

# **Department of Forest Products**

Profiling the strategies of Swedish sawmilling firms

Fakhrizal Nashr

Master thesis No 8 2007



# **Department of Forest Products**

Profiling the strategies of Swedish sawmilling firms

Fakhrizal Nashr

Master thesis (30 Points), D-level in Forest Management Fakhrizal Nashr, MSc European Forestry

Supervisor SLU: Denise McCluskey

#### **Abstract**

This study identified the contemporary strategy profiles of Swedish sawmilling firms, with the intent of assessing their similarities and differences and thereby sources of sustained competitive advantage.

Firms' strategies were benchmarked from interpretations of key strategic instruments. The source data and instruments are presented in the following forms: 1) qualitative descriptions of strategy instruments in sub-groups, 2) assessment of instruments in on/off form and 3) assessment in graphic and quantitative forms of the from firm's realised strategies and the underlying sources of these.

The Swedish firms assessed are Derome AB, Martinsons Group, Moelven Industrier, SCA Timber, Setra Group, Stora Enso Timber and Vida AB.

**Key words:** Strategy instruments, sustained competitive advantage, comparisons, sawmilling firms

### **Summary**

**Introduction** Forestry is classified as a basic industry since it provides raw materials and goods to the world's economy. Forestry can be a major contribution to the national economy of some countries. In Sweden, the trade surplus in forest products is 85 billion kronor ( $\in$  9.35 billion) (Statistics Sweden, 2005).

In the past decade, the production of sawn wood in Sweden has concentrated towards the bigger sawmills. Softwood sawmills with an annual production of more than 50 000 m<sup>3</sup> accounted for 50% of the total production in 1990 and 68% in 1995. The corresponding number for 2000 is 80%. The ten largest sawmill firms produced 44% of the total production (Stalan et al, 2002). Their sustainability is therefore of concern to Sweden and so the strategies of these firms is of interest.

**Method** My research approach is qualitative (Silverman 2000), comprising two main steps. The first is an analysis of documented data such as annual reports (operational and financial sections), press releases and internet websites of the saw milling industry and the phenomenon to be studied. Annual reports were the principal information source for several strategy instruments, which were business concept and positioning, financial targeting, growth, value chains' steering, technology application, innovation capability, concern for human resources, and social ethical responsibility.

The second step involved the gathering of the primary data of opinions, objectives and visions of senior management in these firms (Silverman 2000). The research was ended with an overall assessment and conclusions of the studied phenomenon.

The overall data collection and assessment was based on Sierillä (1987, 2003 and 2005) strategy benchmarking approach.

**Results and discussions** The actual strategy profile of each firm were presented in three dimensions of analysis: 1.) For each firm, profiling all individual strategy elements. 2.) For each individual strategy element, profiling all firms, they are, and 3) From the concept of sustained competitive advantage.

The summary analysis of the first dimension is:

- Derome AB aims at low cost production and volume yield with integrated further processing. Their key competence are capabilities of supplying building components (roof trusses, truss systems and wall elements), timber frame housing and multi-family houses as well construction capabilities.
- Martinsons Group has been running for 4<sup>th</sup> generation with long experienced and competency on painted panels, gluelam beams, solid wood structural boards and construction technical capabilities.
- Moelven Industrier ASA has a long history of tradition and competency in manufacturing sawn and planed timber, joinery components, gluelam beams, solid wood structural boards, house and office modules and moving towards becoming an actor in the construction industry.
- Setra Group aims to offer high quality wood products for interiors and construction to large customers' key market segments on Builder's Merchants and industrial end-use segments in Europe.
- SCA Timber AB aims to be the most profitable supplier of wood-based products and consumer-oriented wood products in the Nordics, with competences on planed timber

- and profiled products from boreal forest resources, as well as delivery and distribution capabilities.
- Stora Enso Timber aims to offer high quality wood products, planed, joinery components, edge-glued panels. It intends to develop mutually beneficial business together with large customers, and customization for interiors and construction.
- Vida AB has a high flexibility production, processing and distribution service which
  manifested in the competence to produce dimension and product specialized sawmills,
  planed timber, treated timber, packaging and bio fuels.

The following is a summary analysis of the second dimension.

- The Offering. The product mix element of the offering customizes wood and wood-based products of various dimensions. Key services include 'Just In Time' delivery to provide products without stock on yard and distribution solutions.
- Financial targeting. The differences of ownership basis are to some extend reflected on the strategy application. The firms express their strategy to decrease debt capital. In some ways, this dept concept is contradictory to how firms expressed their objective to apply advance technology possible.
- Growth. Most firms are in the phase of organic growth, with elements of integration.
- Value chains' steering. The firms are seeking market from outside Scandinavia, improvement of the marketing systems and the expansion of the distribution networks. The firms emphasize the importance of customer orientation and internationalization. Optimization of wood utilization in production is also important. Regarding raw materials, the aim is generally to secure its supply. This is natural considering the problems in the availability of wood and the role of wood as a cost factor. When firms do not own or intend to expand their own forest lands, firms base their production on procurement to private forest owners. Here Swedish forestry is largely seen as a task undertaken by society.
- Technological application. Investments in cutting edge technology in specialist production facilities have been made to supply the wide range of customers' needs, expectations and wants.
- Innovation capability. Firms are engaged with different universities to address long term learning, adaptation and development of R&D needs.
- Concern of human resources. The value of human resources has been increasingly understood. This can be seen in the tendency to increase cooperation between various stakeholders and to support innovative actions. Several firms also experienced concern of personnel as essential factors affecting strategy formulation. Training is seen as a method to cope with the tensions caused by advanced technology.
- Social ethical responsibility. The growing importance of factors such as public acceptance and market oriented are increasingly evident. The PEFC and PFC as well ISO have been realized even more and more in operation of the firms in the near future.

The following is a summary analysis of the third dimension.

• The physical capital resources consisting of raw material, location in production and marketing and production process-technological development are considered as valuable, rare and yet imitable strategic resource and possibility of substitutable. But the human capital resources which show social complexity are imperfect imitable. This is manifested in the targeting of profitability through organizational initiatives.

**Conclusions** The firms shared similar strategy and in some extend possess similar resources strategies.

All the firms showed the similar trends of securing wood supply, internationalization and market focus by setting sales abroad in order to make the firms' marketing more efficient, targeting high ROCE, integration of domestic basic production into one-species saw milling logic, maintain modern technology, develop innovation capability and lean technology to promote optimum uses of wood material, emphasize on development of internal human resources and conducting ethical responsibilities with the confines of long term ecology, economy and social sustainability.

Raw material, location in production and marketing, production process-technological, social values and ownership are contributed to the sustained competitive advantage

It is recommended that future studies continue this type of research, since there is a need to have a full time history to see strategy development in order to enhance understanding of branch strategy thinking, as well as distinguish realized and unrealized strategies.

### **Acknowledgements**

All thanks and praised be to Allah the Most Compassionate the Most Merciful and my sincere thanks to the following people:

Supervisor, Dr. Denise McCluskey who has guided me for the past one year, my passion about marketing has been positively influenced due to your deep interest in research and teaching. And also I will not forget Roland Hörnfeldt for your help in the beginning of my study in Uppsala.

People in Joensuu University, for given me the opportunity to participate on this MSc program, Prof. Paavo Pelkonen, who made my study become possible. Colleagues at MScEF, the first year of my study had been amazing, I would like to meet each and everyone in the future, my great thanks to Jaya D Cipta, Tanja Kahkönen and Mourad Benrahmoune.

Families and friends in Uppsala, great living was impossible without knowing you all, especially Farhad Abdi, Ciptanti Sisbandini, Bang Nazli and Ka Leni, Moh Zahid, Moh Rayees. The time we spent together had thought me a lot.

My thanks to all the interviewees at the case firms, Kent Torwald-President Setra Group AB, Kenneth Wallin-Managing Director Martinsons Group AB, Anders Marklund-Sales Manager SCA Timber, Jörgen Hermansson-Market Director StoraEnso Timber, Måns Johansson-MD Vida Wood.

My beloved mother and father, two of my sisters Reinita Astrid and Ratna Mutia with their husband and children, my brother Muhammad Riefki and family, and last, but not the least, Etty Marlina, you all have lived up my life and strengthen me whenever I need it.

## **Table of Contents**

Abstract	11
Summary	iii
Acknowledgements	vi
Table of Contents	vii
List of Tables	X
List of Figures and Illustrations	xi
1. Introduction	
1.1 Research questions and objectives	2
2. Theoretical framework	
2.1.1 Intended Versus Realised Strategy	
2.1.2 Sustained Competitive Advantage	
2.1.3 Firm Resources	
2.2 Description of strategy instruments	
2.2.1 Business concept and positioning	
2.2.2 Financial targeting	
2.2.3 Growth	
2.2.4 Value chains' steering	
2.2.5 Technology application	
2.2.6 Innovation capability	
2.2.7 Concern of human resources	
2.2.8 Social ethical responsibility	
3. Method	
3.2 Case study approach	
3.2.1 Step 1 – Analysis of documented data	
3.2.2 Step 2 – Interviews and questionnaires	
3.3 Materials	
3.4 Strategic Instruments in Sub-groups	
3.5 Strategic Instruments in On / Off Form	
3.6 Strategic Instruments Described in Graphic and Quantitative Form	
4. Empirical Results	
4.1 General Description	
4.1.2 Martinson Group AB	
Strategy	
4.1.3 Moelven Industrier ASA	
4.1.4 SCA Timber AB	
4.1.5 Setra Group	
4.1.6 Stora Enso Timber	
4.1.7 Vida AB	
Strategy	
Values	
Financial Targeting	
Growth	
Value Chains' Steering (Upstreams, Downstreams)	
Technology Application	
Innovation Capability	
Concern of Human Resources	
Social Ethical Responsibility	
Derome AR Described in Graphic and Quantitative Form	20 26
LATORIE AD LIENCHOER DECEMBRIADORE MOLUMANIAM ECOLO	/n

4.2.2 Martinson Group AB	26
Financial Targeting	28
Growth	28
Value Chain's Steering (Upstreams, Downstreams)	28
Technology Application	
Innovation Capability	
Concern of Human Resources	
Social Ethical Responsibility	
Martinson Group Described in Graphic and Quantitative Form	
4.2.3 Moelven Industrier ASA	
Financial Targeting	
Growth	
Technology Application	
Innovation Capability	
Concern of Human Resources	
Social Ethical Responsibility	
Moelven Industrier ASA Described in Graphic and Quantitative Form	
4.2.4 SCA Timber AB	
Business Concept and Positioning (Products, Presence)	
Financial Targeting	
Growth	
Value Chains' Steering (Upstreams, Downstreams)	
Technology Application	
Concern of Human Resources.	
Innovation Cappabilities	
Social Ethical Responsibility	
SCA Timber described in graphic and quantitative form	
4.2.5 Setra Group	
Financial Targeting	
Growth	
Value Chains' Steering (Upstream, Downstream)	
Technology Application	
Innovation Capability	
Concern of Human Resources	
Social Ethical Responsibility	
Setra Group Described in Graphic and Quantitative Form	
4.2.6 Stora Enso Timber	
Business Concept and Positioning (Products, Presence)	
Financial Targeting	
Growth	
Value Chains' Steering (Upstreams, Downstreams)	
Technology Application	
Innovation Cappabilities	
Concern of Human Resources	
Social Ethical Responsibility	
Stora Enso Timber described in graphic and quantitative form	
4.2.7 Vida AB.	
Business Concept and Positioning (Products, Presence)	
Financial Targeting.	
Growth	

Value Chains' Steering (Upstreams, Downstreams)	45
Technology Application	
Innovation Cappability	
Concern of Human Resources	46
Social Ethical Responsibility	46
Vida Wooda AB Described in Graphic and Quantitative Form	47
4.3 Summary Strategic Instruments in Sub-groups	48
4.4 Strategic instruments in on/off form	54
4.4.1 Profiles in number series	
4.4.2 Summary of firms' strategies in profile element	57
5. An Overall Assessment and Discussion	60
5.1 Summary of Findings	60
5.1.2 Physical capital resources	62
5.1.2 Human capital resources	62
5.1.3 Organization capital resources	
5.2 Strategic Profiling and Sustained Competitive Advantage	
5.2.1 Regarding Physical Capital Resources	63
5.2.2 Human Capital Resources	63
5.2.3 Regarding Organization resources	
5.3 Common Features and Differences	
5.4 Critique of Method	
6. Conclusions	
References	69
Appendix A: Interviewees	71

# **List of Tables**

Table 3-1. Instruments in the strategies of firms adapted from Sierilä (2005)	15
Table 3-2: General strategy profile form adapted from Sierialä (2003)	16
Table 4-1. Strategies as reported by the firms	
Table 4-2. Strategic situation in ON/OFF-form	54

# **List of Figures and Illustrations**

Figure 1-1. The total output of sawn softwood by output category (Stalan et al. 2002)	1
Figure 2-1. Strategy Model adapted from Sierialä (2005)	
Figure 2-2. The relationship between Resource Heterogeneity and Immobility, Value,	
Rareness, Imperfect Imitability, and Substitutability, and Sustained Competitive Advantage	•
adapted from Barney (1991)	6
Figure 2-3. Elements of an offering (Ford 2002)	8
Figure 2-4. Development strategies (Johnson 1988)	9
Figure 2-5. Corporate responsibility model (Mikkilä 2006)	11
Figure 3-1. Research design in two steps adapted from Nord (2005)	12
Figure 5-6. The offering	64
Figure 5-7. Geographical presence in production	64
Figure 5-8. Business position combined	65
Figure 5-4. Organic growth	65
Figure 5-5. Value chains' steering – Upstream	66

#### 1. Introduction

Forestry is classified as a basic industry since it provides raw material and goods to the world's economy, making a major contribution to the national economy of some countries. In Sweden international trade in forest products generates a large export surplus. In 2004, forest products worth 110 billion kronor ( $\in$  12.1 billion) were exported, while imports of forestry products amounted to 25 billion kronor ( $\in$  2.75 billion). Thus, the surplus on the trade in forest products was 85 billion kronor ( $\in$  9.35 billion) (Statistics Sweden, 2005).

In the early 1980s, internationalisation efforts of Scandinavian forestry firms were evident from establishing production abroad, establishing marketing networks in Europe and elsewhere (Sierillä 1987). A key area of these firms nonetheless is still concerned with sawmilling activities. In the past decade, the production of sawn wood in Sweden has concentrated towards the bigger sawmills, illustrated in Figure 1-1. Softwood sawmills with an annual production of more than 50 000 m³ accounted for 50% of the total production in 1990 and 68% in 1995. The corresponding number for 2000 is 80%. The ten largest sawmill firms produced 44% of the total production (Stalan et al, 2002). Their sustainability therefore of concern to Sweden and so the strategies of these firms is of interest.

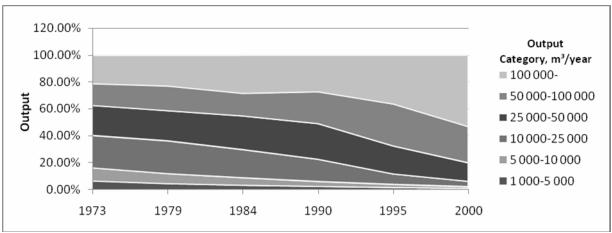


Figure 1-1. The total output of sawn softwood by output category (Stalan et al. 2002).

The concept of "strategy" can be defined in various ways. For example, Elvengren et al. (2005) define strategy as the long-term behaviour of the organisation concerned with respect to its business environment to achieve its long-term business objectives. Kotler (2000) adds the managerial process of developing and maintaining a viable fit between the organization's objectives, skills, and resource and its changing market opportunities. His strategic planning is to shape the firm's business and products to achieve profits and growth rates. Juslin (2003) emphasizes strategy as the basis of all business function, particularly marketing.

Various school of strategy have emerged, Mintzberg classified into 10 school (Mintzberg 2003), Nasi (1988) in Sierillä (2003) classified the strategic thinking school into seven categories. Mintzberg identifies five notions of strategy: strategy as plan, ploy, pattern, position and perspective (Mintzberg et al. 2001), each of these elements adds important elements to our understanding of strategy. Mintzberg use five different definitions that approach strategy from a slightly different angle. As a plan, strategy describes how organizations will perform in the future – a path from the present to a future state. As patterns, strategy looks at the history of the organization and analyzes its behaviour and thus the likely

future actions. As position, firm looks at the organization's products and markets to define its future strategy. As perspective, strategy describes the overall aspiration of the organization. And strategy as a ploy, the organization's actions are done to hide its true goals and to distract competitors.

When assessing the strategies of firms, benchmarking and profiling concepts are often used since these can give 'hard' data which enables us to measure and compare firms. Sierillä (1987, 2003 and 2005) conceptualized one methodological approach in the field of corporate planning and strategy research, based on theories on strategies base as well as his own experience in several jobs in industry. His method contains definition of the substance of strategies and sources of information on strategies.

Sierilla's concepts profile from firms intended and realised strategies and then reveal their reason of existence, certain of courses of actions and objectives. These notions are expected to increase and improve the knowledge about factors affecting firms' activities and what influence its courses of action in the present time.

#### 1.1 Research questions and objectives

This research assesses the strategic concepts in the form of reported and non reported statements by firms in forest industries and firms operating in the same branch. Therefore it is important to find the answer to the following research question:

How - from an outside observer's point of view – to reveal the contents of strategies, i.e. to analyse 'official' strategies brought up by the firms in focus, and to identify the real situation?

This question leads to further sub questions:

How can firm strategies be described as concretely as possible, and expressly in a manner that facilitates comparisons in order to find similarities and differences between them?

Will the strategies lead to 'sustained competitive advantage'?

This is a consequence of the fact that organisations determine their strategies in numerous different ways. There is no common model. Thus, it is important to derived the right strategic elements that will lead to the right strategic in use.

Although the planning process should, in principle, be so well carried out that the strategy is realistic, the outcome of operations often seem to deviate clearly from the planned.

The main objectives of this study are to acquire knowledge of the present strategy in use, specifically to disclose and to interpret sawmill firm strategies, as well as to apply strategy elements in the information sources on strategies available into sustained competitive advantage in the sawmilling firms.

The expected results of strategy analyses will be wrapped-up in the following forms adapted from Sierilä (2005)'s work:

Strategic instruments in sub groups, describe the strategy component as reported by firms.

Strategic instruments in on /off form, by profiling the strategies into tabular form of realized from the latest published firms report.

Strategic instruments in graphic and quantitative form, by benchmarking and interpreting firms strategic instruments into profile.

I have reflected to Sierilä's work since his early publication from 1983-2005 that deals in revealing firms strategies' instruments in the field of forest industries. Through thorough reflexive method (Gillham 2005), I had come to the conclusions that his approach had been proven and applied in different occasion of research activities in forest industry cluster from Nordic countries, Canada, Japan and USA.

#### 2. Theoretical framework

#### 2.1 The concept of strategy: Strategic instruments, the core of strategies

The word strategy has been around for a long time. Academics have studied strategy extensively for about two decades now, while business school usually have as their final capstone a course in strategic management. Wright et al. (1992) defines as "top management's plans to attain outcomes consistent with the organization's mission and goals."

The strategy concept, its content, the strategic planning process (also referred to as business or corporate planning, and earlier long range planning process), and strategy formation models have been widely dealt with in numerous studies and publications, both at academic level and by management consultants. Scientists, worth closer attention, have been e.g. Russel Ackoff, Igor Ansoff, John Argenti, A.D. Chandler, Gerry Johnson, Henry Mintzberg, Juha Näsi, Michael Porter, George Steiner, C.K. Prahalad and Garry Hamel and etc.

In general, strategy models describe the strategy concept and content in a more or less complicated form. However, in practical applications, it might be worthwhile to keep in mind the slogan, KISS "Keep It Simple, Stupid" as in Peters and Waterman (1982) in Mintzberg et al. (1998). People participating in strategic process want to handle real things, close to the firm operations.

In the strategy, there is a question of how to steer the firm in the right direction through the right steps. In principle, alternatives are: either to give something up, to keep the present status-quo, or to move towards a new situation. For the purposes there are available several strategic instruments.

The strategy basically can be seen as case-to-case combination of several strategic instruments and individual strategy choices. Instruments form a kind of strategy kit open to selection when building up the strategy. Instruments cover for example: production presence, financial targeting, product portfolio, pricing of products, growth organically, etc.

What instruments and how they are included in the overall strategy entity, is a question of strategic planning and consideration. This approach means that there is no single, universally applicable, categorical model. As Gary Hamel put it, starkly, "The dirty little secret of the strategy industry is that it doesn't have any theory of strategy creation." Strategy has to come out of creative process conducted by thoughtful people.

There may not be once simple definition of strategy, but there are by now some general areas of agreement about the nature of strategy. The following list adapted from Chaffee (1985) in Mintzberg et al (1998).

- Strategy concerns both organization and environment. "A basic premise of thinking about strategy concerns the inseparability of organization and environment....the organization uses strategy to deal with changing environments."
- The substance of strategy is complex. "Because change brings novel combination of circumstances to the organization, the substance of strategy remains unstructured, un programmed, non-routine and non repetitive...."

- Strategy affects overall welfare of the organization. "...Strategic decisions ... are considered important enough to affect the overall welfare of the organization..."
- Strategy involves issues of both content and process. "...The study of strategy includes both the actions taken, or the content of strategy, and the processes by which actions are decided and implemented."
- Strategies are not purely deliberate. "Theorists...agree that intended, emergent, and realized strategies may differ from one another."
- Strategies exist on different levels. "...Firms have...corporate strategy (What business shall we be in?) And business strategy (How shall we compete in each business?)"
- Strategy involves various thought processes. "...strategy involves conceptual as well as analytical exercises. Some authors stress the analytical dimension more than others, but most affirm that the heart of strategy making is the conceptual work done by leaders of the organization."

Pentti Sierilä (2003) explained over 100 identified individual instruments altogether with its contents of dimensions. Sierilä has selected combination of selected instruments which applied for the forest industry in his research studies from European, Canada and USA forest firms.

#### 2.1.1 Intended Versus Realised Strategy

The first step when analysing strategies is to note the fact that, for more reasons than just one, the outcome of a strategy is not the one pursued. In nature, the strategy is an intention, which expressing the aims and the lines the organisation wants to follow. The reality is often more or less different (Figure 1-2).

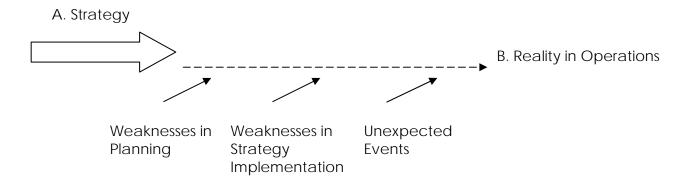


Figure 2-1. Strategy Model adapted from Sierialä (2005).

The Figure 1-2 illustrates a case in which a certain course of actions can give positive as well negative influence in some aspects against firms' strategies. The purpose of strategy planning is to build up a frame work which gives a common direction to the efforts within the firms and to react to the threats and opportunities in the future (Sierilä 1987). Furthermore, intentions that are fully realized can be called deliberate strategies. Those that are not realized at all can

be called unrealized strategies. And there is emergent strategy-where a pattern realized was not expressly intended (Mintzberg et al., 1998). Actions were taken, one by one, which converged over time to some sort of consistency or pattern.

It is justified to ask, which one represents the strategy, the intended, or the one really actualised? It is obvious that the latter reflects the reality better than mere intentions or even good decisions. It is wisdom to focus first to the facts, then on the words.

Sierilä (2005) notes that the time span between the strategy decision and its full completion varies on the practical level. Results of the strategy decisions can appear very soon e.g. in decisions concerning investments, but the fundamental changes in the production structure are bound to take a longer period before taking effect. In general it can be said that the results of strategy changes can seldom be immediate.

In case the realised situation shows that the strategy has either partly or even totally remained unimplemented, the reason can be (Sierilä 2005):

- 1. It was simply not possible to actualise the strategy as planned, for one reason or another, or the implementation had taken a longer time than expected.
- 2. After the strategy decision was made, such unexpected events or changes had occurred as could not have been taken into account.
- 3. The strategy was wrong, in the first place, that is, wrong when applied to the firm. The primary reason for this can be deficient strategy analysis or maybe even their total failure, which can be attributed either to the incompetence of the organisation or to the fact that the top management dictates the strategy based on the gut feeling.
- 4. It is also possible, and in some cases it seems to be quite clear that, it has not even been originally the intention to implement the strategy officially informed.

#### 2.1.2 Sustained Competitive Advantage



Figure 2-2. The relationship between Resource Heterogeneity and Immobility, Value, Rareness, Imperfect Imitability, and Substitutability, and Sustained Competitive Advantage adapted from Barney (1991).

Barney (1991) build the relationship between resource heterogeneity and immobility; value, rareness, imitability, and substitutability; and sustained competitive advantage as in figure 1-3 in order to understand sources of sustained competitive advantage with the following attributes: (a) it must be valuable, in the sense that it exploit opportunities and/or neutralizes threats in a firm's environment, (b) it must be rare among a firm's current and potential competition, (c) it must be imperfectly imitable, and (d) there cannot be strategically equivalent substitutes for this resource that are valuable but neither rare or imperfectly imitateable. These attributes of firm resources indicate of how heterogeneous and immobile a firm's

resources are and thus how useful these resources are for generating sustained competitive advantages.

Hugosson and McCluskey (pending) highlight firm's resources that may contribute to sustained competitive advantage. These resources can be categorised as financial, legal, physical, organisational and relational. But the most essential resources that make a major contribution to sustained competitive advantage are the following:

- Organisational resources (including organisational culture and routines, brands, and quality control systems) since these create proprietary solutions which are imperfectly imitate-able and immobile.
- Informational resources because information is a prerequisite for organisational learning.
- Relational resources when partners have customer relationships characterised by trust, commitment and loyalty, since trust takes a long time to cultivate.

#### 2.1.3 Firm Resources

Barney's framework is applied in analyzing the strategic instruments of firm resources to find the sources of sustained competitive advantage. By analysing possible resources, we may identify those that make a large contribution to competitive advantage, and are able to distinguish away those not being important. The identification and analyses of resources aims at distinguish those that are, valuable, rare, imperfectly imitable and substitutable. By conducting this analysis, a firm may leverage the resource into gaining a sustainable competitive advantage.

In the sustained competitive advantage there are a number of resources that have been seen as important to have access to, and should be considered when implementing strategies that exploit their internal strengths, through responding to environmental opportunities, while neutralizing external threats and avoiding weaknesses. These are (Barney, 1991):

- Physical capital resources, covering the offering, technology application, plant and equipment, geographic location and access to raw material.
- Human capital resources, covering innovation capability (training, experiences, judgment and intelligence relationships), and concern of human resources (insight of individual managers and workers).
- Organizational capital resources, covering formal reporting structure, controlling and coordinating system and relationship; and social ethical responsibility.

#### 2.2 Description of strategy instruments

This part will describe the contents of the strategy instruments related to the areas presented in the study.

The following presentation is the subjects of numerous scientific studies resulting in a lot of publications, therefore the author only reviews each component in general terms not in details.

#### 2.2.1 Business concept and positioning

Firm can define its strategic concept and position in terms of characteristic of the business, products, markets, resources, geography and some specific features, e.g. environmental issues (Sierilä 2003). The content of business concept and positioning quite often related to 'core products'-a tangible link between identified core competencies and end products (Prahalad

1990). Core products are the components or subassemblies that actually contribute to the value of the end products. Product in this context can be something material as well, something immaterial like in service business.

Firms can position itself in several stages of the network of the particular industry, namely as being in upstream (raw material extraction and conversion), midstream (manufacturing) and downstream (delivery or other service) business (Mintzberg et al 1998)

Business customers have grown more complex where physical product alone wouldn't simply solve the problem during both purchase and implementation. Ford (2002) use different elements of combination of firms offering as:



Figure 2-3. Elements of an offering (Ford 2002).

This model gives a holistic approach to solve customer's problems and on the same time fulfilling their needs, wants and expectations and to be provided in friendly, trustworthy and timely manner.

#### 2.2.2 Financial targeting

Nowadays firms define their long term financial targets more or less explicitly, which can be interpreted as a part of overall strategy. So far as the pure profitability objectives are concerned, operating profit and net profit are natural coming in question, either in terms of absolute figures or of relative figures in relation e.g. to the sales of the firm. Return on investment (ROI) and return on capital employed (ROCE) describe the profit in relation to the input money. ROCE indicates the efficiency and profitability of a firm's capital investments (Investopedia Online).

As the financial structure of the firm, equity ratio and gearing ratio are often used as yardsticks. The higher a firm's degree of leverage, the more the firm is considered risky. As for most ratios, an acceptable level is determined by its comparison to ratios of firms in the same industry.

#### 2.2.3 Growth

Strategy components areas are do nothing, withdrawal, liquidation, size, leadership, change the structure of the branch, consolidation, change the firm structure, diffusion, synergy, resource orientation, market orientation, value added-orientation, flexibility, efficiency, productivity, cost leadership, shift the sources and/or combination of resources, shift of the products, differentiation, focus, benchmarking, and entrepreneurship.

Johnson (1988) identifies various strategic options that organisations might pursue with the assumption that organisations are concerned with growth as a major objective.

Growth is not the reason for strategic choice being necessary; rather the need lies in the fact that an organisation's internal and external circumstances are constantly changing.

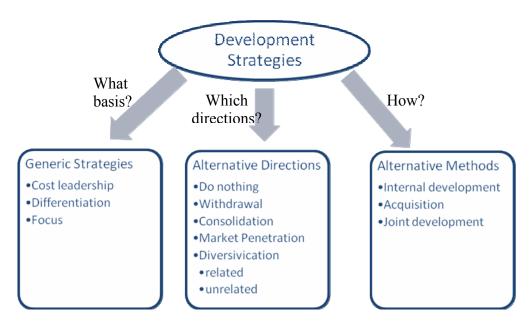


Figure 2-4. Development strategies (Johnson 1988).

The approach is to argue that the process of strategic choice must address itself to a wide variety of situations with the emphasis on development strategies. Figure 2-4 illustrates three separate aspects of strategy, all of which need consideration (Johnson 1988):

- 1. The generic strategy to be pursued, i.e. the basis on which the organisation will compete or sustain excellence.
- 2. The alternative directions in which the organisation may choose to develop.
- 3. The alternative methods by which any direction of development might be achieved.

#### 2.2.4 Value chains' steering

Strategy components areas are on product positioning, marketing chains, upstream, downstream, self sufficiency, outsourcing, cooperation, and networking.

The Swedish saw milling industry operates in a value chain starting from forestry and ends at the final consumer being either a private person or professional consumer. Nord (2005) describe the initial view of the Swedish solid wood value chain as forest, saw milling industry, further processing firms, industrial end-users, retailers, DIY, Timber and Builder's merchants, end-users and the agents that act as facilitators or relation exchangers between a supplier and a customer. Most of forest firms known as "integrated" because they combine upstream activities with downstream operations, which take place from production phase until the point of sale.

#### 2.2.5 Technology application

Strategy components focus on manufacturing concepts (methods), size and speed of processes, monitoring systems of processes, products, technology transfer, production placement, vertical integration (backward/forward), horizontal integration, and geographical integration.

The technology related to the manufacturing process can be divided into the following parts (Sierilla 1987):

- 1. Contents of manufacturing concepts (methods) used in the production processes
- 2. Size and speed of the process
- 3. Monitoring systems of the manufacturing processes (instrumentation, use of software)

Technology decisions are very long term and can profoundly affect a firm's ability to develop and fulfil its offerings for many years. Firms cannot just confine their attention to their current offerings or to new ones that are based on existing technologies. Instead, they must be able to understand the technological position of their own firm and those of its customers and suppliers and be able to use that understanding to develop their approach to their customers.

As a first step it is useful to separate out the three principal tasks of firms concerning technology (Ford 2002). These are first, to acquire the technologies that the firm needs for its operations and its offerings. Second, to fully exploit these expensively acquired technologies in their offerings by other means, and third, to manage these two processes effectively in a complex organization.

#### 2.2.6 Innovation capability

Focus areas are on products, technology, risk taking, corporate venturing, intellectual property rights, energise innovation in a global way, innovation atmosphere, and R&D cooperation.

Innovation is the generation, acceptance and implementation of new ideas, processes, products or services (Thompson 1967 in Stendahl et al 2006). Four types of innovations can be distinguished (OECD/European Communities 2005 in Stendahl et al 2006): A product innovation is the introduction of a good or service that is new or significantly improved with respect to its characteristics or intended uses. This includes significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics. A process innovation is the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software. A marketing innovation is the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing. An organisational innovation is the implementation of a new organisational method in the firm's business practices, workplace organisation or external relations. Product development is used as an assembly term for the span of innovation activities leading to, or that are intended to lead to, product innovations.

#### 2.2.7 Concern of human resources

Strategy focus areas are on organisation structure, leadership style, health and safety work, employee rights, volume, employment, logical/directive/inspirational/supportive leadership, quality and skills, motivation, incentives and culture.

The central theme of the strategic framework developed purpose that competitive advantage is derived from effectively managing the fit between knowledge assets and the environment. Strategy implies that knowledge is developed and implemented in a certain direction. That means that a choice has to be made whether to outsource knowledge or to develop necessary knowledge within the firm or at innovations; should the firm create corporate culture promoting learning. Corporate culture and values from an environment, which either inhibits or enhances learning (Sierilä 2003).

#### 2.2.8 Social ethical responsibility

Strategy components focus on values, code of ethics, social responsibility, ecology, sustainable development, nature and environmental protection (water, air, solid waste, recycling, life cycles).

In the early 80s the notion of social ethical responsibility is summarised under several broad heading (Johnson 1988) as in internal aspects which include employee welfare, working conditions, job design and as in external aspects which respond to the issues of pollution, product safety, marketing practice, employment and community activity.

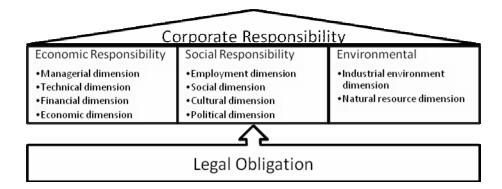


Figure 2-5. Corporate responsibility model (Mikkilä 2006).

Nowadays more comprehensive knowledge has shaped corporate responsibility (Figure 2-5) include economic, social and environmental responsibilities, refers to both the organisational and societal, or internal and external, responsibility of a firm. The organisational, or internal part of economic responsibility, for example, includes managerial, technical and financial dimensions, while the economic dimension refers to the economic impacts of the firm and thus to societal, or external responsibility. The employment and cultural dimensions are both organizational and societal questions, but the remaining dimensions of social responsibility refer mainly to the firm's relations with the surrounding society. Similarly, both dimensions of environmental responsibility include both internal and external elements (Mikkilä 2006).

#### 3. Method

#### 3.1 Research Design

The design of my research is following qualitative methodology (Silverman 2000) which divided in two steps. The first is to conduct analysis of documented data covering annual reports (operational and financial sections), press releases and internet websites of the saw milling industry and the phenomenon to be studied. Annual reports are going to be used as the principal information source, not only data expressed in terms of financial terms.

The second step involves the gathering of the primary data of opinions, objectives and visions of corporate top management using a case study approach with purposive sampling (Silverman 2000). The case study approach comprises the selection of a limited number of firms from the total Swedish saw milling population. The research is going to be ended with the analysis and conclusions of the studied phenomenon. The step-wise development of the research is adapted from Nord (2005) as illustrated in Figure 2-1.

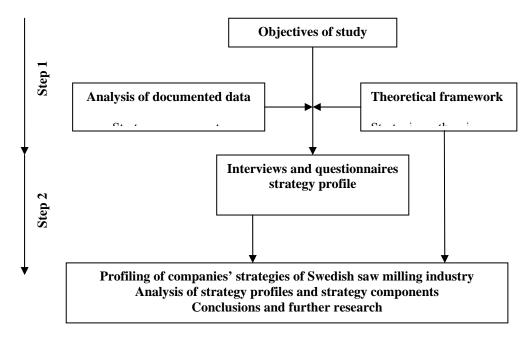


Figure 3-1. Research design in two steps adapted from Nord (2005).

#### 3.2 Case study approach

A case study is one which investigates single or multiple cases to answer specific research questions from a range of different kinds of evidence in the case setting, which has to be abstracted and collated to get the best possible answers to the research questions (Gillham 2005). The purposive sampling is used to select the seven sawmilling firms based on the significant differences in the volume of business activities from the Swedish Forest Industries Federation of what they consider significant actors.

Hugosson & McCluskey (pending) notes that 'top 20' lists comprise the same actors, and considers having 50% of total turnover in the year 2004 of over 20 MSEK (approximately 2 million Euros). In this study, the case study focuses only on the seven largest sawmills, hence, the constraint of language barriers, time and cost.

Having seven firms of the 20 biggest firms in Sweden, this number alone has contributing to 25% of the Swedish saw milling. This justifies the selection of firms being used in this research (Stalan, et al 2002).

#### 3.2.1 Step 1 - Analysis of documented data

The study will use the annual firm report as the principal information source. More information will be gathered from firm's websites, it has become important sources, as more and more firms publish their annual information on the web. Additional sources have been firm histories, press news and releases as well magazines.

In strategy reviews, the use of annual reports can be grounded particularly on the fact that the annual report probably is the most official one of the firm documents. It is prepared carefully and is demanded even by the law to bring forward many aspects central in the company operations (Sierilä 2003).

The process of revealing and interpreting strategies is the following:

- 1. The source material is run through, mirrored against the check list of strategy choice components, every word, sentence, and paragraph which could be considered to give a clue of the strategy of the firm.
- 2. The statements are collected and grouped into logical strategic areas
- 3. The strategy, which is under interpretation, is described as the whole
- 4. After all, it is possible to wrap up the core of the firm total strategy and to draw other conclusions, such as, which are noteworthy points and the areas which occur or are not mentioned in the strategy.

The main material are listed as the following:

McCluskey and Hugosson, D(Pending), Henningsson, M(2005), Firms published publications, Nord (2005), and Sierilä (1987, 2003, 2005)

#### 3.2.2 Step 2 – Interviews and questionnaires

For a case study, the case firms should be selected for theoretical reasons rather than to achieve a certain level of representativity, which is often the objective for a survey approach Bengtsson in Nord (2005). Chain in Nord (2005) states that —"the strategy of choosing cases should be non-probabilistic with the aim of learning as much as possible enhancing the further analysis". The explanation is that the selection should be based on case firms that are expected to have expert knowledge related to the research rather than a general or average view of the population regarding the phenomenon.

The interviewees for the case firms will be at an executive management level also involving interviewees at different position in the firm, the list is given on the Appendix A. A semi-structured interview question and strategy profile form act as a guide during the interview with the case firms to create a standardised structure both for the compilation of data but also for a possibility to replicate the different interviews Lekvall and Wahlbin in Nord (2005).

#### 3.3 Materials

The focus of interest in this study is on forest industries, totally around seven largest sawmilling industries will be the subjects of analyses. The case study data base analyzes the following seven sawmilling firms: Stora Enso Timber, SCA Timber, Setra Group AB, Moelven AB, Vida AB, Martinsons and Derome AB.

The study is base on multiple source of evidence. These different sources are meant to have simple and confirmatory triangulations (Gillham 2005, Silverman 2000), on different kind of evidence, documents include annual firm reports and other public material such as press releases, news and articles, records and interviews. These are all important form of evidence in case study research.

The study helps to broaden one's understanding of the topic. Beside the descriptive approach to the matter, the study also includes normative aspects by aiming at achieving results that can in accordance with planning sciences be used as guidelines when developing new operations.

#### 3.4 Strategic Instruments in Sub-groups

There are many school of strategy, this study is using opinion of Sierilä as its has been approached and used for forest industry. Sierilä collaborated different school and refined it into several strategic instruments which he later on put it into several grouping (Sierilä 2003)

Firms express their strategies in very different ways. This involves many aspects, e.g. the terminology is multiple, varying from firm to firm. Beside 'strategy', related terms like 'mission', 'business idea', 'vision', 'goals', 'targets', etc. are used.

The shortest form of descriptions are specific 'mottos' (Sierilä 2005), to an observer who wants to interpret the contents of the descriptions, mottos like these surely give an overall picture of some level of each firm's aims and more detailed choices. However, to be able to draw more analytical conclusions, further processing of these descriptions is necessary.

In order to make sense, it is necessary to compress the instruments in the strategies concerned into only a few main groups. The alternatives for grouping are numerous, e.g. the following which Sierilä (2005), Ford (2002) had used in paper industry firms:

#### 1. Business concept and positioning

This part encompasses the offering as explained in Ford (2002) about products, services, logistics, advice and adaptation; the firm's basic business idea and logic, internationalisation; presence in production and presence in raw materials procurement, production, sales and R&D work

#### 2. Financial targeting

Financial targeting meanings economic and financial long-term targets of the firm (profitability, capital structure, financial position, and shareholders' value and dividend policy)

#### 3.Growth

The firm's role in the change and consolidation of the branch; the firm's own investments in new production facilities; alliances, joint ventures, acquisitions and mergers; efficiency, productivity; synergy

#### 4. Value chains' steering

The firm's position in the production and marketing chains, backward (upstream) to input resources and forward (downstream) up to customers; how the firm manages the chains self-sufficiently, by different co-operative and networking forms, or by outsourcing.

#### 5. Technology application

Technology level (manufacturing methods, scale, monitoring); production geographical integration (vertical, horizontal, combined)

#### 6. Innovation capability

The firm's overall long-term thinking and innovation atmosphere; human and financial investments in research and development; risk taking; activities in R&D co-operation.

#### 7. Concern of human resources

Overall attitudes towards human resources of the firm and practical measures in the field of personnel (organisation structure, leadership style, health and safety work, employee, etc.)

#### 8. Social-ethical responsibility

Attitudes and practical measures in issues concerning the firm's environment society, values and ethics; political issues, 'lobbying'.

This is combination of Sierilä's grouping and given significance of logistics in Swedish sawmilling industries therefore the researcher modified the product mix into the offering from Nord (2005).

#### 3.5 Strategic Instruments in On / Off Form

When trying to go deeper into the core of strategy contents, it is quite unavoidable to identify what are really the detailed instruments, which the firms use when building up their strategies, and also in realised operations. Only then can the strategies be revealed precisely enough.

On/off Form informs, if the firm applies the particular instrument or not. This can be evaluated by mirroring against the potential instrument list:

*Table 3-1. Instruments in the strategies of firms adapted from Sierilä* (2005)

No INSTRUMENTS FIRMS							
		1	2	3	4		
		Realised	Realised	Realised	Realised		
1	Business concept and positioning						
2	Financial targeting						
3	Growth						
4	Value chains' steering						
5	Technology application						
6	Innovation capability						
7	Concern of human resources						
8	Social ethical responsibility						

When revealing both the strategy reported, and the real situation in the firm, the analysis includes both aspects.

In order to suit with the Swedish condition, the changes are made adapting from Sierilä's works and applying premise of change observed by Nord (2005) and conveyed by industry informants, Hugosson and McCluskey (pending) that made an assessment of changes in the Swedish sawmilling branch.

This adaptation shows as identified by Hugosson & McCluskey (pending) that sawmilling industries has transformed into new business practices from commodity business into service-based business practices.

#### 3.6 Strategic Instruments Described in Graphic and Quantitative Form

For most instruments the question is not either/or, +/-, but some position between + and -, it is, between minimum and maximum. So, a graphic presentation on the scale is a natural description alternative:

Adopting Sierilä's (2003) and Ford (2002) a model is constructed that is comprehensive and general enough but not too complicated. Thus, within these criteria we selected the essential point of the components to describe the strategy entity whereas most of the strategy components are available in theory. The alternative model is the following:

Table 3-2. General	strategy pr	ofile form	adapted	from Sierialä	(2003)

	Firm Strategy Profile							
No	Instruments	Scale	1	2	3	4	5	
1	The offerings	Narrow						Diversified
2	Presence in production	Local						Global
3	Presence in marketing	Local						Global
4	Financial targets	Low						High
5	Organic growth	Slow						Fast
6	Value chains' steering							
	Upstream	Outsourced						High rated
	Downstream	Outsourced						High rated
7	Technology application	Old fashioned						Highly
								advanced
8	Innovation capability	Low						High
9	Concern of human	odest						Deep
	resources							
10	Social ethical	Passive						Active
	responsibility							

Scaling per element is rather rough, from 1 to 5. Total 'strategy points' over all ten elements are: min. 11, max. 55. However, note that the maximum points do not necessarily mean 'the best strategy'.

The position at the scale is relative, only in rare cases absolute. Therefore, it is interesting to compare profiles of firms within the same branch. Nevertheless, comparisons between the firms in different sectors may be challenging.

Sierillä (2003) laid down the profile description and additionally Ford (2002) strengthen the following explanations:

- 1. Offering: describes the firm's business position in terms of products, services, logistics, advices and adaptations.
- 2. Presence in production: describes business position in terms of geography as to production facilities
- 3. Presence in marketing: describes business position in terms of sales and marketing efforts
- 4. Financial targets: describes economic and financial long-term targets of the firm, covering profitability, capital structure, finance position, and dividend policy
- 5. Organic growth: describes the role of the firm's own investments, in particular in new production facilities
- 6. Value chain's steering

Upstream: Primary timber supply.

Downstream: Marketing network, transporting of products.

- 7. Technology application: describes the economic size of production facilities, technological solutions in production methods and monitor systems
- 8. Innovation capability: describes the firm's overall long-term thinking and innovation atmosphere, human and financial investments in research and development, risk taking, activities in R&D co-operation
- 9. Concern of personnel: describes overall attitudes towards human resources of the firm and practical measures in the field of personnel
- 10. Social ethical responsibility: describes attitudes and practical measures in issues concerning the firm's environment society, values and ethics.

Questionnaire is designed for 20 minutes or so, interview with the MIK Steering Committees which consists of the owner of all the firms listed in this study using semi structured questions (Silverman 2000) with the focus on getting the profile.

Firm Strategy Profile semi structured questions

- 1. What makes your firm stands out from the others?
- 2. How do you see the core competencies of the firm? How have the core products create successful business?
- 3. How have the strategies turned out in reality? How well does the reality meet the intended strategy content?

### 4. Empirical Results

#### 4.1 General Description

#### 4.1.1 Derome AB

Derome AB business idea is to deliver value-added wood products and building material to the construction industry. Market oriented approach with key activities personal and direct relations with an efficient distribution. Broad engagement along the solid wood supply from forest to finished house including saw milling, bio energy, Builder's merchant, wood building component manufacturing and wooden frame house production.

The overall business idea that they should never be dependent of any market segments or any customers. The strategy engaging in different business has resulted in a low but stable profitability based on the notion that the demand from customer segments fluctuates following different cycles.

Derome timber is focusing on the market segments related to the construction industry. The main products produced are distributed to Builder's Merchants, Industrial end-users and packaging industry.

Sweden is the largest market for Derome Timber with UK as number two, and Denmark, the Netherlands and Germany as other regions being supplied by the firm.

In 2004 sawn timber is produced 340 000 m³ with the same planing capacity. The turnover in the same year reaching SEK 743 915 million (EUR 81 831 million). All together Derome AB provide full service wood products manufacturing firm utilizing forest raw material in a rational and efficient way and creating values to customers with improved distribution solutions.

Primary competitive advantage lie in low cost sawn timber products from specialized saw mills with integrated further processing, high distribution service for regional customers and wide product range of wood based constructional products, stemming from vertical integration

#### 4.1.2 Martinson Group AB

Martinson Group AB is one of Sweden's most innovative and expansive timber industries in the development and production of sawmill products, glulam, solid wood systems and timber bridges. Martinson Group's headquarters is in the village of Bygdsiljum, country of Västerbotten. Turnover in 2003 was 800 million SEK.

#### Strategy

Martinson Group wants to be one of the most research oriented firms in the Swedish saw milling industry and a firm in the forefront of moving down the solid wood value chain.

The firm intends to be market-oriented wooden products firm that concentrates on a few select segments, aims for direct relation independent of product. In addition to high quality products, Martinson Group offers added value that increase its customers' competitiveness that maintain its raw material supply, environment and quality and reinvestment in technological and product development.

The firm focuses on the cost-effective manufacture of sawn and planed timber, painted panels, gluelam beams, and solid wood structural boards and on marketing these products. The firm's key market segments are industrial appearance and structural end-users, Builder's merchants and construction firms.

In 2006 the new organization started functioning, the group covers seven firms, each one specializing in its own field, from the most modern sawmill in Europe and Sweden's largest manufacturer of glulam to the leading firm in the Nordic countries for wooden bridges and solid wood frames.

The production units are located in Martinsons Såg AB, Wallmarks Såg AB and Hällnäs Såg AB. Martinsons Trä AB is responsible for the sales of the group's sawn and processed goods and also sells glulam and Comwood posts.

Offer a wide range of wooden products through one sales outlet.

Martinsons Byggsystem AB develops, markets and erects buildings with wooden framework systems. Obtains its building elements from Martinsons Såg and is still alone on the Swedish market when it comes to the construction of multi-storey buildings on a wooden framework.

Martinsons Träbroar AB is the market leader in Sweden. Develop and manufacture a flexible system of prefabricated wooden bridges for the entire European market. Martinsons Tre A/S is the Martinson Group's first foreign subsidiary. They market and sell Martinsons products and services in Norway.

Primary source of competitive advantage lies on raw material qualities generating high quality sawn timber products, long-term presence in the gluelam business, which has given the firm a reputation and knowledge in the construction industry and narrow range of products for constructional purposes but leveraged by vertical integration into construction industry.

#### 4.1.3 Moelven Industrier ASA

Moelven's strategy is based on brand platform to supply quality rooms. The vision of Moelven is to become the natural choice for people building and living Scandinavian style. The position should be developed by adopting firm values of sustainable renewable resources and respect people and long term planning, developing reliable business partner and becoming industrial leader in product development and innovation

Moelven's business concept is to supply quality rooms. The firm supplies renewable resources, primarily wood, which is ideally suited for building rooms, it the widest sense of the term. The quality rooms Moelven supplies may be work rooms in offices, suites in hotels, classrooms in the schools, play rooms in day-care facilities, bedrooms in apartments or open air rooms in gardens.

Moelven is providing quality rooms assured through the application of high-quality materials, modern production techniques and equipment, a high degree of processing, well planned logistics and distribution, superior expertise, qualified advisors and innovative product development.

The long-term goal is being the natural choice for people who wish to build and live Scandinavian. To be the market leader in wood-based building products and associated services in Norway, Sweden and Denmark, and a step ahead in developing a Scandinavian

building style. The firm oriented toward industrial and commercial customers as well as the project market in Scandinavian and the rest of the Europe. The Group consists of 45 business units in Norway, Sweden and Denmark. In all, the Group employs around 3200 persons. Moelven has annual turnover in 2006 approximately NOK 6.5 billion.

The current production volume is 1.5 million m³ sawn wood and 1.0 million m³ cellulose chippings. Firm provides a fast and efficient distribution system that can deliver customers the right product at the right time from a wide-ranging product assortment.

In the past few years the group has grown both through organic development and strategic acquisitions. In the time ahead Moelven will continue to concentrate on the core business: supplying quality rooms. The aim is to deliver many of the wood-based building products with as high degree of processing as possible.

Competitive advantage lie in the Unique location in relation to dominant consumer segments, availability and procurement strategy of raw material, and fairly concentrated production facilities specialized on products and markets; total product range, high customer service both in products and distribution and active in the modular housing industry, with back-up from owners.

#### 4.1.4 SCA Timber AB

Firm's vision is to be the most profitable supplier wood based products and customers oriented wood products in the Nordic countries. The aim of the strategy is to have high profitability and comparable competitors. In Sweden there are 8 sawmills and 7 planning mills. SCA Timber in 2006 was recorded as one of the Europe leading supplier of solid wood products for visible end use with the capacity of 1.7 million m³ annually, which 0.3 million m³ for further processed products.

SCA sells sawn and planed timber and profiled products. Based on knowledge of end-user's needs, and of the properties of the fiber material from the slow grown boreal forests, SCA offers high-quality products and services. The products designed for DIY/BM customers.

There are several reasons for business concept positioning, product and presence that creates SCA stands out from the rest of the firm. One reason is because they have unique offering combined with high quality source of timber which on slow grown boreal forest from the Northern of Sweden to supply their customer with high quality visible wood for the customer. Investment is made on technology and competency to meet customers' needs, expectations and wants. This is a clear indication that SCA's business offering is not solely base on advanced technology but also their consistent awareness of the uniqueness of high quality slow grown timber from the boreal forests.

SCA has developed a new product "Deck in a box", this to indicate that innovation is important for their strategy, to supply their DIY and building supply trade in UK. This offer consist garden product and design specifically for DIY customer, as well supporting 'easy assemble' system approach with environmental certification from FSC as well environmental sound impregnated substances. This has made a successful launch.

SCA customized timber according to customers requirement, for example, special grading and dimensions e.g. flooring, windows, furniture, kilning to low moisture ratios, timber with length adapted components and planning the surface of timber.

All the material are from and based on the unique characteristic of Northern Swedish timber material, pine and spruce have appearance oriented related for joinery and interior decoration. Spruce mainly for visible main use in the constructions. By doing this firm can maximize their own wood price in their raw material orientation strategy.

Percentage of timber sales are dominated in Nordic pine as well spruce. Products are divided into appearance product for Interior decoration and joinery; and construction wood product for visible and non visible end use customer (building process), last category is packing products like pallets, protective packing and etc.

SCA is organized and divided into three profit centre, they are Nordic pine, Nordic spruce and further processed product. SCA has their own sales force in Scandinavia, Great Britain, France, Benelux, Japan and USA. Also some agents in Greece, Cyprus, Italy, Spain, Ireland, China and Taiwan, Israel, Africa and Middle East. In strategic term SCA strength their existence through internationalization by establishing sales offices in Europe and elsewhere include network and self sufficiency.

Around the year of 2006 SCA still focusing delivering the best mix of wood based products, services, knowledge and information through selected customers. This meaning products must ranging from the wood appearance related application, giving services in inventory and distribution and adapting for product knowledge and supporting customer business process. The last part of business concept is information, whereas product and supplier inform and perform interactive IT solutions.

Advance technology is exclusively on single wood type at all 7 sawmills. SCA supports own sales organization on main markets, meaning less profitable market can be avoided. Good market contacts provide optimization product mix on each sawmills. In the long run SCA steadily indicates their strategy in maintaining up-to-date advanced technology, monitoring system and automation.

Forest products will maintain its market shares in Europe, Japan and US in further processed softwood. The business area is producing a substantial cash flow for its own development as well as for other expansion with the Group.

The common log source base constitutes and important resources for all the business areas. Some 49% of the log source consumed in the Group is supplied by SCA's own forest holdings. This situation results in control of raw material costs and facilitates an efficient integration in raw material supply. Centralised research and development, joint procurement of energy, and the coordination of logistics are additional examples of fields in which important synergies can be utilised.

#### 4.1.5 Setra Group

Setra is Sweden's largest wood products firm, sells wood-based products and solutions to the building materials trade and industrial customers. Turnover in 2006 was 5 844m SEK.

#### **MISSION**

Setra group offer high quality wood products for interiors and construction based on ecocertified raw material.

#### **VISION**

Setra group shall be a global operation...provides value-added to products and customer relationships...professional, dedicated and innovative...the best competence can be found at Setra!

#### **STRATEGY**

Setra Group AB's business strengths are:

- Long term supply contracts with Sveaskog and Mellanskog
- Large saw timber producer
- Market leader in the prioritized market segments and geographies
- Well established contacts and distribution network

In order to achieve long term profitability and growth to further develop the values from the Swedish forests. Setra Group's has chosen as its business strategy:

- Continued development of the corporate culture with focus on profitability and customers
- Increased value-added by improving relationships and customer offerings.
- Improved efficiency for increased profitability by structural investment and divestment
- Primary source of competitive advantage are the long term agreements of raw material, specialization of production facilities and distribution centres in Sweden.
- Becoming a full-service, low cost producer of generic high-quality sawn timber products and supplier of high quality appearance sawn timber products.

#### **VALUES**

Dedication, innovation and professionalism

#### 4.1.6 Stora Enso Timber

Stora Enso's strategy is based on its mission, vision and values and aims at increasing shareholder value through profitable growth. The strategic principles are to raise the return on existing capital, to select profitable investments with returns higher than the cost of capital and to secure the cash flow generation.

The current core business areas are sawn and planed timber, joinery components, edge-glued panels, building components and gluelam beams. Non-core or poorly performing assets are either divested, run for cash or shut down. Synergies come from wood procurement, sawmilling operation, component production, product assembly competency supported by continuous research and development work.

Stora Enso Timber is implementing a mass customization production and distribution strategy for a specific number of market segments; construction, joinery, building components and distribution segments in Europe, North America and Japan, and building long-term relations with large key customers. This strategy is to optimize the large production of sawn timber products.

Primary sources of competitive advantage depends on availability of raw material, large volumes of sawn timber products including gluelam beams, specialization of clusters of

production facilities to products and markets, wide range of wood based products for appearance and structural end-users, and a large firm's advantages in terms of market information, resources for product development and technical support, and marketing and sales support.

Stora Enso Timber's growth must exceed the market growth and match the growth of its best competitors. Growth will be achieved mainly through mergers and acquisitions. In Europe scope for M&As continues to exit. Currently is in consolidation phase, investment tends to Russia, with normal organic growth compare to before, through investment top of the line equipment.

Growth in Asia is of vital importance. North Africa and the Middle East and North America are an interesting market. The growth has come from improvements in production and of a focused market strategy, which aiming at producing and delivering mass customised solutions for the construction and joinery industry for the trade segments throughout the world.

Competitive timber procurement is a key factor in Stora Enso Timber's strategy. The aim is to have access to the most competitive timber procurement from socially and environmentally sound sources to ensure a long-term supply of raw material. Sawmilling will be instrumental in strengthening Stora Enso Timber's position in timber sourcing, setting the large volumes of sawn timber products from different raw material baskets. Stora Enso Timber is going to the east. This has resulted in an increased presence in different forest baskets e.g. Russia and the Baltic States.

Stora Enso Timber has a large in-house R&D function. The aim is the improvement of existing products and production processes, and the development of new products. Future emphasis will be on developing EWP for gluelam beams production to meet the demands from construction related segments of a wider product range.

To be an efficient supplier Stora Enso Timber sells most of its wood products through its own global marketing network. Stora Enso Timber's goal is to build a single, distinctive corporate brand. It will differentiate the firm by bringing it vision, mission and values to life.

Stora Enso consistently building corporate values through customer focus, performance, emphasis on people, focus on future, social responsibility. In international context the values from CSR are reflected in term of business practice, communication, community involvement, reduction in work force, human rights (working conditions, diversity, freedom of association, free choice of employment, child labor, remuneration, working hours)

#### 4.1.7 Vida AB

Vida AB is a wood product industry from primary production to distribution segments including secondary wood production producing packaging material. The firm is a family-owned saw mill which was established after a Management Buy Out (MBO) in 1988. Turnover of the firm in 2003 was 3.7 billion SEK (407 EUR million)/year.

#### Strategy

Vida AB views strategy as perspective to get profit at all business proposition with sawmilling operation as core business plus a growing involvement in the wood based packaging industry. Vida AB grows with the long tradition of customer-focus and meets key market segments'

specification as a reliable supplier of structural sawn timber products and services. In addition to high-quality products, Vida AB offers service solutions for the customers' manufacturing to increase its competitiveness.

The firm focuses on the cost-efficient manufacture of spruce and pine for structural purposes integrated with flexible, rational facilities for further processing. The products offering is specialized according to specific requirements, planed, stress graded and of specific lengths according to the construction purpose.

The firm's main customers are mainly in the international markets with sales offices in key markets e.g. England, Scotland, Ireland and the USA. Vida has grown in size and built an organizational infrastructure with sales offices and distribution centre with a focus on both market segments and customers. The dominant market segments for Vida AB has been the segments distributing timber for the construction industry e.g. Builder's merchants, DIY chains and trading houses and also the industrial end-users such as timber frame housing manufacturers', truss manufacturers etc. Vida AB creates added value for its customers through its expertise, knowledge of the end-uses of wood products, cost-effective operations as well as innovative products and services.

Vida AB commits responsibility for the environment to supplying sustainable and environmentally friendly timber through internal firm's program e.g. QUALITY AND ENVIRONMENTAL POLICY and is certified to the Program for the Endorsement of Forest Certification (PEFC) as well as certified accordance with ISO 9001 certificate of quality and ISO 14001 of environmental certificate.

#### Values

Vida AB holds tradition of a family firm, integrity, customer orientation and openness to change.

# 4.2 Strategic Instruments in Sub-groups

#### 4.2.1 Derome AB

Business Concept and Positioning (Products, Presence)

Derome AB is a private family-owned group of firms

The business idea is to deliver value-added wood products and building material to the construction industry

By engaging in the whole solid wood value chain, Derome have the possibility to even out fluctuation in individual sectors of the chain.

Derome Träteknik is engaged in two activities, roof trusses manufacturing and building components for the constructionindustry

Derome Byggvaror...to learn the specific requirements from the construction firms as well as creating a long-term deman of sawn timber from internal saw mills

Derome Förvaltning is a sister firm to Derome AB engaged in land exploitation and real estate development and management.

The overall business idea of Derome is that they should never be dependent of any market segments or any customers..additional customer services to differentiate from competitors..

The strategy of engaging in different businesses has resulted in a low but stable profitability based on the notion that the demand from customer segments fluctuates following different cycles

Derome Timber is focusing on the market segments related to the construction industry

# Market segments:

- The building material retailers or Builder's Merchants
- Industrial end-users such as roof truss, gluelam beam and wooden framed housing manufacturers
- Packaging industry

Largest market for Derome Timber are Sweden, UK, Denmark, The Netherlands and Germany

Derome Timber...To establish direct and long-term relations with customers in each market segments avoiding agents and importers

Derome Träteknik is a leading actor on the Swedish roof truss market

...to have a rational and efficient production process, optimizing volume yield but at the same time optimizing the material flow in the mills minimizing waste and ultimately cost

Derome as a full service wood products manufacturing firm utilizing forest raw material in a rational and efficient way, creating value to both the forest owners and to Derome AB

The aim is a flexible but low cost sawn timber production, distribution solutions meeting customer demands, and continuous development for products and system solutions towards the construction industry

#### Financial Targeting

Turnover SEK 743 915 million (EUR 81 831 million)

#### Growth

Strategy of growing in prioritized industries and segments, utilizing the fact that the group of firms is operating along the whole solid wood value chain

# Value Chains' Steering (Upstreams, Downstreams)

The sorting and distribution of raw material is taken care of in the forests

The warehouse ..as a distribution central, supplying the own firms as well as the domestic market segments

# **Technology Application**

Automatic scanning and trimming of boards to specific qualities and lengths before kilndrying

Improved planning facilities

### **Innovation Capability**

Investments in improved bio fuel production at the saw mills

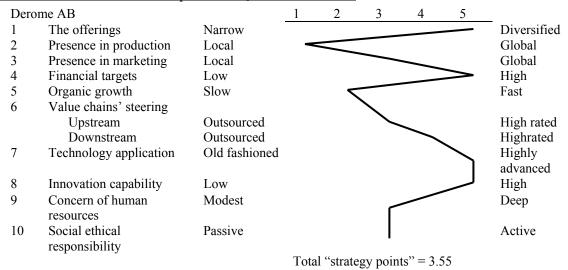
#### Concern of Human Resources

Skilled and motivated personnel

# Social Ethical Responsibility

PEFC and FSC certified

# Derome AB Described in Graphic and Quantitative Form



# 4.2.2 Martinson Group AB

### Business Concept and Positioning (Products, Presence)

The firm has developed from a pure saw milling firm to a supplier of building components based on wood products.

#### Values:

...curiosity in technical development...engaging...in various technical and constructional projects

.. Not too dependent on production activities

Most research oriented firms

Geographically, Sweden has been the dominant market but presently Japan is the largest with 50% share of total distribution

Value adding and production focus...producing some 200 000 m³ of rough sawn timber split evenly between spruce and pine, with low level of adaptation

Japanese and Swedish market

Offer planing, rip-sawing, finger-joining, gluing, impregnation or painting facilities. 50% stays in Sweden with Norway and UK as other important markets.

Strategy selling as large volume as possible to as few customers as possible

Strategy aiming more directly at industrial end-use customers

50% of the timber is sourced from private forest owners and three large forest firms operating in the area.

The aim is to build a relation with the forest owners to guarantee a long-term supply of saw logs

The second aim is to optimize cutting and bucking into lengths and dimensions suitable for the sawn timber production

Market knowledge...need to find customers willing to pay a higher price for a better quality

Martinson Group AB aims at extending its involvement in the construction process from formerly supplying sawn timber, gluelam beams with technical knowledge, to actively participating in the construction industry

Market penetration ...to small and medium sized customers in the appearance pine products

Product and market development utilizing the knowledge and capabilities of the organization and facilities

The quality of raw material has traditionally been a competitive advantage for Martinson

Strategy as they combine saw milling business logic with knowledge in technical and constructional issues

Three main areas of Wood, Building Systems and Timber Bridges

Sweden's most innovative and expansive timber industries

More direct today and work closer to our customers

Coordinating..deliveries better...cut cost for transports

Market for gluelam, Sweden, Japan, Spain, Great Britain and Italy

Martinsons Trä AB manufactures of Sawn and planed timber products, glulam, load-bearing glulam structures.

Hällnas Såg AB manufactures of sawn and planed timber products, components, door-coors

Largest privately owned wood corporations in Sweden with modern sawmills in Bygdsiljum, Hällnäs and and Kroksjön, all situated in the northern part of Sweden

We are highly qualified supplier with our highly effective, streamlined, production process and integrated logistical chain

Largest privately owned wood corporations in Sweden and a market leader in Sweden and the Nordic region in the development and production of a wide range of products that spans over anything from sawmill products to glulam, solid wood systems and timber bridges.

The firm's ambition to continuously develop and create new application areas for wood has generated an extremely high level of knowledge within the Group. The Martinson Group, founded in 1939, is still a family-owned firm.

# **Financial Targeting**

Turnover in 2003 was 770 528 million SEK

Martinsons Tre A/S in 2005 the firm had a turnover 20 million SEK

Martinsons Trä AB turnover in 2005 SEK 470.4 million

The martinson Group turnover SEK 561.3 million

Hällnas Såg AB turnover SEK 87.9 million

#### Growth

The organic growth is a result of the technical curiosity leading to engagement further down the solid wood value chain

# Value Chain's Steering (Upstreams, Downstreams)

Lack of market knowledge

Customer focused

Three transportation strategies in the firm, stemming from the acquired saw mills, thus an important task to find a solution as quickly as possible.

Heterogeneity of raw material

The high quality of raw material makes it suitable for appearance industrial end-users

Long term relationship with private owners....knows the quality

Customer relations through intermediaries.

Engagement in the forestry business

Closer cooperation between forestry, saw mill and the sales organization

Distribution of standard products

Engagement further downstream...combining constructional side with solid wood panel systems...active actor in the construction process

### Constructional expertise

Martinson has actively moved further downstream producing solid wood construction boards

Construction knowledge obtained from the long-term presence in the gluelam business

### **Technology Application**

Three sawmills producing sawn timber

...installing advanced measuring devices in the beginning of the saw milling process

New pioneering method...solid wood technology..new ways of combining glulam and steel and glulam and concrete

Fire resistant building materials available

Europe's largest and most modern private sawmills

Comwood...innovative and unconventional approach

### **Innovation Capability**

Investment ... further processing equipments

..reap the benefits of research conducted at Luleå University of Technology and SP Trätek in Skellefteå

Trapezoidal sheets of wood

New building component that offer new possibilities

#### Concern of Human Resources

To establish long-term relationships with its co-workers, customers and suppliers

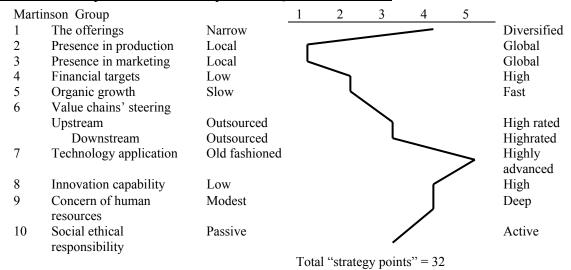
400 employees

...every one is proud to work at Martinsons and to work to be part as a family

### Social Ethical Responsibility

We were also one of the very first wood corporations to implement and certify an environmental management system according to ISO 14001. Today we are also certified in compliance with PEFC

### Martinson Group Described in Graphic and Quantitative Form



#### 4.2.3 Moelven Industrier ASA

Business Concept and Positioning (Products, Presence)

Mission: Supplying quality rooms

Vision: The natural choice for people building and living Scandinavian style

### Values:

#### • Sustainable

Moelven respects people and the environment. The firm's business is based on renewable resources. Sustainability and long- term planning have become the firm's competitive advantages. Environmental responsibilities are a priority area.

#### • Reliable

Moelven is a reliable business partner. we deliver quality goods at the agreed upon time. A strong focus is put on openness and honesty - being able to admit mistakes and shortcomings is a solid basis for positive change and credibility.

### • Seek opportunities

Moelven seeks solutions, The Group has the skills and resources to be the industrial leader when it comes to product development and innovation. Moelven has always been a firm that has stayed at the cutting edge of technological developments and takes advantage of the opportunities offered by changing times and trends.

Moelven industrier ASA is a Norwegian forest products firm operating in the woodbased products markets.

#### Positioning:

- Flexible, long-term meeting customer needs
- Business concepts and trademarks in the forefront of customers and competitors
- Becoming the most profitable firm within prioritized business
- Synonymous with quality, expectations and positive experiences.

Two strong trademarks, Eurowand in Sweden and Nordia in Norway

Moelven Industrier ASA aspires to becoming a dominant and leading full-service supplier of wood based products on the Scandinavian Builder's merchant and construction markets, and a key supplier of sawn timber products for small- and medium-sized industrial end users.

Goal is "the natural choice for people building and living Scandinavian style"

Long term strategy emphasizing efficiency, flexibility and market focus.

The Moelven Group consists of a total 39 production firms that are all independent, legal entities organized into the divisions Timber, Wood and Building Systems

Timber division consists of 14 production units that produced sawn pine and spruce timber harvested from local sources. Eight of the units are located in Sweden and six in Norway. Annual production is approximately 1.4 million cubic metres of sawn timber, in addition to chippings, shavings and bark for a total value of approximately NOK 280 million. About 65% of sales are to customers in Scandinavia.

The wood division consists of 14 production plants. The overall aim is to offer wood products with as high a processing degree as possible to the construction market, and almost 80 percent is sol through chains of builders' merchants...approximately 93% of the division's sales are in Scandinavia...

Building systems division consists of 11 productions plants, divided into the business areas Laminated Timber, Building Modules and System Interiors...approximately 96% of the sales take placein Scandinavia...

Providing quality rooms..assured through the application of high-quality materials, modern production techniques and equipment, a high degree of processing, well planed logistics and distribution, superior expertise, qualified advisors and innovative product development.

Product innovation with regard to user friendliness and ready-to-use properties are important competitive factors for Wood.

Building Systems...the goal is to further increase the range of application areas by using industrialized systems to gain market shares from more traditional building approaches and solutions

The aim is to deliver as many of the wood-based building products with as high degree of processing as possible

Moelven industrier ASA is a Norwegian forest products firm operating in the woodbased products markets

The business strategy of Moelven has developed from a decentralized strategy, where each business unit had own responsibility over purchase, production and sales within an overall frame, to strategy.

Moelven Wood AB, the aim is to supply the Scandinavian construction markets and the defined mega segments with wood-based products and services

Business idea of Byggsystem is to offer industrialized produced construction products from wood, aiming at making the construction and building process more efficient

Moelven Industrier ASA aspires to becoming a dominant and leading full-service supplier of wood based products on the Scandinavian Builder'

Presently 70% of sawn timber production is sold on the Scandinavian markets and the remaining 30% on the British, Dutch, German, Spanish and the Mediterranean markets.

# **Financial Targeting**

Dividend of NOK 0.75 per share is paid to shareholders.

Turnover in 2003 was 2 500 000 MSEK

Operating revenues increased from NOK 6 005 million in 2005 to NOK 6 692 million in 2006, and operating profit in 2006 totaled NOK 373.2 million, compared to 158.6 million in 2005

Equity at the end of 2006 totaled NOK 1 233.7 million, which corresponds to an equity ratio of 40.2%

Operating revenues of timber division in 2006 increased from NOK 2 355 million in 2005 to NOK 2 584 million in 2006. Operating profit increased from NOK 55.2 million in 2005 to NOK 161.4 million in 2006

Operating revenue of Wood division in 2006 increased from NOK 2 269 million in 2005 to NOK 2 530 million. Operating profit increased from NOK 62.2 million in 2005 to NOK 118.3 million in 2006.

Operating revenues of Building Systems division increased from NOK 1 770 million in 2005 to NOK 1 938 million in 2006. Operating profit increased from NOK 75.9 million in 2005 to NOK 121.8 million in 2006

The group has the following financial objectives:

- Operating margin higher than 5 per cent
- Return on capital employed higher than 12 per cent
- Equity ratio above 40 per cent
- Asset turnover higher than 2

#### Growth

Growth from mergers and acquisitions and from organic growth

The largest investments used in the Timber division for a new grading system at Valåsen, in the Wood division to rebuild the Soknabruket plant into a combination production unit and in the Building Systems division to expand capacity at the modular factory in Moelven.

Value Chains' Steering (Upstreams, Downstreams)

### Optimizing products in the forests

Approximately 70% of the energy needed for drying the firm's wood products and heating production facilities is generated by the Group itself through the burning of bark and chippings.

# **Technology Application**

Technical solutions for connecting modules with technical installations

# **Innovation Capability**

...high quality products based on advanced technological and processing expertise

The basic elements in Moelven's business strategy are to continue to discover new application areas, develop new products, further improve existing products and develop new services that make it easier and more attractive for customers to choose Moelven.

In 2006, Moelven established the firm Moelven Utvikling AS in order to focus upon the firm's innovation efforts...so-called "industry incubator"..that helps develop ideas that can be the basis for profitable, viable firms

### Concern of Human Resources

The Group had a total of 3 210 employees. A total of 1 686 of these employees work in Norway, while 1 501 are in Sweden, 20 in Denmark and three in England. In terms of the number of overall man-years worked in 2006, the total figure was 3 049

Work tasks are motivating and take place in an enjoyable work environment

Moelven is working hard to motivate and further develop each and every employee...several development programmes for employees at various levels...commitment to sustainability, reliability and seeking opportunities..core values in Moelven's business culture

Moelven aims to enter into long-term employment relationships, where motivated aand skilled colleagues are encouraged to enter development programs.

...strategically committed to further developing and training current employees, and sees this as a good investment both for the firm and for the single individual.

Important principle...is that education, experience and personality, together with with motivation from co-workers and the business as a whol, creates the basis for favourable working conditions and optimal output.

### Social Ethical Responsibility

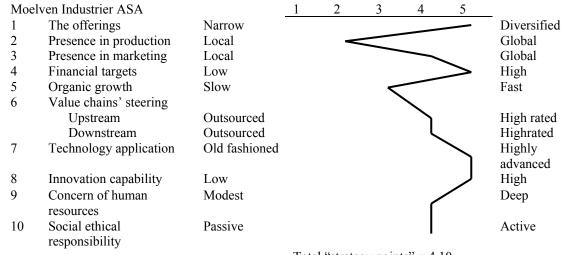
Moelven sawmills are PEFC certified...in Sweden some sawmills are also FSC certified

To influence transporters to select environmentally sound solutions whenever possible

To develop a new health insurance scheme for Moelven employees...the aim is to secure healthier employees and reduce the length of sick leave...the scheme is designed to ensure faster treatment and to allow the employee to return to work as early as possible

Responsible and sustainable forestry is quality controlled through a third party certification system in Norway and Sweden, an all of Moelven's sawmills are PEFC certified

# Moelven Industrier ASA Described in Graphic and Quantitative Form



Total "strategy points" = 4.10

### 4.2.4 SCA Timber AB

SCA is a Sweden based integrated paper firm with headquarters in Stockholm, Sweden. Trading in SCA shares is concentrated on the OM Stockholm and London Stock Exchange. There is also a Level 1 American Depositary Receipt program in the US.

### Business Concept and Positioning (Products, Presence)

The firm's product portfolio are (according to its own definition):

Forest products (LWC, SC, newsprint, pulp, solid wood products, timber, forest fuel), packaging products (corrugated board, containerboard, EPS and moulded pulp) and hygiene products (tissue, baby diapers, feminine hygiene products, incontinence products).

SCA itself has defined its strategy by using the term 'strategic orientation' consisting of the sub areas named business concept, objectives, and profitable growth. It includes the following statements:

- The firm focuses on growth combined with solid profitability and low risk
- SCA's overall objective is to create value for its shareholders
- SCA is growing both organically and through acquisitions; expansion is taking place primarily in the hygiene products and packaging business
- Tissue and incontinence products for adults have special priority as growth areas in hygiene products
- 56% of the virgin fibre consumed supplied by SCA's own forest holdings.

Sawn timber: focus on visible wood, that is, wood for furniture, joinery, panel and interior furnishings.

SCA Timber shall be "the most profitable supplier of wood-based products and consumeroriented wood products in the Nordic countries". ...the business concept enabling our (SCA) vision is to deliver the best mix of wood based products, services, knowledge and information to selected customers. This means that SCA Timber will focus on quality in the entire offering including services e.g. inventory and distribution, supporting customers with product information and knowledge and delivery information trough the usage of IT solutions to enhance communication, all to support our customers development (Nord 2005).

Business offering is based on a combination as stated in McCluskey (2006):

- Clear awareness of the unique high quality of the slow grown timber in northern Sweden
- Mutual selection of customers who have a need for high quality
- Development of new business initiatives in collaboration with customers
- Investment in competence and technology to run their operations to meet those high quality needs.

### **Financial Targeting**

Net sales of the Group in 2006 amounted to SEK 101 439 Million (EUR 10 972 Million). Its distribution by product group was as follows: forest products 17%, Personal Care 21%, Packaging 33%, Tissue 31% (SCA, 2006: 45)

Operating profit in 2006 was SEK 8 505 million, Turnover in 2006 was EUR 327 093 (SCA, 2006)

Turnover in 2003 was 2 973 577 MSEK

### Growth

Strengthening market presence globally, through M&A and organically, and through integration, joint ventures and co-operation

#### Value Chains' Steering (Upstreams, Downstreams)

Further processed products designed specifically for the DIY customer

E-commerce for solid-wood products

Manages 2.6 million hectares of forest land, of which 2 million is managed for timber production

80% of SCA's raw materials come from its own forest, with the figure varying. Pine is one area. SCA have tested importing Pine from Russia in 2000/2001...SCA realise their forest are more unique...Nordic Pine.

### **Technology Application**

Production modernization; modern saw line, high drying capacity and effective chamber kilns

X-ray cameras ascertain the dimensions of the inner core of each tree...Each tree is labelled and the IT systems plan the subsequent handling of each trees in the saw mill so use of the core is maximised. There are cameras controlling, connected to IT systems, assessing quality at each stage of production.

Each saw mill has 3D-scanning equipment at the intake thus being able to sort into specific quality classes suitable for various end-products

#### Concern of Human Resources.

Skilled and motivated personnel, internal education programme takes place to put ideas into standard/full scale production

SCA is a large international player, with 45 000 employees worldwide, of which 12 000 are in Sweden (McCluskey, Pending)

### **Innovation Cappabilities**

SCA investing in high technology e.g. major investment made in 1999/2000 at Munksund saw mill to increase the level of competence collaborate with Luleå university who have a programme for forestry production engineers.

R&D expenditure amounted to SEK 562 million (545 MEUR), which is equivalent to 0.6% of the Group's net sales. (SCA, 2006: 48)

# Social Ethical Responsibility

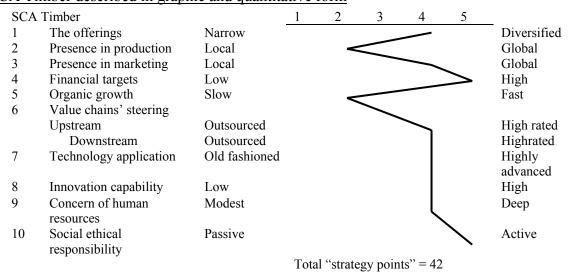
Dow Jones Sustainability Group Index SCA the highest rating in a ranking of the environmental efforts of 800 global firms, first among forestry firms

All forest resources owned by SCA are certified according to FSC where forests are managed on a long-term sustainable manner maintaining a large biodiversity.

A positive environmental image and a uniform, high quality raw material

SCA has set environmental targets and target follow-up which published on their environmental report.

#### SCA Timber described in graphic and quantitative form



#### 4.2.5 Setra Group

Business Concept and Positioning (Products, Presence)

Setra's mission is to offer high quality wood products for interiors and construction based on eco-certified raw material.

Setra's vision: "Setra has global operations and is a preferred partner for the most demanding customers in the building materials trade and manufacturing. By providing increased value-added to both products and customer relationships we have strong growth and high profitability. Setra is recognized as a driving force in the increased use of wood and is therefore contributing to the sustainable development of society. We are professional, dedicated and innovative. The best competence can be found at Setra!"

Setra Group was established in 2003 with merger AssiDomän Timber and Mindab...2400 shareholders. The largest shareholders are Sveaskog AB with 50 %, Skogsägarna Mellanskog ekonomisk förening 26% and Lantbrukarnas Ekonomi AN (LRF) 22%, other shareholders own approximately 2% of the shares.

Setra operates 19 production units from Seskarö in the north to Vimmerby in the south.

To become the leading wood products firm focusing on appearance sawn timber for the Scandinavian, prioritized European and the Japanese markets.

Group sales by market are Sweden 46%, UK 13%, Denmark 7%, North Africa 6%, Germany 5%, Japan 5%, Rest of Europe 5%, Spain 4%, Norway 3%, France 2%, Italy 2% and Others 3%.

...Trademark can be used to strengthen the market position of appearance products...

Main strategies are to continue development of the corporate culture, to increase value-added and an ongoing efficiency improvements in operations.

Focus appearance pine aiming for a prioritized number of markets in Europe:

- The firm is already a large saw timber producing firm
- The Swedish market for sawn timber, pine and spruce is not big enough for a firm of that size
- The European market has traditionally been the most important for Swedish sawn timber with well-established contacts and distribution.
- The development in the market will see a further consolidation of the customers towards fewer and larger demanding larger suppliers.
- The development of construction will see an increase in Reconstructions & Rehabilitations and a lower development on new build activities in the European markets overall.
- To move from a price-oriented market to a product oriented to a product oriented market, a supplier must have at least 30% market share in specific customer segments.
- Appearance pine products have had a better return compared with structural spruce products.

Setra conducts target-oriented activities based on three clear main strategies:

- Continued development of the corporate culture
- Increased value-added
- Ongoing efficiency improvements in operations

Setra group segmenting on large domestic DIY/BM, industrial end structural, industrial end appearance customer and other regional customers.

...The group positioning their market on large national DIY/BM, industrial end appearance customer and other customer.

...Setra Group AB aims at becoming a full-service, low-cost producer of generic high-quality sawn timber products primarily for the domestic industrial end-use and Builder's merchants segments, and supplier of high quality appearance sawn timber products in the international markets of industrial end-users and Builder's Merchants.

# **Financial Targeting**

Net sales for 2006 increased by almost 9% and amounted to SEK 5 844m.

Turnover in 2003 was 5 278 500 MSEK

Operating profit amounted to SEK 257 million, an improvement of SEK 362 million compared with the same period in the previous year.

Profit after financial items amounted to SEK 212m.

Cash flow from operating activities amounted to SEK 430m.

Operating margin 4.4%, ROCE 14%, ROE 27.1%, Equity ratio, 29.4%, Debt/equity ratio 0.7 times.

#### Growth

Investments during the year amounted to SEK 89m and included efficiency improvement measures in the Långshyttan glulam factory and the Kastet sawmill.

Divestments and acquisitions. The board specialist firm Ceos Industriprodukter AB was sold in November. This sale was in line with implementation of Setra's strategy which involves focusing operational resources on sawn and processed wood products.

Rolfs Såg & Hyvleri AB was acquired in December. The firm with annual sales of approximately SEK 200m and some 80 employees, strengthens Setra's position within processing.

# Value Chains' Steering (Upstream, Downstream)

Specializing the saw mills to dimension and products affected the interaction with the forest positively. ...Supplier of saw logs becoming better delivering according to specifications e.g. lengths and dimensions

The long-term agreements of raw material as a basis for the production of large volumes

Distribution centres in Sweden facilitating coordination of products and customer specific distribution solutions

# **Technology Application**

A new scanner and crosscut saw together with improved laminate jointing will raise Långshyttan's production

Streamlined board and joinery operations...

# **Innovation Capability**

Setra's industrial-scale building system Trälyftet...the best solution for multi-storey buildings made of wood

Specialization of production facilities towards products for the appearance and structural segments, and the large production

...multi-year research project...conducted with the Royal Institute of Technology (KTH) and Stiftelsen Vetenskapsstaten (University Accomodatin Centre)...to develop a resource-efficient and eco-compliant building system..

### Concern of Human Resources

Setra actively reduce absence due to illness. Total absence due to illness decreased from 7.0% in 2004 to 5.4% in 2006.

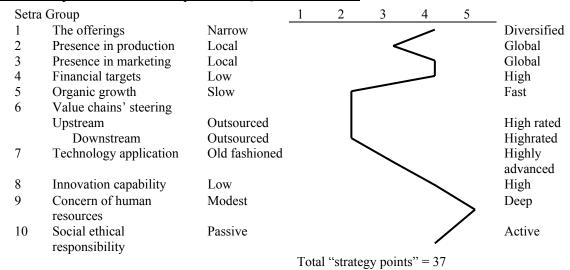
Setra has approximately 1,400 employees and the majorities, 85%, are men. Female employees are mostly in administrative positions. Approximately 10% of the production staff is women.

The proportion of salaried employees at Setra amounts to 22% and the proportion of wage-earners amounts to 78%. All wage-earners are in Sweden where Setra has its production operations.

# Social Ethical Responsibility

All timber raw materials meet the requirements according two forest certification systems FSC and PEFC and ISO 14001.

### Setra Group Described in Graphic and Quantitative Form



#### 4.2.6 Stora Enso Timber

In 2006, Stora Enso is an integrated forest products firm. The Group is a global market leader. The firm's shares are listed in Helsinki, New York and Stockholm. The headquarters are in Helsinki.

# Business Concept and Positioning (Products, Presence)

The firm defines its strategy as follows:

"To be the world's leading forest product firm, Stora Enso will focus on three core product areas: publication papers (magazine paper, newsprint), fine paper and packaging boards supported by timber products and pulp; create shareholder value by conducting business in a profitable and socially responsible way; continuously improve by identifying and leveraging synergies, enhancing productivity and making carefully identified investments; and grow primarily through mergers and acquisitions".

In addition, it has been stated:

"Globally local: For Stora Enso global also means local. Global growth brings us closer to our customers...listed on the New York Stock Exchange with the aim of bringing us closer to international investors...

Believe in quality management:...has led to a clear improvement in profitability and strengthened our common values...

A foundation built on values: increasing emphasis is being placed on responsibility...the Stora Enso share has been included in the Down Jones Sustainability Group Index...the growing role played by our environmental management systems...We have also decided to draw up a code of conduct to ensure that social responsibility forms part of our day-to-day business...Emphasis on people is value which receives still greater emphasis in a multi-culture firm".

Vision of the firm highlights the role of leadership ("We take the lead, customers choose us...")

Stora Enso Timber provides product and service solutions to wood product industries and the trade worldwide...the world's leading suppliers of wood products, with facilities in 10 countries across Europe and its own global sales network.

# Timber products:

"Focus on selected market segments, improved efficiency. The main project the modernization of sawmills aims at improving efficiency...Extensive further processing capacity will be built to offer a more advanced processed product to the strategic end use segments in the construction and interior decoration industries...capacity for specially heat treated timber "thermowood" to offer an environmentally friendly alternative to chemically treated timber"

Stora Enso supplies wood products for the joinery, construction and packaging industries and wood products trade world wide....the side products of the sawmill operations are used to manufacture pulp and paper and as a bioenergy source for the manufacturing processes

Stora Enso operates 2 sawmill in Russia (Nebolchi and Impilahti) and 9 mills in Baltic States and in Czech.

Stora Enso's main drivers are at low-cost local resources (raw materials, labour) for competitive fibre and fast economic growth with low GDP per capita. The firm's focus areas are Russia (fibre resources, growing market), China (large, fast growing market), India (large, fast growing market), Latin America (low fibre costs, growing market).

### **Financial Targeting**

Stora Enso target for return on capital employed is 13 percent per annum as an average over the cycle. And targeting for the debt-to-equity ratio is to keep a level at or below 0.8.

Realized Return on Capital Employed (ROCE) in 2006 is 6.5 percent (Newsletter, 2006)

Stora Enso Timber AB turnover in 2003 was 1 741 014 MSEK (191 512 MEUR)

#### Growth

Aim is to reduce the volatility of its business by making its portfolio less cyclical and by geographically diversifying the business

The following strategic statements are identifiable through the 'Letter to shareholders':

"...the firm's continued strategy of international diversification remains on course...In Asia and South America our objective is to secure access to sustainable short fibre resources. To this end Stora Enso strengthened its presence in the reforestation...pursuing a strategy to focus on core business areas we sold power assets outside our mills and disposed of our interest in the Gruvön mill...we have announced our plan to invest in the latest technology. Conversely, we are ceasing production of older machines...our growth emphasis is on mergers and acquisitions...the world economy is moving towards globalization, where scale and flexibility are key to servicing increasingly global customers...our strategy of globalization and

focus...Stora Enso Excellence 2005 program has formed the backbone of our quality management system".

"Investments in new growth markets offer good business opportunities" (Company, 2006: 16). The focus of Stora Enso's new growth market initiatives are Russia, China and Latin America. India is also a new are of interest for the Group (Company, 2006: 8). The drivers for this expansion are low-cost fiber, fast-growing market segments and balancing the Group's portfolio geographically.

Investments in Russia in 2006 will upgrade the sawmills to manufacture value-added products and improve Stora Enso's access to the fast-growing building material market.

Investments designed to upgrade assets in Russia and strengthen Stora Enso Timber's position in engineered wood products.

StoraEnso intends to close down Reisholz Mill in Germany and Berghuizer Mill in the Netherlands...StoraEnso is to invest EUR 44 million in its two sawmills in Russia to enhance the competitiveness of sawmilling operations and wood procurements (Nebolchi sawmill and Impilahti sawmill)

Vinson acquisition in 2005, having the largest sawmill in Brazil with the capacity of 150 000 m<sup>3</sup>/a

# Value Chains' Steering (Upstreams, Downstreams)

Divesting own forests.

At January 1, 2004, divestment of 95 percent of the Group's biological assets in Sweden and retaining a minority shareholding of 43.3 percent of Bergvik Skog AB. In strategic terms it means strengthening financial position by withdrawal from non-core assets and outsourcing of resources. In the previous years, backward integration was still mentioned to be the strategy!

#### Merchants:

"with the integration of paper merchants Scaldia in the Netherlands, Papeteries de France in France and Schneidersöhne Group in Germany, acquired in 2004 and 2005. the acquisitions have already delivered a positive contribution"

A wide range of sawn and processed wood products is supplied to timber retailers, merchants and importer-distributors.

# Raw materials, energy:

"As an integrated firm, Stora Enso is able to satisfy a significant part of its raw material needs internally...Co-operation with forest owners creates value added..."

In 2006, Stora Enso's energy fuel consumption in 2006 consisted of the following: bio-fuels 64 percent, gas 19 percent, coal 9 percent, oil 4 percent and peat 4 percent ...total energy consumption 58 percent was used for internal electricity production.

In 2006, 36 percent of electricity need was produced internally, ten percent by an affiliated generator whereas 54 percent was purchased from external sources.

Total amount of wood (round wood, chips and saw dust)delivered to own mills was 45.4 million m³ (solid under bark) in 2006. Saw milling will be instrumental.

# Technology Application

Setting up of component facilities including finger jointing equipment, gluing capacity and profile planning

X-ray scanning of saw logs at the in-feed of saw mills to improve sorting of logs prior to the further break-down and component manufacturing

# **Innovation Cappabilities**

Stora Enso's research and development efforts have focused more on cost management and innovation. In 2006, had used €79.4 million, or 0.5 percent of sales, compared to €88 million in 2005 and €82.2 million in 2004. Research and development costs decreased by 9.8 percent in 2006, compared to an increase of 7.1 percent in 2005...the focus was in the development on new materials...the purpose and tasks are... to secure a group perspective on quality and efficiency

#### Concern of Human Resources

"The evaluation tool is TQM-Stora Enso Excellence. Ten major training programs were organized, seven as in-house, and three as consortium program with other firms...Stora Enso wishes to be the most attractive forest industry employer...Stora Enso has a performance-based bonus system"

As of December 31, 2006, Stora Enso had 43 887 employees, a decrease of 2 777 employees from December 31, 2005

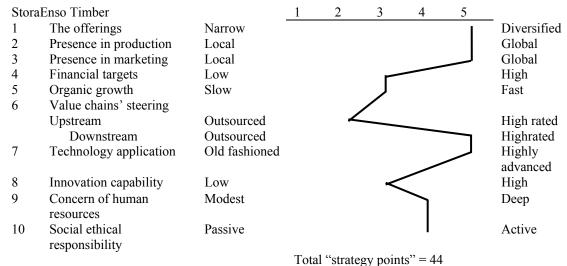
Employees participate in a performance-oriented incentive bonus plan base on profitability and achievement of key business targets set by management.

# Social Ethical Responsibility

Environmental management has long been identified as the key to improving performance. By the end of 2000, 80 percent of production capacity was covered by ISO 14001 and/or EMAS...the firm was selected for the Dow Jones Sustainability Group Index...In 2006, approximately 55 percent of all the wood delivered to our mills globally came from certified forests. The remaining 45 percent of the wood used comes from uncertified sources, which covered by own traceability systems. Wood supply units have ISO 14001 and/or the EU Eco-Management and Audit Scheme (EMAS) certification in the Baltic countries, Canada, Finland, Sweden and the United States

Stora Enso prepares separate document to address the main sustainability issues raised by stakeholders on 'Sustainability Report' that published annually.

# Stora Enso Timber described in graphic and quantitative form



### 4.2.7 Vida AB

Vida AB is operating in the wood products industry in primary production to distribution segments as well secondary wood production producing packaging material. The firm grows with the long tradition of making customers in focus, high flexibility in production and distribution to earn high profitability.

# Business Concept and Positioning (Products, Presence)

Vida AB sees strategy as perspective to get profit at all business proposition. Sawmilling operation as core business with more involvement in the wood based packaging industry.

Vida AB is largest privately owned sawmill group...from some of the best forests in the world. Specialized on large or small dimension timber with ongoing specialization to spruce or pine. The sawmills are located near the forest owners in Småland and Västra Gotland. The group has in the last five years tripled its turnover while maintaining its profitability. 10 production units organized in 7 firms in the southern part of Sweden. The group has seven saw mill production firms in the following: Alvesta, Borgstena, Bruza, Ljungby, Neiktar, Vida Hestra and Vida Timber.

Vida AB is a transformer of the raw material from the forests, meeting the demands from the customers, is an actor in-between the two actors which is financing the supply chain – the forest owners and the end-consumer

Much of the further processing carried out at all sawmills is in the form of planning, precision cutting, stress grading and impregnation. Over recent years the group has specialized in different areas in order to maintain efficiency in the competitive world market. Stock holdings have been set up in consumer countries targeting the specific dimensions and lengths that these markets require. Vida Wood AB handles all of the group's timber sales.

The majority of Vida's production is from spruce (whitewood) approximately 90% and 10% is from pine (redwood), the group consumes about 2 million m³ per annum, which equates to about 180 Lorries per day. These logs are cut in the forest in accordance with the length requirements of customers in each market.

"Our goal has always been to offer the right solution to each customer with that customer's special transport needs in mind. All in all, it is our aim to provide an optimum combination of products and services".

Vida AB products portfolio are pallets, pallet collars, plywood lids, fiber board, fittings, plywood boxes, special packaging, cable drums and spools, products of composite materials and pallet blocks. Further cooperation with our customers Vida AB repurchase and reconstruct used drums in order to offer them optimum, cost-effective and environmental friendly solutions.

Vida Wood AB segmenting on construction industry e.g. Builder's merchants, DIY chains and trading houses and also industrial end users e.g. timber frame housing manufacturers, truss manufacturers.

Approximately 90% of the groups' production is exported to the USA, Europe and Asia. The British islands are the dominant markets, followed by USA, Sweden and Japan which hold some 2/3 of total sales.

#### Financial Targeting

Vida AB made turnover of about 3,7 billion SEK/year with 90% export value. The sales volume has increased into 1 200 000 m3 sawn timber/year of which 90% is further processed

#### Growth

Firm developed organic growth which comes from within the firm with knowledgeable and competent personnel.

Vida acquired an R&D firm that had made new component in the pallets production.

In 2004 around 900 000 m³ of sawn timber integrated with planing facilities, stress graded, treated, cut to size etc.

Vida has made major investments in production, I.T. and training to develop its relationship with its various markets.

Major investments have been made in logistics including a railway locomotive and wagons to transport the processed timber to the loading ports.

### Value Chains' Steering (Upstreams, Downstreams)

Vida has a well-developed sales and logistics system with a customer-adapted business system that includes distribution depots close to customers on the main markets in order to provide the quickest and best possible service.

# Technology Application

All of Vida's sawmills are technically advanced, using the most modern equipment available. They can produce timber to customer's specific demands and can adapt to new and existing markets.

"As we work to develop our products, we strive to achieve an optimum combination of functionality and cost-effectiveness, giving consideration to the environment at the same time.

This is made possible by developing products all the way from the forests to the final users and then in the recycling process".

Redwood products are resistant to the weather and are easy to machine and will accept preservation treatments very well. Vida specialize in producing precision end trimmed (P.E.T.) length timber for customers.

No own forest land but purchase raw material from forest owners as either standing forest or cutting agreements. Harvesting is done by external entrepreneurs. Vida AB buys the majority of its raw material from private forest owners using its own log procurement firm, Vida Skog (Vida Forest). All timber is bought directly from the 7000 local suppliers and with no middle hands involved. Purchasing volume around 1 800 000 m³fub with 34 persons number of employees.

# **Innovation Cappability**

Vida Energi AB is managing the group's interest in the Bio-Energy market and is a key part of the group's environmental policy. By removing the branches from the forest and the bark and chips from the saw mills, Vida Energi is producing energy from renewable sources, for example kindling and pellets.

Vida Energi refines by-products from the saw milling production. Vida is self-sufficient of steam for running the dry-kilns and sold the oversupply to nearby communities.

Unused saw dust is transported and sold as horse bedding and pellets as side business. Vida Pellets out source sales organization through Wisswood AB.

The customer demands vary from market to market. These specific requirements all have one thing in common, consistency of quality. Vida controls these requirements so that the quality and grading meet the demands of each country's legal requirements (and the specific request of each customer!)

"In close cooperation with our customers and suppliers, we work to develop both old and new products".

#### Concern of Human Resources

Vida has quality managers appointed to monitor all procedures and develop a united view to meeting the customer's requirements.

There are approximately 900 personnel, every personnel has been educated into firm culture in doing business.

Vida AB trains personnel to respond customers spontaneously and to understand customer needs, requirements, questions and problem, and helping the customer producing competitive products.

### Social Ethical Responsibility

ISO 9001 certificate of quality and an ISO 14001 environmental certificate

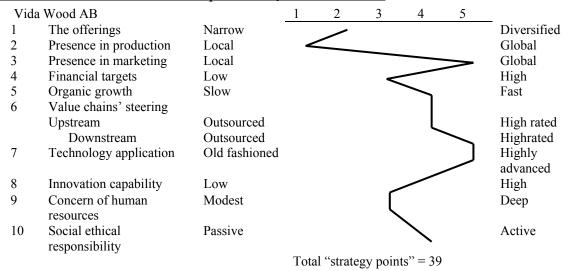
The Vida group is committed to supplying sustainable and environmentally friendly timber and is certified to the Programme for the Endorsement of Forest Certification (PEFC). Vida AB formulates firm's QUALITY AND ENVIRONMENTAL POLICY.

The firm addresses VIDA Energi's Environmental policy to achieve very important goal of a sustainable energy system. The most important objective of Vida Energi is to reprocess the bio-products from the forest and the saw mills into reusable energy.

"The Bio-fuel is the most environmentally friendly. There are no impurities in natural timber and the ash can be used as fertilizer in the forest to enrich the soil and control the pit of the forest and lakes. Unused saw dust is transported and sold as horse bedding and pellets as side business".

The transportation of timber products affects the environment the most. Vida is continuously striving for new solutions. For this reason the group has invested in a railway locomotive and wagons which transport chips to the pulp mills and processed timber to the ports on the east coast of Sweden for shipment to customers worldwide. The train will, in the future, transport Bio- fuel. As Vida owns its saw mills Vida Energi has its own raw material, which can be stored at the mills reducing the unnecessary transport of Bio-fuel material.

# Vida Wooda AB Described in Graphic and Quantitative Form



# 4.3 Summary Strategic Instruments in Sub-groups

Case study of each firm which are listed in the stock exchange as well private one were classified in sub-groups are juxtaposing in the following strategic instruments.

Table 4-1. Strategies as reported by the firms

Derome AB	Martinsons Group	Moelven Industrier	SCA Timber AB	Setra Group	Stora Enso Timber	Vida AB
		BUSINESS CONCEPT	AND POSITIONING (F	RODUCTS, PRESENCE	)	
Privately owned firm	Privately owned firm with saw milling logic	Mission: Supplying quality rooms	To be the most profitable supplier of wood-based products	Mission: to offer high quality wood products for interiors and		market-oriented saw
Private ownership with saw milling logic	An independent parent firm with facilities as	Vision: The natural choice for people	and consumer-oriented wood products in the Nordic countries	construction based on eco-certified raw material.	renewable fiber into paper, packaging and processed wood products (Mission).	An independent parent
A parent firm with two divisions: production facilities and estate	firms  Quality production with	building and living Scandinavian style	(Vision)	Vision: "Global	To be the leading forest	firm with facilities as firms
management		Ownership: 65% Finnforest, 35%	To deliver the best mix of wood-based products, services,	operations We are professional, dedicated and innovative The	products firm (Vision).	Produce value-adding with high flexibility
Low cost production, volume yield with integrated further processing	Key market: industrial appearance and structural end-users,	Norwegian forest owner association and wood products logic	knowledge and	best competence can be found at Setra!"	The aim is to develop the business together with our customers for mutual benefit.	Primary competitive advantage on specialization of raw
Key market segments: builder's merchants, building components, TFH and construction firm.	construction firms.	Sawn and planed timber, Joinery components, gluelam beams, solid wood structural boards, house and office modules	To create its shareholders' value, growth with solid	Forestry corporation and forest owners' associations  Ownership: Sveaskog 51%, LRF 25%,	Heading for one-species mills. Sawn and planed timber, joinery components, edge-glued panels, building	material; market sensing linked with quality and flexibility in production; organization's structure and competence
In 2004 produced 340 000 m <sup>3</sup>	Sawn and planed timber, painted panels, gluelam beams, solid wood structural boards	Key market: Large Scandinavian Builder's merchants, industrial end-users, construction	Total production increased 30% since 1995-2005 into 1 539	Mellanskog 24%, and Others 1% Large customers key	components, gluelam beams.  Main markets in Europe	Total volume of sawn timber 900 000 m³  Main markets in UK and
One-species saw mills producing sawn, planed and treated timber. Building components (roof trusses, truss systems and wall	Sawn timber: Sweden 50%, UK, Spain, Italy, Mediterranean etc. Gluelam: Sweden 30%, Japan 55%, Italy,	firms.  Sawn timber Market: Scandinavia 75%, UK, Holland, Germany,	000 m <sup>3</sup> Eight sawmills in Sweden, with a total capacity of 1.7 million cubic meters of solid-	market segments on Builder's merchants, (DIY) appearance industrial end-use segments in Europe	(57% of sales), Asia (26%	Ireland 30%, USA 25%, Scandinavia 20%, Japan 10%, Other 15%  Dimension and product specialized saw mills.

family houses  Sawn timber: Sweden 50%, UK, Denmark, Norway, Holland and Germany. Other products mainly to Sweden	Germany, UK, Norway  New organization with centralized marketing and sales  One of northern Europe's largest and modern private sawmills.			Sawn timber market: Sweden 35%, UK, Denmark, Germany, Spain, France, Japan, Norway, Italy. Gluelam: Japan, Sweden and Germany.  Branding Setra "Wood for Life"	Annual production capacity of 7.7 million m³ of sawn wood products, of which 3.3 million m³ takes the form of value-added products  Mills in Austria, the Czech Republic, Estonia, Finland, Germany, Latvia, Lithuania, the Netherlands, Poland, Russian and Sweden	Planed timber, treated timber, packaging products. Bio fuels.
		]	FINANCIAL TARGETI	NG		
million (EUR 81 831	Turnover Martinsons Trä AB SEK 470.4 million	In 2006 the group operating revenues was 6 692.4 NOK mill	ROCE target over 13% over the cycle (present realized level ~3.1% in 2005)	increased 9% amounted	the firm through profitable growth.	Turnover: 3,7 billion SEK/year Sales volume: 1 200 000
	Turnover Hällnäs Såg AB SEK 87.9 million Turnover The Martinson Group SEK 561.3 million	Timber operating revenues was 2 583.6 NOK mill  Wood operating revenues was 2 530.0	In 2005 net sales EUR 10 398 Million, 15% of which is forest products	Operating profit of SEK 257 million  Operating margin 4.4%, ROCE 14%, ROE 27.1%, Equity ratio	ROCE target over 13%	m3sawn timber/year of which

		Building systems operating revenues 1 937,5 NOK mill	Million, 25% of which is forest products  Turnover of 3.5 billion SEK in 2004	0.7 times	<0.8 (realized level ~0.54 in 2006)  Steady dividend, half of the net profit ~0.6 in 2006.	
			GROWTH			
	Organic and related acquisitions (wood products firms)	acquisition (wood products firm and wooden based modular housing)	Strengthening market presence globally,	production and related mergers	Organically and through M&A supporting core business development and synergies.  Aim is to reduce the volatility of its business by making its portfolio less cyclical and by geographically diversifying the business.	Organic growth
		VALUE CHAINS' S	TEERING (UPSTREAN	IS, DOWNSTREAMS)		
Firm made own procurement and forest services to private forest owners in area	Firm made own procurement from private owners and forest firms	long term agreements with forest owners in	Further processed products designed specifically for the DIY customer	Raw material procurement through long-term agreements with owners	Cooperation with forest	Own firm conducts procurement and forest services from private forest owners

manufacturing, building components and systems manufacturing, Builder's merchant, Timber frame housing, development of houses. Bio energy  Central distribution centre for domestic customers. Terminal in key market.	construction service, solid wood structural boards, supplier and	owned firm in Sweden  Centralized distribution centre serving Builder's merchants and domestic industrial end-users.  Trucks and boats for international from mills	E-commerce for solid-wood products  Manages 2.6 million hectares of forest land, of which 2 million is managed for timber production  Slow grown boreal own forest resources		E-timber for e-business solution	Packaging products. Bio energy  Distribution from mills and local terminals.  Train, trucks and boats.
		TE	CHNOLOGY APPLICA	TION		
	Three ultramodern glulam factories	Specialized production facilities	modernization; modern saw line, high drying capacity and effective chamber kilns	facilities to products and markets  New equipment for scanner and crosscut saw  Streamlined operations	X-ray scanning equipment and fingerjointing	Technically advanced, using the most modern equipment available
Bio fuels	Construction and	Industrialized	Cooperation with	Dromata navy taahu alaasi	Corporate venture-function	Investment in LT

	I			I		1
	technical competence	Advanced technological and processing expertise	Luleå University for forestry production engineers  Investment in high technology  Developed product mix-adapted to customers needs	applications  Research to develop resource-efficient and eco-compliant building system	Improving own products and processes and developing new products.  Increasing added value of products in mature markets.  R&D costs 0.5% of sales in 2006	systems and training to facilitate communication
					Consumer boards most intense	
		CONC	ERN OF HUMAN RES	<b>QURCES</b>		
Motivated and skilled personnel	Motivated employees	Motivated and skilled employees	Skilled and motivated personnel	Skills development	Excellent management resources.	Qualified managers to monitor all procedures
		Long term employment relationships			Enhancing competence and know-how	
		Equal opportunity				
		Training and skill development				
		Management development				
		Trainee program				

		Wood working industry's business school				
		SOCIA	AL ETHICAL RESPONS	SIBILITY		
Certified PEFC and FSC	According to ISO 14001 and PEFC		Globally first ranked in environmental efforts	certification systems	Social responsibility: financial, environmental and social.	Investment in logistics (railway locomotive and wagons) for energy
		PEFC and FSC certified		ISO 14001	Business practice,	efficiency
		Ethical consideration	sound impregnation		communication, community involvement,	ISO 9001 certificate of quality and ISO 14001
		Responsible environmental policies	Nature conservation policy and strategy		reduction in work force, human rights (working conditions, diversity,	environmental certificate PEFC certified wood
			ISO 9001:2000, ISO 14001:2004		freedom of association, free choice of employment, child labor, remuneration, working hours)	VIDA Energi's Environmental policy
						Reprocess bio-products into reusable energy

# 4.4 Strategic instruments in on/off form

Case study of all firms was marked through selected elements of every strategic instrument and as is shown in the Table 4-2, this form shows how the firm has maximised every strategic instrument.

Table 4-2. Strategic situation in ON/OFF-form

NO	INSTRUMENTS	Derome AB	Martinson Group AB	Moelven Industrier ASA	SCA Timber	Setra Group	Stora EnsoTimber	Vida AB
1	BUSINESS CONCEPT AND POSITIONING	Realized	Realized	Realized	Realized	Realized	Realized	Realized
	The Offerings							
	Products							
	Sawn and planed timber	√	V	V	√	$\sqrt{}$	$\sqrt{}$	V
	Wood based panels	√	$\sqrt{}$	V		$\sqrt{}$	V	
	Engineered wood products	√	$\sqrt{}$	V		$\sqrt{}$	V	
	Bio fuels	V					V	V
	Services							
	Customized production	V	$\sqrt{}$	V	V	$\sqrt{}$	V	V
	Training		$\sqrt{}$		V	$\sqrt{}$	V	V
	Logistics							
	Stable price		V	V	V		√	
	Consistent volume		$\sqrt{}$		√		V	
	Advices							
	Mutual assessments quality & cost		V		V	$\sqrt{}$	V	
	Adaptations							
	Joint R&D development		$\sqrt{}$		V	$\sqrt{}$	V	
	Adjustment delivery schedule	√	V	√	√	V	V	
	Presence in production:							
	EU	√	$\sqrt{}$	V	<b>√</b>		V	V
	Other Europe (excl. Russia)		V	V			V	

	Presence in marketing:							
	EU	V	V	√	V		V	V
	Other Europe (excl. Russia)		V				V	
	Russia						V	
	North America				V		V	V
	South America						V	
	India						<b>√</b>	
	China, Korea						V	V
	Japan		V	√	V		V	V
	Southeast Asia						V	
	Australia, New Zealand						V	
	North Africa, Middle East						√	V
	Setting yardsticks							
	Good profitability <sup>1</sup>			V	V		V	
	Profit enhancement programs							
	Divesting non-core assets					<b>√</b>	<b>√</b>	
	Cost cutting and asset modernization		√		V	V	V	√
3	GROWTH							
	Rebuilding existing capacity					$\sqrt{}$		<b>V</b>
	Greenfield investment				V			
	Mergers and acquisitions (M&A's)	V		√	V	V	V	

4	VALUE CHAINS' STEERING:							
	Upstream : Primary log resources		V		V	V	V	
	Downstream : Networking	√	V	V	√	√	√	V
5	TECHNOLOGY APPLICATION							
	Applying advanced solutions	√ 	V	V	√	√	√	√
6	INNOVATION CAPABILITY							
	Improving existing products/process	V	V	V	V	V	V	V
	Developing new products	V	V	V		V	V	V
	Spending on R&D-work		$\sqrt{}$	V	V		V	
	Own research unit(s)			V	V	$\sqrt{}$	$\sqrt{}$	
	Partnership in R&D-projects		V	V	√	√	√	
7	CONCERN OF HUMAN RESOURCES							
	Responsible employment practices	√	V	V	V	V	V	
	Competence development		V	V	√	√	√	
8	SOCIAL ETHICAL RESPONSIBILITY	√	V	V	<b>√</b>	√ V	<b>√</b>	

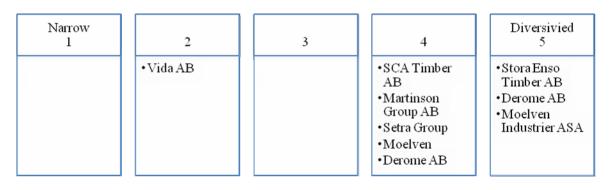
1 criteria for 'good' and 'strong': e.g. ROCE>10%, gearing ration <80%

# 4.4.1 Profiles in number series

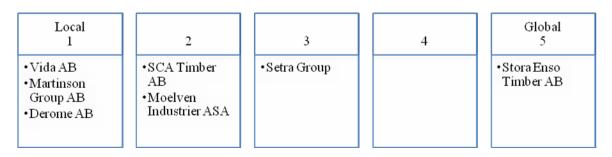
Firm	Positio	on by In	strumen	t								Average
	1	2	3	4	5	61	62	7	8	9	10	
Derome Timber AB	5	1	3	5	2	3	4	5	5	3	3	3.55
Martinsons Group AB	4	1	1	2	2	3	3	5	4	4	3	2.91
Moelven Industrier	5	2	4	5	3	4	4	5	5	4	4	4.10
SCA Timber	4	2	4	5	2	4	4	4	4	4	5	3.82
Setra Group	4	3	4	4	2	2	2	3	4	5	4	3.36
StoraEnso Timber	5	5	5	3	3	2	5	5	3	4	4	4.00
Vida Wood AB	2	1	5	3	4	4	5	5	3	3	4	3.55

# 4.4.2 Summary of firms' strategies in profile element

# 1. The offerings



# 2. Presence in production



# 3. Presence in marketing

Local 1	2	3	4	Global 5
•Martinson Group AB		•Derome AB	•SCA Timber AB •Setra Group •Moelven Industrier ASA	•Stora Enso Timber AB •Vida AB

# 4. Financial targets

Low 1	2	3	4	High 5
	•Martinson Group AB	•Stora Enso Timber AB •Vida AB	•Setra Group	•SCA Timber AB •Moelven Industrier ASA •Derome AB

# 5. Organic growth

Slow 1	2	3	4	Fast 5
•Moelven	•SCA Timber AB •Martinson Group AB •Setra Group •Derome AB	•StoraEnso Timber AB •Moelven Industrier ASA	•Vida AB	

# 6. Value chain's steering

# Upstream

Outsourced 1	2	3	4	High rated 5
	•StoraEnso Timber AB •Setra Group	•Martinson Group AB •Derome AB	•SCA Timber AB •Vida AB •Moelven Industrier ASA	

# Downstream

Outsourced 1	2	3	4	High rated 5
	•Setra Group	•Martinson Group AB	•SCA Timber AB •Moelven Industrier ASA •Derome AB	•Stora Enso Timber AB •Vida AB

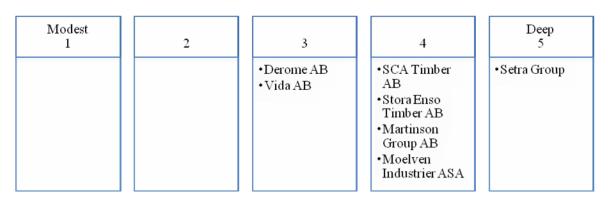
# 7. Technology application

Old fashioned 1	2	3	4	Highly advanced 5
		•Setra Group	•SCA Timber AB	•StoraEnso Timber AB •Vida AB •Martinson Group AB •Derome AB •Moelven Industrier ASA

# 8. Innovation capability

Low 1	2	3	4	High 5
		•StoraEnso Timber AB •Vida AB	•SCA Timber AB •Martinson Group AB •Setra Group	•Derome AB •Moelven Industrier ASA

# 9. Concern of human resources



# 10. Social ethical responsibility

Passive 1	2	• Derome AB • Martinson Group AB	•Stora Enso Timber AB •Vida AB •Setra Group •Moelven Industrier ASA	Active 5 •SCA Timber AB
--------------	---	----------------------------------	--	----------------------------------

#### 5. An Overall Assessment and Discussion

Since the overall research finding is that the strategy profiles of the sawmill firms is somewhat similar this poses the last research questions, Will the strategies lead to 'sustained' competitive advantage?, in this section we identify the questions by using Barney's framework in relationship between resource heterogeneity and immobility; value, rareness, imitability and substitutability; and sustained competitive advantage as summarized in Figure 2-2.

The framework defines firm resource heterogeneity and immobility with respect to the strategic resource they control. Furthermore by evaluating whether or not particular firm resources can develop the primary sources of sustained competitive advantage.

#### **5.1 Summary of Findings**

#### 5.1.1 By each firm covering all individual strategy elements

- Derome AB aims at low cost production and volume yield with integrated further processing. The competence is on the ability of supplying building components (roof trusses, truss systems and wall elements), timber frame housing and multi-family houses as well construction capability.
- Martinsons Group has been running for 4<sup>th</sup> generation with long experienced and competency on painted panels, gluelam beams, solid wood structural boards and construction technical capability.
- Moelven Industrier ASA has a long history of tradition and competency in manufacturing sawn and planed timber, joinery components, gluelam beams, solid wood structural boards, house and office modules and moving towards becoming an actor in the construction industry.
- Setra Group aims to offer high quality wood products for interiors and construction to large customers key market segments on Builder's Merchants and industrial end-use segments in Europe.
- SCA Timber AB to be the most profitable supplier of wood-based products and
  consumer-oriented wood products in the Nordic, and having the competency on planed
  timber and profiled products from the slow grown boreal forest and delivery and
  distribution capability.
- Stora Enso Timber aims to offer high quality wood products, planed, joinery components, edge-glued panels and developing business together with large customers with mutual benefits, customization for interiors and constructions.
- Vida AB has a high flexibility production, processing and distribution service which manifested in the competence to produce dimension and product specialized saw mills, planed timber, treated timber, packaging and bio fuels.

#### 5.1.3 By each individual strategy element covering all firms

The firms shared similar strategy and in some extend possess the same firm resources strategy. A more detailed is as follow:

- The Offering. As for the products, the product mix is customized in size and length. Services including 'Just In Time' delivery to provide products without stock on yard and distribution solutions.
- Financial targeting. The differences of ownership basis are to some extend reflected on the strategy application. The firms express their strategy to decrease debt capital. In a way its contradictory in the way the firms expressed their objective to apply advance technology possible.
- Growth. The phase most of the firms are through organic growth and to some extend related integration.
- Value chains' steering. The firms are seeking market from outside Scandinavia, improvement of the marketing systems and the expansion of the distribution network. The firm emphasize the importance of customer orientation and internationalization. Related to this is the objective that the domestic production having integrated that enable optimization of wood utilization.

Raw material, the aim is generally to secure its supply. This is natural considering the problems in the availability of wood and the role of wood as a cost factor. The case of the firms are not aiming at expanding their own forest lands and to base the production in general on their own wood resources and own procurement to private forest owners, the explanation would be that Swedish forestry is to a far extent seen as a society's task.

- Technological application. The cutting edge technology is invested to specializing
  production facilities and to be able to supply the wide range of customers' needs,
  expectations and wants.
- Innovation capability. The distinguish long term presence of the firms are marked through the engagement with different universities hold the long term learning, adaptation and development of R&D.
- Concern of human resources. The value of human resources has been increasingly better understood. This can be seen in the tendency to increase cooperation between various stakeholders and to support innovative actions. Several firms also experienced concern of personnel as essential factors affecting strategy formulation. Training is seen as a method to cope with the tensions caused by advanced technology.
- Social ethical responsibility. The growing importance factors, as public acceptance and market oriented becoming more and more important. The PEFC and PFC as well ISO have been realized even more and more in operation of the firms in the near future.

#### 5.1.3 Sustained competitive advantage strategy

The sustained competitive advantage strategy consisting: 1.) Physical capital resources concerning raw material, location in production and marketing and production process-technological development. And 2.) The human capital resources concerning the social complexity

#### 5.1.2 Physical capital resources

Availability of physical capital resources is not only important but a prerequisite for the continuation of the saw milling industry. Some of the characteristics of physical capital resources address as follow:

- Two dominant species, Norway spruce and Scots pine, traditionally used for different end-use applications, often growing in mixed forest stands.
- The quality of raw material and correspondingly sawn timber products, has in general been perceived of being higher in the northern parts of Sweden.
- The quality of the saw log and correspondingly its value is based on the probable quality of the sawn timber but determined from visual scanning of the saw log surface.
- Location of the production facilities most often stem from historical reasons, related to availability of raw material, transportation of raw material, and market segmentation.
- The production process-technological developments, increased automation, fewer
  person in real production, increased speed and at the same time improved accuracy,
  more options in fresh and dry sorting and trimming, new integrated techniques in further
  processing such as planning, finger jointing, machine stress grading and individual bar
  coding and wrapping.
- Two types of ownership structure. These are: private ownership often with the owner as Managing Director – Derome AB, Martinson Group, and Vida AB; large forest corporations – Stora Enso Timber and SCA Timber; and forest owner association— Moelven and Setra Wood Products.

#### 5.1.2 Human capital resources

• The concern of human resources exhibits the following values: employment highly skilled, intellectual, motivated employee, excellent management resources, enhancing competence and know-how, qualified managers to monitor all procedures, skills development, long term employment relationships, equal opportunity, training program, management development.

#### 5.1.3 Organization capital resources

- Two types of reporting structure. These are: stock listed firm, obligated by law to report publicly (Stora Enso Timber and SCA Timber) and family owned, internal reporting can be informal (Derome AB, Martinson Group AB and Vida AB)
- The formal organization are classified into three. These are: an independent parent firm with facilities as firms (Derome AB, Martinson Group and Vida AB), Division in large

corporation (Moelven Industrier, SCA Timber and Stora Enso Timber) and centralized with facilities as profit centre (Setra Group).

• Firm's social responsibility generally by following legal and non legal bond regarding benefit sharing between firm as part of environment and community.

#### 5.2 Strategic Profiling and Sustained Competitive Advantage

Considering Barney's framework to assess resource contribution to sustained competitive advantage (see chapter 2.1.3)

#### 5.2.1 Regarding Physical Capital Resources

- Raw material is prerequisite for the industry to conduct business, but not the sole attribute creating competitive advantage. Specific characteristic of wood "Boreal slow grown forest" can be source of timber, which is valuable, rare and imperfectly imitable and non substitutable. High quality raw material is a valuable input in creating a sustained competitive advantage.
- Location in production and marketing can be the source for the creation of a valueadding strategy aiming for a competitive advantage related with distribution solutions in key market.
- Production process-technological development is considered as a valuable, rare, yet highly imitable strategic resource. Firms has exploited technical competency through huge investment in cutting edge machinery to adapt the wide range of offering.

#### 5.2.2 Human Capital Resources

• The following values shows the social complexity remark the strength of the sustained competitive advantage: Personnel, emphasis on people, personnel commitment, professional development, job permanency, high-standard management principles and methods, teamwork, individual responsibility, initiative, integrity, fair play, openness and trust.

#### 5.2.3 Regarding Organization resources

- Ownership business concept, private ownership, forest owners' association and large forest firm, have a direct and indirect effect of the implementation of strategies.
   Ownership structure impacting as well to the firm's profitability targeting.
- Formal organization can be formed in different ways, centralized firm, a parent firm with divisions, divisionalized firm. The sustained competitive advantage is depending on business concept and the organizational flexibility in adapting new operations and strategic positions.

Combining the above resources it will explain that the primary competitive advantages of different firms are depending on the effectiveness and efficient use of firm resource heterogeneity and firm resource immobility.

#### 5.3 Common Features and Differences

In this section we assess the existence of some common and differences features in strategies, typically in business position in more details, in terms of the offering (products range, services, logistics, advices and adaptation), geographical presence (including production and marketing), organic growth and value chains' steering-upstream.

The offering and geographical presence trend tends to show the larger forest firms have a large volumes production and diversified product portfolio more than the private firm as its shown in Figure 5-6. The geographical presence in production shows similar relationships, that larger forest firms tend to aim at the large consumption segments and distribute globably as shown in Figure 5-7.



Figure 5-6. The offering

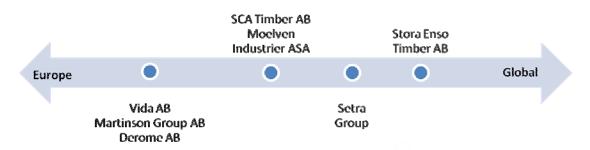


Figure 5-7. Geographical presence in production.

Business position of the whole firm as shown in Figure 5-8 indicate, the advantage of global presence, the larger forest firms, Setra Group, SCA Timber and Stora Enso Timber, have saw mills producing large volumes of bulk products aiming at low cost, little product specialization and often no vertical integration and aiming at the large consumption segments like distribution. The owners followed a business logic of bulk production of pulp and paper and apply a similar strategy to the saw milling division.

In the other hand the privately owned saw mill, Vida Wood AB, Martinson Group AB, have been more active in product specialization through further processing and vertical integration. Smaller in size compared with firms in the first group, the ability to conduct extensive market research, sensing and marketing has been limited which is presence locally, but instead established direct relations with customers from narrow to medium product portfolio. More

emphasis on customer service, higher product specialization, and aiming for the small to medium sized firms.

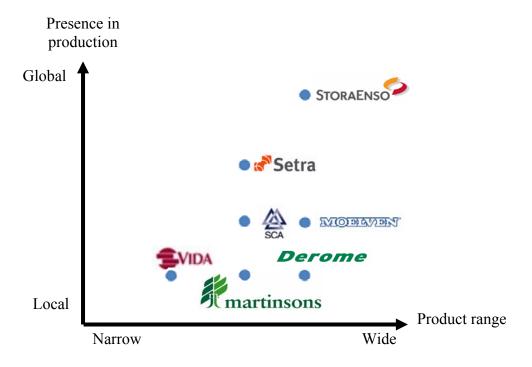


Figure 5-8. Business position combined.

Organic growth in within firms are very much different, the private firm tends to have organic growth strategy than the larger one as shown in Figure 5-4.



Figure 5-4. Organic growth.

Value chains' steering – upstream or downstream as illustrated in Figure 5-5 where SCA Timber AB and Vida AB have high rated source of material while Stora Enso Timber and Setra Group rely on outsource material.

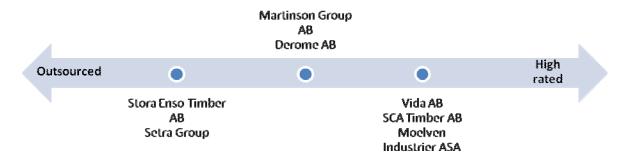


Figure 5-5. Value chains' steering – Upstream.

The results indicate that strategies of the firms can differ essentially, although they operate in the same industrial branch. This fact means that the reasons which have often been blamed for bad results, namely weak business cycles and market situations, not the firms themselves, do not tell the whole story. The strategy and realized operations play a key role here.

The common components occurring in the firms' strategies can be listed as follows:

- Business position: focus on the branch concerned, i.e. not diversified strategy, aim at widening geographical presence, specifically into certain areas, or only in general terms internationally/globally
- Shareholder value, strengthening financial position
- Growth, at least in general terms
- Improving customer orientation
- Efficiency, improving the present operations, applying up-to-date technology
- Focus on human resources, in particular on skills and motivation
- Securing raw material supply
- Operations in ethically, socially and sustainable way

Summary of values reported by firms were discussing several issues regarding

- Customer focus
- Personnel, emphasis on people, personnel commitment, professional development, job permanency, high-standard management principles and methods, teamwork, individual responsibility, initiative, integrity, fair play, openness and trust
- Performance, emphasis on technological expertise and innovations
- Social-ethical responsibility, emphasis on environmental issues (sustainable development) and social sense of responsibility
- Ethical principles (code of conduct), emphasis on business practices, compliance with laws and regulations, community involvement, human rights: equal opportunity and non discrimination, health and safety, corruption and bribery, intellectual property.

The values reported explained the social complexity of the firms that strengthen the sustained competitive advantage. Large forest firms and forest owner association also move towards the same direction of market segmentation with similar strategies.

All in all, there exist strategy components related to business position (presence), generic directions, products/markets, raw materials, production (including technology), human resources, R&D, co-operation, M&As, globalization and environment issues. There exist no clear occurrences related to political issues.

#### **5.4 Critique of Method**

Barney raises organization capital resources as a difficult to copy and no potentially key to sustained competitive advantage. The method however, lacks instruments to measure this, which is perhaps a short falling of the method. Furthermore, it is challenging to collect data of this type.

Difficulty was also faced in analysis, due to different sources of data. Data derived from family owned firm is not easy to find, as the firm is not publicised their annual operational and business activities report, while stock listed firms are more easy to get as its driven by the law to report annually for the public interest. Although, closing or disclosing firm's strategy can be strategy itself.

The similarities of strategies of the analyzed case firms are not surprising. Bearing in mind, that was the pre assumption made in this study. However, it does not necessarily correspond to the reality. Surely there are differences that lead to sustained competitive advantage, but their further identification necessitates a new kind of methodological approach in the research.

Due to of time constraint and language barrier we didn't have the opportunity to interview Derome AB and Moelven Industrier ASA. Otherwise it would be more comprehend results and knowledge to have both of the firms' strategist people on this study. But without reducing the importance of these key persons, the work has contributed to up-date the biggest firms' strategy in Sweden.

### 6. Conclusions

The firms share similar strategies, and to some extent possess similar firm resources strategies.

All the firms showed the similar trends of securing wood supply, internationalization and market focus by setting sales abroad in order to make the firms' marketing more efficient, targeting high ROCE, integration of domestic basic production into one-species saw milling logic, maintain modern technology, develop innovation capability and lean technology to promote optimum uses of wood material, emphasize on development of internal human resources and conducting ethical responsibilities with the confines of long term ecology, economy and social sustainability.

Raw material, location in production and marketing, production process-technological, social values and ownership contributed to sustained competitive advantage

It is recommended that future studies continue this type of research, since there is a need to have a full time history to see strategy development in order to enhance understanding of branch strategy thinking, as well as distinguish realized and unrealized strategies.

### References

Chaffee.1985. In Mintzberg H., Ahlstrand B., Lampel J. 1998. Strategy Safari, the complete guide through the wilds of strategic management. London: Prentice Hall Financial Times.

Elfvengren, K., Korpela J., Tuominen, M., Sierillä, P. 2005. Expert Analysis of the Strategies and Critical Success Factors of Forest Industries in Finland, Research Report, Tapiola, Espo: Lapperanta University of Technology.

Ford, D. 2002. The Business Marketing Course. Managing In Complex Networks. West Sussex: John Wiley & Sons Ltd.

Gillham, B. 2005. Case Study Research Methods. Real World Research. New York: Continuum

Grant, R. M. 2005. Contemporary Strategy Analysis, Victoria: Blackwell publishing.

Johnson, G. 1988. Exploring Corporate Strategy. New York: Prentice Hall

Juslin, H. and Hansen, E. 2003. Strategic Marketing in the Global Forest Industries, Corvallis, Oregon State: Authors Academic Press.

Kotler, P. 2000. Marketing Management: Analysis, Planning, and Control, London: Prentice Hall.

McCluskey, D and Hugosson M. Pending.

McCluskey, D. Pending. Interview with Vida AB.

McCluskey, D. Pending. Interview with SCA Timber

Mikkilä, M. 2006. Acceptability of operations, corporate responsibility, sustainability, or what?- the many faces of responsibility within the global pulp and paper industry In Lönnstedt, L and Rosenquist, B. 2006. SCANDINAVIAN FOREST ECONOMICS No. 41, Proceedings of the Biennial Meeting of the Scandinavian Society of Forest Economics Uppsala, Sweden, 8th-11th May, 2006

Mintzberg, H., Ahlstrand, B., Lampel, J. 2005. Strategy Bites Back, It Is Far More And Less, Than You Ever Imagined. New Jersey: Pearson Prentice Hall.

Mintzberg, H., Lampel, J., Quinn, J. B. and Ghoshal, S. 2003. The Strategy Process, Concepts, Contexts, Cases, New Jersey: Pearson Education.

Nord, T. 2005. Structure and Developments in the Solid Wood Value Chain, Dominant Saw Milling Strategies and Industrialized Housing, Licentiate Thesis, Lulea: Lulea University of Technology.

Sierillä, P. 1987. Corporate Planning and Strategies in Forest Industries, Atlanta: TAPPI Press.

Sierillä, P. 2003. Reality of Strategies - Company Strategies in Practice, Methode and Applications, Research report 142, Lappeenranta: Department of Industrial Engineering and Management, Lapperanta University of Technology.

Sierillä, P. 2005. Strategy Studies on Industrial Applications, A New Approach to Strategies: Focus on the Core, What Instruments Do Companies Use in Their Strategies?, Cases on Paper Insdustry Companies, Research Report 164, Lappeenranta: Lappeenranta University of Technology, Department of Industrial Engineering and Management.

Silverman, D. 2000. Doing Qualitative Research, A Practical Handbook, London: Sage Publications.

Stalan, J., Navren, M., Nylinder, M. 2002. Resultat från sågverksinventeringen 2000. The Swedish University of Agricultural Sciences. Department of Forest Products and Markets. ISSN: 1651-0704. Report nr 3. Uppsala.

Stendahl, M., Roos, A., Hugosson, M. 2006. Product development in the sawmilling industry drivers, obstacles and key success factors In Lönnstedt, L and Rosenquist, B. 2006. SCANDINAVIAN FOREST ECONOMICS No. 41, Proceedings of the Biennial Meeting of the Scandinavian Society of Forest Economics Uppsala, Sweden, 8th-11th May, 2006

Wright. 1992. In Mintzberg H., Ahlstrand B., Lampel J. 1998. Strategy Safari, the complete guide through the wilds of strategic management. London: Prentice Hall Financial Times.

#### Internet sources:

http://www.scb.se/ (accessed 15-December-2006)

http://www.storaenso.com/ (accessed 2-April-2007)

http://www.sca.timber.se/ (accessed 2-April-2007)

http://www.setragroup.se/ (accessed 2-April-2007)

http://www.moelven.com/ and http://www.moelvenwood.com/ (accessed 2-April-2007)

http://www.vida.se/ (accessed 2-April-2007)

http://www.martinsons.se/ (accessed 2-April-2007)

http://www.investopedia.com/terms/r/roce.asp (accessed 11-June-2007)

# **Appendix A: Interviewees**

Case firms

SCA Timber AB Anders Marklund, Sales Manager Scandinavian and Baltic, 2007-07-03

Setra Group Kent Torwald, President and CEO, 2007-08-28

StoraEnsoTimber AB Jörgen Hermansson, Market Area Director Sweden Norway and Denmark and business line joinery, 2007-07-02

Vida Wood AB Måns Johansson, Managing Director, 2007-07-04

Martinsons Group Kenneth Wallin, Managing Director, 2007-08-23

# Publikationer från Institutionen för skogens produkter, Sveriges lantbruksuniversitet (SLU)

#### Rapporter

- 1. Ingemarson, F. 2007. De skogliga tjänstemännens syn på arbetet i Gudruns spår. Institutionen för skogens produkter, SLU, Uppsala
- 2. Lönnstedt, L. 2007. *Financial analysis of the U.S. based forest industry*. Department of Forest Products, SLU, Uppsala

#### Examensarbeten

- 1. Stangebye, J. 2007. Inventering och klassificering av kvarlämnad virkesvolym vid slutavverkning. *Inventory* and classification of non-cut volumes at final cut operations. Institutionen för skogens produkter, SLU, Uppsala
- 2. Rosenquist, B. 2007. Bidragsanalys av dimensioner och postningar En studie vid Vida Alvesta. *Financial analysis of economic contribution from dimensions and sawing patterns A study at Vida Alvesta.* Institutionen för skogens produkter, SLU, Uppsala
- 3. Ericsson, M. 2007. En lyckad affärsrelation? Två fallstudier. *A successful business relation? Two case studies.* Institutionen för skogens produkter, SLU, Uppsala
- 4. Stähl, G. 2007. Distribution och försäljning av kvalitetsfuru En fallstudie. *Distribution and sales of high quality pine lumber A case study*. Institutionen för skogens produkter, SLU, Uppsala
- 5. Ekholm, A. 2007. Aspekter på flyttkostnader, fastighetsbildning och fastighetstorlekar. *Aspects on fixed harvest costs and the size and dividing up of forest estates.* Institutionen för skogens produkter, SLU, Uppsala
- 6. Gustafsson, F. 2007. Postningsoptimering vid sönderdelning av fura vid Säters Ångsåg. *Saw pattern optimising for sawing Scots pine at Säters Ångsåg.* Institutionen för skogens produkter, SLU, Uppsala
- 7. Götherström, M. 2007. Följdeffekter av olika användningssätt för vedråvara en ekonomisk studie. *Consequences of different ways to utilize raw wood – an economic study.* Institutionen för skogens produkter, SLU, Uppsala
- 8. Nashr, F. 2007. Profiling the strategies of Swedish sawmilling firms. Department of Forest Products, SLU, Uppsala