fulfilling their objectives.

Deloach (2002) describes that the latest development phase within risk management is enterprise-wide risk management that is implemented at a strategic level that makes it possible to deal with potential risks before they occur. PwC (2007), reports that the FPP industry is highly dependent upon energy consumption, where the soaring energy price results in a clear threat to the whole industry. In line with Deloach’s (2002) Södra can be seen as an example of one of the Swedish FPP organizations that instead of seeing the increasing energy price as a threat they have turned it around and faced this challenge by investing in their energy development. Becher mentions that an advantage for Södra in this question is that they hold forestland and therefore the ability to produce bio-energy resulting in energy self-sufficiency. Sandgren adds that “Energy production is something we really believe in and energy in many forms will become Södra’s third leg”. This can be seen as a great opportunity for Södra according to Richardson et al (2002) explanation that there has not only been growing demands for wood supply but also the renewable energy the forestland can yield. Some of the FPP companies have also been able to undertake co-generation based on wood waste, resulting in self-sufficiency in energy (Richardson et al, 2002). This is the case of SCA according to Karlsson who foretells that their large amounts of bio-energy production has resulted in an energy surplus giving them the ability to sell 50 percent of their generation to others. Ericsson adds that the FPP companies without any or just small amounts of forestland will have disadvantages in the future, in this research referred to as; Billerud, Stora Enso and Korsnäs. Richardson et al (2002) that explain that the forestlands of the world represent a vast potential source of raw material that yields green energy. Andrén foretells; “The forest has been given a golden position through the discussion of climate changes and sustainability – this will lead to a development of the FPP industry”, which also is connected to the renewable energy source that is almost neutral when it comes to greenhouse gases that affect the climate change (Richardson et al, 2002). The fact that the forestland yield energy is a great advantages for the FPP companies that hold forestland owners, hence the fact of being great energy consumers, confirmed by Berg. PwC (2007) continues to add the industry’s reliance on transportation which also result in high energy costs, this goes in line with Andrén’s and Håkansson’s concern for the kilometre tax.

Even if one can argue for not holding forestland one cannot come across the fact that the raw material is the foundation of the total FPP industry that bio-energy that comes along with it. Having discussed the matter of Raw Material and Energy & Transportation Costs as risks one can in line with Damodaran (2002) also see these as opportunities. Damadoran continues by stating that risk in many cases to be wrongly associated with negative terms
and therefore argues that the definition by the Chinese character captures its true nature in a more appropriate way as a mixture of danger and opportunity. Moreover, one also have to bear in mind that the challenge with risk is that its concept and scope will vary depending upon whose perspective you take (Deloach, 2000). The above discussion can be concluded by Becher who states:

“If you are trying to avoid the risks you are more likely to miss the opportunities. Risk management is to identify the risks and manage them, so that you can take advantage of the opportunities”
6 Conclusion

In chapter six a conclusion will be presented by answering the three research questions in order to fulfil the purpose of this research study. This chapter will thereafter be followed by a section for further research in line with the subject in question.

6.1 Concluding Remarks

In the very beginning of this research the predicted outcome was to face an industry in crisis so to speak, but is that really the case? The topic of this research study “Risks within the Swedish Forest, Paper and Packaging Industry” has after some reflections been seen in a new light, where the FPP industry in Sweden does not only stand in front of a lot of challenges but also many opportunities.

When looking at the first research question;

✓ What major risks does the Swedish FPP industry face today, with focus on the seven largest FPP companies in Sweden?

The main issues and challenges that impact the Swedish FPP industry can be summarized into the following eight risks;

- Globalization & Shift of Capital to the Emerging Market
- Overcapacity
- Foreign Exchange Impact & Currency Risks
- Export & Import Taxes
- Raw Material
- Energy & Transportation Costs
- Sustainability & Increased Environmental Awareness
- Climate Change & Unforeseen Events
When having identified and concluded the comprehensive risks within the Swedish FPP industry they were classified and assessed in order to answer the second research question:

✓ **Which of the identified risks are most crucial to the FPP companies in focus and what relation, likelihood and occurrence do they have to one another?**

When analyzing the identified risks by adapting the Risk radar the nature of the risks and their scales where able to be displayed in relation to one another in figure 5.2. The result shows that four of the identified risk appeared closer to the centre of the Risk radar than the others. These are: Raw Material, Overcapacity, Energy & Transportation Costs and Export & Import Taxes and indicate therefore a possibility to cause a greater challenge in the future for the Swedish FPP industry.

Through further assessment of the identified risks within the Swedish FPP industry the relationship between impact and likelihood of occurrence were looked upon. The result displayed in figure 5.5 shows that Raw Material and Energy & Transportation Costs have the highest impact and likelihood out of the eight identified risks. Therefore one can argue that these two risks are the most crucial risks faced by the Swedish FPP industry.

✓ **How do the most crucial risks identified relate to the pros and cons of holding forestland?**

When evaluating the dilemma of holding forestland in Sweden one first needs to clarify the pros and cons.

The pros of holding forestland:

> - Supply control & less sensitive to changes in raw material prices
> - Bio-energy source
> - Diversification of business

The cons of holding forestland:

> - Large amount of capital will be tied up
> - A broad area of expertise is needed when controlling the whole supply chain
> - Threats arisen from climate change & natural catastrophes

Given the pros and cons of holding forestland in relation to the two most crucial risks of; Raw Material and Energy & Transportation Costs, one can find that their nature of foundations are connected, giving a base to balance when it comes to the fundamental question of holding forestland or not. These two risks are most likely to cause the greatest challenges in the future and therefore holding forestland can be a strategic way to turn them into opportunities.
6.2 Further Research

“There are crossroads in the industry right now” (Håkansson, 2008)

This argument was also brought up by many other respondents’ during the interviews conducted in this thesis. When the question regarding the future of the Swedish FPP industry came up the theme was uncertainty to some extent, but still filled with a lot of hope hence the industry’s advantage of being based on a renewable resource. The future outlook for the industry in question would be of high interest to further research, whereas Håkansson continued; “We are in a time when much is needed to be done within the FPP industry”. Putting this in to context with the ongoing development of bio-energy and the shift of capital to the emerging markets this can lead to both threats and opportunities. The globalization and up to date topic regarding China becoming a more powerful player in the market was discussed by Håkansson who also brought up the increased Russian export tax on wood as a potential lead towards increased protectionism.

Another development of particular interest were brought up by Andrén that expressed that a potential threat for the FPP industry in the future is the ongoing Internet trend, which could affect the paper industry of newspaper and magazines in particular hence being a substitute. The Internet trend affects multiple industries and firms every day hence its wide spread in both positive and negative ways. Its influence on the FPP industry would be interesting to look more deep into due to the challenge in the combination of continues expansion of Internet services along with higher production cost involved in the paper production.

An additional aspect that came across during this research study was the development of the ownership structure of the forestland in Sweden along with the influence of the Swedish state being the by fare greatest forestland owner according to Mellström. Sveaskog’s position in the FPP industry would be a topic of curiosity to research further hence their different strategy as a player in the Swedish FPP industry. One can further discuss the fact that the actors in the Swedish FPP industry are becoming bigger and fewer as the development take form, despite Sveaskog’s strategy of selling of forestland to enhance the Swedish FPP industry as a whole. Here the importance of the political risk within the industry can be argued as a crucial part hence new environmental standards along with rules and regulations against monopoly in the market.
7 References


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Stora Enso, 2008, *Our company, our choices, Annual Report 2007*

Sveaskog, 2008, *Årsredovisning 2007*

Swedish Forest Agency, 2006, *After Gudrun, Skogstyrelsens Förlag*


Södra, 2008, Annual report 06/07


8 Appendix

8.1 Interview Agenda – Swedish Forest Industries Federation

Mårten Ericsson, Development Manager, 2008-04-03

✔ Background
  - How did you end up at Swedish Forest Industries Federation
  - Your position

✔ Swedish Forest Industries Federation
  - The five largest companies in Sweden
  - Are they competitors or collaborates?
  - Risk management – consult the firm?

✔ Risk management
  - Major risks within the forest industry in Sweden
  - Swedish Forest Industries Federation’s role in risk management
  - What risks are specific for just the forest industry?
  - What risks would you identify as the most critical?
  - How has companies dealt with these issues?
  - Has the risks changed over time?
  - Do you think that the biggest challenges will arise from increased costs or lower income?
  - What has the results and outcome been from increased globalisation?

✔ Ownership of forest
  - Why do you think some companies have own forest while other buys?
  - Why do companies choose to own forests in countries outside of Sweden?
  - Are the companies investing and expanding or disinvesting at the moment?

✔ Future aspects?
  - What is your outlook for the industry?
  - Potential risks in the future
  - The forest industry’s future development

Can we mention your name in the thesis?
8.2 Interview Agenda – Stora Enso

Carina Håkansson, CEO of Wood Supply Sweden Stora Enso, 2008-04-15

✓ Background & position at Stora Enso

✓ Outlook of the forest industry in general

✓ Stora Enso
  - About the company (Focus on the forest industry)
  - The major risks Stora Enso faces
  - Specific risks for the forest industry
  - Categorization of risks
  - Risk management
  - Major changes in risk exposure and development in the industry

✓ Competitors
  - Main competitors
  - Ownership of forest?
  - Threats or partners? (Swedish Forest Industries Federation)

✓ Does Stora Enso have own forest?
  - Why/Why not? How much?
  - Sweden and/or abroad?
  - Do you buy forest? (One or several suppliers)
  - Pros and Cons of holding own forestland

✓ Ownership of forest
  - Major Risks?
  - Own versus buying raw material

✓ Future aspects?
  - Forest industries development
  - Global aspect (foreign competitors, currency, import/export taxes..)
  - Potential risks in the future
  - Do you view risks just as threats or also opportunities

Can we mention your name in the thesis?
8.3 Interview Agenda – Billerud

Johan Sakari, CEO of Billerud Forest, 2008-04-15

✓ Background & your position at Billerud

✓ Outlook of the forest industry in general

✓ Billerud
  - About the company (Focus on the forest industry)
  - The major risks Billerud faces
  - Specific risks for the forest industry
  - Categorization of risks
  - Risk management
  - Major changes in risk exposure and development in the industry

✓ Competitors
  - Main competitors
  - Ownership of forest?
  - Threats or partners? (Swedish Forest Industries Federation)

✓ Does Billerud have own forest?
  - Why/Why not? How much?
  - Do you buy forest?
  - Who do you buy from? (One or Several suppliers)
  - Pros and Cons of holding own forestland

✓ Ownership of forest
  - Major Risks?
  - Own versus buying raw material

✓ Future aspects?
  - Forest industries development
  - Global aspect (foreign competitors, currency, import/export taxes.)
  - Potential risks in the future
  - Do you view risks just as threats or also opportunities

   Can we mention your name in the thesis?
8.4 Interview Agenda – Södra – Risk Manager

Lars Becher, Risk Manager at Södra – 2008-04-23

✓ Background & your position at Södra

✓ Risk manager?
  - Definition & Task

✓ Outlook of the forest industry in general

✓ Södra
  - About the company (Focus on the forest industry)
  - The major risks Södra faces
  - Specific risks for the forest industry
  - Categorization of risks
  - Risk management
  - Major changes in risk exposure and development in the industry

✓ Competitors
  - Main competitors
  - Ownership of forest?
  - Threats or partners? (Swedish Forest Industries Federation)

✓ Does Södra have own forest?
  - Why/Why not? How much? What risks comes with this?
  - In Sweden and/or abroad?
  - Do you buy forest?
  - Who do you buy from? (One or Several suppliers) What risk comes with this?
  - Pros and Cons of holding own forestland

✓ Ownership of forest
  - Major Risks?
  - Own versus buying raw material

✓ Future aspects?
  - Forest industries development
  - Global aspect (foreign competitors, currency, import/export taxes..)
  - Is the increased environmental awareness good or bad for the industry?
  - Potential risks in the future
  - Do you view risks just as threats or also opportunities

Can we mention your name in the thesis?
8.5 Interview Agenda – SCA

Jerker Karlsson, CEO of SCA Forest, 2008-04-24

✓ Background & Your position at SCA

✓ Outlook of the forest industry in general

✓ SCA
  - About the company (Focus on the forest industry)
  - The major risks SCA faces
  - Specific risks for the forest industry
  - Categorization of risks
  - Risk management
  - Major changes in risk exposure and development in the industry

✓ Competitors
  - Main competitors
  - Ownership of forest?
  - Threats or partners? (Swedish Forest Industries Federation)

✓ Does SCA have own forest?
  - Why/Why not? How much? What risks comes with this?
  - In Sweden and/or abroad?
  - Do you buy forest?
  - Who do you buy from? (One or Several suppliers)What risk comes with this?
  - Pros and Cons of holding own forestland

✓ Ownership of forest
  - Major Risks?
  - Own versus buying raw material

✓ Future aspects?
  - Forest industries development
  - Global aspect (foreign competitors, currency, import/export taxes..)
  - Is the increased environmental awareness good or bad for the industry?
  - Potential risks in the future
  - Do you view risks just as threats or also opportunities? Exemplify

Can we mention your name in the thesis?
8.6 Interview Agenda – Holmen – Risk Manager

Jonas Berg, Risk Manager at Holmen, 2008-05-02

✓ Background & your position at Holmen

✓ Risk manager
  - Definition
  - Tasks

✓ Outlook of the forest industry in general

✓ Holmen
  - About the company (Focus on the forest industry)
  - The major risks Holmen faces
  - Specific risks for the forest industry
  - Categorization of risks
  - Risk management – primary goal and function
  - Major changes in risk exposure and development in the industry

✓ Competitors
  - Main competitors
  - Ownership of forest?
  - Threats or partners? (Swedish Forest Industries Federation)

✓ Does Holmen have own forest?
  - Why/Why not? How much? What risks comes with this?
  - In Sweden and/or abroad?
  - Do you buy forest?
  - Who do you buy from? (One or Several suppliers)What risk comes with this?
  - Pros and Cons of holding own forestland

✓ Ownership of forest
  - Major Risks?
  - Own versus buying raw material

✓ Future aspects?
  - Forest industries development
  - Global aspect (foreign competitors, currency, import/export taxes..)
  - Is the increased environmental awareness good or bad for the industry?
  - Potential risks in the future
  - Do you view risks just as threats or also opportunities

  Can we mention your name in the thesis?
8.7 Interview Agenda – Sveaskog
Claes Mellström, Responsible for Wood Supply Sveaskog, 2008-05-08

✓ Background & position at Sveaskog

✓ Outlook of the forest industry in general

✓ Sveaskog
- About the company (Focus on the forest industry)
- The major risks Sveaskog faces
- Specific risks for the forest industry
- Categorization of risks
- Risk management
- Major changes in risk exposure and development in the industry

✓ Competitors
- Main competitors
- Ownership of forest?
- Threats or partners? (Swedish Forest Industries Federation)

✓ Does Sveaskog have own forest?
- Why/Why not? How much?
- Sweden and/or abroad?
- Do you buy forest? (One or several suppliers)
- Pros and Cons of holding own forestland

✓ Ownership of forest
- Major Risks?
- Own versus buying raw material

✓ Future aspects?
- Forest industries development
- Global aspect (foreign competitors, currency, import/export taxes..)
- Potential risks in the future
- Do you view risks just as threats or also opportunities

Can we mention your name in the thesis?
8.8 Interview Agenda – LRF Konsult

Fredrik Fornander, Forest Agent & Forest Engineer, 2008-05-12

✓ Background & your position at LRF Konsult

✓ LRF Konsult
  - About the company (Focus on the forest industry)
  - Connection to the forest industry
  - Risk management? Do you help the companies with this?

✓ Outlook of the forest industry in general

✓ Risk within the forest industry
  - Definition of risk & risk management
  - Specific risks for the forest industry
  - The major risks
  - Categorization of risks
  - Major changes in risk exposure and development in the industry

✓ Actors in the Swedish Forest industry
  - Main actors
  - LRF’s relation to the companies
    Sveaskog – (Share part ownership in Setra Group)

✓ Ownership of forestland
  - Major Risks?
  - Self-sufficient companies
  - Pros and Cons of holding own forestland

✓ Future aspects?
  - Forest industries development
  - LRF’s role in the future
  - Global aspect (foreign competitors, currency, import/export taxes..)
  - Potential risks in the future
  - Do you view risks just as threats or also opportunities

Can we mention your name in the thesis?
8.9 Interview Agenda – Södra – CEO of Forest
Mats Sandgren, CEO of Södra Forest, 2008-05-13

✓ Background & your position at Södra

✓ Outlook of the forest industry in general

✓ Södra
  - About the company (Focus on the forest industry)
  - The major risks Södra faces
  - Specific risks for the forest industry
  - Categorization of risks
  - Risk management
  - Major changes in risk exposure and development in the industry

✓ Competitors
  - Main competitors
  - Ownership of forest?
  - Threats or partners? (Swedish Forest Industries Federation)

✓ Does Södra have own forest?
  - Why/Why not? How much? What risks comes with this?
  - In Sweden and/or abroad?
  - Do you buy forest?
  - Who do you buy from? (One or Several suppliers) What risk comes with this?
  - Pros and Cons of holding own forestland

✓ Ownership of forest
  - Major Risks?
  - Own versus buying raw material

✓ Future aspects?
  - Forest industries development
  - Global aspect (foreign competitors, currency, import/export taxes..)
  - Is the increased environmental awareness good or bad for the industry?
  - Potential risks in the future
  - Do you view risks just as threats or also opportunities

Can we mention your name in the thesis?
8.10 Interview Agenda – Holmen – CEO of Forest

Björn Andrén, CEO of Holmen Forest, 2008-05-13

✔ Background & your position at Holmen

✔ Outlook of the forest industry in general

✔ Holmen
  - About the company (Focus on the forest industry)
  - The major risks Holmen faces
  - Specific risks for the forest industry
  - Categorization of risks
  - Risk management
  - Major changes in risk exposure and development in the industry

✔ Competitors
  - Main competitors
  - Ownership of forest?
  - Threats or partners? (Swedish Forest Industries Federation)

✔ Does Holmen have own forest?
  - Why/Why not? How much? What risks comes with this?
  - In Sweden and/or abroad?
  - Do you buy forest or are you self-sufficient?
  - Who do you buy from? (One or Several suppliers) What risk comes with this?
  - Pros and Cons of holding own forestland

✔ Ownership of forest
  - Major Risks?
  - Own versus buying raw material

✔ Future aspects?
  - Forest industries development
  - Global aspect (foreign competitors, currency, import/export taxes..)
  - Is the increased environmental awareness good or bad for the industry?
  - Potential risks in the future
  - Do you view risks just as threats or also opportunities

Can we mention your name in the thesis?
8.11 Interview Agenda – Korsnäs

Uno Brinnen, CEO of Wood Supply Korsnäs, 2008-05-19

✓ Background & position at Korsnäs
✓ Outlook of the forest industry in general
✓ Korsnäs
  - About the company (Focus on the forest industry)
  - Connection to Kinnevik
  - The major risks Korsnäs faces
  - Specific risks for the forest industry
  - Categorization of risks
  - Risk management
  - Major changes in risk exposure and development in the industry
✓ Competitors
  - Main competitors
  - Ownership of forest?
  - Threats or partners? (Swedish Forest Industries Federation)
✓ Does Korsnäs have own forest?
  - Why/Why not? How much?
  - Sweden and/or abroad?
  - Do you buy forest? (One or several suppliers)
  - Pros and Cons of holding own forestland
✓ Ownership of forest
  - Major Risks?
  - Own versus buying raw material
✓ Future aspects?
  - Forest industries development
  - Global aspect (foreign competitors, currency, import/export taxes..)
  - Potential risks in the future
  - Do you view risks just as threats or also opportunities

Can we mention your name in the thesis?
8.12 Complementary material – Questionnaire

Kompletterande Material – Risk Radar


Detta test ska göras utifrån skogsindustrins vinkel, genom att använda de gröna cirkelnäran nedan. Men om ni anser att eft företag skiljer sig från skogsindustrin i helhet skulle vi uppskatta om ni även kan placera ut de blåa cirkelnerna som då representerar eft företag (med fokus på den verksamhet som relaterar till skogen), för bästa möjliga resultat.

✔ Först ber vi er att läsa igenom de olika risker nedan som vi har tagit fram genom vår intervju med er. (Riskerna är på engelska, då det är vårt uppsatsspråk).

1. Foreign Exchange Impact and Currency Risks
Risky relaterade till internationella affärstransaktioner, framförallt valutaförändringar

2. Energy and Transportation Costs
Ökade energipriser samt transportkostnader

3. Shift of Capital to the Emerging Markets
Investeringsfokus förflyttat till utvecklingsländerna

4. Export and Import Taxes
Rysslands nyinförda exporttaxa t.ex.

5. Overcapacity
Överkapacitet inom industrin och ökad global konkurrens (Framför allt i Europa)

6. Raw Material
Ökat råvarupris på skogsbaserat material

7. Sustainability and Increased Environmental Awareness
Ansvar som relaterar till CSR

8. Climate Change and Unforeseen Events
Klimatförändringar och oförutsägbara risker (t.ex. stormar, insektsangrepp, brand osv.)
Sedan ber vi er att föra var och en av de olika cirklarna (som är placerade till höger om den identifierade risken) och placera dem där ni tycker att de passar bäst in i modellen nedanför. Det vill säga, vilken kategori de tillhör samt vilken inverkan de har på företaget.

Instruktioner:

1. Klicka på cirkeln med respektive nummer
2. Håll in knappen och föra cirkeln till risk radar modellen nedan

Vi kommer inte att visa några individuella resultat i uppsatsen, för att respektera respektive företags integritet. Tanken är att sammanställa resultaten för att ge en övergripande syn på riskerna in skogsindustrin, dels från ett industri perspektiv men även företags perspektiv.

Tack än en gång för er medverkan!