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JUHA S. NIEMELÄ

MARKETING-ORIENTED STRATEGY CONCEPT AND ITS EMPIRICAL TESTING WITH LARGE SAWMILLS

MARKKINOINTILÄHTÖINEN STRATEGIAKÄSITE JA SEN EMPIIRINEN TESTAUS SUURILLA SAHOILLA

THE SOCIETY OF FORESTRY IN FINLAND
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MARKETING-ORIENTED STRATEGY CONCEPT AND ITS EMPIRICAL TESTING WITH LARGE SAWMILLS

Markkinointilähtöinen strategiakäsite ja sen empiirinen testaus suurilla sahoilla

Juha S. Niemelä

To be presented, with the permission of the Faculty of Agriculture and Forestry of the University of Helsinki, for public criticism in Auditorium XII of the University Main Building, Fabianinkatu 33, Helsinki on January 7th, 1994, at 12 o'clock noon.

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The objectives of this study are both theoretical and empirical. On the theoretical level strategy concept, its operationalization and measurement are analyzed and clarified. On the empirical level marketing strategies and competitive strategies are described by country, and the study also identifies the strategic marketing decisions characterizing different countries or competitive strategies. Furthermore, the relationships between strategies and marketing structures and functions are analyzed. The connections between marketing strategy and competitive strategy are analyzed on both the theoretical and empirical level. The data of the study consists of personal interviews of 102 large sawmills. The data is collected from Finland, Western USA and British Columbia, Canada and is divided fairly equally between these three countries.

On the theoretical level the strategy concept is analyzed by classifying the concepts used in strategy research into five different types. The data of the study makes it possible to empirically compare two different strategy concepts and three countries. Marketing strategy is analyzed in terms of decisions concerning products, customers, market areas and marketing competences. The Finnish sawmills differ from the Western North American sawmills with a more advanced marketing strategy emphasizing specialty- and custom-made products and few customers and market areas. The Finnish sawmills are also applying more advanced competitive strategies. Hypotheses concerning the relationships between marketing strategy and competitive strategy gain support from the empirical findings. Connections between marketing strategy and marketing structures and functions were found to exist, which provides validation for the used operationalization of the marketing strategy concept.

Tutkimuksen tavoitteet ovat sekä empiirisiä että teoreettisia. Teoreettisella tasolla analysoidaan ja selvennetään strategia-käsitettä, erityisesti sen operationalisointia ja mittausta. Empiirisellä tasolla kuvataan markkinointistrategioita ja kilpailustrategioita maittain ja identifioidaan kullekin maalle tai kilpailustrategialle tyypillisiä strategisia markkinointipäätöksiä. Lisäksi analysoidaan strategioiden ja markkinoinnin rakenteiden ja toimenpiteiden suhdetta. Markkinointistrategian ja kilpailustrategian yhteyttä tutkitaan sekä teorettisella että empiirisellä tasolla. Tutkimuksen aineisto koostuu 102 suursahan henkilökohtaisesta haastattelusta. Aineisto on kerätty Suomesta, läntisestä USA:sta ja Kanadan Brittiläisestä Kolumbiasta ja jakaantuu lähes tasan näiden kolmen maan kesken.

Teoreettisella tasolla strategiakäsitettä analysoidaan jakamalla strategiatutkimuksissa käyteytyt käsitteet viiteen eri tyyppiin. Tutkimuksen aineisto mahdollistaan kahden strategiakäsitteen ja kolmen maan empiirisen vertailun. Markkinointistrategiaa analysoidaan tuote-, asiakas-, markkina-alue- ja markkinoinnin menestystekijäpäätösten suhteen. Suomalaiset sahat erottuvat läntisen Pohjois-Amerikan sahoista selvästi edistyksellisemmän, erikois- ja asiakastuotteita sekä harvoja asiakkaita ja markkina-alueita painottavan markkinointistrategiansa ansiosta. Myös kilpailuetustrategioiden suhteen suomalaiset sahat eroavat edistyksellisimpinä. Hypoteesit markkinointistrategian ja kilpailustrategian yhteyksistä saivat tukea empiirisessä tarkastelussa. Myös markkinointistrategian ja markkinoinnin rakenteiden ja toimenpiteiden väliltä löytyi yhteyksiä, mikä validoi käytetyn markkinointistrategiakäsitteen operationalisoinnin.

Keywords: marketing strategy, competitive strategy, sawmill industry, marketing planning.
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Contents

Preface

This doctoral dissertation is a culmination of a research and study project that started in 1989 at the Department of Forest Products Marketing at the University of Helsinki. During the fall of 1989 I moved to the Finnish Forest Research Institute and in the following fall the data collection of this study took me and my family to the University of Washington, Seattle for the academic year 1990–91. In the fall of 1991 I returned to the same place where this study started, Department of Forest Economics at the University of Helsinki. At the end of 1992 I completed my licentiate thesis on the same field of study.

My supervisor and teacher Prof. Heikki Juslin has been most supportive and encouraging during the whole process. His enthusiasm and knowledgeable guidance and criticism have been essential for the completion of this study. He has offered me outstanding working conditions. The co-operation with him has been a very inspiring experience. I owe him my sincere thanks.

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I would like to thank M.Sc. Sirkka-Liisa Rinta for the work she did when collecting the data in Finland in connection with her Master's thesis project.

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I have been privileged to be funded by the Academy of Finland and have been able to concentrate on this study full-time. Without the financial help from the Academy of Finland this study would never have been completed to this extent. I am deeply grateful to the Academy of Finland for this opportunity.

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I would like to thank my parents for their support and belief in education.

Finally, I would like to thank my wife Tarja for all the understanding, support and love I have received during this process and our daughter Sonja who has been an everlasting source of inspiration for me during the whole process. I dedicate this book to Tarja and Sonja.

At dawn in Helsinki, October 1993

Juha S. Niemelä

1 Introduction

1.1 Background of the study problem area

This study is about strategy from a marketing perspective. The concept of strategy has had a central role in management literature since the 1960s, one of the main reasons having been its importance to both scientific research and everyday management. The wide variety of explanatory factors behind strategy has attracted scientists, and for management strategy is a basic tool in directing and running the business.

A combination of scientific curiosity and practical needs also justifies this study. For forest products marketing, as for any applied science, the two most important driving forces behind research are to further develop theories and to satisfy the information needs in everyday operations of forestry and forest industries. Marketing perspective is incorporated since this study is in the field of forest products marketing which builds on the ideas of marketing discipline. Marketing is also considered to be extremely important to business success when the forest industry moves from the production-oriented business philosophy towards a market-oriented philosophy (Sinclair 1992).

The fundamental idea behind developing theory and theory constructs in an applied science, is to be able to solve the problems on a theoretical level and then operationalize them to be applied in everyday business. In today's complex and rapidly changing environment it seems evident that no single discipline alone can give all the solutions how to cope with that environment. Combinations of different disciplines are needed. This study examines the combination of marketing discipline and strategy discipline. Both of these disciplines are very important when considering how a company can flourish or even survive in today's turbulent environment.

The specific theoretical reasons for the study can be found in the ambiguity of the terminology concerning strategic planning and strategies and the diversity of theories in this field. The ambiguity of terminology is bound to have caused confusion and made the difficult task of strategic planning even more complicated for management, although theories should bring some order into the confusing world. The specific practical reasons for this research are the long-term problems of the Finnish forest industry, particularly those of the sawmill industry, in keeping up with the turbulent environment. For comparison the sawmill industry of Western North America has been incorporated in this study.

1.2 Challenges facing the sawmill industry in Finland and North America

The sawmill industry could be regarded as a fragmented industry with signs of maturity (Porter 1980, Sinclair 1992). Some opponents have even referred to the sawmill industry as a declining sunset industry. It is true that the sawmill industry has faced and is going to face serious challenges in the future. Regardless of those challenges the sawmill industry still plays a significant role in the national economy of Finland as well as in the economy of Western North America. The regional effects of the sawmill industry as an employer and as a driving force of the regional economies are even more significant. The sawmill industry in both areas has faced remarkable changes in the operating environment. The changes started during the 1960s and 1970s, but in the 1980s and at the beginning of 1990s the times have changed from a growing demand and production to maturing demand and decreasing production in both areas. The demand of sawn timber is forecasted to increase very slowly by the year 2000; about 1.3% p.a. in Europe, about 1.1% p.a. in North America and about 2.0% p.a. in the whole world (Forest products ... 1988).

This slow increase in demand causes very keen competition and on the maturing markets the price is one of the most frequently used means of competition. There have also been changes in the raw material procurement, production and market environment. The slower demand combined with the changing environment places the sawmill industry in a new position which requires new and better adaptation procedures. These procedures fall within strategic planning. It becomes very important how a company positions itself in the competitive environment and how fast it can react to the changes in the environment. The competitive environments for different industries are rarely identical and accordingly it is important to study the adaptation procedures within a certain industry taking into account the industry-specific conditions.

The problems relating to raw material procurement are especially important to the sawmill industry since raw material represents a major cost factor in the price of the end-product and there is a direct connection between the quality of saw logs and the quality of sawn timber. In Finland the withdrawal from the system of collective stumpage price negotiations has caused some interferences in the raw material markets. In Western North America the sawmill industry is facing a new array of environmental and other factors restricting raw material supply. Historically the log prices have been relatively higher in Finland than in North America, but the recent changes have levelled off the difference. Saw log prices are rising both in the US and in Canada due to supply reductions and at the same time in Finland the saw log prices have been falling lately. Compared to the highest prices ever in the cutting season 1990/91 the prices are about 30% lower (Metsätilastotiedote 1993), and thus the cost advantage of North American producers compared to Finnish producers is diminishing.

In general the sawn softwood timber market situation in Europe and in the whole world is very uncertain. Competition has become global and there are new competitors on the sawn timber markets. A very good example of the uncertainty and globality of the sawn timber markets appeared at the end of 1992 and the beginning of 1993 when the demand for sawn softwood timber soared in the US due to restrictions in supply of saw logs in Western North America, and the recovering residential construction and the hopes of rising economic development due to the new president in the US. The prices of sawn softwood timber almost doubled in the US markets and also some small quantities of sawn timber were exported from Finland to the US (USA:n ja Japanin ... 1993). As a consequence Japanese importers assumed that there is going to be a shortage in supply of both sawn softwood timber and saw logs, for when the US market increases the Canadian producers are most likely going to increase exports to the US. Also Malaysia, another big exporter to Japan, had to restrict its exports for environmental reasons. So the Japanese anticipated the assumed shortage in supply by buying timber from almost anywhere, even from Finland and Sweden. (Laitinen 1993, Rantanen 1993, USA:n ja Japanin ... 1993)

Apparently the demand in the US soared only temporarily and has been slowing down and the prices of sawn softwood timber are almost back to the same level as at the end of 1992 (Metsäteollisuus tiedottaa 1993). However, there are trends in the world sawn timber markets that will have more long-term effects. One such trend is going to be the new competition from radiata pine grown in huge plantations in New Zealand, Chile and Australia (Eastin 1993). Chile and to some extent New Zealand have already exported sawn radiata pine timber to the UK markets (Cooper 1993), which represents a threat for the Finnish sawmill industry. The potential of New Zealand and Chile to become significant exporters of radiata pine to Pacific Rim markets represents a direct competitive threat to the exporting sawmill industry in the US and Canada (Eastin 1993).

Many other factors are adding to the uncertainty of the softwood market situation in Europe. The general economic environment has been quite unstable. The economic fluctuations seem to be more volatile and more unpredictable than before. Currency fluctuations in both Europe and North America have added to the uncertainty. Central European producers are increasing their production and there is increasing competition from substitutes for wood products (e.g. plastics and combinations of wood and other materials). There is unpredictability in the situation in Eastern Europe and in the European Community. The way of doing business has also changed: customers are not willing to keep large stocks, the delivery sizes have decreased dramatically and one of the most important factors is more varied and demanding customer needs. Product life cycles are shorter, the number of product variations is increasing and customers are demanding higher quality products. One of the biggest challenges for the sawmill industry is to be able to respond to these changed customer needs.

Instead of the traditional sawn timber dimensions customers want more and more special dimensions that would better suit their production processes and cause as little waste as possible. In the US the residential construction has traditionally been the largest segment consuming sawn softwood lumber but lately the repair and remodelling segment has grown to become another major segment consuming lumber (Widman 1991). The sawmill industry in the US is now more dependent on the repair and remodelling segment which requires more specialized types of lumber products (Rich 1986).

There are also many environmental aspects that are causing uncertainty and might cause dramatic changes in the environment in which the sawmill industry is operating. The specific questions that the sawmill industry should consider in the future include:

- Environmental restrictions about pollutants etc.
- Air pollution and its effect on growth of forests and cutting possibilities
- Changes in the structure of forest ownership and its effect on log supply
- The effects of increased cuttings of forests in Central Europe due to polluting of forests
- Further restrictions of logging due to environmental factors
- Environmental movement against the use of tropical hardwoods
- Environmental regulations for the end-products of sawmills

Many of these questions represent threats for the softwood sawmill industry, but some of them could be turned into opportunities when managed strategically correctly. There are also some real opportunities for the softwood sawmill industry both in Finland and in North America:

- Demand for sawn softwood timber is forecasted to rise in the US (Sinclair 1992)
- Preference for wood among consumers in general
- Higher increase in demand on other regions (e.g. Pacific Rim) than Europe and North America
- The proposed North American Free Trade Agreement (NAFTA) could create expanding export opportunities for US and Canadian producers to Mexico.

1.3 Need for change in marketing strategies in the sawmill industry

The challenges that the changing environment generates for the sawmill industry clearly indicate a demand for changes in strategies applied in the sawmill industry in Finland and in North America. When the industry is maturing the importance of a clear strategy increases and becomes essential for the survival of a company. Companies without a clear strategy are bound to have serious difficulties. The changing environment is something that a single company or a sawmill cannot affect, but there are ways to be prepared for these changes better than your competitors. The only way a company can grow (or even survive) in this environment is to be strategically better positioned and faster in adjusting to the changes than competitors. In addition to the challenges that the external environment poses for the sawmill industry there are internal factors that further increase the need for changes in the strategies.

Internal factors such as production-oriented philosophy, debt-oriented financial structure, poor profitability, over-capacity, high production costs, etc. all increase the need for a clear strategy. The resources and possibilities of a debt-oriented company with weak profitability are not very lucrative in the face of increasing competition and worsening market situation.

The performance of the Finnish sawmill industry has not been satisfactory for many years. Its competitive position has been weakening due to the relatively high raw material and production costs during the 1980s, debt-oriented financial structure and also high interest rates during the 1980s. Moreover, slowly increasing demand and weak ability to compete on the European markets have resulted in underutilization of the production capacity. An over-capacity situation leads to structural changes in the industry. During the 1980s the production capacity of the Finnish sawmill industry decreased to two thirds of what it used to be at the beginning of the decade (Pöyhönen 1991). Many similar problems exists also in the sawmill industry in the US and Canada (see e.g. Sinclair 1992, Simmons 1992).

The sawmill industry both in Finland and in Western North America is still very production-oriented, for example Juslin et al. (1990) reported that over 70% of the production of Finnish sawmills in 1988 (producing more than 20 000 m^3/a) were commodity products. According to Niemelä et al. (1992) over two thirds of the production of large sawmills in Western North America in 1990 (producing more than 90 000 m^3/a) were commodities. However the changed customer needs would require more specialty products and products designed particularly to satisfy certain customer needs. To be able to satisfy customer needs requires changes in production, but even more important are the changes in marketing philosophy. Marketing of specialty and custom-made products is more demanding than marketing of commodities both in a technological and in a commercial sense. Typically marketing of specialty and custom-made products also requires direct and closer contacts with the end-users of the products.

Marketing has an increasingly important role affecting the competitiveness and success of the sawmill industry. Traditionally the sawmill industry has relied on old-fashioned marketing techniques and has had the least sophisticated marketing strategies of the different forest industry sectors (see e.g. Juslin and Tarkkanen 1987). It has had very long marketing channels including many middlemen. A more marketing-oriented philosophy in managing a sawmill is often said to be one of the answers to the problems of the sawmills. To be able to react to the changes on the markets, the sawmills most likely have to review and change their strategies and strategic thinking. Sanderson and Luffman (1986) argued that change and its management is the essence of successful management. Effective strategic planning facilitates making the right strategic marketing decisions concerning products, customers, market areas and marketing success factors which would keep the sawmill ahead of its competitors.

Under these circumstances it is important to analyze the marketing strategies of the Finnish and Western North American sawmill industry, since marketing strategy is of vital importance when a company is reacting to changes in its environment, and strategic marketing decisions eventually dictate the future of the industry. These changes lay the foundations for the development of marketing nowadays and in the near future. The importance of a clear marketing strategy is even more important for Finnish and Western Canadian sawmill industries since they are very export-oriented, and producing for international markets requires a commitment to a different array of customers needs than on domestic markets. The comparison aspect of Finnish and Western North American sawmill industries is relevant, since the sawmill industry in North America is very actively targeting the European markets with its own softwood species, and is already a competitor for the Finnish sawmill industry on some European markets, for example, on the UK market.

1.4 Previous studies of strategy in the sawmill industry

Despite the importance of strategic planning and especially marketing strategies for the sawmill industry as well as for other sectors of forest industries, research in this field has not been very active, until recently. Some reasons for this might be the difficulty in obtaining information due to competitive reasons, the ambiguity of and the difficulties in operationalizing the strategy concept and the possibility that the companies do not have any explicit strategy. After an extensive literature review of research tradition on strategic planning and marketing strategies in the forest products industries, it was discovered that there has been a quite limited number of studies made concerning strategies and especially marketing strategies in the sawmill industries.

There are typically two kinds of studies: sector level and company level studies. The ones dealing with the sector level use secondary data or expert interviews. Many of these studies are future-oriented describing alternative scenarios for the forest industry sectors. The company level studies use primary data gathered from individual companies. These latter kind of studies can be divided into studies dealing with only one branch and studies dealing with more than one branch, typically with all branches of forest industry. In this study we are mainly interested in the studies at the company level dealing with the sawmill industry. Strategy studies at the sector level include studies by Suomen metsäteollisuuden ... (1979), Seppälä et al. (1980), The Forest 2000 Programme (1986), Woodbridge et al. (1988), Seppälä (1990), Sierilä and Tuominen (1991a, b), Simmons (1992) and Woodbridge et al. (1992). In the following, studies using data from individual companies are presented. First are presented studies including other branches in addition to the sawmill industry and then studies investigating the sawmill industry only.

Juslin and Wager (1975) have analyzed marketing strategies in the Finnish mechanical forest industry. Rich (1979a, b, c, d, e, 1980a, b) studied strategies of the top 20 US forest products companies on a corporate level with all sectors of the forest products industry. In their three-article series O'Laughlin and Ellefson (1981a, b, c) studied the economic structure of the wood-based industry in the US. In a two-article series Cleaves and O'Laughlin (1986a, b) analyzed realized business-level competitive strategies of plywood producers located in the Southern US. Bauerschmidt et al. (1986) studied business-level competitive strategies of strategic business units of the US pulp and paper companies.

Rich (1986) studied competitive strategies as they relate to all sectors of the forest industry. Rich's research compared the intended competitive strategies followed by forest products companies during the 1976–79 period with strategies followed in 1984, and indicated the extent to which these strategies were reflected in the companies' marketing function and marketing organization. Juslin and Tarkkanen (1987) studied the marketing strategies of the Finnish forest industries as related to all sectors. They aimed at clarifying the strategy concept and created operational measures for it and generated a basis for assessing the rationality of strategies. Juslin and Tarkkanen (1987) further described the current marketing strategies of the Finnish forest industry and assessed their rationality. The study by Juslin and Tarkkanen (1987) provided the basis for this present study.

Sierilä (1987, 1989) has mapped out the strategies of forest industry companies located in the USA, Canada, Finland, Sweden, Germany and Great Britain by leaning on annual reports issued by companies. Sierilä (1987, 1989) also presents a general frame of reference for corporate planning, starting from its conceptual basis and proceeding to its implementation as a concrete model in relation to the forest industry. Juslin et al. (1990) studied changes in the marketing strategies of the Finnish forest industry during the 1980s. They had data from the early 1980s and from the late 1980s about different sectors of the Finnish forest industry. Booth and Vertinsky (1991) studied the relationship between a firm's strategic positioning and performance of the forest products industry of North America.

Cohen (1989) studied strategic impacts of adaptation of innovative processing technologies and developed a strategy-performance model for standardized industrial product markets. The sample included the largest softwood lumber producers and structural panel producers in North America. Cohen and Sinclair (1992) developed and tested a model of strategies and firm profitability for the North American wood building products industry (softwood lumber and structural panels). Cohen and Smith (1992) completed a theoretical study concerning global marketing strategies for forest products industries.

The studies dealing only with the sawmill industry are quite limited in number and can be noted in the following. Juslin and Korhonen (1986) analyzed the possibilities of promoting the export of Finnish sawn timber by developing the planning and execution of marketing strategies and functions. The empirical data was collected by interviewing industrial end-users of whitewood sawn timber in Germany and Switzerland. They outlined a model for planning and execution of sawn timber marketing. In a three-article series McMahon and Gottko (1988), Gottko and McMahon (1989a, b) explored how small manufacturers of lumber in Oregon in the USA perceived and practised exporting.

Merisalo and Nyrén (1990) studied excellence, strategy and competitiveness of the Finnish sawmill industry. The study was part of a larger FIBO Excellence-Project which was carried out at the Helsinki School of Economics and Business Administration. They applied the framework developed in connection with that project to the Finnish sawmill industry, used data from six sawmills and completed three expert interviews. Uitto and Uitto (1990) completed a study investigating the competitiveness of Finland and its major competitors (Austria, Canada, Sweden and West Germany) in the sawmill industry by using market share analysis. They also carried out a company-level analysis where the performance of Finnish and Swedish sample companies were compared.

Bush and Sinclair (1991) modelled the intended business-level competitive strategy in the hardwood lumber industry through the identification of strategic groups among large US hardwood lumber producers. Bush et al. (1991) investigated competition in the U.S. hardwood lumber industry through interviews of company executives from 20 of the largest hardwood lumber manufacturers in the United States. They based the analysis on qualitative information. Cohen (1992) discussed the issue of adding value incrementally at the primary processing stage as a viable strategy for solid wood industry instead of shifting from primary production of commodities to secondary manufacturing. The discussion is based on empirical and anecdotal data and as an example is given the lumber exports from British Columbia, Canada to Japan.

The need for changes in strategies in forest industries both in Finland and in North America, discussed in the previous section, has also been recognized by some studies mentioned above (see e.g. Seppälä et al. 1980, Juslin and Korhonen 1986, Rich 1986, Juslin and Tarkkanen 1987, Juslin et al. 1990, Niemelä et al. 1992, Simmons 1992, Sinclair 1992) and some responses to market changes have already been noted in these studies, although the rate of response has been quite slow. Clearly there is a need for studying marketing strategies in the sawmill industry, and the limited number of the previous studies further justifies the existence of this study.

Especially studies with multinational data of sawmill industry and studies that would empirically use and make comparisons of two strategy concepts are lacking. Only Sierilä (1987, 1989) had multinational secondary data, but his study included all the sectors of the forest industry. This study concentrates only on sawmill companies producing sawn softwood timber and the above literature review clearly demonstrates that no study concerning the sawmill industry has been made similar to the one in hand, that would compare companies from North America and Europe, i.e. have multinational data. The uniqueness and substance of this study on an empirical level is supported with the lack of research in the areas which this study in particular addresses.

1.5 Objectives of the study

The primary objective of this research is to produce information that would help sawmills in strategic planning when adapting to a turbulent environment and help to improve their competitiveness. To achieve the objectives of the study requires analysis on both theoretical and empirical levels.

On the theoretical level the objective is to further develop and strengthen the theoretical basis of marketing planning especially in the area of marketing strategies and to clarify the concepts associated with strategy. The specific theoretical objectives of this study are:

1. To analyze definitions of strategy concepts used in strategy research.
2. To clarify both the operationalizations and the methods of measurement of the strategy concept.
3. To examine the relationship between marketing strategy and competitive strategy.

On the empirical level the objective is to investigate how large sawmills in Finland and Western North America differ concerning marketing strategies and generic competitive strategies. The specific empirical objectives of the study are:

1. To describe the marketing strategies applied in Finland and in Western North America and to identify the strategic marketing decisions characterizing different countries.
2. To describe generic competitive strategies applied in Finland and in Western North America and to identify the strategic marketing decisions characterizing different generic competitive strategies.
3. To analyze the connections between generic competitive strategy and marketing strategy.
4. To find out what kind of marketing structures and functions characterize different marketing strategies.
5. To find out what kind of marketing structures and functions characterize different generic competitive strategies.

2 Theoretical background and methodology

2.1 Research design and general framework of the study

The research design of the study originates from the objectives of the study defined in Section 1.5. The study is a typical survey based on cross-sectional data collected by personal interviews and it follows positivist research tradition. It can be called descriptive-empirical research and the aim is to describe and explain the phenomena under focus. In Section 1.5 the objectives of the study were divided into two parts; theoretical and empirical. The theoretical background for the study is constructed by combining theories concerning strategy and marketing. In combining these two disciplines the objective is to develop more extensive background than is typically used in marketing literature as a foundation for the definition of marketing strategy. A basic assumption in this study is that the company is customer-oriented, i.e. operating based on customer needs, and this naturally leads to high emphasis on marketing. Marketing is seen to have such a dominant position that decisions concerning marketing are considered to be strategic by nature. The outline of the theoretical part of the study is presented in Fig. 1.

In Section 1, description of the *environment of the sawmill industry* and the changes in it were already presented (Section 1.2.). The state of the art of *strategy research in the sawmill industry* is investigated through a literature review to further justify the demand for this study (Section 1.4). The *analysis of conceptual environment of strategy* is made to clarify the central concepts in the area of strategy research and the logic of their relationships to guide the later discussions of the study (Section 2.2). An extensive literature review and *analysis of different definitions of the strategy concept* is done to find out the state of the art of the strategy concept and to build a theoretical background for the strategy concepts to be used in this research (Section 2.3). The *strategy concepts used in this study* are presented and their relationships are discussed (Section 2.4). *Operationalizations of strategy concepts* in previous studies are presented and analysed when clarifying the concept of operationalization and also as a background for the operationalizations of this study (Section 2.5). In connection with clarifying the methods of *measurement of strategy concept*, measurement instruments used in previous studies are briefly presented (Section 2.6).

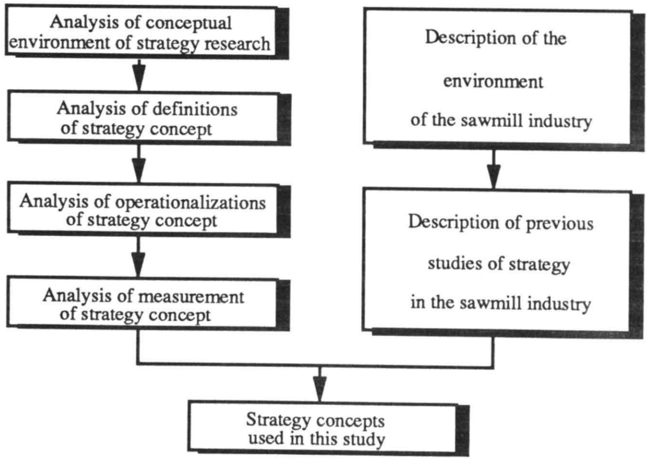

Figure 1. Outline of the theoretical part of the study.

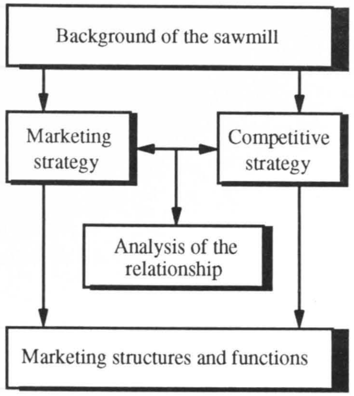

Figure 2. Framework for the empirical part of the study.

The empirical part of the study will follow the framework presented in Fig. 2. The operationalizations of the strategy concepts and other variables used are presented in Section 2.7, which also includes a more defined framework guiding the empirical analysis of the study. Background characteristics of the companies are used to describe the differences between companies applying different kinds of strategies. Two different strategy concepts were incorporated into this study: the concept of competitive strategies according to Porter (1980) and the concept of marketing strategy adapted from Juslin (see Juslin and Tarkkanen 1987). The relationship of these two strategy concepts is also analyzed and conclusions drawn. According to the integrated model of marketing planning presented by Juslin (see Juslin et al. 1988 and Juslin 1992), from which also this study originates, strategies are followed by structures and the strategies are realized through functions. In this study marketing structures and marketing functions are described at a general level, and some parts of them are used when trying to find out if there exist connections between strategies and marketing structures or marketing functions. A more detailed investigation of the strategy–structure relationship is beyond the scope of this study.

2.2 Conceptual environment of strategy research

2.2.1 Evolution of strategic planning

To be able to examine marketing strategy one has to be familiar with the surrounding theoretical constructs of strategic planning and strategy. In this section the evolution of strategic planning is presented and the next section will analyze the relationship between strategy and marketing strategy. The concept of strategy is also briefly referred to in this section but is thoroughly discussed in Section 2.3. The development of the strategy concept is so closely connected with the development of strategic planning that they cannot be totally separated.

The concept of strategy was mentioned for the first time in management literature in the 1950s by Peter Drucker (1954), although he mentioned it only implicitly. To him, an organization's strategy was the answer to the dual questions: "What is our business? And what should it be?" Later these questions and their answers were defined by many authors as a corporate mission.

After Drucker's (1954) initial statement, not much attention was given to the strategy concept until Alfred D. Chandler, Jr. published his book *Strategy and Structure* in 1962. Chandler's research also marked the beginning of interest in the strategy concept in academe from a teaching and research perspective (Schendel and Hofer 1979, p. 8).

For the development of strategy concept, perhaps even more important than Chandler's work is the extensive work carried out by Igor Ansoff, who published his ideas in the book *Corporate Strategy* in 1965. Many of the definitions of strategy concept after 1965 are based on Ansoff's work. Naturally the strategy concept has developed from Ansoff's basic ideas as the business environment has gone through extensive changes since the 1960s.

Chandler's definition of strategy implied that strategy involves a rational planning process. Planning is an important component also in most of the later definitions of strategy. For example, William F. Glueck (1980, p. 9) defined strategy as "a unified, comprehensive and integrated plan designed to ensure that basic objectives of the enterprise are achieved".

The planning theme has gone through quite an extensive evolution. During the 1950s it was called budget planning. In this budget-based approach planning was mainly a problem of projecting revenues and costs normally for a one-year period. If longer periods were needed, the budget was simply extrapolated.

In the 1960s it became evident that it was not enough to rely on one-year budget projection in an environment of fast-growing demand. A planning system with an extended planning horizon was needed. Budgeting evolved into long-range planning. Long-range planning emphasized the definition of objectives, goals, programmes, budgets and the importance of projections about the environment over a period of many years. The planning period typically covered a five-year period (Hax & Majluf 1984, p. 10).

Long-range planning assumed that the future will resemble the past. This assumption was a victim of discontinuities of the business environment during the late 1960s and the 1970s (energy crisis, etc.). Strategic planning evolved. Some dominant features of strategic planning were: experience curves, the grouping of related businesses and products into strategic business units (SBUs) and the use of portfolio planning approaches. Strategic planning during the 1970s was often called corporate strategic planning which resulted in a corporate strategy.

During the 1980s competitive pressures and slow growth in economy forced companies to seek new opportunities actively and even to hold their existing positions. It became important to understand the changes in the key success factors. A planning process which focused on searching for a competitive advantage was needed. A more competitively focused approach to planning that tries to integrate the strategic planning process with the implementation of the plans/strategies was developed (Day 1984, p. 13). Most authors call this approach strategic management. According to Schendel and Hofer (1979, p. 14) there are six tasks that comprise the strategic management process: (1) goal formation, (2) environmental analysis, (3) strategy formulation, (4) strategy evaluation, (5) strategy implementation and (6) strategic control.

A basic premise for successful strategic planning is strategic thinking. The core of strategic thinking is an attitude to continuous search for competitive advantage. The actions of management should be guided by a continuous search for sustainable competitive advantage and sustaining it. Very important in strategic thinking is that it is present in all decisions. For example, Porter (1985, 1987), South (1981) and Schnaars (1991) have argued forcefully in favour of this idea. According to Schnaars (1991, p. 27) it is a way of thinking about consumers, competitors and competitive advantage that is inculcated into every member of the organization.

Although strategic planning has received a lot of criticism during the 1980s it has not totally lost its essence, since if planning concentrates on substance and not on form it can play a key role in successful management. Porter (1987) has argued for the importance of strategic planning and noted that the questions that good planning seeks to answer — the future direction of competition, the needs of the customer, the likely behaviour of competitors, how to gain competitive advantage — will never lose their relevance. According to Hamermesh (1986) strategic planning can play a key role in making strategic thinking a way of life.

To be able to understand strategic planning we must remember that today modern corporations consist of three different levels: corporate level, business level and product (functional) level (Kotler 1988, p. 35). The corporate level mainly deals with decisions concerning what set of businesses we should be in and how the resources are divided between different businesses. At the business level the focus is on how we should compete in a particular industry or product/market segment. The product level is concerned with implementing the operational plans and achieving the objectives in a given product market.

Many authors (e.g. Hofer and Schendel 1978, Porter 1980, 1985, 1990, Cravens 1982, Hax and Majluf 1984, Kotler 1988, Hill and Jones 1989) have argued that strategic planning should be carried out at two levels in a firm, namely at the corporate and business levels. The presumption is that a company operates in many different businesses/industries with many strategic business units (SBUs), but for example a sawmilling company with one sawmill is one SBU of its own. In such a case the corporate strategy is the same as the business strategy and for this reason the primary interest in this study is on business level strategies.

Strategic planning is seen as a process that defines the purpose and overall direction of the company, which are given in the form of corporate mission and corporate objectives. Strategic planning also defines the means to achieve these objectives. The strategic planning process includes the analysis of internal and external environments (SWOT analysis) followed by the definition of strategy. Strategic planning has been defined in various ways. Kotler (1988, p. 33) defines strategic planning as follows:

> *Strategic planning is the managerial process of developing and maintaining a viable fit between the organization's objectives and resources, and its changing market opportunities. The aim of strategic planning is to shape and reshape the company's businesses and products so that they combine to produce satisfactory profits and growth.*

This definition of strategic planning by Kotler (1988) is clearly market-oriented and he speaks about market-oriented strategic planning. Wind and Robertson (1983) speak about marketing-oriented strategic planning and many other authors have analysed marketing's relationship with strategic planning (e.g. Day and Wensley 1983, Wiersema 1983, Day 1984, Yip 1985, Turnbull and Valla 1986, Sanderson and Luffman 1988, Shiner 1988, Greenley 1989).

2.2.2 Marketing strategy — a link between strategy and marketing

Historically strategic planning has concentrated on the management of competitive effects of the environment and as a consequence strategy has focused on competition. On the other hand customers have had a central role in marketing concept and traditionally little attention has been given to competition (Biggadike 1981, Day and Wensley 1983, Schnaars 1991). In the 1980s, especially after the publication of Porter's books (1980, 1985), competition has played an even more central role in strategic thinking. As we noted in the previous section the essence of strategic thinking is sustainable competitive advantage. Marketing has had to consider competition and the essence of marketing strategy should be competitive advantage. Marketing strategy can be seen as a means to balance the customer and competition orientations (Schnaars 1991). Easton (1988) has argued that competitors and sustainable competitive advantage are to marketing strategy what customers and the marketing concept are to marketing. Competitive advantage is a key concept connecting marketing and strategy and is the ultimate objective of marketing strategy.

A wide variety of marketing strategy definitions exists in the marketing literature and they are traditionally fairly narrow in scope. Marketing strategies are frequently defined as the decisions concerning the elements of marketing mix to achieve the marketing objectives or as strategies to manage different market situations (see e.g. Greenley 1989, Aaby and McGann 1989). During the 1980s marketing strategy received increased attention both in marketing literature and in the business world for several reasons, but most of all due to the dramatic changes in the overall business environment. Broader definitions of marketing strategy emerged. Marketing strategy is considered not only as a strategy related to marketing function, but also as a guiding theme in all company actions, and is very closely related to business strategy. For example, Wind and Robertson (1983) argued that marketing strategy serves a boundary role function between the firm and its customers, competitors and other stakeholders. Juslin (see Juslin and Tarkkanen 1987) has taken the same kind of view; marketing strategy refers to the company's relationships with its environment. Möller (1991) has also studied the interface between marketing and strategy and sees promising possibilities for this interface.

According to Wind and Robertson (1983, p. 13) marketing perspective for the development of business strategy is consistent with the early literature of marketing concept, which recognized that marketing is not only a set of functions but also a guiding philosophy for the firm. For example, Drucker mentioned about marketing's role in business (1974, p. 63):

> *Marketing is so basic that it cannot be considered a separate function within the business, on a par with others such as manufacturing or personnel. Marketing requires separate work, and a distinct group of activities. But it is, first, a central dimension of the entire business. It is the whole business seen from the point of view of its final result, that is, from the customer's point of view.*

According to Aaker (1988, p.13) the inclusion of the term "market" in the phrase "strategic market management" emphasizes that strategy development needs to be driven by market and its environment rather than being internally oriented. It also serves to underline the fact that the process should be proactive rather than reactive, and the task should be to try to influence the environment in addition to simply responding to it.

Cravens et al. (1987) emphasize the close relationship between corporate strategy and marketing strategy. Marketing management has an essential role when evaluating strategic product-market areas. Wind and Robertson (1983) argue that relevant marketing concepts and methods should be utilized for any strategic decision of the firm and they proposed a marketing-oriented approach to strategic planning. According to Wind and Robertson (1983, p. 12) sound business strategy should have a marketing perspective, i.e. marketing should provide inputs to strategy generation and the evolved strategies should be tested against the reaction of consumers, competitors and other stakeholders. According to Yip (1985) business strategy and marketing strategy are about the same thing in a marketing-(customer)-oriented company, although marketing-oriented strategy might have some pitfalls. It is evident that the more marketing/customer-oriented a company is, the more essential role marketing has in business and corporate strategy.

2.3 Strategy concepts used in strategy research

2.3.1 General

The term strategy, "the art of the generals", has been surrounded by a high degree of ambiguity ever since it was adopted to the business community from military terminology. There is no universally accepted definition of strategy concept, although it is a critical part of the strategy research. In fact the operationalization used by a researcher is very closely related to the strategy concept and how the researcher perceives it. Ultimately, it is the strategy concept that determines the operationalization.

Since there is no unified definition of the strategy concept, different authors and managers use the term in significantly different ways. For example, some include goals and objectives as a part of strategy while some make a clear distinction between these two. The lack of consistency is mainly due to two factors. First, strategy is multidimensional/multifaceted in nature (Bourgeois 1980, Hambrick 1983a) and second, strategy is situational and accordingly will vary by industry (Hambrick 1983a).

Many authors (e.g. Quinn 1978, Bourgeois 1980, Hambrick 1982, 1983a, Mintzberg 1990, Mintzberg and Quinn 1992) have made a distinction of two different views of strategy. They may be called normative and descriptive. The normative view is traditional and strategies produced according to this view should be explicit, simple and formulated before they are implemented. Accordingly, strategy formulation and strategy implementation are seen as different processes. This view could also have been called the Harvard view (since it was originally introduced in Harvard Business School) or prescriptive view (Mintzberg 1990, Mintzberg and Quinn 1992) and the author most often associated with this view is Andrews (1965, 1971, 1988).

Later around 1980 another prescriptive view on strategy was introduced by Michael Porter (1980). This view did not challenge the earlier view, but rather built on it. By building intellectual bridges between management policy and industrial organization Porter (1980) elaborated the earlier views of authors like Andrews (1965, 1971) and Ansoff (1965). Porter (1980) developed the concept of generic competitive strategies aiming at sustainable competitive advantage. Porter's ideas (1980, 1985, 1990) have gained a lot of attention during the 1980s and 1990s.

The descriptive view of strategy is best represented by the work of Henry Mintzberg and James Brian Quinn. Mintzberg (1978) introduced the idea that strategies can form in an organization without being consciously intended or formulated. Accordingly, Mintzberg (1978) speaks about strategy formation instead of strategy formulation. Perhaps, the best example of this kind of emergent strategy in practice can be found in the classic case of Honda motorcycles in Pascale (1984). According to this view strategy formation and strategy implementation are seen to intertwine as a complex interactive process. It also takes into account the fact that the strategic decisions are made by people (strategists) and their personal values cannot be ignored in decision-making.

Strategy can be defined on different levels of a company. Hambrick (1980) recognized two separate streams of strategy research: corporate or grand strategy and business level research. The objects of this study, competitive strategy and marketing strategy, belong to the latter stream of research. Regardless of the concentration in the empirical analyses on business level strategies, the discussion of different strategy concepts used in strategy research includes definitions of both business and corporate strategies, since focusing only on one or the other level would have caused a disappearance of a great deal of valuable information.

In the following sections definitions of strategy concept found in the literature have been classified into five different types of definitions.

These types of definitions cannot be related strictly to any one researcher, article or book but rather they are the subjective view of the author of this study. Several of the definitions of strategy concept referred to later have features from more than one type presented in this study, and some authors use combinations of these types. The classification of definitions represents the main streams of the definitions used in strategy research during the last thirty years. The types are not independent, instead they are interlinked which causes overlapping between different types. Naturally there is no doubt that many other avenues of classifying the definitions of strategy concept are also available (see e.g. Bracker 1980, Chaffee 1985, Ansoff 1987, Mintzberg 1987, 1990, Näsi 1988).

2.3.2 Strategy as a plan resulting from a formal planning process

In this type of definition the focus is on planning and the strategy concept is very closely related to strategic planning. The basic presumption behind this kind of definition of strategy concept is that the future of a company can really be planned (Näsi 1991). Strategy is formed in a systematic and structured formal planning process and it consists of integrated decisions, actions and plans that will set and achieve organizational goals (Chaffee 1985).

This group originates from the definition of strategy concept by Chandler (1962). In his book Chandler (1962, p. 13) defined strategy as:

> *the determination of the basic long-term goals and objectives of an enterprise, and the adoption of a course of action and the allocation of resources necessary for carrying out these goals.*

Chandler's definition emphasizes the goal achievement as an aim of the strategy, but it is missing the notion that strategy describes the linkage between the firm and its environment. Although in some of the later definitions by other authors, associated with this type of definition, this linkage also exists.

Similarly to Chandler (1962) and also combining ideas from Drucker (1954), Andrews (1965)* defined strategy as:

> *"... the pattern of objectives, purposes or goals and major policies and plans for achieving these goals, stated in a such way as to define what business the company is in or is to be in and the kind of company it is or intends to be."*

Andrews' definition includes both the ends — goals and objectives — the organization wishes to achieve and the means for achieving them. So according to Andrews goal setting is part of strategy formulation. This definition also includes the definition of a company's mission. Later Andrews (1971, 1988) modified his definition of strategy concept towards the type of definition presented in Section 2.3.3.

Steiner (1969) is also one of the authors who made a considerable contribution to this type of definition. Steiner (1969, pp. 237–238) saw strategy as a specific action (means) to achieve an objective decided in strategic planning. According to Steiner (1969) the development of strategy is a part of strategic planning and strategy can be said to be a plan.

In this type rational, systematic and formal planning is the essence of strategy formulation. The planning activity is sequential and it forms hierarchical plans with goals stated in quantitative terms. The resulting strategy can be described as planned, explicit, proactive, conscious and purposeful. In Table 1 some characteristics of this type are described. (In this table and in the same kind of tables in following sections, the "Focus of strategy" characteristic indicates that this definition of strategy concept may include both the objectives an organization wishes to achieve and the means that will be used to achieve them or whether it includes only the means.)

As early as the 1970s and also recently this definition has faced criticism. For example, Mintzberg (1978) has argued that the definitions of strategy emphasizing the role of planning, ignore the fact that strategies can emerge from within an organization without any formal planning. Also Quinn (1978, 1980) and Näsi (1991) argued that strategy is not necessarily a result of a formal planning process. Mintzberg (1978) pointed out that strategy is more than what a company intends or plans to do; it is also what it actually does.

This type of strategy concept works well in a simple, stable and predictable environment. But during the 1970s when the business environment became more complex and turbulent, companies using this kind of strategy definition faced difficulties, since in an unstable environment the de-

* Andrews initially presented his ideas in 1965 in a book which he co-authored with Learned, E., Christensen, R.C. and Guth, W.

Table 1. Characteristics of strategy as a plan.

Characteristic	Strategy as a plan
Example definition	The determination of the basic long-term goals and objectives of an enterprise, and the adoption of a course of action and the allocation of resources necessary for carrying out these goals. (Chandler 1962, p. 13)
Nature of strategy	Decisions, actions and plans integrated
Focus of strategy	Means, objectives
Aim of strategy	Achievement of goals
Components of strategy	Goals, objectives, policies, plans
Terms used to describe strategy	Planned, explicit, conscious, proactive, purposeful
Associated authors	Chandler 1962 Steiner 1969 Andrews et al. 1965 Ackoff 1972 Drucker 1974 Vancil & Lorange 1975 Vancil 1976 Glueck 1980 Kyläkoski 1980
Associated authors in forest products industry	Sierilä 1987, 1989

cision-making cannot be handled in a totally rational way. Obviously some form of planning is always needed but the planning behind this strategy definition is very often criticised as being too rigid. Since the planning process itself easily becomes more important than the result–strategy, it is clear that some other definitions of strategy concept are needed to be able to effectively respond to the challenge of the turbulent environment. To support this kind of extensive planning process is also very expensive and might be just a waste of money if a major part of the plans are not realized due to changes in the environment.

2.3.3 Strategy as a position

To define strategy as an adjustor between the company and its environment is the most common definition used in strategy research. In this definition strategy is understood to direct the company into a certain relationship with its environment. This relationship is called "strategic position". Some basic ideas of this type of definition are also implicitly included as objectives of strategy in many other types of definitions presented in this study.

Among the first authors to present these kinds of ideas was Igor Ansoff (1965)*, whose work has had a great impact on the strategy definitions of today. Ansoff (1965) viewed the strategy as the "common thread" among an organization's activities and products/markets that defined the essential nature of the business that the organization was in and planned to be in the future. Ansoff identified four components that such a "common thread" would possess. These components were the following:

1. Product-market scope
2. Growth vector
3. Competitive advantage
4. Synergy

The first three components define the firm's relationship with the external environment. They define a certain strategic position (product-market posture) for the firm within the environment it is operating in. The fourth component refers to internal joint effects, that is the 2 + 2 = 5 phenomenon, between SBUs or between functions of one SBU.

The basic idea of this kind of definition is to adjust the internal conditions of the company to the external conditions of the environment. To achieve a good fit between internal and external factors, both of these factors must be thoroughly understood. Very often a SWOT analysis (analysis of Strenghts/Weakneasses of the company and Opportunities/Threats of the environment) is used as a basic analysis for defining this relationship.

Strategic position of the company was the basic idea behind the definition called "business portfolio approach", which was developed during the late 1960s and throughout the 1970s. The essence of this approach is in positioning a business within a matrix in accordance with its competitive strength (internal capabilities) and the attractiveness of its industry (external environment). The result of this positioning is presented

* Although Ansoff did not clearly define the strategy concept.

in a simple graphical matrix, which allows managers to visualize the contribution of each business to the corporate portfolio. The most popular of these business portfolio matrices are:

— The growth-share matrix, originally developed by the Boston Consulting Group (BCG), which describes four different strategic positions
— The industry attractiveness-business strength matrix, originally developed by General Electric in co-operation with McKinsey and Co., which describes nine different strategic positions. (Hax and Majluf 1984)

These portfolio definitions have two basic levels of applicability: corporate and business. At the corporate level, they are used to evaluate the contribution of different businesses of the company. At the business level, the focus of attention changes from the entire business to evaluation of product-market segments.

As in the portfolio-approach at the business level, the decisions about products and markets are very essential in many of the other types of definitions presented in this section. Organization's relationship with its environment is defined through the determination of products and markets. In Table 2 some characteristics of this type of definition are presented.

In this type of definition strategy allows organizations to achieve a viable match between their external environment and their internal capabilities. However, according to Hax (1990) the role of strategy is not viewed as simply a passive response to the opportunities and threats presented by the external environment, but rather as a process of continuously and actively adapting the organization to meet the demands of a changing environment.

If this type is compared to the previous type (strategy as a plan), these two can be compatible in a sense that position can be consciously preselected through a plan (see Mintzberg 1987, p. 15). However, in this type of definition of strategy concept environment is seen to be more dynamic, complex and unpredictable and organizations should be able to change with it.

Table 2. Characteristics of strategy as a position.

Characteristic	Strategy as a position
Example definition	The basic characteristics of the match an organization achieves with its environment is called its strategy. (Hofer and Schendel 1978, p. 4)
Nature of strategy	Achieving a match Multidimensional Component type definition
Focus of strategy	Means/objectives
Aim of strategy	Alignment between company and the environment
Components of strategy	Product-market scope, growth vector, competitive advantage, synergy
Terms used to describe strategy	Management tool to cope with external and internal changes
Associated authors	Ansoff 1965 Andrews 1971, 1988 Hofer & Schendel 1978 Bourgeois 1980 Thorelli & Becker 1980 Shirley et al. 1981 Galbraith & Schendel 1983
Associated authors in forest products industry	Cleaves & O'Laughlin 1986a, b Juslin & Korhonen 1986 Juslin & Tarkkanen 1987 Juslin et al. 1990 Booth & Vertinsky 1991

2.3.4 Strategy as a pursuit of competitive advantage

The idea of competitive advantage is not a new one. Ansoff (1965) mentioned it as a component of his strategy concept. But according to this type of definition, the central theme of strategy is to achieve a sustainable competitive advantage over a company's competitors, instead of competitive advantage being just one component or dimension of strategy. This type of definition is very closely related to the previous type, being a modern version of it, but it is so important in the strategy research of the 1980s and 1990s that it has to be separated.

The most prominent of the definitions of this type is based on the extensive work done by Michael Porter (1980, 1985, 1990). The focus is on competition and the assumption underlying the concept of strategy is that competitive advantage is at the heart of any strategy. According to Porter (1985) generic competitive strategy specifies the fundamental approach to competitive advantage a firm is pursuing, and provides the context for the actions to be taken in each functional area. A basic presumption in applying competitive strategy is that the company understands the competitive forces which define the nature of competition. Porter (1980) identifies five such forces:

1. Rivalry among existing competitors
2. Bargaining power of suppliers
3. Bargaining power of buyers
4. Threat of substitute products or services
5. Threat of new entrants

By understanding these forces a company can find a good competitive position to defend itself from these forces, i.e. to find a position with little or no competition. Porter (1980) presents three different generic competitive strategies a company can implement to achieve and sustain competitive advantage: cost leadership, differentiation and focus (for more detailed discussion on Porter's (1980) generic strategies see Section 2.4.1). This classification has been widely used in research and in practice, but of course it is not the only definition of strategy as a pursuit of competitive advantage. In Table 3 some characteristics of these types of definitions are described.

Table 3. Characteristics of strategy as a pursuit of competitive advantage.

Characteristic	Strategy as a pursuit of competitive advantage
Example definition	The generic strategy specifies the fundamental approach to competitive advantage a firm is pursuing, and provides the context for the actions to be taken in each functional area. (Porter 1985, p. 25)
Nature of strategy	Match, position
Focus of strategy	Objectives/means
Aim of strategy	Gaining of competitive advantage over competitors
Components of strategy	Competitive scope and competitive advantage
Terms used to describe strategy	Competitive strategy
Associated authors	Hall 1980 Porter 1980, 1985, 1990 South 1981 Day 1984 Hill & Jones 1989 Hax 1990
Associated authors in forest products industry	Rich 1986 Uitto & Uitto 1990 Bush and Sinclair 1991 Bush et al. 1991

Although Porter's (1980) model is very popular it has some deficiencies. A firm's competitive environment i.e industry and its effect on the firm's competitive position is the starting-point of that model and it places very little emphasis on specific attributes of a firm affecting its competitive position. It further assumes that companies within industry are identical concerning strategically relevant resources (Barney 1991) but some actions are simply not possible to implement for a small firm with scarce resources.

Porter's (1980) model is also very competition-oriented. It does not take into account the customer's point of view. Whereas Hill and Jones (1989) adapting Abell's ideas (1980) see that the decision about customer needs, customer groups and distinctive competences are at the heart of business-level strategy choice, because they provide the sources of a company's competitive advantage over its competitors and determine how the company will compete in a certain business or industry.

According to the definition of strategy as a pursuit of competitive advantage it is possible for a company, through its choice of strategy, to affect the competitive forces of the environment to its advantage. On the other hand the previous definition of strategy as a position aimed to adapt a company to its environment.

2.3.5 Strategy as a pattern of decisions and actions

The definition of strategy as a plan and as a position imply that the strategy is developed consciously and purposefully. Although this might be true in many cases, Mintzberg (1978) has pointed out that strategies can also emerge unintentionally. In order to include both the planned and emergent strategies, Mintzberg (1978) and Miles and Snow (1978) have described strategy as *a pattern in an organization's important decisions and actions.*

According to Miles and Snow (1978) these decisions are typically directed at 1) maintaining the organization's alignment with its environment and 2) managing its major internal interdependences. They developed an organizational typology which illustrates different patterns of adaptive behaviour used by organizations in adjusting to uncertainty and environmental changes, i.e. product-market changes.

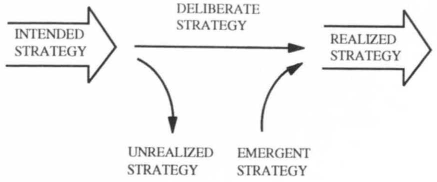

Figure 3. Intended and realized strategies (Mintzberg 1978, p. 945).

According to Mintzberg (1987, p. 12) the definition of a strategy as a plan is not sufficient; a definition that also encompasses the resulting behaviour is needed. Mintzberg (1978, 1987; Mintzberg and Waters 1982, 1985) has been investigating strategy and the process of strategy formation based on definition of strategy as "*a pattern in a stream of decisions*". According to Mintzberg (1978) strategy can be both intended or emergent. These two kinds of strategies can be combined in three ways as shown in Fig. 3 and listed below:

1. Intended strategies that get realized: these may be called *deliberate strategies*.
2. Intended strategies that do not get realized, perhaps because of unrealistic expectations, misjudgements about the environment or changes in either during implementation; these may be called *unrealized strategies*.
3. Realized strategies that were never intended, perhaps because no strategy was intended at the outset or perhaps because, as in 2, those that were got displaced along the way; these may be called *emergent strategies*.

Accordingly the realized strategy (what actually gets done) is often a combination of deliberate and emergent strategies. By this definition strategy is consistency in behaviour, whether or not intended. Characteristics of this type of definition are described in Table 4.

Quinn (1978, 1980) also casts serious doubts on the merits of strategy as result of a formal strategic planning process. Quinn (1978) argues that strategy process is fragmented, evolutionary and intuitive, where strategy evolves as internal decisions and external events flow together. Typically companies react to these events by making a set of incremental decisions and Quinn (1978, 1980) calls this approach of strategy formation "logical incrementalism" leading to a strategy.

Some other authors (e.g. Andrews 1971, 1988, Hofer and Schendel 1978, etc.) have also to some extent emphasized the pattern of strategy, but they have not included the discussion concerning the emergent part of strategy. Instead they emphasize a pattern of planned decisions.

The most significant contribution of this type of definition is in its idea of intended strategies being different from realized strategies and the substance that the idea of emergent strategies enhances, since the future can never be totally rationally planned. Strategy as a pattern of decisions and actions is easiest to understand when it is investigated during a long period of time. The pattern is difficult to observe in cross-sectional studies.

The disadvantage with this kind of definition of strategy concept is that it is not very clear and accordingly it is not very easy for business management to utilize it in practice. It is more popular among academicians. Quinn's (1980) ideas about strategy formulation as incremental rather than piecemeal process are very realistic, since most likely strategies are formed incrementally when adapting to the turbulent environment.

Table 4. Characteristics of strategy as a pattern of decisions and actions.

Characteristic	Strategy as a pattern
Example definition	"A pattern in a stream of decisions" (Mintzberg 1978)
Nature of strategy	Pattern in decisions and actions
Focus of strategy	Means
Aim of strategy	Consistency in behaviour Alignment with the environment
Components of strategy	None clearly defined
Terms used to describe strategy	Emergent, deliberate
Associated authors	Miles & Snow 1978 Mintzberg 1978, 1987 Quinn 1978, 1980 Hambrick 1980, 1982, 1983a Snow & Hrebiniak 1980 Mintzberg & Waters 1982, 1985 Greiner 1982
Associated authors in forest products industry	None discovered

2.3.6 Strategy as an atmosphere or a framework

Often strategy is not explicitly defined; rather it exists as implicit ideas in the heads of managers. Instead of applying a very expensive strategic planning process which would produce explicit strategies, companies are trying to develop strategy to be a conceptual framework or atmosphere for all the decisions made in the company. Since strategy is not explicitly presented, managers' personal values have a significant effect in this type of definition.

Strategy as an atmosphere or a framework could be described as a shared way of thinking inside the organization. The concept of strategic thinking (see Näsi 1991), is very closely related to the ideas of this type. Also the ideas of corporate culture, which have been investigated e.g. by Deal and Kennedy (1982) and to some extent by Peters and Waterman (1982), could be related to this type. There are two different views, inside this type of definition of strategy concept, concerning the focus of strategy. One sees strategy as a means (how to achieve company's objectives?) and the other purely as an objective (what the organization should be?).

Luostarinen (1975, pp. 13–14) refers to strategy as a tool of management. For the management it is necessary to define the strategy to be able to guide the planning process. The planning process is based on the business idea and is aimed at achieving goals. The goals give the directions for planning and the strategy manifests the means how these goals should be aimed at. The strategy is defined based on analysis of internal and external conditions. The strategy can be aggressive, defensive or adjustable.

According to Tregoe and Zimmerman (1979) and Hansen (1991) strategy should provide a picture of the organization as it wants to look in the future. It is totally directed at what the organization should be rather than how it will get there. Tregoe and Zimmerman (1979) state that strategy is a vision. Also Hansen (1991) sees many similarities between a vision and a strategy but he states that strategy is the second outcome of strategic thinking, the vision being the first. Hansen's (1991) view is closer to many other author's view in terms that very often vision is seen to be above strategy (for discussion about vision see e.g. Robbins and Duncan 1987). Characteristics of this type of definition are described in Table 5.

Table 5. Characteristics of strategy as an atmosphere or a framework.

Characteristic	Strategy as an atmosphere or a framework
Example definition	"A framework that guides those choices that determine the nature and direction of an organization" (Tregoe and Zimmerman 1979)
Nature of strategy	Guiding theme directing the company Perspective
Focus of strategy	Means/objectives
Aim of strategy	Shared view/vision Direct firm's actions to achieve goals
Components of strategy	None clearly defined
Terms used to describe strategy	Vision, perspective, tool of management, culture, ideology
Associated authors	Luostarinen 1975 Tregoe & Zimmerman 1979 Markus 1981 Deal & Kennedy 1982 Ohmae 1983 Peters and Waterman 1982 Gahmberg 1986, 1991 Hansen 1991
Associated authors in forest products industry	Juslin & Wager 1975 Merisalo & Nyrén 1990

Tregoe and Zimmerman (1979) present also a very important concept that is underlying the strategy, it is "*driving force*". The driving force is a strategic area that influences the nature and direction of an organization's products, services and markets. They identified nine strategic areas that may become the driving forces that influence an organization:

1. Products offered
2. Market needs
3. Technology
4. Production capability
5. Method of sale
6. Method of distribution
7. Natural resources
8. Size/growth
9. Return/profit

These driving forces are not unchangeable. Changes in environmental factors or changes within the organization may demand that the situation is reviewed. The accelerating rate of changes and complexity in the world makes these reviews essential to survival.

A very important characteristic in this type of definition of strategy concept is that the atmosphere or framework must be shared throughout the organization. It is of utmost importance for the successful implementation of strategy that everybody within the organization has the same way of thinking. With this kind of definition, strategy is to the organization what personality is to the individual.

Strategy understood in this way is a framework that guides important choices made in an organization. Those choices might be called strategic decisions concerning products/services, geographical markets, customers, organizations capabilities, resources, etc. This type of definition is fairly abstract and if the strategy is not shared and understood throughout the organization it runs the risk of being personalized to one or a few persons in the organization namely those who have created it, and if those persons leave the organization, it is left drifting without any direction. The understanding of strategy is very much dependent on the abilities of the strategists, who are creating the strategy, to communicate it to the rest of the organization.

When the strategy has been successfully communicated and understood throughout the organization it might be difficult to change it, although the changes in the environment might require adjustment in strategy. Luostarinen (1989) calls this resistance of change "*lateral rigidity*" and Mintzberg (1987) mentions that strategy within this kind of definition might to some extent restrict the actions of an organization.

2.3.7 Summary and conclusions concerning strategy concept

As seen from the earlier analysis, strategy is very multidimensional concept and the definitions of strategy concept can vary quite considerably. The varied characteristics of strategy concept are very well manifested in Mintzberg's conceptualization (1987) that strategy can be a plan or ploy, it can be a position or a pattern or even a perspective. Similarly, Hax (1990) has presented various dimensions that should be included in strategy. The strategy concept has developed during the last thirty years from being a planning-oriented concept to a concept where competitive advantage has a key role.

While competitive advantage is the buzz word in almost every modern strategy definition, there still remains few basic decisions to be made in strategy which have not changed for a long time. The decisions concerning markets to be served and products to be offered have been emphasized by many authors as core decisions (Ansoff 1965, Miles and Snow 1978, Shirley et al. 1981 and to some extent Hofer and Schendel 1978) when defining a company's strategy. Also in Porter's view (1980) the product-market decisions are important, although his view is more comprehensive and he does not define any explicit components/decisions for strategy. As mentioned earlier gaining competitive advantage is the ultimate objective of any strategy. Successful business strategies are usually built around product-market decisions that will set a firm apart from its competitors and give it some kind of strategic advantage.

One very important concept in connection with strategy and competitive advantage is distinctive competence which has been somewhat forgotten lately. It was first introduced by Selznick (1957) to describe "emergence of special capabilities and limitations". Andrews (1971) further emphasized the concept of an organization's distinctive competence by pointing out that it was more than what the organization could do; it was the set of things that the organization did particularly well relative to its competitors. According to Hill and Jones (1989) distinctive competences are the unique strengths of a company and building a competitive advantage involves the strategic exploitation of distinctive competences; they form the bedrock of a company's strategy. Distinctive competences are in fact sources of competitive advantage. A company can have distinctive competences in any of its functions (manufacturing, marketing, distribution, R&D, etc.).

The question of different hierarchical levels concerning strategy is not emphasized in the previous discussion of the definitions of strategy concept. The reasons for this were briefly mentioned in Section 2.2.2 where marketing strategy was seen to be almost at the same level as corporate strategy. It must be kept in mind that the empirical part of this study deals with sawn timber which in fact is an industrial product, and that in an industrial-products company marketing function has an even more central role than in a consumer-products company. Webster (1979) states that in an industrial-products company marketing is much more general management's responsibility since changes in marketing strategy typically involve capital commitments for new equipment, changes in manufacturing approaches, etc. Thus, according to Webster (1979) marketing strategies in industrial marketing do not significantly differ from the corporate strategy of a company. Additionally, in the sawmill industry the difference between corporate and business strategy is not always very clear, since for a sawmill company producing only sawn timber the corporate and business strategy is the same thing.

In this study two different definitions of strategy concept were chosen. The aim in choosing two different strategy concepts was to compare these two concepts and their relationship both at the theoretical and empirical level. Furthermore the aim was to compare their operationalizations and develop measurement instruments for these strategy concepts. To measure overall competitive strategies the well-known Porter (1980) model was chosen. This concept justifies its place as a leading concept of competitive strategy and Porter has also done a tremendous job in further developing the concept of competitive advantage. Porter (1980) model has been used in studies examining sawmill industry only by few researchers (e.g. Bush and Sinclair 1991, Merisalo and Nyrén 1990, Uitto and Uitto 1990) and only Rich (1986) has used similar operationalization as will be used in this study, and his study included also other sectors of forest products industry than sawmill industry.

The other chosen concept is the marketing strategy by Juslin (see Juslin and Tarkkanen 1987). The reasons for choosing this concept is that Juslin sees marketing strategy and corporate strategy to be at the same hierarchical level. This definition includes the core decisions about products and markets (the decisions concerning products, customers and market areas) to be made in strategy. Juslin also includes a competitive advantage as one component. Furthermore, this marketing strategy concept with its operationalization has been developed to be easy to measure and one of its merits is the division of strategy into strategic decisions or components. In addition to the fact that this marketing strategy concept is very suitable for the purposes of this study, it is also a very natural choice due to its proximity and familiarity to the author. For the first time in this study the Juslin's marketing strategy concept and especially its operationalization is used outside Finland in connection with interviewing sawmills. The basic idea behind both of the chosen strategy concepts is similar, being that a company adapts itself to a turbulent environment and gains a competitive advantage over its competitors by implementing these strategies.

2.4 The strategy concepts used in this study

2.4.1 Generic competitive strategies

Michael E. Porter's (1980) strategy concept, which has been one of the most cited concepts in business literature during the 1980s, was chosen as a strategy concept of overall competitive strategy. As Montgomery et al. (1989) noted, Porter's (1980) work on competitive strategy is an outgrowth of extensive basic research, both theoretical and empirical. It has also been used successfully in strategy research in forest products industry (e.g. Rich 1986, Bush and Sinclair 1991, Bush et al. 1991). In the classification of strategy concepts developed in this study, Porter's (1980) concept very clearly belongs to the "strategy as a pursuit of competitive advantage" type.

Competitive strategy and gaining a competitive advantage over competitors became very important during the 1980s. Due to the slow growth of demand for softwood lumber during the 1980s, it became evident that for any company the only way to gain growth is at the expense of your competitors. Even holding the existing position in a competitive environment required developing competitive advantages. In the sawmilling industry it is particularly important to differentiate yourself from your competitors, since switching costs of changing a supplier (Porter 1980, p. 114) with a product like sawn timber, which has uniform technical characteristics, are very low for the customers.

A central concept in Porter's approach to competitive strategy is a firm's profit. This is reflected in many studies (see e.g. Hambrick 1983c, Dess and Davis 1984, 1986, Rich 1986, White 1986, Miller and Friesen 1986, Miller 1988) made about the relationship between Porter's strategy types and performance of a firm. A basic determinant of a firm's profitability is "industry attractiveness", which is determined by Porter's (1980) well-known five forces model (see Section 2.3.4), effecting the profitability of the industry. The generic competitive strategies model is then concerned with the means by which a firm may attain above industry average profits in the long run. If a firm is to achieve above average profit performance, it must possess a "sustainable competitive advantage" compared with its competitors, which allows it to cope with the five forces better than they do.

According to Porter (1985) there are two basic types of competitive advantage: lower cost and differentiation. Lower cost is the ability of a firm

		COMPETITIVE ADVANTAGE	
		Lower cost	Differentiation
COMPETITIVE SCOPE	Broad target	Cost leadership	Differentiation
	Narrow target	Focus	

Figure 4. Generic competitive strategies (Porter 1980, 1985).

to design, produce and market a comparable product more efficiently than its competitors. At prices at or near competitors', lower cost translates into superior returns. Differentiation is the ability to provide unique and superior value to the buyer in terms of product quality. Differentiation allows a firm to command a premium price, which leads to superior profitability provided costs are comparable to those of competitors. Competitive advantage of either type translates into higher productivity than that of competitors. The low-cost firm produces a given output using fewer inputs than competitors require. The differentiation firm achieves higher revenues per unit than competitors.

When these types of advantages are combined with the competitive scope Porter (1980) presents three different generic competitive strategies a company can implement to achieve and sustain competitive advantage: cost leadership, differentiation and focus as shown in Fig. 4. Later, Porter (1985) divided focus strategy into two separate strategies: costs focus and focused differentiation. The three generic strategies are described in Section 2.7.3 in connection with the operationalizations. These strategies are called generic because all businesses or industries can pursue them.

Later, Porter (1985) proposed a concept of *value chain* as the basic tool for identifying and finding ways to enhance competitive advantage. The value chain divides a firm into discrete activities it performs in designing, producing, marketing and distributing its products. Strategy guides the way a firm performs these individual activities and organizes the entire value chain. It is very important to a firm to understand not only its own but also the value chains of suppliers, distributors and customers, which creates the value system (Porter 1985). The differences in value chains compared to competitors and the management of the whole value system are very important sources of competitive advantage, which again can lead to superior performance.

Although, the Porter model has become a kind of standard in research, it has some shortcomings. The most common critique has been targeted towards the dichotomy between cost leadership and differentiation. Porter (1980) argued that it is rarely possible to successfully apply two of the generic strategies simultaneously. Several writers (Dess and Davis 1984, Miller and Friesen 1986, White 1986) have found empirical evidence of successful combinations of low cost and differentiation. Wright (1987), Murray (1988) and Hill (1988) have argued on theoretical grounds that a combination of low cost and differentiation strategies should not only exist but is also necessary for competitive success in a variety of circumstances. Later, Porter (1985) describes the conditions how a company can apply more than one strategy simultaneously, but still sees it as having great risks which can lead to a "stuck in the middle" situation, where none of the selected strategies are implemented properly.

The choice of strategy is also restricted by the size of a company and the resources it possesses. Wright (1987) notes that small firms only have the option to successfully compete through the focus strategy, while large firms would not compete with the focus strategy as their only strategy adoption, since it would not be attractive enough for them.

2.4.2 Marketing strategy

The other chosen strategy concept and especially its operationalization was developed by professor Heikki J. Juslin at the Department of Forest Products Marketing in the University of Helsinki in Finland during the 1980s. The ideas are presented thoroughly in Juslin and Tarkkanen (1987). The strategy concept in professor Juslin's research has its origin in the work done by Igor Ansoff (1965). In addition, ideas presented by Shirley, Peters and El-Ansary (1981) and Webster (1979) influenced and supported Dr. Juslin's conceptual ideas.

According to Juslin, strategy refers to the company's relationship with its environment and this relationship is defined through decisions about products and markets and competitive advantage (Juslin and Tarkkanen 1987, p. 15). In the classification of strategy concepts in this study Juslin's definition is a "strategy as a position" type definition. Although Juslin's strategy is named marketing strategy it is broader than typical definitions of marketing strategy, which are very often linked with only the marketing objectives. The marketing strategy definitions are very often marketing mix based, for example according to Kotler (1988, p. 71):

marketing strategy defines the broad principles by which the business unit expects to achieve its marketing objectives in a target market. It consists of basic decisions on total marketing expenditure, marketing mix, and marketing allocation.

Also Foxall (1981, p. 34) defines marketing strategy as being:

an indication of how each element of marketing mix will be used to achieve marketing objectives.

According to Juslin (Juslin and Tarkkanen 1987, p. 17–18) a company determines its marketing strategy by making decisions concerning (compare Shirley et al. 1981, p. 6):

1. Customers
2. Products
3. Geographical limits of market area
4. Competitive advantage

Juslin (in Juslin and Tarkkanen 1987) stated that when a company defines its strategy, it defines the products, its customers, the geographical limits of markets and the competitive advantage on which the use of marketing tools will be planned. Strategy also defines the goals that the company tries to achieve by its actions within these four parameters. All these decisions together put the company in one strategic position and define the company's relationship with its environment. It must be emphasized that although this relationship is defined by the strategies and goals, the methods for obtaining this relationship are not yet established.

According to Juslin (1992) the strategies are realized through marketing functions and the marketing structures should serve as frames for realizing the strategies. A change in the company's external environment forces management to pay attention to its strategic position. The strategic decisions in the above-mentioned four parameters must be evaluated in relation to the changed external environment, and possibly some adjustments in a company's strategy must be made. Changes in strategy should be followed with changes in structures.

The decisions about products, customers, market areas and competitive advantages are the main decisions to be addressed in strategic planning, and they are all closely interrelated. Depending on the marketing ideology used, each decision is given a special weight. For example, when marketing ideology is very customer-oriented, the most important of these four decisions is the choice of customers. Eventually the strategic marketing decisions dictate the future of the firm and/or industry. The investments into the company can only be based on the possibilities of the markets.

Juslin (in Juslin and Tarkkanen 1987) concluded that marketing strategy and corporate strategy are at the same hierarchical level. This conclusion was based on the definition of marketing as an adjustor between the company and its environment and on the proposition that product and market decisions are essential on both levels. According to Juslin (1992) marketing has such a central position in the operation of a business unit that it is integral with the strategy of the whole unit. This means that decisions concerning marketing strategy are made at the highest hierarchical level of the business unit. These definitions would suggest that the marketing strategy by Juslin (1992) is defined at business level.

When this definition is critically analyzed, decisions on two different levels of a company can be found. Traditionally (see e.g. Ansoff 1965, Hofer and Schendel 1978) the decisions concerning products and markets (decisions about products, customers and market areas) have been defined as decisions of corporate strategy, and decisions about competitive advantage have been considered to be at the business strategy level. It can be concluded that this strategy definition is a combination of traditional definitions of corporate and business strategies. This can be explained by the fact that this definition has been developed in connection with studies of the forest products industry and as mentioned, in companies producing industrial products, marketing has a more essential role and thus marketing strategy is closer to corporate strategy than in consumer product companies.

This research has its origin very much in marketing and marketing planning, and the basic assumption behind this research is that a company is market-oriented and operates based on customer needs. These essential assumptions are similar in Juslin's marketing strategy concept and thus it is very suitable. However, for the purposes of this study some further theoretical clarifications have been made to this marketing strategy concept. The clarifications are refinements of the conceptual background of this concept and attempts to make it also more comparable with generally accepted ideas about competitive advantage.

The fourth decision is not called competitive advantage as it was named by Juslin (Juslin and Tarkkanen 1987), but it is renamed as *marketing competence.* The reason is that achieving and sustaining competitive advantage is generally seen (Porter 1980, South 1981, Day 1984, Cravens et al. 1987, etc.) as the ultimate objective of any strategy and not as a component of it. Cravens et al. (1987, p. 48) state that the essence of both corporate and marketing strategy is finding an advantage over competition. Competitive advantage is achieved by making decisions about products, customers, market areas and marketing competences. These decisions will lead the company to a better competitive position than its competitors and thus to gain competitive advantage over them. These decisions form the recipe for a company's success.

The term marketing competence or strategic marketing competence is at the corporate level generally referred to as distinctive competence, as discussed earlier in section 2.3.7. Distinctive competences can be in any of a company's functions, but marketing is the most critical one since it is the ultimate link between the company and its most important external relationship — its customers. Distinctive competences of the marketing function are thus called marketing competences. Marketing competences are capabilities or unique strengths in marketing that competitors cannot easily match or imitate. This also justifies calling this strategy definition marketing strategy.

All marketing competences do not necessarily create a competitive advantage or transfer to competitive advantage. They must be real, so that they are important to customers and that competitors do not have or cannot easily acquire the same competences. All industries have some critical success factors (see e.g. Day 1984 and Hill and Jones 1989) that a company must have to be able to survive on the markets. To achieve success a company has to not only match its marketing competences with the critical success factors that exist in the market but also exceed those of its competitors (Kotler 1988).

This refinement might seem to be a minor one or a substitution of words but conceptually, and thinking about theories concerning strategies and competitive advantage, it is a quite considerable change in the philosophy of Juslin's definition of strategy concept. It relates very closely to the discussion of competitive advantage during the 1980s. Hopefully, with these refinements, confusions relating competitive advantage can be avoided and the relationships between the strategy concepts used in this study are made clearer.

2.4.3 Relationship between generic competitive strategies and marketing strategies

The discussion about the relationship between generic competitive strategies and marketing strategies is based on the strategy concepts that were presented in the previous sections. The discussion is based on Porter's (1980, 1985) work and on Juslin's (in Juslin and Tarkkanen 1987) work and thus in the following text references are not made to these sources.

As mentioned earlier, companies pursue business strategies to gain a competitive advantage that will allow them to outperform competitors and earn above-average returns. A company has three basic competitive approaches at the business level: cost leadership, differentiation and focus. In general, each of these competitive strategies is a result of making certain consistent choices on products, markets and distinctive competences. On the other hand, in this study the marketing strategy was said to be a result of making decisions concerning products, customers, market areas and marketing competences. As it can be noted these two strategy concepts are closely related to each other. Due to the operationalizations (see Sections 2.7.3 and 2.7.4) of the strategy concepts used the relationship between them is examined by describing what kind of strategic marketing decisions would be most consistent with each type of generic competitive strategy. These connections are presented on hypothetical level in Table 6, and are tested later in the empirical part of the study and the following discussion is applied to the sawmill industry.

A company pursuing cost leadership is aiming at producing products at a lower cost than competitors. This would require economies of large-scale production and products designed for ease of manufacturing, thus cost leader would choose a low level of product differentiation, i.e. standardized commodity products. The cost leader would also ignore different market segments and seek an average customer for the sake of lower costs, i.e. target as many segments as possible.

Table 6. Hypotheses concerning the relationships between marketing strategy decisions and generic competitive strategies.

Marketing strategy decision	Generic competitive strategy Cost leadership	Differentiation	Focus
Product	Commodity	Specialty	Custom-made/ specialty
Customer	Many	Many/few	Known/few
Market area	Many	Many/few	Few
Marketing competence	Price Market share Effectiveness of marketing channel Transportation expertise	Effective marketing Effectiveness of marketing channel Well known brand Customer relationships R&D	Effective marketing Customer relationships Personal selling R&D

Similarly as with the customers cost leader would not choose any specific market areas to be targeted. As in all decisions also in those concerning marketing competences the cost leader tries to squeeze the costs. That would mean effective marketing channels and transportation. Cost leaders would aim to capture large market shares to get large volumes which would keep the cost per unit low, and price is one important competitive weapon in competition over market share.

When pursuing differentiation strategy a company is aiming to create a product that is perceived by the customer to be unique in some important way. The level of product differentiation is naturally high. The differentiation of sawn timber can be achieved by special dimensions or lengths or by some related service such as special grading or drying to lower moisture content that normally. Differentiators generally segment their market into many niches. Companies pursuing differentiation strategy can offer products to each segment but might choose to serve only those segments where it has a specific differentiation advantage. In customer and market area decisions this means that a differentiator can target many or a few customers or market areas. In decisions concerning marketing competences differentiators would emphasize research and development, and well-known product brand. When serving many segments effective marketing and effectiveness of marketing channel are important. Customer relationships are also important if differentiation is based on service.

When pursuing focus strategy a company concentrates on serving a specific customer group, market area or product group. In the sawmill industry pursuing focus strategy might mean producing sawn timber for the specific needs of a known customer (e.g. furniture/window components). Pursuing focus strategy means very well-defined choices concerning customers and market areas. In marketing competences close customer contacts are vital, research and development is important when focusing on a certain product group, as are effective marketing and effectiveness of marketing channel. Basically, the focuser can pursue any kind of marketing competence just directed at a particular strategic target, but the ones mentioned are seen as the most relevant in the sawmill industry.

For the Finnish sawmill industry the cost leadership strategy is not a very feasible option due to the relatively high production costs, remote location and small domestic markets. Nevertheless, differentiation and focus strategies might be very lucrative options, since the quality of raw material is very good and Finnish sawmills are also technologically advanced. However, Juslin and Tarkkanen (1987) found out that many of the requirements (e.g. intensive R&D) for differentiation or focus strategy were not fulfilled in the Finnish sawmill industry. For the sawmills in North America cost leadership is a very attractive alternative due to the large domestic markets of commodities, but there are also other attractive possibilities like a differentiation or focus strategy to Japanese markets. These Japanese markets demand quite different products compared to the domestic markets in North America.

2.5 Approaches in operationalizing strategy concept

2.5.1 General

The question of operationalizing strategy concept has been noted to be a difficult exercise by many authors (Hambrick 1980, Snow and Hambrick 1980, Harrigan 1983, Ginsberg 1984, Venkatraman and Grant 1986, Juslin and Tarkkanen 1987, Bush and Sinclair 1991, etc.). But the prerequisite to identify or measure strategy is that it is operationalized. Juslin and Tarkkanen (1987, p. 16) noted that although the strategy may not be defined, it can be seen in the company's everyday activities. The activities and the results of activities can be used to characterize strategies. The operationalization problem is to make the activities measurable. According to Churchill (1979) operationalization concerns the assignment of numbers to represent quantities of attributes.

Various ways to operationalize the strategy concept have been used by researchers. The operationalization is very dependent on the definition of the strategy concept in question, since the operationalization is the bridge between the theoretical concept and its practical measurement. Ginsberg (1984) noted that the operationalization of strategy is influenced by four types of inputs: (1) research goals, (2) research design, (3) data availability and (4) defined concepts. According to Ginsberg (1984) the input factor linked most directly to the output of the operationalization is the way in which the researcher has defined the concept of strategy.

One problem with operationalization is that there seems to be a gap between planned and realized strategies. According to Mintzberg (1978) and Mintzberg and Waters (1985) the planned (intended) strategies are not necessarily the strategies that realize in the future. Most likely the realized strategy is a combination of planned and unplanned (emergent) strategies. This problem is also related to the point in time when the strategies are measured. Because the future orientation is part of strategic thinking, it must be clearly stated whether the intended or realized strategies are measured.

Two major approaches are possible in describing realized strategies:

1. The longitudinal, historical approach, which uses an individual, in-depth case method and labels them according to their predominant features e.g. Mintzberg (1978).
2. The cross-sectional, statistical approach deals with a large number of companies and classifies them into different strategic categories (e.g. studies based on PIMS*).

In describing intended (planned) strategies only cross-sectional methods are possible.

One major concern in the empirical operationalization of the strategy concept is that the operationalization is done in a way that is both valid and appropriate to the research questions being asked. This problem has been noted for example by Hambrick (1980), Harrigan (1983), Ginsberg (1984) and Venkatraman and Grant (1986). In the following various approaches are presented for operationalizing strategy according to the ideas of Hambrick (1980). The focus will be on the operationalizations of business-level strategies instead of corporate strategies, since this study is aimed at a single industry/ business, namely the sawmill industry. Hambrick (1980) presents four different types of approaches, whereas for example Thomas and Venkatraman (1988) distinguish two kinds of operationalization: strategy operationalized in narrow terms (focusing on one functional area or a single dimension) and strategy operationalized in broad terms (focusing on multiple functional areas or dimensions reflecting a complex array of scope or resource deployment decisions). This distinction between two approaches of strategy is analogous to the general distinction between "unidimensional" versus "multidimensional" view of strategy.

2.5.2 Textual descriptions of strategy

In this approach the strategies are not measured but rather they are described in a comprehensive textual fashion. The business school policy faculty at the Harvard Business School have written hundreds of cases involving strategies, which have been the origin of their prescriptions about strategy formulation. These textual operationali-

* The PIMS (Profit Impact of Market Strategy) program of the Strategic Planning Institute is a large-scale, continuing empirical inquiry into the interrelationships among a group of factors representing strategy, competitive position, business environment and operating results of businesses producing manufactured products or services. (Schoeffler 1977)

zations, of course, reflect the investigator's individual qualitative interpretation of each organization's strategy.

According to Harrigan (1983) textual description is typically cases treating individual firms, an expensive method, usually based on field studies that may be difficult to replicate. Case studies, if they are done well, capture the complexities of competition and uncontrollable environmental factors surrounding strategy formulation.

Researchers (see e.g. Mintzberg 1978) who use textual descriptions in their studies argue that this approach is appropriate, given the comprehensive, multidimensional nature of strategy. They argue that strategy is too situational to be usefully measured and that attempts at measurement often lose sight of the integrativeness and internal logic of strategy.

In case studies the access to the data is very much dependent on the management's attitudes and interest, since the data needed for case studies is generally proprietary information that can be released outside the company only by the permission of the management.

2.5.3 Operationalizations of parts of strategy

Some researchers have focused on a single key variable (notably, market share) or variables within a single functional area (e.g. R&D) in their operationalizations of the strategy concept. According to Hambrick (1980) these researchers typically have not actually labelled their variables as measures of business-level strategy. It is the reviewers of the field who have given the "strategy" label to these variables.

According to Hambrick (1980) most of those investigators who have applied parsimonious views of strategy, have focused on market share as their key variable. Such researchers have generally attempted to identify the effects of market share on profitability. Another set of studies has focused on functional strategies — primarily focusing on key variables of marketing or R&D. These views of strategy are typically accompanied by relatively reliable measurement of the key variables, since the researcher is attracted to the more quantifiable variables of those available.

These studies are relatively narrow in scope and very often do not capture the breadth of decision areas that constitute strategy. The validity of this approach is questionable since it only provides an approximation of strategy. The advantage of this kind of study is that it allows relatively exact analysis of a limited number of strategic variables. This approach corresponds to the narrow operationalization presented by Thomas and Venkatraman (1988).

2.5.4 Multivariate modelling of strategy

Researchers using this approach are interested in building a multivariate representation of strategy. Unlike the partial operationalizations of strategy, the multivariate approaches take a comprehensive view of the construct. Hambrick (1980) and Harrigan (1983) have noted that multivariate modelling can give a good general view of the structure of strategy, but on the other hand there is the risk of missing the central thread or internal logic underlying a strategy. Multivariate measurement of strategy has been mostly used with large databases (e.g. PIMS). This gives a possibility to test the relationship between strategy and other constructs — generally organizational performance.

Because multivariate modelling relies on databases, it would be easy to argue that the results are generalizable. Harrigan (1983, p. 399) argues that the cross-sectional design of PIMS database, in particular, is suited to exploring the "laws of the market-place". However, Hatten et al. (1978) found contradictory evidence and also Hambrick (1980, p. 571) stated that, although the multivariate approach to strategy pinpoints interwoven statistical associations, its results are not necessarily generalizable.

According to Hambrick (1980) multivariate measurements of business-level strategies have been made exclusively in studies of realized strategy. Hambrick (1980) also notes that there is no apparent reason why multivariate measurement of intended strategies (based on questionnaire or scaled interview data from executives) could not be made as well. After Hambrick's (1980) article there have been studies made about intended strategies with multivariate measurements. For example, Dess and Davis (1984), Juslin and Tarkkanen (1987) and Bush and Sinclair (1991) have used multi-item scales to measure intended strategies.

2.5.5 Typologies of strategies

The most popular approach during the 1980s has been to operationalize the strategy concept with typologies of strategies. Many authors have presented their own strategy typologies (see e.g. Miller and Friesen 1978, Miles and Snow 1978, Hofer and Schendel 1978, Porter 1980, Day 1984, Herbert and Deresky 1987). As Galbraith and Schendel (1983) noted, the number of possible strategy types and the characteristics of each type, vary widely from author to author, and is to a large degree dependent on the objectives of the firms seen by each author. Some of typologies are restricted to consumer or industrial goods or limited to specific industry. A one unified and generally accepted strategy typology is still to be discovered, although Porter's (1980) typology comes close.

The use of strategy typologies is twofold. In some studies the strategy typology is defined *a priori* based on theoretical rationale and thus is the starting-point of the operationalization. In other studies the objective is to develop strategy typology *a posteriori* based on empirical results on a specific data set. Miller and Friesen (1977) empirically established ten strategic types (or "archetypes"). Their typology did not distinguish between corporate-level and business-level strategy, but it contained elements of both.

Miles and Snow (1978) originally developed their strategic typology, to help explain differences among textbook publishing firms they studied. They later extended, verified and applied the typology in several other industries. The primary dimension underlying their typology is the organization's rate of product-market change.

Hofer and Schendel (1978) identified six generic business strategies, based on theoretical considerations. According to Hofer and Schendel (1978), when formulating business strategy, it is often useful to think of three different, but related, kinds of substrategies (1) competitive position strategies, (2) investment strategies and (3) political strategies. By combining the competitive position objectives and investment strategy options, they defined six generic types of business strategies each of which involves a different pattern of competitive position objectives, investment strategies and competitive advantages. These are 1) share-increasing strategies, 2) growth strategies, 3) profit strategies, 4) market concentration and asset reduction strategies, 5) turnaround strategies and 6) liquidation and divestiture strategies.

The most frequently used classification of strategy is developed by Porter (1980), described in Section 2.4.1. Porter's (1980) typology is applicable to all industries and so it is emphasizing the universality of the strategy. The Porter (1980) model has been used by Hambrick (1983c), Dess and Davis (1984), Miller and Friesen (1986), Rich (1986), Miller (1988), Bush and Sinclair (1991) and so on. Both Hambrick (1983c) and Dess & Davis (1984) have in empirical studies observed that Porter's three generic strategies exist in reality. On the other hand, Miller and Friesen (1986) did not discover pure Porter's (1980) strategy types. All of the above-mentioned studies note that Porter's (1980) strategy types are not mutually exclusive.

Herbert and Deresky (1987) proposed a strategy typology which was developed from a literature synthesis. The types were called (1) develop strategy, (2) stabilize strategy, (3) turnaround strategy and (4) harvest strategy. They focused on the existence and content of these generic strategies and did not consider the process of strategy formulation or the appropriateness of strategic choices. Herbert and Deresky (1987) had multiple data sources and used multiple data analysis methods and were able to empirically establish the existence and characteristics of these generic strategies.

According to Hambrick (1980), it is the degree of comprehensiveness, or integrative pattern that distinguishes typological operationalizations of strategy from the partial view of strategy. Even if there is a single dominant underlying dimension to the typology, such as with the Miles and Snow (1978) typology, the overall profile of a given strategic type moves it beyond a univariate description.

There are some limitations in the use of strategy typologies. First of all there is a risk of oversimplifying. Also some of the typologies will apply to some industries and not to others. Galbraith and Schendel (1983) argued that many of the strategy classifications have been conceptual constructs derived from appropriate dimensions taken from theory without much empirical support beyond perhaps some case studies and anecdotal data. Although important insights regarding strategic behaviour have been gained, the validity of any typology is enhanced only if empirical support could be provided.

Hambrick (1980) states that the primary strength of typologies is that they attempt to capture both the comprehensiveness and the integrative nature of strategy. Also according to

Ginsberg (1984) the usefulness of this approach lies in its comprehensive, yet parsimonious, orientation to the development of theory.

2.6 Measurement of strategy concept

The operationalization of strategy concept is logically followed by the problem of measurement and the choice of variables. The measurement of strategies is guided by the chosen strategy concept and its operationalization. According to Eskola (1975) operationalization expresses the rules with which the theoretical concept can be measured or constructed.

Snow and Hambrick (1980) have presented a few major problems when measuring business-level strategies. First, it is important to the researchers to be aware of whether they are measuring past strategy, a new strategy, a period of strategic adjustment or some conception of future strategy.

Second, there is a problem between intended or realized strategies which was discussed earlier. Researchers should have a clear idea of whether their purposes are best served with measuring intended or realized strategy. Related to this problem are the questions whether management and researchers understand the strategy in the same way and whether the strategies are adequately communicated throughout the organization.

Quinn (1977, 1978) observed that managers avoid articulating strategy explicitly. This results in a certain vagueness concerning strategies and this vagueness might be interpreted by researchers as an absence of strategies (Snow and Hambrick 1980). Also Mintzberg (1978) stated that strategies are formed by people, and unless these strategies are communicated fully, the researcher may be faced with an unknowable combination of strategic history, managerial desires and plans. Snow and Hambrick (1980) noted that some organizations did not have any intended strategy.

Third, the task of measuring strategy is to attach absolute values to what is in fact a relative phenomenon. According to Snow and Hambrick (1980) an organization's strategy is largely established on industry conditions and competitors' actions. They observed an important problem concerning the degree of homogeneity/heterogeneity in the industry. If the sample of organizations to be studied is very homogeneous, for example by size of the organizations, some important aspects of strategy that organizations of different sizes may represent might be overlooked. The sample heterogeneity might also create problems. For example, comparison of strategic behaviour might be difficult if organizations are operating in quite different segments of the industry.

Five major approaches to the measurement of strategy have been presented in strategic management methodology literature. Snow and Hambrick (1980) have presented four of these: (1) Investigator inference, (2) self-typing, (3) external assessment and (4) objective indicators. A fifth method, proposed by Jauch et al. (1980), is structured content analysis of cases.

Investigator inference is a favourite method of case writers. In this approach, the researcher, using all the information available, assesses the organization's strategy. The main advantage of this approach is that the researcher gets fairly complete information about the organization. The main disadvantage is the difficulty to obtain samples large enough for hypotheses testing and then also validity of the measurement is questionable. The researcher's own personal views might also cause bias and according to Snow and Hambrick (1980) one problem is a tendency to interpret the organization's behaviour according to an implicit theory.

The *self-typing* approach allows an organization's managers to characterize the organization's strategy. Generally this approach is used with written descriptions of strategy and managers are asked to classify their organization.

In *external assessment*, expert panels, competitors, consultants or industry analysts characterize the organization's strategy. This approach is very often used in connection with self-typing. One major problem with this approach is that outside experts tend to report realized strategies whereas managers tend to report intended strategies.

The fourth approach, *objective indicators*, includes measures that do not rely on perceptions of individuals. Strategy is measured using objective indicators, i.e. secondary data sources, for example published product-market data. The main disadvantage is that sometimes the data needed does not exist.

In the fifth method, *structured content analysis* of cases, the researcher uses published case materials and strategy is measured by coding relevant information from these cases to a content analysis schedule (Ginsberg 1984).

Venkatraman and Grant (1986) have criticized the frequent use of nominal or single item scales in strategy research. Single-item scales use a single variable such as company size, degree of vertical information or market share to measure strategy. In nominal scales the company's strategy is classified into one of the different preclassified mutually exclusive types. Multi-item scales try to capture the key characterictics of strategy based on observable characteristics of the firm by using scales including more than one item.

Nominal scales have very often been used in testing typologies or classifications of strategy. For example, Snow and Hrebiniak (1980) and Hambrick (1982) used Miles and Snow (1978) typology and Rich (1986) used Porter's (1980) strategies to classify companies. Herbert and Deresky (1987) proposed and tested a typology of generic strategies with nominal scale. In this study nominal scale is used when classifying companies according to Porter's (1980) typology.

Single-item scales have been used in testing Miles and Snow (1978) typology by Hambrick (1983a), Gupta and Govindarajan (1984) in measuring Hofer's and Schendel's (1978) business strategies.

Multi-item scales have been used by many authors, for example by Miller and Friesen (1977, 1983, 1986), Hatten et al. (1978), Hambrick (1983b, c), Galbraith and Schendel (1983), Miller (1987, 1988, 1989). Dess and Davis (1984) used a multidimensional scheme when investigating the presence of Porter's (1980) intended generic strategies. Bush and Sinclair (1991) adopted their measurement scheme and studied the intended competitive strategies in the US hardwood lumber industry. In this study the marketing strategies are measured with a multi-item scale.

The question of validity and reliability of measurement is very important and has not been adequately emphasized in strategy research so far. For example, Venkatraman and Grant (1986) found out, in their review of measures of organizational strategy constructs, that the validity and reliability was not adequately assessed in most of the studies. In most cases when the validity was assessed, it meant that content validity was examined by experts.

Some authors have presented methods how to increase the validity of the measurements, used in studying organization's strategy. According to Snow and Hambrick (1980), Harrigan (1983) and Ginsberg (1984) the validity is better when relying on multiple data sources, and Harrigan (1983) also emphasized multiple sites in data collection. Ginsberg (1984) further emphasized the use of multiple measurement approaches in increasing the construct validity. Galbraith and Schendel (1983) stated that research and implications based on theoretical descriptions of strategic typologies have greater validity when empirically tested and confirmed. These ideas have been successfully used, for example by Herbert and Deresky (1987).

2.7 Framework guiding the empirical implementation of the study

2.7.1 General

The construction of variables is based on the framework of the empirical part of the study presented in Section 2.1. Based on that framework variables from the following areas are used:

1. Background of the sawmill
2. Generic competitive strategy
3. Marketing strategy
4. Marketing structures
5. Marketing functions

Based on the theoretical considerations and the choices made in operationalizing the strategy concepts described in the subsequent sections, a more defined framework of the study is presented in Fig. 5. In the following sections, also the construction of variables describing background of the companies, marketing structures and functions is described in detail. The questionnaire used can be found in Appendix 1 and the list of variables used is in Appendix 2. Throughout the empirical implementation of the study a comparison is carried out between the three countries where the data was collected.

2.7.2 Variables describing background of the companies

Background characteristics of a company have quite a significant impact on the decisions the company makes in strategic planning. These characteristics (e.g. size in terms of production volume, export orientation) determine and to some extend restrict what kind of strategy is feasible for a company. They form a framework for com-

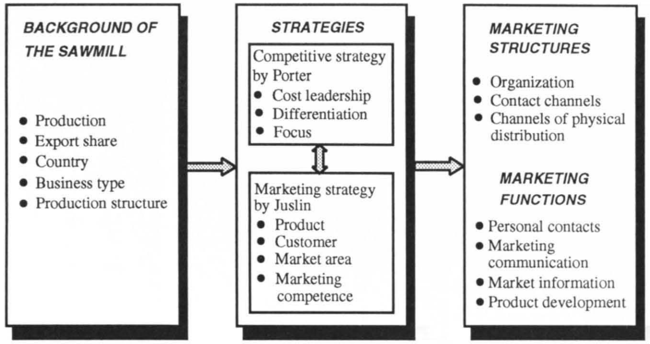

Figure 5. Defined framework of the study.

pany's strategic decisions. The variables used to describe the background characteristics of the companies were:

— country
— sawn softwood timber production volume in 1987 (Finland)/in 1990 (Western North America)
— export share in 1987/1990
— sawn timber production structure
— business type of the respondent unit

The production volume and export volume were measured in cubic metres in Finland and in board feet in the US and in British Columbia, Canada. For the analysis the board feet were converted into cubic metres by multiplying them by a coefficient of 0.00236. During the interviews there was also an attempt to measure sales revenue of lumber but it soon became evident that for many of the companies it was difficult to separate the sales revenue of lumber from the total sales revenue or it was too proprietary information to be released. As a result of this, sales revenue was omitted in the final analysis of data.

The production structure describes how the production in 1987/1990 was divided into commodity, specialty and custom-made products. These three lumber product categories are defined based on the level of differentiation of the products as follows (these descriptions are examples used in the questionnaire in North America):

Commodity products — These are lumber products manufactured to standard lumber sizes according to ALS or CLS/NLGA standards

Specialty products — These products differ from traditional lumber in drying, grading, lengths and/or dimensions or in level of value-added. (For example: lumber cut to special sizes/lengths, treated, stress graded, finger jointed or specially kiln-dried lumber)

Custom-made products — These products are manufactured according to the needs of a specific customer. Customer needs are taken into consideration in production planning and the end-user is already known when the lumber is produced. (For example: furniture/window components produced for a specific customer)

The division of production volume into the above-mentioned product categories is a realized product strategy (see Mintzberg 1978) resulting from the strategic decisions made earlier. The division of production volume into these categories reveals the realized level of product development and customer-orientation of the company; the more custom-made or specialty products are produced the more product planning should be done and the more customer-oriented the company is.

The business type of the respondent unit was measured with three alternatives:

1. Single sawmill
2. Multiple sawmills
3. Sawmill(s) integrated with a forest products producer (sawn products plus pulp, paper or panels)

2.7.3 Operationalization of generic competitive strategy

Operationalization of Porter's (1980) generic competitive strategies is a typology-type operationalization described in Section 2.5.5. The three generic competitive strategy types were simply textually described in the questionnaire and presented to the company executives in the personal interview. Executives were asked to associate their company with one strategy or combination of strategies. This measurement approach is self-typing and the advantages and disadvantages of this approach and also alternative measurement approaches are discussed more in detail in Snow and Hambrick (1980). Similar types of operationalizations have been used e.g. by Snow and Hrebiniak (1980), McDaniel and Kolari (1987) and Herbert and Deresky (1987) and in studies concerning the forest products industry e.g. by Rich (1986). The construct validity of this typology has been proved to be good in many studies (see above). The three generic competitive strategies presented are as follows:

1. *Cost leadership* by using economies of large-scale production. Minimization of production costs is the main objective. Differentiation of products and customers is avoided. Costs of product development and marketing are minimized.
2. *Differentiation* of products and/or services. The objective is uniqueness. Differentiation can be based on customer service, product image, distribution and/or a reputation as an innovator in developing new products.
3. *Focus* on a certain customer group, market area or product group. The company, or a product/market area-group inside the company, builds its strategy to serve a certain target group as well as possible — better than competitors who are serving a broader area. (The company can thereby achieve a cost or differentiation advantage within a chosen target group.)

The generic competitive strategies are measured as intended strategies. According to Snow and Hambrick (1980, p. 535) this measurement approach is "a sound method for identifying intended strategies". The measurement of intended strategies offers a possibility to see the strategic direction the companies are aiming at in the future. According to Bush and Sinclair (1991, p. 485) focusing on intended strategies allows the strategic change in the industry to be predicted.

2.7.4 Operationalization of marketing strategy

The theoretical basis for the used operationalization of the *marketing strategy* concept has been presented in Section 2.4.2. The following operationalization has been successfully used in several studies of the forest products industry during the 1980s and at the beginning of 1990s in Finland, perhaps the most prominent one being Juslin and Tarkkanen (1987) and it has proved to have good construct validity. The operationalization of marketing strategy concept is done by strategic decision/strategic decision area and correspond most closely to the multivariate modelling-type of operationalization approach.

The decisions concerning what products to offer are perhaps the most fundamental decisions of a company's strategy. According to Juslin and Tarkkanen (1987), the product strategy defines the basic nature of the products and also the company. In this study, product strategies are described based on the level of differentiation of the products.

Product strategy is divided into three alternatives:

1. Emphasis on commodity products
2. Emphasis on specialty products
3. Emphasis on custom-made products

The company chooses its product strategy by defining how much it emphasizes each alternative in its product range.

In a customer-oriented company the selection of customers is very important. Shapiro (1988) argued that to choose the important customers is the most important strategic decision. All customers are important, but invariably some are more important than others. To know and to be able to satisfy the customers' needs is a key to survival. Based on the customers' needs a company decides what customer groups it is going to serve i.e. the customers or customer groups whose needs the company can best satisfy. The product decisions are very closely linked to the customer groups the company serves, since it is the products that satisfy the customers' needs.

The *customer strategy* alternatives are:

1. As many customer and end-user groups as possible
2. Few, well-defined end-use segments
3. Known end-users

A company's customer strategy is measured by how well one of these alternatives describes its principles in choosing customers.

In decisions concerning market areas a company is making decisions about the number of geographical market segments it is going to serve. Selection of certain market areas is important in allocating company resources effectively, so that they will not be spread around but instead assigned to a few important areas. In this research market area was defined as a country or region. This definition was very important in North America, since the United States alone is larger than the combined area of Europe, and the different regions within the United States are frequently considered as different market areas.

Market area strategy is described with two alternatives:

1. As many countries/regions as possible
2. Few, well-defined regions/countries

When a company chooses its market areas the critical choice is whether to concentrate on few countries/regions or to market products in every possible market area.

The decisions about marketing competences are very important for the success of a company, since the marketing competences are one of the sources of competitive advantage and Porter (1980) argues that underlying the company's success is always a competitive advantage. When comparing itself with its competitors in relation to competitive factors, a company can identify what are its strong and weak areas compared to those of the competitors. Based on these comparisons, a company can utilize its strong areas when making decisions about its marketing strategy. These comparisons also show the company's competitive position.

Marketing competences are measured in terms of ten alternative company/marketing success factors relating to how a company perceives itself compared to its competitors relative to:

1. Effective marketing
2. Customer relationships
3. Intensive personal selling
4. Market share
5. Aggressive credit policy
6. Effectiveness of marketing channel
7. Competitive prices
8. Well-known product brand
9. Transportation expertise
10. Research and Development work

If the company feels it is strong in one or more of these factors, it can base its marketing activities on these strengths, or relative advantages. These factors also define the competitive position the company sees itself to be in, relative to its competitors. Respondents were also asked to identify in order of importance five of the above-mentioned factors that are emphasized in their firm. The meaning of factor number 5, aggressive credit policy, changed when translated into English. It was understood differently in Finland and in North America. Due to this misinterpretation it was omitted from the final analysis.

All these variables concerning strategic marketing decisions were measured with a five point Likert scale. It is assumed that behind these strategic decisions some underlying factors can be found. These factors are called strategic dimensions, which are sought using multivariate methods of analysis described later. These strategic dimensions will be used when analyzing the relationships between marketing strategy and competitive strategy and the connections between these dimensions and marketing structures and functions.

According to Mintzberg's (1978) ideas presented previously in Sections 2.3.5 and 2.5.1 the strategies can be both intended or realized. The operationalization of marketing strategies in terms of strategic decisions, described above, measures the intended strategies. The decisions made about products, customers, market areas and marketing competences form the business unit's marketing strategy that the unit intends to implement in the future. The actual strategy that will be realized is not necessarily identical with the intended strategy. The realized marketing strategy might have emergent parts for example as a result of adjusting the strategy according to changes in the environment.

2.7.5 Variables describing marketing structures

The marketing strategies are realized through marketing structures and functions. The aim in measuring marketing structures and functions in this study was not to present a detailed description and analysis of marketing structures and functions, but to seek additional validation for the operationalization of marketing strategy and to examine the logic of marketing planning.

The marketing structures include marketing organization, information and planning systems, contact channels and channels of physical distribution. The organization of marketing is measured with variables concerning the amount of

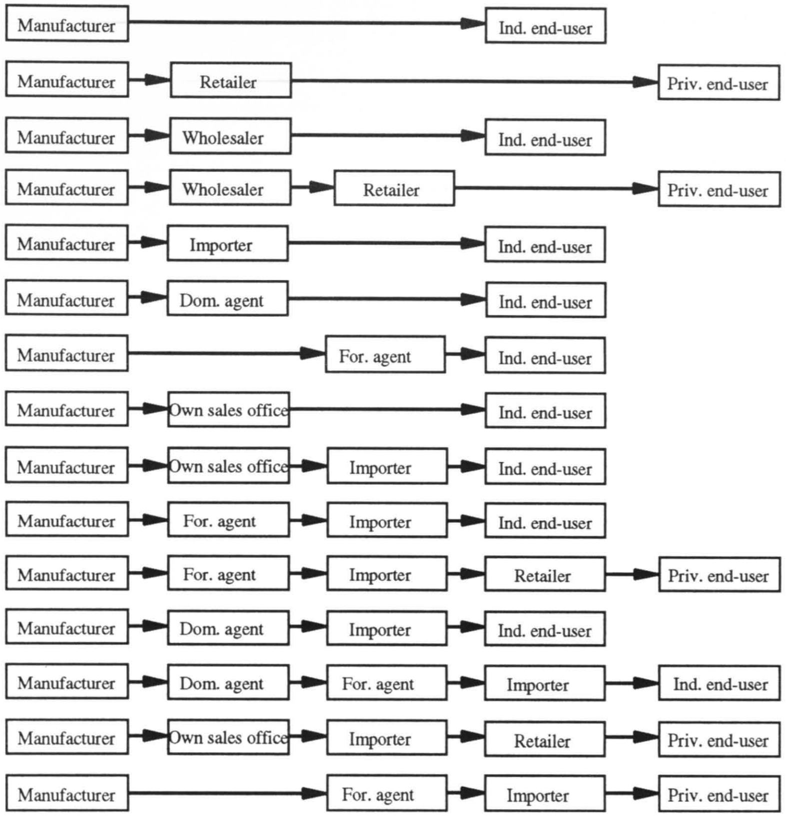

Figure 6. Export marketing channels.

marketing personnel and its development during the last decade and about the use of time of the manager within the SBU. The information and planning systems are not included in this research.

The marketing channels were measured in detail with the use of alternative marketing channels in export. The alternative marketing channels are presented in Fig. 6. The respondents were asked to identify in percentages how much of the export volume of commodities and of specialty/custom-made products is marketed through each channel.

2.7.6 Variables describing marketing functions

Marketing functions are divided into contact functions and product functions. The contact functions are further divided into:

- personal contacts
- marketing communication
- market information

The product functions are divided into:

- product planning
- pricing
- physical distribution

Personal contacts were described with measurement of the time spent by sales managers in customer contacts between different customer types. The variables measuring marketing communication were trying to investigate how much was invested in promotion and advertising, how these expenses are divided between different communication functions and how the advertising expenses are targeted.

Market information was measured with variables concerning intensity of the collection of market information and with variables concerning the acquisition of market and customer information. The number of marketing research projects was also recorded.

Product development was measured with variables concerning the intensity and the starting-points of product development, which reflect the marketing philosophy adopted by the company. The customer-orientation of a company should be manifested also in the product development. Pricing and physical distribution were not considered in this study.

Research and development work was also measured, since it is one of the company's functions that is very closely related to marketing strategy. Research and development work was measured in terms of investments in R&D, in terms of difficulties perceived by the respondent companies in R&D and in terms of how different R&D objectives are emphasized within respondent companies.

3 Data and analysis

3.1 Data collection

3.1.1 The population

The observation unit in the research was a sawmilling unit marketing its products independently. In most cases this is the same as a strategic business unit (SBU). If for example a company has two sawmills and it is marketing the sawn timber with one marketing department, these two sawmills make up one observation unit. If both sawmills have their own marketing department, the sawmills would be two separate observation units. These observation units might be called "independent marketing units" (IMU) (compare Juslin 1992). In the presentation of the results for the sake of simplicity the term sawmill is used to describe one observation unit which thus can include more than one actual producing unit.

In Finland all business units producing more than 50 000 m^3 of sawn softwood timber annually were included in the population. Only producers of sawn softwood timber were investigated in this study, since the production of sawn hardwood timber in Finland is marginal. In Western North America the 40 largest producers in the Western USA and the 40 largest producers in British Columbia, Canada were included in the population. The geographical area in the Western USA included Northern California, Oregon and Washington. In Northern California the following counties were included: Del Norte, Siskiyou, Modoc, Humboldt, Shasta, Trinity and Lassen.

The target of the data collection was the total population of the largest sawn softwood timber producers in each country. In Finland the population was defined by using available references (The Finnish Timber and Paper Directory 1986/87) and by making personal inquiries. Based on 1987 production figures, a total of 39 observation units were included in the Finnish population. The Finnish data was collected by Sirkka-Liisa Rinta in the fall of 1988 in connection with her Master's thesis study project.

In Western North America the population was defined by cross-referencing many directories including Forest Industries 1990–91 North American Factbook, Madison's Canadian Lumber Directory and the Washington State Forest Products Trade Directory. Based on 1989 production figures, a total of 83 producers were included in the Western North American population, so that it included the 42 largest producers in the Western US and the 41 largest producers in British Columbia, Canada. The population size in British Columbia was decreased to 37, because during the data collection it was found out that a few companies sold the products of other firms that were also included in the population. Accordingly the final population size in Western North America was 79 observation units, making the size of the total population to be 118 units.

The total population represents only the largest sawmills in each defined area and for this reason the results cannot be generalized to concern the sawmill industry in general. The largest business units are the ones most likely to have the most sophisticated strategies. The strict limitations of the population are based on the restrictions dictated by limited funding and personnel. On the other hand the data requirements of multivariate statistical methods have been taken into consideration.

Western North America was selected as another area for data collection because it is one of the world's largest softwood lumber producing areas. It is the most important area of the North American softwood sawmill industry. Some 47.5% of the combined lumber production of the US and Canada in 1990 was produced in the area where the data for this study was collected. The Canadian sawmill industry is also similar to the Finnish sawmill industry in the sense that export markets have traditionally been vital for both countries. Canada is exporting over two thirds of its softwood lumber production (Widman 1991). Also the large producers in the USA and Canada have at times been able to create considerable difficulties for Finnish lumber exports to Europe (Seppälä et al. 1980, p. 23).

3.1.2 Interview procedure

The data collection was administered through personal interviews which were based on a fixed questionnaire format. The questionnaire used in Finland was translated into English and some adjustments were made to make the questionnaire usable in North America. The adjustments for North America were made in a fashion that did not violate the comparability of the results between Finland and North America. The questionnaire was pre-tested by knowledgeable industry personnel before the actual interviews both in Finland and in Western North America.

The interview was limited to one person per interview due to the time and cost limitations. The persons who were targeted for an interview were the ones with the highest responsibility in strategic planning and planning of marketing strategies in the company/SBU. Interviewing only one person within each company/SBU may have some disadvantages (see Snow and Hambrick 1980). A key assumption was that the interviewed persons had an accurate overall perception of the company's/SBU's strategies. Data gathered from middle and lower level management would have questionable validity because these managers typically do not have access to the information about the highest level planning of strategies. Furthermore, persons at the highest level are responsible for monitoring the environment and formulating appropriate organizational responses, therefore their perceptions of the organization's strategy are most critical. For these reasons it was believed that the response of one individual was considered to be sufficient. In the case of smaller companies/SBUs this was in fact the only possibility. Of course the results should be interpreted with these assumptions in mind.

To secure a high rate of response in personal interviews an extensive 4-step procedure was followed:

1. A telephone call to identify the most suitable respondent within each company.
2. A prenotification letter with the questionnaire (see Appendix 1).
3. A telephone call to agree on the time for an interview.
4. The actual personal interview.

To promote co-operation, confidentiality of the study was emphasized in the prenotification letter and in all other contacts with potential respondents. A summary of the results was also promised to respondents in the prenotification letter.

3.1.3 Survey response

The data was collected in Finland during the fall of 1988 and in Western North America during winter and spring 1991. The production, exports, sales figures etc. concerning Finland are from 1987 and the figures concerning Western North America are from 1990. Out of the 118 business units in the population, 102 were interviewed. As a result the following response rates were calculated:

Country/Area	Population	Interviewed	Response Rate, %
Finland	39	37	94.9
Western USA	42	34	81.0
Br. Columbia	37	31	83.8
TOTAL	118	102	86.4

The three basic reasons for refusing the interview were lack of time (50% of the non-respondents), a company policy prohibiting active participation in surveys or discussing strategic matters with outsiders (44% of the non-respondents), and organizational changes that were taking place (6% of the non-respondents).

Total production figures and for comparison reasons also the proportion of the total lumber production of each area are presented in Table 7. It can be noted that large sawmills in Finland and in British Columbia, Canada represent a remarkable proportion of the total production. In the Western USA the production of the responding sawmills represents a lower proportion of the total production, since few very large companies are missing from the data.

About 40.3% of the world's sawn softwood production is produced in Finland, the USA and Canada. The respondent companies of this study produced about 13.3% of the world's sawn softwood production, which is remarkably high for a single study.

As mentioned earlier the person with highest responsibility of planning of marketing strategies within a company/SBU was targeted for an interview. In smaller companies it was typically the president or general manager, while in larger companies the head of marketing i.e. vice-president of marketing or marketing director was selected. In Finland the president or general manager was the most common choice, whereas in the Western US and in British Columbia VP of marketing or marketing director was most often selected (see Table 8.).

Table 7. Total production of respondent companies by country.

Country/Area	Total production of the respondent companies[a], 1000 m^3	Proportion of the total production of the country/area, %
Finland	5285 (1987)	70.8
Western USA	18698 (1990)	58.1
Br. Columbia	25844 (1990)	77.1

[a] Year of data collection in brackets

Table 8. Title or position of the respondent by country.

Country/area	Title of the respondent			
	Head of marketing	President/general manager	Other	Total (%)
Finland	16	78	5	99[a]
Western USA	71	26	3	100
Br. Columbia	55	32	13	100

[a] Total slightly under 100% due to rounding

3.2 Analysis

3.2.1 Frame of analysis

The objectives of the analysis of the empirical data can be derived from the purpose of the study described in Section 1.5. The framework of this study is based on the integrated model of marketing planning presented by Juslin et al. (1988). From this model marketing strategy was chosen to be analyzed in more detail. Also another strategy concept by Porter (1980) was chosen for comparison reasons. The theoretical background originates more from the theory of strategic planning and strategy than from the theory of marketing planning. However the significance of marketing theory must not be underestimated since the point of view in this study is based on marketing. The marketing structures and the marketing functions are analyzed to validate the used marketing strategy concept and to examine the logic of marketing planning. To discover the problem areas of analysis Fig. 7 presents the frame of analysis within which the empirical analysis is made.

Each block contains a variable or a group of variables describing the phenomenon under study. The arrows between blocks describe the rela-

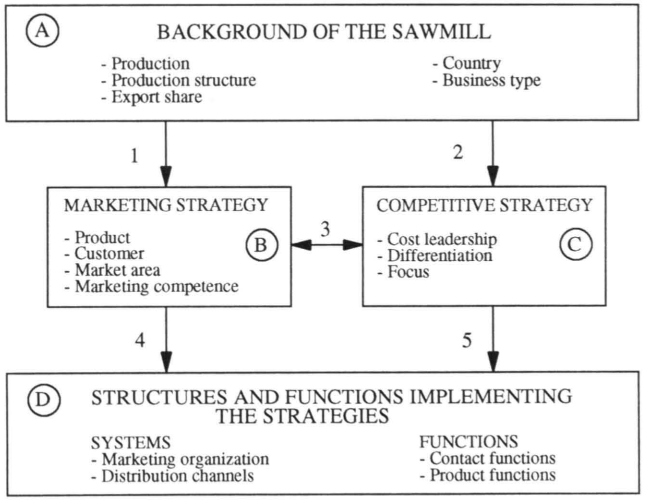

Figure 7. The frame of analysis.

Table 9. The problem area of analysis and the related methods of analysis.

Block/ Arrow	Problem area of analysis	The method used
DESCRIPTION		
A	Descriptions of the profile of the companies	Means Distributions Cross tabulations
B	Description of the marketing strategies	Factor analysis Factor scores, Cross tabulation
C	Description of the generic competitive strategies	Means Distributions Cross tabulations
D	Descriptions of marketing structures and marketing functions	Means Means by classes Distributions
EXPLANATION		
1	Marketing strategies by country	Mean factor scores by classes Cross tabulations Discriminant analysis
2	Generic competitive strategies by country	Cross tabulations
3	Relationships between generic competitive strategies and marketing strategies	Mean factor scores by classes Cross tabulations Discriminant analysis
4	Connections between marketing strategies and marketing structures and marketing functions of a company	Means by classes Cross tabulations
5	Connections between generic competitive strategies and marketing structures and marketing functions of a company	Means by classes, Cross tabulations

tionships or connections which are of interest. All the blocks include an analysis of the variable(s) by country. Table 9 presents the problems of analysis according to the frame of analysis and the methods to be used to solve these problems.

3.2.2 *Methods of analysis*

The operationalization and measurement problems are followed by the problem of how to analyze the results of measurements. The choice of the methods of analysis and the technical implementation of analyses are guided by the purpose of and the theoretical framework of the study. Furthermore, the collected data sets some limitations on the data analysis. Both univariate and multivariate methods of analysis are used in the empirical analysis of the data. The analyses were made with a statistical software package, called SURVO 84C (Mustonen 1992), developed at the University of Helsinki, department of statistics. The discussion of the analysis methods is based on quite a number of sources and only in a few places can clear references be made. Some of the authors who contributed to this section are: Harman (1962), Cooley and Lohnes (1966, 1971), Aaker (1971), Valkonen (1971), Sänkiaho (1974), Kim and Mueller (1978a, b), Stewart (1981), Dillon and Goldstein (1984), Harrigan (1985), Manly (1986), Churchill (1987), Leskinen (1987) and Ranta et al. (1989).

Since the data of this study is total population, and the results of this study are not intended to be generalized to the sawmill industry in general, the use of tests of statistical significance are excluded from the analysis (Valkonen 1971). However, sometimes in studies with total population statistical tests are used to exclude the possibility that some differences have occurred by chance (Valkonen 1971). Similarly, the statistical tests although not reported, are used in this study just to support the researcher to interpret the differences. Later when the data is analyzed by data collection area (Finland, the Western USA and British Columbia, Canada) these areas are referred to as countries, but the meaning is not to generalize the results to apply to the whole area in each country except in Finland. When referring to both Western North America and British Columbia, Canada, the term Western North America is used in the analysis of the results. This is done to simplify the interpretation of the results.

Arithmetic means and distributions are the basic univariate statistical techniques used in description of the data, excluding the description of marketing strategy when a multivariate statistical technique is used. The theoretical choices made in the definition of marketing strategy concept and its operationalization in this study requires the use of a data reduction technique. The marketing strategy concept was operationalized with strategic decisions/decision areas, each of which measured with several variables. These strategic decisions are interrelated and for this reason it is necessary to identify and explain the intercorrelations within these variables, which means the analysis of common variance of all the variables measuring strategic decisions of marketing strategy. A suitable method for this purpose is *factor analysis*. The basic idea behind factor analysis is to describe common variance of a set of variables with a smaller number of new variables called factors or underlying dimensions.

When speaking about factor analysis some authors include also a discussion of principal component analysis as a special case of factor analysis, but in fact factor analysis differs from the principal component analysis in a fundamental way. According to Dillon and Goldstein (1984), the fundamental difference between these two methods comes from the amount of variance analyzed. In principal component analysis the total variation contained in the set of variables is considered, whereas in factor analysis the interest focuses on the part of variance that is shared by the variables. Thus, the factor analysis model assumes that a variable consist of *common* and *unique* parts. The *common part* of a variable is that part of the variable's variation that is shared with the other variables whereas the *unique part* of a variable is that part of the variable's variation that is specific to that variable alone. Unique variance includes also error variance, since typically these two cannot be separated.

Technically the difference between these two methods is in the use of the correlation matrix to be factored. In principal component analysis the diagonal elements of the correlation matrix are left to be unities, whereas in the factor analysis the diagonal elements are some estimates of communalities. Communalities indicate how much of the variance of each variable is explained by common factors. Determination of communalities requires that the number of these common factors is known, but since the number is generally unknown the communalities have to be estimated. In principal component analysis this kind of estimation problem does not appear, since it operates only with total variance. As mentioned above, the interest in this research focuses on the variance that is shared with the variables i.e. on the common variance and since only factor analysis can differentiate between common and unique variance it is selected for the analyses. The further examination of the dimensions of marketing strategy and their connections with marketing structures and functions presupposes a calculation of factor scores per observation.

One of the basic preconditions in using factor analysis is that the variables are measured with interval scale. However, the variables describing marketing strategy were measured with ordinal scale and thus this study follows the practice of behavioural sciences, especially that of strategy research and marketing research, where it is believed that multivariate statistical techniques can be used with ordinal-level measures (see e.g. Kim 1975, 1978, Snow and Hrebiniak 1980, Juslin and Tarkkanen 1987, Bush and Sinclair 1991, etc.).

The examination of differences between countries in terms of applied marketing strategies can be done to some degree with factor score variables. However, for a more detailed indication about the nature of the differences another analysis method is needed. An appropriate method for this further analysis is *discriminant analysis*. As a multivariate analysis it takes into consideration the correlations between original variables and it can extract the information included in the mean differences of the variables characterising different countries. A basic feature of discriminant analysis is that it attempts to maximize the intergroup variance in relation to the intra-group variance.

In discriminant analysis the data is divided into groups beforehand and the purpose is to find a criterion that separates the groups in the best possible way. This criterion is a linear combination of variables constructed in such a way that it best discriminates the groups in some way. This criterion is called discriminant function. Further discriminant analysis might be used to analyze the reasons for the differences between groups and to predict to which group an individual will belong on the basis of a set of independent variables.

The interpretation of the discriminant analysis is mostly done based on the discriminant functions. In discriminant analysis one of the objectives is to find out if the differences between groups are statistically significant. Several tests of statistical significance can be used in this consideration. The relative importance of each discriminant function can be evaluated based on the eigenvalues of the discriminant functions. Many authors recommend that the correlation between discriminant functions and original variables be used when interpreting the basic nature of differences between groups. The success of the discriminant analysis can be estimated with the percentage of observations that can be correctly classified by the discriminant functions. However, this success is conditional upon certain assumptions being met concerning the data.

The independent variables should have a multivariate normal distribution and the groups should have equal covariance matrix. If these assumptions are true, then the discriminant function scores will also be multivariate normally distributed. The fulfilment of these assumptions can be evaluated by plotting the isodensity contours. Since the groups are assumed to have equal covariance matrices, the shape of the isodensity contours for each group should be the same. Plotting of the isodensity contours allows also the illustration of the groups overlaps in discriminant function space. The violation of these assumptions naturally decreases the robustness of the discriminant functions (for more detailed discussion see Dillon and Goldstein 1984).

3.2.3 Validity and reliability of the study

The quality of measurement is the *sine qua non* of science. An essential part of any study with empirical data should always be the evaluation of the quality of the measurement. According to Tarkkonen (1987, p. 9) validity and reliability are central concepts in assessing the usefulness and quality of the measurement scales. They are appropriate in any measurement context. Validity corresponds to the property of the measurement scale to really give information about the desired trait under study and reliability corresponds to the accuracy of the measurement, to the lack of random measurement. Validity and reliability are not independent, because if a measurement lacks reliability, it is completely random and can have no validity. On the other hand, a measurement might be reliable without being valid.

Every observed score of any measurement consists of two elements: a true score, one that would be obtained if there were no measurement errors, and a certain amount of measurement error. Measurement error can be further divided into systematic and random error. Systematic errors decrease validity and random errors decrease reliability and thus also validity. Two kinds of validity can be distinguished: external and internal validity. External validity is related to the sampling theory and answers to what extent the results of the sample are generalizable to the total population (Valkonen 1971). External validity is called criterion-related or predictive validity. Since the data of this research is total population, no problems with external validity exist and further no criterion variables are available to assess the predictive validity.

Internal validity can be divided into content validity and construct validity which is called theoretical validity by Valkonen (1971). The usage of content validity in the assessment of validity in this research is very limited since there is no unified definition strategy concept. Similar problems with the usefulness of content validity in assessing the validity of empirical measures of theoretical concepts have been noted by Carmines and Zeller (1979), and according to Valkonen (1971) when the used measures are indicators of some theoretical concepts, it is impossible to obtain criterion variables and calculate validity coefficients. In this kind of situation the validity is what it is agreed to be. It can be said that if theory has gained support from the study, then the study has supported the assumption that the operationalizations used are rational measures of theoretical concepts. In terms of this research the assessment of the validity of measurement of strategy concept is based on construct validity. Construct validity of the measurement of strategy concept has been assessed with factor analysis which has been noted to be useful in the analysis of construct validity (Nunally 1978, Carmines and Zeller 1979). The results are presented in connection with the factor analyses.

According to Valkonen (1971, p. 59) for the interpretation of the results knowledge of the reliability is essential. Due to the multidimensional nature of strategy concept it cannot be measured directly with one or even with a few variables and thus a number of indicators of strategy must be used. The key variables in this research are the variables measuring marketing strategies and they are analyzed together in multivariate analyses. Accordingly the measurement scale is formed as a composite of these original variables and according to Tarkkonen (1987) the reliability and also the validity of a composite scale are usually higher than those of its members, because composite scale is built to combine the information given by the items about different properties of the concept under study.

The reliability of the measurement of marketing strategy concept in this study is estimated with a method developed by Tarkkonen (1987), which is a more general method than most of the methods for estimating reliability and thus avoids many of the limitations of other reliability coefficients (e.g. Cronbach's alpha). The assessment of the reliability is based on a measurement model used to separate the variation of measurement errors and variation generated by the true scores. The reliability depends on the relative contribution of errors and true scores to linear measurement scale (for more detailed discussion see Tarkkonen 1987). This method uses factor analysis in the assessment of reliability, the use of which has also been discussed by Carmines and Zeller (1979). The results of the reliability estimates are presented in connection with the factor analyses.

The evaluation of the validity of the operationalization of the marketing strategy concept used is further made by examining the connections between marketing strategies and marketing structures and functions. As mentioned earlier strategies are implemented through structures and functions. If rational connections are found they give additional validity for the used operationalizaton and measurement of the marketing strategy concept. On the other hand if these connections are not found there is reason to suspect either that the measurement is not valid or that there is something wrong with the marketing planning in the companies.

The data for this study was collected through personal interviews with a written structured questionnaire. This meant that some problems concerning the validity and also reliability of the measurement could be taken care of in the actual interview situation by the explanations of the researcher.

Since the data collection area consisted of parts of three different countries it can only be expected to create some problems with validity, since the characteristics of the sawmill industry in Western North America are different from those in Finland. Efforts were made to avoid the problems with validity by translating the questionnaire with persons knowing the sawmill industry both in the US and in Canada. The questionnaire was to some extent adapted to the sawmill industry in Western North America, for example concerning the export distribution channels and customer types. The questionnaire was also pretested in the industry in the Western USA.

4 Results

4.1 Profile of the respondent companies

In this research a total of 102 sawmills located in Finland and in Western North America were interviewed. The characteristics of the sawmills by country are presented in Table 10. There is a significant difference in terms of annual production between the sawmills in Finland and in Western North America. Finnish sawmills are smaller than those in Western North America and sawmills in British Columbia, Canada are on average producing more annually than those in the Western USA. The larger size of the sawmills from the Western USA and especially from BC, Canada can be to some extent explained by the fact that observation units in Western North America frequently included more actual production units than observation units in Finland, but it is also true that production units generally are larger in size in Western North America than in Finland. Export is very significant for Finnish and British Columbian sawmills, whereas for the sawmills in the Western USA the domestic markets are very important. However, it must be kept in mind that for the British Columbian sawmill industry the US market is the main export market. For the BC sawmills in this study over 90% of commodity products and over 30% of specialty/custom-made products were exported

Table 10. Background characteristics of sawmills by country.

Background characteristic	Finland	Western USA	BC, Canada
Average production volume[a] (1000 m³)	142.83 (116)	549.95 (337.48)	833.67 (459.96)
Average export share (%)	68	17	83
Production structure, share (%) of			
— Commodity products	79	69	69
— Specialty products	14	24	26
— Custom-made products	7	7	5
Business type (%)			
— Single sawmill	27	21	32
— Multiple sawmills	27	47	29
— Integrated forest products producer	46	32	39

[a] Median value in brackets.

to the US. Another important export market for BC sawmills especially in specialty/custom-made products was Japan. The main export market for Finnish sawmills was Central Europe both in commodity and specialty/custom-made products.

In all countries commodity products represent the largest share of production. In Finland the share is even higher than in Western North America which might be due to the time difference of the data. In terms of business type of the sawmills, large sawmills integrated with other forest products producers are typical of Finland and British Columbia, Canada, whereas the Western USA is characterized by companies with multiple sawmills.

A more detailed description of the profile of the sawmills has been presented in Rinta (1990) concerning Finnish sawmills and in Niemelä et al. (1992) concerning the Western North American sawmills.

4.2 Generic competitive strategies

The competitive strategies were measured using Porter's (1980) model of generic competitive strategies. The operationalization of this model was described in Section 2.7.3. The respondents were asked to identify which strategy type most closely corresponded to their company's strategy and the results (see Fig. 8) indicate that differentiation and focus are typical in Finland and in British Columbia, Canada, whereas the sawmills in the Western USA are characterized by cost leadership and differentiation.

If respondents believed that their company's strategy had components from more than one strategy type, they also had the possibility to express how the strategy is divided between the three strategy types in terms of percentages. While all sawmills identified one strategy type as most closely corresponding to their company's strategy, 78% of the respondents indicated that their company's strategy had components from more than one type of Porter's (1980) strategies and only 22% of the respondents could purely identify their company strategy with one type. Due to this high percentage of the use of combinations of strategy types a new classification was com-

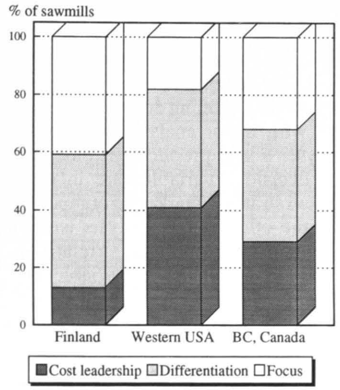

Figure 8. Generic competitive strategy most closely corresponding to the sawmills' strategy.

Table 11. Generic competitive strategy of sawmills.

Generic competitive strategy or strategy combination	Country Finland	Western USA	BC, Canada	Total
Cost leadership	11	29	23	21
Differentiation	32	38	26	32
Focus	35	12	29	25
Cost leadership & differentiation	5	6	3	5
Differentiation & focus	8	3	10	7
All three types	8	12	10	10
Total	99[a]	100	101[a]	100

[a] Total slightly over or under 100% due to rounding.

Table 12. Background characteristics of generic competitive strategies.

Background characteristic	Cost leadership	Differentiation	Focus	Cost & Diff.	Diff. & Focus	All three types
Average production volume[a] (1000 m³)	691.77 (503.23)	361.99 (426.14)	498.51 (900.46)	359.00 (446.29)	335.30 (288.94)	625.06 (624.16)
Average export share (%)	47	49	66	54	71	62
Production structure, share (%) of						
— Commodity products	83	70	70	55	54	63
— Specialty products	14	22	18	40	29	32
— Custom-made products	3	8	12	5	17	5
Business type (%)						
— Single sawmill	10	30	39	40	14	20
— Multiple sawmills	38	39	27	0	29	50
— Integrated forest products producer	52	30	35	60	57	30

[a] Median value in brackets.

pleted for the subsequent analyses (for classification method see Appendix 3) and the results are presented in Table 11. Combinations of strategy types exist in all countries with about equal percentages (21–23%) of the total amount of sawmills. In Finland and in British Columbia, Canada the pure focus strategy closely followed by the pure differentiation are the dominant strategies. In the Western USA differentiation strategy is the most dominant competitive strategy type followed by cost leadership.

Porter (1985) considered the combination of differentiation and focus as a "differentiation focus" strategy which is theoretically acceptable, but according to Porter (1980) it is rarely possible to implement cost leadership and differentiation strategies simultaneously. However, few companies were found to apply a combination of cost leadership and differentiation in this study, and as mentioned in Section 2.4.1 many other authors have presented similar empirical evidence. In previous studies of the forest products industry, for example Rich (1986) has found combination strategies. Porter (1985, 1990) has also noted that it is difficult but not impossible to apply cost leadership and differentiation strategies simultaneously.

In Table 12 the background characteristics of each generic competitive strategy or combinations of them are presented. From these results it can be seen that the cost leadership strategy is linked with large size in terms of production and more domestically oriented companies and having a high share of production in commodity products. In terms of business type companies applying cost leadership are integrated forest products producers and companies with several sawmills. Differentiation and focus strategies are linked with smaller size and with more export-orientation, and companies applying these strategy types are also producing slightly more specialty and custom-made products than cost leaderships. With respect to business types the sawmills applying differentiation and focus strategies are quite evenly divided with all business types. These results correspond to Wright's (1987) arguments that cost leadership strategy is viable for large companies and that focus strategy is attractive for small companies.

Regarding the combinations of competitive strategy types, companies applying all types are larger than other combinations. Companies applying combination strategies are fairly export-oriented and seem to produce more specialty and custom-made products than companies concentrating on one strategy type. Execution of combination of strategies requires more resources than execution of one strategy type, which can be clearly observed from the results of this study since the sawmills applying combination strategies are mostly integrated forest products producers and companies with multiple sawmills, naturally possessing more resources than single sawmills.

4.3 Marketing strategies of large sawmills in Finland and Western North America

4.3.1 General

The marketing strategy definition used in this study assumes that strategy is formed with the joint influence of all the strategic decisions described in Section 2.4.2. The strategic decisions were said to be interrelated and for the analysis of the marketing strategy we have to analyze all the decisions simultaneously. This assumes the analysis of common variance (i.e. variance that is common for all variables) of the group of variables describing the strategic decisions areas. Factor analysis was used in the analysis of common variance, since it can distinguish different types of variance. It is used as a data reduction technique to describe marketing strategy with fewer dimensions.

The strategic marketing decision variables were analysed with factor analysis in various ways. The analyses where product, customer and market area decisions variables are in one factor analysis and strategic marketing competence variables in the other factor analysis were chosen based on the examination of correlation matrix (see Appendix 4), since the variables between these two areas did not have high correlations. Furthermore, when all variables from these two areas were in the same factor analysis both areas produced their own factors. The use of two different factor analyses was considered theoretically more significant and it also offers more explanation power. The measurement instrument for marketing competences was slightly different from that of the other strategic marketing decisions and this further supports the analysis of these two sets of variables in different factor analyses.

In the following sections the variables describing each factor are presented in descending order (1 → –1) according to their loadings. If a factor has both negative and positive loadings it is bipolar. In practice this means that when the variables with positive loadings became more dominant, the variables with negative loadings became less so. Recommendations vary as to the level at which a loading can be considered statistically significant. Some authors (e.g. Kim and Mueller 1978b, Nunnally 1978, Dillon and Goldstein 1984) suggest that with sample sizes of less than 100 the smallest absolute values of loadings would have to be greater than 0.30 to be considered significant. This recommendation is applied when the results of factor analyses are interpreted.

4.3.2 Internal dimensions of marketing strategy

4.3.2.1 Product, customer and market area decisions

Decisions concerning markets to be served and products to be offered are central elements of strategy. The operationalizations of these decisions were presented in Section 2.7.4. The correlation matrix of variables describing the product, customer and market area decisions was subject

Table 13. Description of product, customer and market area decisions. Two-factor solution with orthogonal graphical rotation.

Variable	Factor 1 – Target market (Loadings)	Factor 2 – Product (Loadings)	h^2_2
Few well-defined countries/regions	**0.81**	0.12	0.66
Few well-defined end-use segments	**0.61**	0.20	0.41
As many customers groups as possible	**–0.72**	0.09	0.53
As many countries/regions as possible	**–0.82**	0.01	0.67
Commodity products	0.00	**0.46**	0.22
Known end-users	0.18	**–0.44**	0.22
Specialty products	0.01	**–0.75**	0.57
Custom-made products	–0.06	**–0.79**	0.63
Eigenvalue	2.25	1.67	3.92
Total variance (%)	28.1	20.9	49.0
Reliability	0.85	0.78	

to principal axis factoring. Based on the examination of the eigenvalues of the reduced correlation matrix, three factors were extracted (for principal axes solution see Appendix 5). An orthogonal graphical rotation was performed for 1–3 factor solutions. The most interpretable and theoretically the most significant was the two-factor solution, which was also supported by the examination of eigenvalues of the principal axes solution. Table 13 provides the two-factor solution with orthogonal graphical rotation.

The two-factor solution explains 49.0% of the total variance of the variable set. The reliability of the factors was evaluated by Tarkkonen's (1987) method, which gives more accurate estimates of reliability than the commonly used Cronbach's alpha which is generally considered to underestimate the reliability. The reliability estimates are provided in Table 13 and they are acceptable for both of the factors according to the general suggestions by Carmines and Zeller (1979) and Nunnally (1978).

On the first factor the variables with the highest loadings are those describing the decisions concerning what customers to target and what are the market areas. The factor is clearly bipolar. On the positive end of the factor are variables describing choice of just a few customers and market areas and on the negative end of the factor are the variables which represent choice of as many customers and market areas as possible. The factor describes the company's choice of target markets and is called *target market dimension.*

On the second factor the variables with the highest loadings are those describing the decisions concerning products. Also the second factor is somewhat bipolar. On the positive end of the factor is the variable describing commodity products emphasis and on the negative end are the variables describing custom-made and specialty product emphasis. The factor clearly describes the company's emphasis concerning product decisions and is called *product dimension.*

These two dimensions very clearly constitute the traditional product-market scope that was presented as early as the 1960s by Ansoff (1965) as one of the most important decisions of strategy. These dimensions can be related to the decisions which are generally considered to be the core decisions of corporate strategy, i.e. what industries (combinations of products and markets) we are in. This observation establishes construct validity for the used operationalization of strategy. As Valkonen (1971) noted, when the theory has gained support from the study, then the study has supported the assumption that the used operationalizations of the strategy concept are rational measures of the theoretical concept.

4.3.2.2 Strategic marketing competences

One component or strategic decisions area of the used marketing strategy concept was marketing competences which were measured with nine different alternatives (originally ten alternatives). The respondents were evaluating in what kind of position they see their own company compared to the competitors relative to these marketing competences, i.e. does the company possess a marketing competence compared to their competitors.

Table 14. Description of strategic marketing competence decisions. Three-factor solution with orthogonal graphical rotation.

Variable	Factor 1 – Effectiveness of marketing	Factor 2 – Customer contacts	Factor 3 – Price	h^2_3
		Loadings		
Effective marketing	**0.88**	0.16	0.12	0.82
Market share	**0.57**	0.12	0.18	0.38
Well-known product brand	**0.47**	0.33	0.17	0.36
Effectiveness of marketing channel	**0.45**	0.27	0.05	0.28
Intensive personal selling	0.05	**0.96**	0.04	0.92
Customer relationships	0.20	**0.39**	0.28	0.27
Competitive price	–0.11	–0.08	**0.98**	0.98
Transportation expertise	0.08	0.24	**0.31**	0.16
Research & development	0.17	0.23	–0.07	0.09
Eigenvalue	1.62	1.42	1.22	4.26
Total variance (%)	18.0	15.7	13.6	47.3
Reliability	0.82	0.86	0.89	

The correlation matrix of variables describing marketing competences was subject to principal axis factoring. Based on the examination of the eigenvalues of the reduced correlation matrix, four factors were extracted (for principal axes solution see Appendix 5). An orthogonal graphical rotation was performed for 1–4 factor solutions. The most interpretable and theoretically the most significant was the three-factor solution which was also supported by the examination of eigenvalues of the principal axes solution. Table 14 provides the three-factor solution with orthogonal graphical rotation.

The three-factor solution explains 47.3% of the total variance of the variable set. The reliability of the factors was evaluated by Tarkkonen's (1987) method. The reliability estimates are provided in Table 14 and they are acceptable for all three factors according to the general suggestions by Carmines and Zeller (1979) and Nunnally (1978). The variable research and development work was not assigned to any of the factors due to its low loadings and it is not considered when the factors are interpreted.

On the first factor variables describing marketing competences based on marketing effectiveness get the highest loadings. Well-known product brand was also assigned to this factor. The first factor is called *effectiveness of marketing dimension.*

On the second factor variables describing marketing competences based on customer contacts get the highest loadings. Intensive personal selling is very dominant on this factor with high and pure loading. The factor is called *customer contacts dimension.*

On the third factor competitive price gets very high and pure loading. The competitive price can be interpreted as a cheaper price. Transportation expertise was also assigned to this factor but with a relative low loading. This factor is called *price dimension.*

Regarding marketing competences there are not as clear underlying dimensions to be expected for the evaluation of construct validity as with the product, customer and market area decisions. However, the dimensions of marketing competence are theoretically very logical since the variables related to effectiveness of marketing are all at the same factor and the variables describing personal contacts make up their own factor. Price itself is such a powerful means in competition that it is natural that it almost alone makes up one factor. This rational formation of dimensions confirms construct validity for the used operationalization of marketing competences.

4.3.3 *Internal dimensions of marketing strategy in different countries*

The strategy applied by sawmills in each country can be discovered by investigating how the countries are located within dimensions of marketing strategy. For this purpose factor scores per ob-

Table 15. Target market and product dimensions of marketing strategy in different countries.

Country	Dimension of marketing strategy: Target market	Product
	Mean factor score	
Finland	0.27	–0.34
Western USA	–0.08	0.24
BC, Canada	–0.24	0.15

Table 16. Marketing competence dimensions of marketing strategy in different countries.

Country	Marketing competence dimension: Effectiveness of marketing	Customer contacts	Price
		Mean factor score	
Finland	–0.15	0.13	–0.45
Western USA	0.17	0.40	0.23
BC, Canada	–0.01	–0.59	0.28

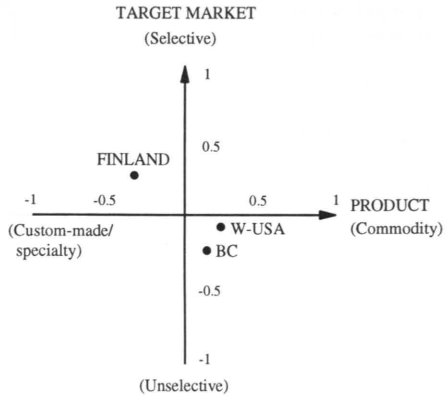

Figure 9. Location of countries on combination of target market and product dimensions of marketing strategy.

servation were calculated and specific factor score variables were formed for each dimension of marketing strategy. The relative location of countries on different dimensions of marketing strategy are described with arithmetic means of the factor score variables by country at each dimension. The results are shown in Tables 15 and 16.

Finnish sawmills are more selective concerning the choice of target markets than sawmills from Western North America. Sawmills from British Columbia are the least selective. On the product dimension Finnish sawmills are characterized by custom-made and specialty products and sawmills from the Western North America by commodity products. Companies from the Western USA are the most commodity product-oriented.

Fig. 9 gives a graphical presentation of the location of the countries in target market and product dimensions based on mean factor scores. The two dimensions have been halved at their mean value of factor scores and combined by cross-tabulation. The figure clearly shows that the sawmills from the Western USA and British Columbia, Canada are on average quite close to each other on these two dimensions. In contrast, the Finnish sawmills are quite different compared to the sawmills from Western North America in these core dimensions of marketing strategy.

When comparing countries on effectiveness of marketing dimension, the sawmills from the Western USA feel that they possess the most competence and the Finnish sawmills that they possess the least competence in effective marketing when compared to competitors. On the customer contacts dimension sawmills from the Western USA feel they are the most competent and sawmills from British Columbia feel they possess the least competence. In terms of price the sawmills from the Western North America do not differ significantly and they clearly perceive themselves as having more competence in terms of price compared to competitors than do sawmills in Finland. This competence on price dimension can be translated as charging lower charge.

4.3.4 *Combinations of internal dimensions of marketing strategy*

The dimensions of marketing strategy, that were established in Sections 4.3.2.1 and 4.3.2.2, are all very closely related and together constitute the marketing strategy. In this vein it is very important to study more closely the relationships of these dimensions. For studying these relationships both of the bipolar dimensions, target market and product dimensions, were classified into three classes based on the examination of their factor scores. On the target market dimension this meant three kinds of companies with different emphasis in choices concerning customers and market areas:

1 = Unselective (many customer groups and market areas)
2 = No clear choices
3 = Selective (few customer groups and market areas)

On the product dimension this meant three kinds of companies with different emphasis on products:

1 = Commodity products
2 = No clear product emphasis
3 = Custom-made and specialty products

Table 17 shows the combination of the two core dimensions of marketing strategy, target market and product dimensions. The connections between these core dimensions of marketing strategy are not very clear. In theory, emphasizing custom-made and specialty products would naturally lead to more segmentation of target markets, i.e. concentrating on fewer customer groups and markets areas (Juslin and Tarkkanen 1987 and Schnaars 1991) and vica versa with commodities. These assumptions are not supported by the results of this study when examined on an aggregate level, i.e. with total data. There is very little difference in the target market dimension between companies emphasizing commodity or custom-made/specialty products.

When the combinations of the product and target market dimensions are examined in different countries (see Table 18) some rationality can be found since the countries differed in terms of their location on these dimensions. The most rational connections are found concerning the Finnish sawmills emphasising custom-made/specialty products and concentrating on few target markets, and with British Columbian sawmills emphasizing commodities and aiming at many target markets. A very good example of a strategic mediocrity or of a complete absence of strategy is the connection with sawmills in the Western USA having no clear emphasis on product dimension and emphasizing all choices of target markets.

When the product and target market dimensions were combined with marketing competence dimensions, the arithmetic means of factor score variables of marketing competence dimensions were calculated by classes for both product and target market dimensions. When the product dimension is combined with marketing competence dimensions on an aggregate level, the most notable differences are in customer contacts and price dimension (see Table 19). On the customer contacts dimension companies emphasizing custom-made/specialty products see themselves to be in a better position compared to competitors than companies emphasizing commodity products. This is natural since marketing of non-standardized products demands closer contacts and co-operation with end-users. In terms of price, companies emphasizing commodity products see themselves to be in a most advantageous position compared to competitors, i.e. commodity producers feel they are able to compete based on low price better than their competitors. This is very logical since low price is one of the main competitive weapons when marketing commodity products and on the contrary when producing custom-made/specialty products, the objective is to be able to charge premium prices.

When these combinations are examined in different countries (see Table 20), the clearest connections are between product and customer contacts dimensions. In all countries, sawmills emphasizing custom-made and specialty products see themselves to be in a better position than commodity producers. In the Western USA and Finland the sawmills emphasizing the commodity products feel that they are in an especially favoured position. Sawmills from Western North America feel that they have a competence on price dimension compared to competitors, regardless of the product emphasis.

The relationships between target market and marketing competence dimensions on an aggregate level are shown in Table 21. The clearest connection is between the target market dimension and the effectiveness of marketing dimension. The more unselective the choices of target

Table 17. Combination of product and target market dimensions of marketing strategy.

Product dimension	Target market dimension Unselective	No clear choices	Selective	Total (%)
Commodity products	32	21	47	100
No clear emphasis	21	21	58	100
Custom-made and specialty products	32	11	57	100

Table 18. Combination of product and target market dimensions of marketing strategy in different countries.

Country	Product dimension	Target market dimension Unselective	No clear choices	Selective	Total (%)
Finland	Commodity products	33	17	50	100
	No clear emphasis	14	14	71	99[a]
	Custom-made and specialty products	8	17	75	100
Western USA	Commodity products	21	21	57	99[a]
	No clear emphasis	30	40	30	100
	Custom-made and specialty products	50	0	50	100
BC, Canada	Commodity products	43	21	36	100
	No clear emphasis	14	0	86	100
	Custom-made and specialty products	70	10	20	100

[a] Total slightly under 100% due to rounding.

Table 19. Combinations of product dimension and marketing competence dimensions of marketing strategy.

Product dimension	Marketing competence dimension: Effectiveness of marketing	Customer contacts	Price
	Mean factor score		
Commodity products	–0.07	–0.20	0.25
No clear emphasis	0.19	–0.21	–0.09
Custom-made and specialty products	–0.05	0.27	–0.14

Table 21. Combinations of target market dimension and marketing competence dimensions of marketing strategy.

Target market dimension	Marketing competence dimension: Effectiveness of marketing	Customer contacts	Price
	Mean factor score		
Unselective	0.20	–0.14	0.07
No clear choices	–0.01	0.03	0.27
Selective	–0.10	0.07	–0.09

Table 20. Combinations of product dimension and marketing competence dimensions of marketing strategy in different countries.

Country	Product dimension	Marketing competence dimension: Effectiveness of marketing	Customer contacts	Price
		Mean factor score		
Finland	Commodity products	–0.08	–0.07	0.01
	No clear emphasis	–0.16	–0.11	–0.30
	Custom-made and specialty products	–0.17	0.25	–0.61
Western USA	Commodity products	0.07	0.44	0.37
	No clear emphasis	0.46	0.00	–0.02
	Custom-made and specialty products	0.02	0.73	0.30
BC, Canada	Commodity products	–0.21	–0.91	0.23
	No clear emphasis	0.15	–0.61	0.00
	Custom-made and specialty products	0.17	–0.14	0.55

Table 22. Combinations of target market and marketing competence dimensions of marketing strategy in different countries.

Country	Target market dimension	Marketing competence dimension: Effectiveness of marketing	Customer contacts	Price
		Mean factor score		
Finland	Unselective	0.14	0.30	–0.76
	No clear choices	–0.27	–0.07	–0.02
	Selective	–0.18	0.15	–0.49
Western USA	Unselective	0.61	0.36	–0.24
	No clear choices	0.35	0.39	0.40
	Selective	–0.21	0.43	0.49
BC, Canada	Unselective	–0.10	–0.69	0.47
	No clear choices	–0.22	–0.43	0.49
	Selective	0.16	–0.54	0.01

Table 23. Relative importance of individual discriminant functions in displaying differences among countries.

Discriminant function	I	II
Eigenvalue	0.85	0.39
Percent	69	31
Chi-square	56.51	30.01
Df	18	16
Probability	1.00	0.98

Table 24. Mean values and standard deviations (in brackets) by countries on discriminant functions.

Country	Mean discriminant score (Standard deviation) Discriminant function I	II
Finland	1.17	0.19
	(0.88)	(0.92)
Western USA	–0.42	–0.82
	(1.05)	(1.10)
BC, Canada	–0.94	0.67
	(1.08)	(0.97)

market, the better position the companies see themselves to be in when compared to competitors on effectiveness of marketing. This is rational, since aiming to many markets demands effectiveness of marketing, and remembering that this dimension also included effectiveness of marketing channel and well-known product brand. In terms of customer contacts, when emphasizing many customers and market areas it is difficult to retain close customer contacts, since it would need a lot of resources. Also this connection is rational. Unselectivity on target markets is also logically connected with low price.

It is very difficult to find logical and consistent connections between target market dimension and marketing competence dimensions in different countries (see Table 22). When these connections are examined, a logical connection can be found in Finland concerning effectiveness of marketing. In the Western USA the connection is logical on customer contacts dimension and in BC, Canada on price dimension.

4.3.5 Strategic marketing decisions characterizing countries

The purpose is to further deepen the analysis and to find out what are the real strategic features characterizing the sawmills from the three countries. This means looking for the variables in which the countries differ from each other as much as possible. The chosen analysis method is discriminant analysis. To include as much as possible of the collected information all the original strategic marketing decisions variables were used in discriminant analysis.

The separation of the countries based on discriminant functions composed of original variables describing strategic marketing decisions (17 variables) is significant with probability of 1.00. The relative importance of each discriminant function can be seen in Table 23.

The differences in strategic marketing decisions between countries are displayed with two significant discriminant functions. The locations of countries in the discriminant space are shown

Table 25. Nature of strategic differences between countries.

Variable	Discriminant function I Correlation	Coefficient	Discriminant function II Correlation	Coefficient
Commodity products	–0.10	0.32	–0.36	–0.15
Custom-made products	0.55	0.78	0.12	0.14
Few well-defined segments	0.33	0.22	–0.08	–0.06
Known end-users	0.36	0.12	–0.12	0.01
As many countries/regions as possible	–0.41	–0.37	0.04	0.27
Effective marketing	–0.08	0.12	–0.37	–0.16
Customer relationships	–0.32	–0.39	–0.67	–0.58
Intensive personal selling	0.28	0.25	–0.73	–0.59
Market share	–0.35	–0.27	–0.02	0.19
Effectiveness of marketing channel	–0.10	–0.13	–0.32	–0.17
Competitive price	–0.50	–0.47	–0.04	0.08
Well-known product brand	–0.33	–0.29	–0.16	0.09

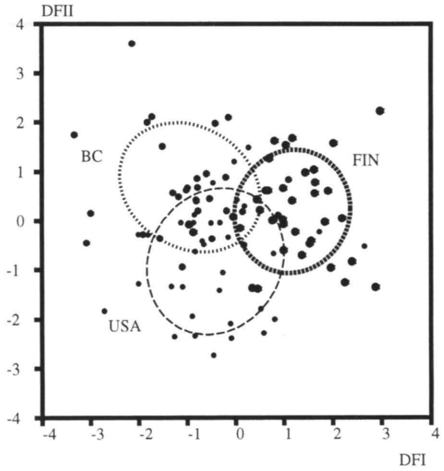

Figure 10. Overlaps between countries in discriminant space.

in Table 24 which includes the mean values and standard deviations of the countries on the two discriminant functions.

The nature of the differences between countries can be interpreted from the correlations between the variables used in the analysis and discriminant functions, which can be seen in Table 25. To support the interpretation, the coefficient calculated for standardized variables is given along with the correlations. According to Dillon and Goldstein (1984) correlations >0.3 can be considered significant and only variables with significant correlations are reported. A complete table with all correlations as well as non-standardized variables is given in Appendix 6.

Fig. 10 shows the overlaps between countries in the discriminant space with 60% isodensity ellipses, i.e. each ellipse is excpected to contain 60% of the observations of each country. The first discriminant function most clearly separates Finnish sawmills and Western North American sawmills. Most distant from each other are sawmills from Finland and from British Columbia, Canada. The Finnish sawmills are characterized by custom-made products and selectivity in making customer decisions. The most typical features of the sawmills from Western North America are competitive price, targeting to many customer groups and large market share.

The second discriminant function most clearly separates the Western US sawmills from the British Columbian sawmills, i.e. this discriminant function distinguishes the Western North American countries from each other. According to this discriminant function the Western US sawmills are characterized by personal selling, customer relationships, effective marketing and commodity products.

The validity of the discriminant functions or discriminant model can be evaluated by the model's ability to classify new observations. The optimum would be to collect new data to be classified and thus obtain estimates for the classification probabilities of new observations. This is however economically impossible and the discriminant functions which were formed based on all observations are used to reclassify the same observations. This is the most commonly used method, although some researchers think that it gives somewhat too optimistic classification results (Dillon and Goldstein 1984).

Table 26. Classification matrix, the classification is based on the discriminating functions.

From	To Finland	Western USA	BC, Canada	%-Correct
Finland	31	5	1	83.8
Western USA	4	21	9	61.8
BC, Canada	4	4	23	74.2
Total % of diagonal observations				73.5

The percentage of the correct classifications is 73.5% which is quite satisfactory (see Table 26). The classification results also reveal how well the classification works in each country. According to the percentages of correct classifications, the discriminant function classifies best the Finnish sawmills and the sawmills from British Columbia, Canada. The Finnish sawmills are most often misclassified with Western US sawmills, whereas the Western US sawmills are misclassified more often with British Columbian sawmills than with Finnish sawmills, which was as expected since most likely the sawmills in the Western USA resemble the sawmills in British Columbia, Canada. British Columbian sawmills are equally often misclassified with both Finnish and Western US sawmills.

4.4 Relationships between generic competitive strategies and marketing strategies

4.4.1 Relationship between internal dimensions of marketing strategy and generic competitive strategies

The relationships between marketing strategy and generic competitive strategies that were discussed on a theoretical level in Section 2.4.3 are analyzed with empirical data in this section. The relationships are analyzed by calculating the relative location of each competitive strategy type or combination of types on each dimension of marketing strategy. The relative location is described by the arithmetic means of the factors score variables by competitive strategy types on each dimension of marketing strategy. The interpretation focuses on the so-called pure strategies, since the number of companies applying combination strategies within each country might be low.

Table 27. Target market and product dimensions of marketing strategy by generic competitive strategy.

Competitive strategy	Dimension of marketing strategy Target market	Product
	Mean factor score	
Cost leadership	–0.16	0.62
Differentiation	–0.20	–0.16
Focus	0.35	–0.23
Cost & Diff.	0.02	0.32
Diff. & Focus	–0.15	–0.32
All types	0.17	–0.10

The hypothetical assumptions about the relationships between the so-called pure strategies and core dimensions of marketing strategy made in Section 2.4.3 are found to exist (see Table 27). When examining the connection between competitive strategy types and target market dimension of marketing strategy, focus strategy is very clearly the most selective, targeting to few well-defined countries/regions and end-use segments. There are no significant differences between cost leadership and differentiation strategies which are targeting as many countries/regions and customers as possible. Regarding the connections between competitive strategy types and product dimension of marketing strategy, cost leadership strategy is very clearly connected to emphasis on commodity products. In contrast, focus and differentiation strategies are connected to the emphasis on custom-made and specialty products.

When examining the combinations of strategy types the most logical is the combination of differentiation and focus emphasizing custom-made and speciality products on the product dimension. The combination of cost leadership and differentiation emphasizing commodity products on the product dimension is also rational.

The connection between competitive strategy types and product dimension of marketing strategy in different countries (see Table 28) are logical in Finland and in the Western USA. In British Columbia, Canada the connections work out for cost leadership and differentiation strategies. The emphasis on commodity products with focus strategy is logical in general, but in the sawmill industry it is quite difficult to carry out, since sawn timber has fairly uniform technical characteristics and thus the related services are quite simple.

In the Finnish sawmills the connections between target market dimension of marketing strategy and competitive strategy are very clear and rational (see Table 29). In the Western USA

Table 28. The product dimension of marketing strategy and generic competitive strategy in different countries

Competitive strategy	Country Finland	Western USA	BC, Canada	Total
	Mean factor score of product dimension			
Cost leadership	0.44	0.76	0.53	0.62
Differentiation	–0.51	0.16	–0.16	–0.16
Focus	–0.51	–0.35	0.23	–0.23
Cost & Diff.	–0.23	0.04	1.08	0.32
Diff. & Focus	–0.50	–1.26	0.18	–0.32
All types	–0.26	0.29	–0.47	–0.10

Table 29. The target market dimension of marketing strategy and generic competitive strategy in different countries

Competitive strategy	Country Finland	Western USA	BC, Canada	Total
	Mean factor score of target market dimension			
Cost leadership	–0.36	0.38	–0.81	–0.16
Differentiation	0.03	–0.48	–0.09	–0.20
Focus	0.52	0.79	–0.09	0.35
Cost & Diff.	–0.07	–0.30	0.86	0.02
Diff. & Focus	0.78	–2.19	–0.40	–0.15
All types	0.69	–0.14	0.07	0.17

connections are logical except with cost leadership strategy which should be emphasizing many target markets instead of the observed connection with few markets. In BC, Canada the direction of the connections is logical, i.e. cost leadership strategy is the most unselective.

Regarding the connections between generic competitive strategy types and marketing competence dimensions (see Table 30), the most outstanding connection is between the cost leadership strategy and price dimension. Companies applying cost leadership strategy see themselves to be in a better position concerning competitive price compared to their competitors. Competitive price has been found to be related to cost leadership strategy also in other studies (e.g. Bush and Sinclair 1991). On the other marketing competence dimensions the results are somewhat contradictory to the theoretical assumptions. Cost leadership strategy should be connected with effectiveness of marketing channels and market share i.e. with the effectiveness of marketing dimension, but this kind of connection could not be observed. Pure focus strategy should have close relationships with customers but according to the results the companies feel that they are in a worse position on the customer contacts dimension than their competitors.

Table 30. Marketing competence dimensions of marketing strategy by generic competitive strategy.

Competitive strategy	Marketing competence dimension Effectiveness of marketing	Customer contacts	Price
	Mean factor score		
Cost leadership	–0.26	0.04	0.60
Differentiation	0.17	0.14	–0.35
Focus	–0.10	–0.16	–0.07
Cost & Diff.	0.05	–0.28	–0.40
Diff. & Focus	–0.17	0.21	–0.26
All types	0.33	–0.14	0.47

When examining the combinations of strategy types, companies applying the combination of differentiation and focus see themselves to be in a better position compared to competitors on customer contacts dimensions. This is rational since marketing specialty and custom-made products demand close contacts with customers. The combination of all types of strategies is quite rationally connected to effectiveness of marketing and price, since it is natural for companies with unclear strategic orientation to try to be successful with effective marketing and to use one of the most simple competitive weapons, namely price.

In different countries it was difficult to find consistent connections between competitive strategy types and marketing competence dimensions of marketing strategy. Only the price dimension was logically connected to competitive strategy types in all countries, i.e. sawmills emphasizing cost leadership strategy felt they possess a competence in competitive price compared to competitors.

To further deepen the analysis and to get more detailed information on what really separates the different generic competitive strategies, it is necessary to examine the connection between the original variables and competitive strategies.

4.4.2 Strategic marketing decisions characterising generic competitive strategies

The purpose is to analyze which strategic marketing decisions characterize generic competitive strategies and which strategic marketing decisions separate the companies applying different generic competitive strategies. Discriminant analysis was used with all strategic marketing decision variables. The classification of sawmills to strategy types, presented in Table 11 (Section 4.2), was used, but only the observations that were considered to apply to one major strategy type were used (n=80) since the observations with combinations of strategy types would have caused interference in the analysis since the number of observations in each combination class is low.

The separation of the generic competitive strategies based on discriminant functions composed of original variables describing strategic marketing decisions (17 variables) is significant with a probability of 1.00. The relative importance of each discriminant function can be seen in Table 31.

The differences in strategic marketing decisions between generic competitive strategies are displayed with two significant discriminant functions. The locations of generic competitive strategies in the discriminant space are shown in Table 32 which includes the mean values and standard deviations of the generic competitive strategies on the two discriminant functions.

The nature of the differences between generic

Table 31. Relative importance of individual discriminant functions in displaying differences among generic competitive strategies. Discrimination regarding strategic marketing decisions.

Discriminant function	I	II
Eigenvalue	0.67	0.61
Percent	52	48
Chi-square	35.85	33.32
Df	18	16
Probability	0.99	0.99

Table 32. Mean values and standard deviations (in brackets) by generic competitive strategy on discriminant functions.

Generic competitive strategy	Mean discriminant score (Standard deviation) Discriminant function I	II
Cost leadership	0.73 (1.00)	1.08 (0.84)
Differentiation	0.44 (1.04)	–0.81 (1.03)
Focus	–1.14 (0.95)	0.16 (1.08)

Table 33. Nature of strategic differences between generic competitive strategies.

Variable	Discriminant function I Correlation	Coefficient	Discriminant function II Correlation	Coefficient
Commodity products	0.37	0.17	0.44	0.42
Specialty products	–0.20	0.04	–0.39	–0.39
Custom-made products	–0.32	–0.22	–0.49	–0.01
As many customer groups as possible	0.56	0.37	0.02	0.14
Known end-users	–0.48	–0.52	–0.10	0.01
As many countries/regions as possible	0.30	0.01	–0.13	–0.00
Few-well defined countries/regions	–0.39	–0.21	0.08	0.54
Customer relationships	0.44	0.49	0.01	–0.10
Competitive price	0.14	–0.12	0.64	0.47
Transportation expertise	0.03	0.07	0.38	0.36

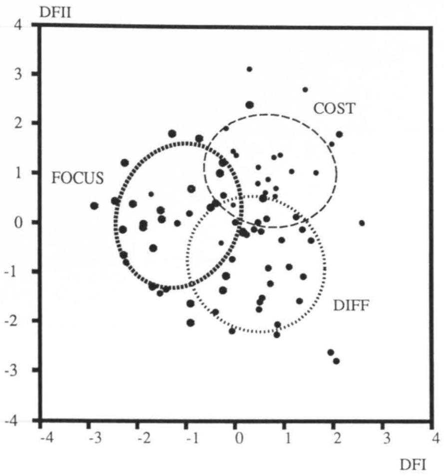

Figure 11. Overlaps between generic competitive strategies in discriminant space.

competitive strategies can be interpreted from the correlations between the variables used in the analysis and discriminant functions, which can be seen in Table 33. To support the interpretation, the coefficient calculated for standardized variables is given along with the correlations. Only correlations that are considered significant (>0.30) are reported and a complete table with all correlations as well as non-standardized variables are given in Appendix 7.

Fig. 11 shows the overlaps between generic competitive strategies in the discriminant space with 60% isodensity ellipses, i.e. each ellipse is excpected to contain 60% of the observations of each generic competitive strategy. The first discriminant function most clearly separates focus strategy from other strategies. Most distant from each other are focus and cost leadership strategies. Focus strategy is characterized by known end-users, few well-defined countries and custom-made products. Typical features of cost leadership and differentiation strategies are customer relationships, commodity products and as many customer groups as possible.

The second discriminant function most clearly separates cost leadership and differentiation strategies. Cost leadership strategy is characterized by competitive price, transportation expertise and commodity products. Differentiation strategy is characterized by custom-made and specialty products.

Table 34. Classification matrix, classification is based on discriminant functions.

From	To Cost leadership	Differentiation	Focus	%-Correct
Cost leadership	17	3	1	81.0
Differentiation	1	26	6	78.8
Focus	4	5	17	65.4
Total % of diagonal observations				75.0

The validity of the discriminant functions is evaluated with classification as described in Section 4.3.5. The percentage of the correct classifications is 75.0% which is quite satisfactory (see Table 34). The best discrimination is achieved with sawmills applying cost leadership or differentiation strategies. Cost leaders are most often misclassified with differentiators, which can be considered as a reflection of the deficiencies in Porter's (1980) model between the relationship of cost leadership and differentiation strategies which were discussed earlier in this study. The sawmills applying differentiation strategy are mainly misclassified with companies applying focus strategy. The poorest classification is achieved with sawmills applying focus strategy. Those sawmills are almost equally often misclassified with cost leadership strategy or with differentiation strategy.

4.4.3 Summary of the relationship between generic competitive strategy and marketing strategy

The relationships between the generic competitive strategies and core dimensions of marketing strategy are verified according to assumptions on an aggregate level. However, there are differences between countries in how well the relationships evolve. The relationships in the Finnish sawmills appear to be the most clear with both the product and target market dimension. In the Western US sawmills the relationships work well with the product dimension and are fairly rational concerning the target market dimension. The relationships appear to be the least logical in British Columbia, Canada.

The relationships between generic competitive strategies and marketing competence dimensions of marketing strategy are not as clear as the connections with the core dimensions of marketing strategy. The price dimension is the only dimension that works well in all countries. The obscurity in these relationships might be due to the structure of these dimensions, which is not as bright as that of the product and target market dimensions. Further analysis was made when attempting to clarify these relationships.

Discriminant analysis was performed to obtain even more detailed idea about strategic marketing decisions characterizing generic competitive strategies and which strategic marketing decisions separate the companies applying different generic competitive strategies. The results show very clear separation of the three different pure competitive strategy types. The nature of differences between strategy types was examined with the correlation between original variables used and the discriminant functions. These correlations revealed that the nature of generic competitive strategies was logical and according to the assumptions made in Section 2.4.3, i.e. cost leadership was connected to commodity products and many customers and market areas whereas focus and differentiation strategies were connected with custom-made and specialty products and additionally focus was also connected with few customers and market areas. The validity of the discriminant functions was evaluated with reclassification of the observations, and overall 75% of them were correctly classified. Based on these results it can be said that enough evidence has been found to support the validation of the relationship between generic competitive strategy and marketing strategy.

4.5 Connections between marketing strategies and marketing structures and functions

4.5.1 General

As mentioned in the theoretical sections of the study, the used marketing strategy concept defines the relationship between the company and its environment, and also the objectives of strategy are defined. However, the methods for achieving this relationship are not established by defining marketing strategy. In the model of integrated marketing planning presented by Juslin (see Juslin et al. 1988) strategies are followed by structures and structures by functions. The implementation of strategies requires certain marketing structures and the marketing strategies can only be realized through marketing functions. The marketing strategy of a company can be seen in the actual execution of daily marketing functions.

The examination of the connections between marketing strategies and marketing structures and functions is important when seeking additional validation for the used operationalization of the marketing strategy concept and to investigate the logic of marketing planning. If rational connections can be found, they give additional support for the validity of the used operationalization of strategy concept. As found out in the previous analyses the essential dimensions of marketing strategy are the product and the target market dimensions. The connections between these dimensions of marketing strategy and marketing structures and functions are analyzed in the following sections. The analyses are made most often by country, since the countries differ quite significantly on these dimensions. However when there are no significant differences between countries, aggregate level results are presented, i.e. results based on the total data.

4.5.2 Connections between marketing strategy and marketing structures

4.5.2.1 Marketing organization

The marketing organization gives a certain organizational environment for the implementation of marketing strategies. The extent of marketing organization is described with the number of marketing personnel per sold 1000 m^3 in the sawmill. The connections with the core dimensions of marketing strategy and marketing organization should be clear. Marketing of custom-made and specialty products requires more marketing personnel due to the more complicated technical characteristics of these products, whereas marketing of commodities is fairly straightforward and requires a minimum number of marketing personnel. The observed connections between product dimension of marketing strategy and the average number of marketing personnel (see Fig. 12) are very clear and rational, both at an aggregate level and also when analyzed by country. Regarding the average number of marketing personnel in different countries, in the Finnish sawmills it is almost double compared to the sawmills in Western North

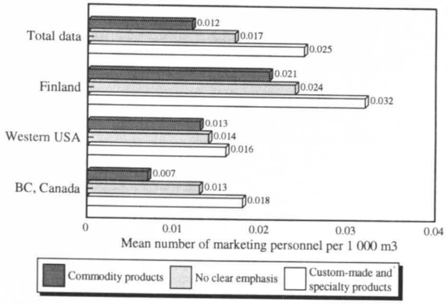

Figure 12. Connections between the product dimension of marketing strategy and marketing personnel.

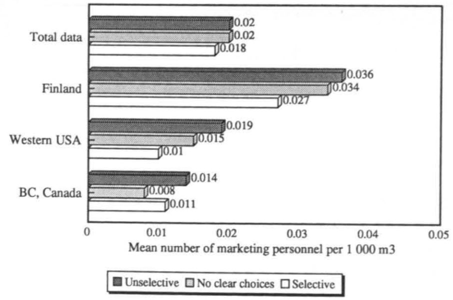

Figure 13. Connections between the target market dimension of marketing strategy and marketing personnel.

America. A similar structure, which separates Finnish sawmills from the Western North American sawmills, was also noticed in the discriminant analysis in Section 4.3.5 (see also Fig. 13).

Regarding the connections between target market dimension of marketing strategy and the number of marketing personnel, the assumption is that emphasizing many customers and market areas requires more marketing personnel than when emphasizing few customer segments and market areas. This connection comes true very clearly in all of the countries as shown in Fig. 13, i.e. unselectivity is connected with a high average number of marketing personnel, whereas selectivity is connected with a low average number of marketing personnel.

4.5.2.2 Marketing channels

According to Juslin (1992) the structure of marketing channel is composed of various chains (channels) between producer and customer. These chains include various types and numbers of intermediate parties conducting the marketing task. The length of marketing channels gives an indication of the level of sophistication of the marketing strategy. The shorter the marketing channel the more advanced is the marketing strategy. The marketing channels were measured with the share of exports which went through different export marketing channels. The share of export was measured separately for commodities and for custom-made/specialty products.

In the export of commodities the channels generally include a few intermediate parties between the manufacturer and the final end-user. On the other hand the exporting of custom-made and specialty products should be done through as direct channels as possible. The main channels used in the export of commodities in different countries are presented in the following, the results based on actual cubic metres. Generally it can be noted that there is not very much difference in any countries between different emphases on the product dimension. In Finland somewhat longer channels are used than in Western North America.

In Finland:

a) sawmills emphasizing commodities:
— manufacturer – own sales office – importer – industrial end-user
— manufacturer – foreign agent – importer – industrial end-user

b) sawmills emphasizing custom-made and specialty products:
— manufacturer – foreign agent – importer – industrial end-user
— manufacturer – own sales office – importer – industrial end-user
— manufacturer – foreign agent – industrial end-user

In Western USA:

a) sawmills emphasizing commodities:
— manufacturer – wholesaler – industrial end-user
— manufacturer – importer – industrial end-user

b) sawmills emphasizing custom-made and specialty products:
— manufacturer – importer – industrial end-user
— manufacturer – foreign agent – industrial end-user

In BC, Canada:

a) sawmills emphasizing commodities:
— manufacturer – retailer – private end-users
— manufacturer – wholesaler – industrial end-user

— manufacturer – wholesaler – retailer – private end-user
b) sawmills emphasizing custom-made and specialty products:
— manufacturer – retailer – private end-user
— manufacturer – wholesaler – retailer – private end-user

In the export of custom-made and specialty products the Finnish sawmills emphasizing custom-made and specialty products in their marketing strategy are using somewhat longer channels than sawmills emphasizing commodities. This connection is not according to assumptions. Only the Canadian sawmills emphasizing custom-made and specialty products are using the direct channel from producer to industrial end-user, which should be the most rational channel in exporting these kinds of products. It should be noted that the observed differences between countries or between different emphases on the product dimension of marketing strategy are insignificant.

In Finland:
a) sawmills emphasizing commodities:
— manufacturer – foreign agent – industrial end-user
— manufacturer – industrial end-user
— manufacturer – own sales office – industrial end-user
b) sawmills emphasizing custom-made and specialty products:
— manufacturer – foreign agent – industrial end-user
— manufacturer – foreign agent – importer – industrial end-user

In Western USA:
a) sawmills emphasizing commodities:
— manufacturer – importer – industrial end-user
— manufacturer – domestic agent – industrial end-user
b) sawmills emphasizing custom-made and specialty products:
— manufacturer – own sales office – importer – industrial end-user
— manufacturer – importer – industrial end-user

In BC, Canada:
a) sawmills emphasizing commodities:
— manufacturer – domestic agent – industrial end-user
— manufacturer – wholesaler – industrial end-user
b) sawmills emphasizing custom-made and specialty products:
— manufacturer – industrial end-user
— manufacturer – wholesaler – industrial end-user
— manufacturer – domestic agent – industrial end-user
— manufacturer – importer – industrial end-user

4.5.3 Connections between marketing strategy and marketing functions

4.5.3.1 Personal contacts

Personal contacts (personal selling) are the final link between the customer and the sawmill. They should be based on marketing strategies and targeted to the final end-user, although traditionally in the sawmill industry personal selling has been aimed at the intermediate parties of the marketing channel. Personal contacts were measured with the time spent by sales managers with different customer types. The marketing of custom-made or specialty products should be reflected as a higher share of the time spent with final end-users, since these kinds of products demand e.g. more technical counselling than commodity products. With custom-made and specialty products the contacts between the producer and the final end-user should be as direct as possible. Marketing of commodity products is fairly routine and the products do not require direct contacts with final end-users, and thus the personal contacts are typically targeted to the intermediate parties of the marketing channel.

Table 35 shows that in all countries the main object of personal contacts are the intermediate parties of marketing channel. In BC, Canada the sawmills emphasizing custom-made and specialty products are targeting more of the personal contacts to industrial end-users than the sawmills emphasizing commodities. In Finland and the Western USA the situation is similar to that in BC, Canada but the differences are fairly small. In Finland the sawmills' own sales offices are also an important object of personal contacts.

The intermediate parties in Finland regardless of the emphasis on products include domestic and foreign agents and importers. In the Western USA the main intermediate parties in sawmills emphasizing custom-made and specialty products are wholesalers and retailers and in sawmills emphasizing commodities, wholesalers, retailers and also importers. In BC, Canada the sawmills emphasizing custom-made and specialty products target their personal contacts to wholesalers and retailers and the sawmills emphasizing commodity products focus mainly on wholesalers.

Table 35. The product dimension of marketing strategy and the time spent by sales managers with different customer types.

Country	Product dimension	Customer type: Intermediate parties	Industrial end-users	Own sales office	Others	Total (%)
Finland	Commodity products	67	10	23	0	100
	No clear emphasis	67	8	6	0	101[a]
	Custom-made and specialty products	71	12	17	0	100
Western USA	Commodity products	91	9	0	0	100
	No clear emphasis	78	13	4	6	101[a]
	Custom-made and specialty products	84	11	0	5	100
BC, Canada	Commodity products	95	5	0	0	100
	No clear emphasis	87	11	0	2	100
	Custom-made and specialty products	59	31	5	6	101[a]

[a] Total slightly over 100% due to rounding.

Concerning the target market dimension, the emphasis on many customer groups and markets should be reflected as a higher share of personal contacts with the intermediate members of the marketing channel. The results in different countries indicate that no rational connections are found between the target market dimension of marketing strategy and personal contacts.

4.5.3.2 Market information

Market information is collected about customer needs, competitors and general market environment. Market information is needed to find out an optimal allocation of marketing functions. The more customer-oriented the company, the more information of the markets and customers is needed and thus the collection of market information should be done continuously and systematically. Table 36 shows the connections between the product dimension and intensity of collection of market information. In the Western USA and BC, Canada the sawmills emphasizing custom-made and specialty products are collecting market information more continuously and systematically than sawmills emphasizing commodity products. This connection is very clear and rational. In Finland the sawmills emphasizing commodity products are collecting market information more continuously and systematically than sawmills emphasizing custom-made and specialty products. This connection is opposite to the assumptions, but on the other hand the differences are quite small.

In terms of connections between target market dimension of marketing strategy and the collection of market information, it is quite natural that successful implementation of selective choices of target markets can only be based on accurate market information. These connections are not found in this study (see Table 37). In all countries sawmills emphasizing unselective choices or no clear choices concerning target markets are more continuous and systematic in their collection of market information than are sawmills emphasising custom-made and specialty products. Some rationality in the connections can be found only in the Finnish sawmills even though the differences are fairly small.

The sources of market and customer information are divided into three types of sources: sales contacts, market/marketing research and other (trade journals, periodicals, association meeting, etc.). Regarding the connections between the dimensions of marketing strategy and the sources of market and customer information, it can be noted that emphasis on custom-made and specialty products or selectivity in target market choices requires more systematic information. This kind of systematic information can be obtained from marketing/market research and trade journals, periodicals, etc. Table 38 shows that the major source of information is sales contacts,

Table 36. Connections between the product dimension of marketing strategy and collection of market information by country.

Country	Product dimension	Intensity of collection of market information: Continuous and systematic	Occasional and casual	Not at all	Total (%)
Finland	Commodity products	67	33	0	100
	No clear emphasis	71	29	0	100
	Custom-made and specialty products	63	38	0	101[a]
	Total	65	35	0	100
Western USA	Commodity products	64	36	0	100
	No clear emphasis	70	30	0	100
	Custom-made and specialty products	90	10	0	100
	Total	74	27	0	101[a]
BC, Canada	Commodity products	50	43	7	100
	No clear emphasis	43	43	14	100
	Custom-made and specialty products	80	20	0	100
	Total	58	36	7	101[a]

[a] Total slightly over 100% due to rounding.

Table 37. Connections between the target market dimension of marketing strategy and collection of market information by country.

Country	Target market dimension	Intensity of collection of market information: Continuous and systematic	Occasional and casual	Not at all	Total (%)
Finland	Unselective	60	40	0	100
	No clear choices	80	20	0	100
	Selective	63	37	0	100
Western USA	Unselective	91	9	0	100
	No clear choices	75	25	0	100
	Selective	63	37	0	100
BC, Canada	Unselective	57	36	7	100
	No clear choices	75	25	0	100
	Selective	54	39	8	101[a]

[a] Total slightly over 100% due to rounding.

Table 38. Connections between the product dimension of marketing strategy and sources of market and customer information.

Product dimension	Source of market and customer information: In sales contacts	Marketing/ market research	Others[a]	Total (%)
Commodity products	76	11	13	100
No clear emphasis	72	12	16	100
Custom-made and specialty products	65	17	18	100

[a] Include trade journals, periodicals, association meetings, etc.

despite the emphasis on product dimension. However, the sawmills emphasizing custom-made and specialty products are using more marketing/market research and other sources than sawmills emphasizing commodities, i.e. rational connections exist to some degree. In terms of differences between countries, the relationships between product dimension and different sources of market information are similar in each country. The main sources of market and customer information in sales contacts connected with the product dimension in different countries are presented in the following:

In Finland:
- a) sawmills emphasizing commodities
  - — foreign agents
  - — domestic agents
  - — own sales offices
- b) sawmills emphasizing custom-made and specialty products
  - — foreign agents
  - — industrial end-users
  - — importers

In Western USA:
- a) sawmills emphasizing commodities
  - — wholesalers
  - — retailers
- b) sawmills emphasizing custom-made and specialty products
  - — wholesalers
  - — importers

In BC, Canada:
- a) sawmills emphasizing commodities
  - — wholesalers
- b) sawmills emphasizing custom-made and specialty products
  - — industrial end-users
  - — wholesalers

Rational connections between the target market dimension and the sources of market and customer information (see Table 39) exist also to some degree, even though sales contacts are a dominant source of market information. The sawmills with emphasis on few target markets use more marketing/market research and other sources than sawmills emphasizing many target markets. The differences concerning the relationships between the target market dimension and different sources of market information are similar in each country. The main sources of market and customer information in sales contacts connected with the target market dimension in different countries are presented in the following:

In Finland:
- a) sawmills emphasizing commodities
  - — foreign agents
  - — industrial end-users
- b) sawmills emphasizing custom-made and specialty products
  - — foreign agents
  - — own sales offices

In Western USA
- a) sawmills emphasizing commodities
  - — wholesalers
  - — retailers
- b) sawmills emphasizing custom-made and specialty products
  - — wholesalers
  - — retailers

In BC, Canada
- a) sawmills emphasizing commodities
  - — wholesalers
- b) sawmills emphasizing custom-made and specialty products
  - — wholesalers
  - — industrial end-users

As mentioned above the collection of systematic market information can be carried out e.g. with marketing/market research. The average numbers of marketing research projects per 1000 m^3 by product dimension are shown in Fig. 14. Very clear and rational connections exist in each country between the product dimension and the average number of marketing research projects. Sawmills emphasizing custom-made and specialty products carry out more marketing research projects than sawmills emphasizing commodities. In general, the average number of marketing research projects is the same in Finland and in the Western USA, and slightly higher in BC, Canada.

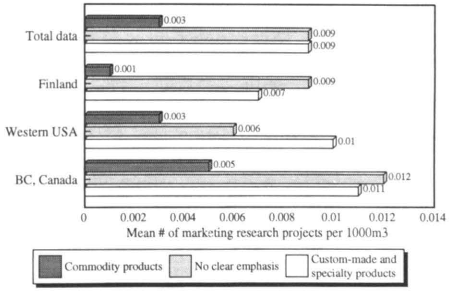

Figure 14. Connections between the product dimension of marketing strategy and number of marketing research projects.

Table 39. Connections between the target market dimension of marketing strategy and sources of market and customer information.

Target market dimension	Source of market and customer information: In sales contacts	Marketing/ market research	Others[a]	Total (%)
Unselective	76	13	12	101[b]
No clear choices	69	13	18	100
Selective	68	14	18	100

[a] Include trade journals, periodicals, association meetings, etc.
[b] Total slightly over 100% due to rounding

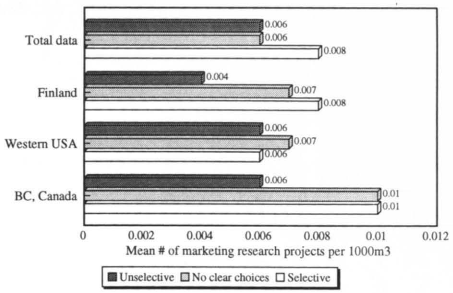

Figure 15. Connections between the target market dimension of marketing strategy and number of marketing research projects.

Regarding the connections between the target market dimension and the average number of marketing research projects, it is obvious that the choice to focus on few selected customer groups and market areas requires more systematic information collected by marketing/market research. As presented in Fig. 15, this connection is confirmed in Finland and in BC, Canada. In the Western USA, these differences in the average number of marketing research projects do not exist.

4.5.3.3 Marketing communication

Marketing communication should implement and support the marketing strategy of a sawmill. Marketing communication should be based on customers and their needs. In marketing of custom-made and specialty products marketing communication is based on personal selling and advertising to certain target groups, and thus untargeted general advertising, sales promotion and public relations are not emphasized (Juslin et al. 1988). The extent of marketing communication was measured with investment in advertising and promotion. Fig. 16 shows that on average in Finland and in the Western USA more money is invested by the sawmills emphasizing commodity products than by sawmills emphasizing custom-made and specialty products, thus the connection is rational. The situation is the opposite in British Columbia, Canada. On an aggregate level the Finnish sawmills are investing more per m^3 in advertising and promotion than the sawmills in Western North America, i.e. again the

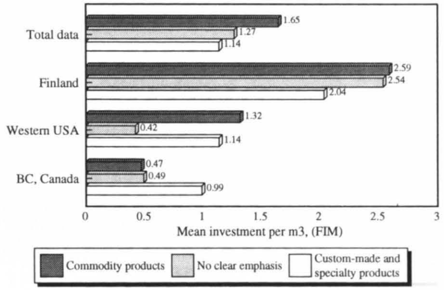

Figure 16. The product dimension of marketing strategy and investment in advertising and promotion.

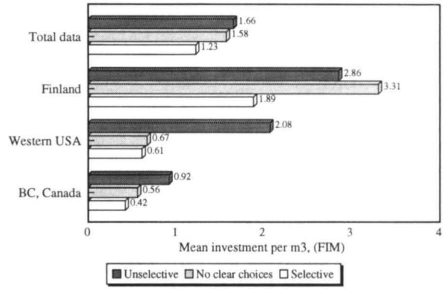

Figure 17. The target market dimension of marketing strategy and investment in advertising and promotion.

structure separating the Finnish sawmills from the others can be noticed (see also Fig. 17).

Concerning the connection between the target market dimension of marketing strategy and marketing communication, it is obvious that companies emphasizing many customer groups and market areas are investing more in advertising and promotion. This connection is very evident in all countries as shown in Fig. 17.

When examining the relationship between the product dimension of marketing strategy and the allocation of advertising expenses, marketing of custom-made and specialty products should be clearly connected with target group advertising. Correspondingly emphasis on commodities should be connected to general advertising. These connections are very clear in the Western US sawmills (see Table 40). The Finnish sawmills in general are allocating more expenses to target group advertising than to general advertising regardless of the product emphasis. Furthermore

Table 40. The product dimension of marketing strategy and allocation of advertising expenses.

Country	Product dimension	Advertising type: General advertising	Target group advertising	Other	Total (%)
Finland	Commodity products	28	66	6	100
	No clear emphasis	21	69	11	101[a]
	Custom-made and specialty products	12	80	8	100
Western USA	Commodity products	58	26	15	99[a]
	No clear emphasis	48	38	14	100
	Custom-made and specialty products	25	45	30	100
BC, Canada	Commodity products	28	56	16	100
	No clear emphasis	38	59	3	100
	Custom-made and specialty products	49	41	9	99[a]

[a] Total slightly over or under 100% due to rounding.

Table 41. The target market dimension of marketing strategy and allocation of advertising expenses.

Country	Target market dimension	Advertising type: General advertising	Target group advertising	Other	Total (%)
Finland	Unselective	34	61	5	100
	No clear choices	22	68	10	100
	Selective	11	80	9	100
Western USA	Unselective	29	22	49	100
	No clear choices	61	24	14	99[a]
	Selective	47	46	7	100
BC, Canada	Unselective	45	44	9	100
	No clear choices	38	35	28	101[a]
	Selective	32	66	3	101[a]

[a] Total slightly over or under 100% due to rounding.

sawmills emphasising custom-made and specialty products are allocating more expenses to target group advertising that sawmills with commodity product emphasis. This connection with the Finnish sawmills is rational, whereas the connections in the sawmills in BC, Canada did not evolve according to assumptions.

In Western North America the target group advertising is addressed mainly to intermediate parties of the marketing channel. Sawmills emphasizing commodity products are addressing target group advertising to wholesalers in both countries. The sawmills emphasizing custom-made and specialty products are addressing to wholesalers and retailers in the Western USA and to retailers and importers in BC, Canada. In Finland regardless of the emphasis on products the target group advertising is mostly addressed to importers and industrial end-users.

The connection between the target market dimension of marketing strategy and allocation of advertising expenses by advertising type is very rational in all countries (see Table 41). A high share of target group advertising is clearly connected to selectivity on the target market dimension, i.e. to emphasis on few customer groups and market areas. The target group advertising is addressed in Western North America to wholesalers and retailers by sawmills targeting to many customer groups and market areas, whereas the sawmills focusing on few target markets are mostly addressing to wholesalers. In Finland, regardless of the emphasis on target markets, the sawmills are addressing their target group advertis-

Table 42. The product dimension of marketing strategy and the most important starting points of product development.

Country	Product dimension	Starting point of product development: Raw material	Technology	Customer	Total (%)
Finland	Commodity products	33	0	67	100
	No clear emphasis	14	29	57	100
	Custom-made and specialty products	13	8	79	100
	Total	16	11	73	100
Western USA	Commodity products	36	14	50	100
	No clear emphasis	70	0	30	100
	Custom-made and specialty products	50	10	40	100
	Total	50	9	41	100
BC, Canada	Commodity products	64	14	21	100
	No clear emphasis	29	0	71	100
	Custom-made and specialty products	70	0	30	100
	Total	58	6	36	100

ing to importers and industrial end-users. These connections between both the dimension of marketing strategy and the addressing of target group advertising in Western North America are not very rational, since the whole idea of target group advertising is to reach the final end-users of the product and not the intermediate parties of the marketing channel.

4.5.3.4 Product development

The marketing strategy concept adopted in this study defines product decisions as strategic by nature. The strategic product decisions should be reflected in the product development in the marketing functions. The starting-points of product development reflect the marketing philosophy adopted by a sawmill. In this study three starting-points of product development were measured:

1. More effectively use raw material and adapt production to raw material possibilities
2. Utilize and develop production technology
3. Satisfy customer needs

The first two of these starting-points can be most suitably connected with sawmills emphasizing commodities. The third is naturally connected with sawmills emphasizing custom-made products. The connections between these starting-points and the product dimension of marketing strategy (see Table 42) are most rational in Finland concerning custom-made and specialty products and in BC, Canada concerning commodities. The connections between emphasis on custom-made and specialty products and the objective of satisfying customer needs exist clearly only in Finland. The results concerning the Western USA and BC, Canada indicate that thinking is still very much raw material oriented.

The intensity of product development in the sawmills is presented in Table 43. The emphasis on custom-made and specialty products should be very clearly related to continuous and systematic product development. In all countries more continuous and systematic product development is carried out in the sawmills emphasizing custom-made and specialty products than in the sawmills emphasizing commodities. The connection is very clear and rational. On an aggregate level the Finnish sawmills are the most occasional and casual in their product development, although Finnish sawmills were the most custom-made and specialty product-oriented on the product dimension.

4.5.3.5 Research and development

Research and development work is very often seen as being closely related to marketing. The knowledge of the R & D work and its connection to the product dimension of marketing strategy further increases the understanding of marketing

Table 43. The product dimension of marketing strategy and intensity of product development.

Country	Product dimension	Intensity of product development: Continuous and systematic	Occasional and casual	Not at all	Total (%)
Finland	Commodity products	17	83	0	100
	No clear emphasis	14	86	0	100
	Custom-made and specialty products	29	71	0	100
	Total	24	76	0	100
Western USA	Commodity products	36	36	29	101[a]
	No clear emphasis	60	40	0	100
	Custom-made and specialty products	70	30	0	100
	Total	53	35	12	100
BC, Canada	Commodity products	57	14	29	100
	No clear emphasis	71	29	0	100
	Custom-made and specialty products	80	20	0	100
	Total	68	19	13	100

[a] Total slightly over 100% due to rounding

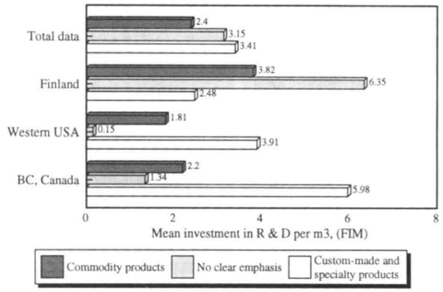

Figure 18. The product dimension and investment in research and development.

strategy. The connection should be obvious since producing custom-made and specialty products demands more resources of R & D than production of commodities. This connection is very evident in the Western USA and in BC, Canada as shown in Fig. 18. In Finland the most money is invested in R & D by companies with no clear product emphasis and moreover sawmills emphasizing commodity products are investing more in R & D than sawmills with emphasis on custom-made and commodity products.

The connections between the product dimension of marketing strategy and objectives of research and development work reflect the innovativeness and willingness of a sawmill to develop its operations. The objectives of research and development work were measured with four alternatives:

1. Reduction of production costs
2. Making the production process more efficient
3. Refining existing products
4. Developing new products

A sawmill emphasizing commodities should stress the first two of the above objectives and aim for as low cost per produced cubic metre as possible. In contrast, for a sawmill emphasizing custom-made and specialty products a prerequisite for success is refining of existing products and a continuous search for new products.

In all countries the emphasis of the objectives of product development reflects a very production-oriented marketing philosophy. Regardless of the emphasis on product dimension the effectiveness of production process and reduction of production costs had the highest degree of emphasis as research and development objectives. The other R & D objectives: refining existing products and development of new products, were however in all countries emphasized more by sawmills emphasizing custom-made and specialty products than by sawmills emphasizing commodities.

4.5.4 Summary of the connections between marketing strategy and marketing structures and functions

In general the connections between both of the dimensions of marketing strategy and marketing structures and functions were sufficiently logical with few exceptions. Connections between marketing organization and both of the dimensions of marketing strategy were clear and rational. This demonstrates that marketing of more advanced products is characterized by a higher average number of marketing personnel per 1000 m^3 than marketing of commodity products. The connections between export distribution channels and the core dimensions of marketing strategy were not very noticeable.

Concerning marketing functions, personal contacts were examined and it was found that the intermediate parties are the main objects of personal contacts regardless of the emphasis on the product dimension. However, sawmills emphasizing custom-made and specialty products are targeting more personal contacts towards industrial-end-users than sawmills emphasizing commodities. Rational connections between the target market dimension of marketing strategy and personal contacts were not observed.

The systematic and continuous collection of market information very logically characterizes the sawmills emphasizing custom-made and specialty products in the Western USA and in BC, Canada and to some extent also in Finland. However there were no clear connections between the target market dimension of marketing strategy and collection of market information. The sources of market and customer information were logically connected on both core dimensions of marketing strategy in all countries. More information is collected by marketing/market research by sawmills emphasizing custom-made and specialty products and few target markets than by companies focusing on commodities and many target markets. The average number of marketing research projects per 1000 m^3 in all countries indicates that sawmills emphasizing custom-made and specialty products or emphasizing few target markets are more active in research actions than sawmills emphasizing commodity products or many target markets.

The connection between marketing communication and both of the dimensions of marketing strategy is clear and rational. Sawmills emphasizing a less advanced marketing strategy (commodities and many target markets) are characterized by the use of more general advertising than companies applying more advanced strategies (custom-made and specialty products and few target markets). This can be seen in the average investment in advertising and promotion per m^3, and in the allocation of advertising expenses especially in the relative shares of target group advertising by the classes of both dimensions.

The results about the connections between product development and the product dimension of marketing strategy reveal that the starting-points of product development in Western North America, regardless of emphasis on the product dimension, are still very raw material oriented. In Finland on the other hand, the most important starting-point is customer needs regardless of the emphasis on the product dimension. However, it seems that more continuous and systematic product development is carried out by sawmills emphasizing custom-made and specialty products in all countries. Similarly in the Western USA and BC, Canada these more advanced sawmills are rationally characterized by higher average investments in research and development per m^3 than sawmills with a less advanced product emphasis.

This summary of the connections between the core dimensions of marketing strategy and marketing structures and functions shows that the assumed connections were in most cases clearly observed in this study, and thus additional support for the used operationalization of the strategy concept is found based on these connections.

4.6 Connections between generic competitive strategies and marketing structures and functions

Following a certain competitive strategy should be reflected to some degree in the company's marketing structures and functions. In this section some assumingly most logical connections between competitive strategy and marketing structures and functions are examined. The results are presented at an aggregate level and in connection with each table the differences between countries are discussed. The interpretation of the results is focused on the pure competitive strategies.

The connections between competitive strategy and number of marketing personnel in different countries (see Table 44) is logical since differentiation and focus strategies are focusing on more advanced products and thus the average number of marketing personnel per 1000 m^3 should be higher than with cost leadership strategy. This connection is clear in all countries. The combination of differentiation and focus also requires more marketing personnel than the combination of cost leadership and differentiation. This connection could also be clearly observed in the results.

Applying of differentiation and focus strategies requires more specific market information than does applying of cost leadership strategy, and this should be reflected as more systematic and continuous collection of market information. This connection is observed very clearly on an aggregate level (see Table 45) as well as in different countries.

The product development should be very intense in sawmills applying differentiation and focus strategies, whereas sawmills applying cost leadership strategy should be minimizing product development or focus only on such points of product development that might cut costs. On an aggregate level this kind of connection did not exist (see Table 46). Concerning different countries, the connections were noticeable in Finland and in the Western USA, but did not exist in BC, Canada.

Table 44. Generic competitive strategy and number of marketing personnel in different countries.

Generic competitive strategy or strategy combination	Country: Finland	Western USA	BC, Canada	Total
	Mean number of marketing personnel per 1000 m^3			
Cost leadership	0.026	0.009	0.005	0.011
Differentiation	0.034	0.017	0.019	0.024
Focus	0.024	0.015	0.011	0.018
Cost leadership & differentiation	0.033	0.007	0.008	0.020
Differentiation & focus	0.037	0.010	0.014	0.023
All three types	0.023	0.016	0.009	0.016
Total	0.029	0.014	0.012	0.019

Table 45. Generic competitive strategy and collection of market information.

Generic competitive strategy or strategy combination	Intensity of collection of market information: Continuous and systematic	Occasional and casual	Not at all	Total
Cost leadership	48	48	5	101[a]
Differentiation	76	24	0	100
Focus	65	31	4	100
Cost leadership & differentiation	60	40	0	100
Differentiation & focus	71	29	0	100
All three types	70	30	0	100

[a] Total slightly over 100% due to rounding

Table 46. Generic competitive strategy and intensity of product development.

Generic competitive strategy or strategy combination	Intensity of product development: Continuous and systematic	Occasional and casual	Not at all	Total
Cost leadership	48	38	14	100
Differentiation	49	49	3	101[a]
Focus	42	50	8	100
Cost leadership & differentiation	60	20	20	100
Differentiation & focus	43	57	0	100
All three types	50	40	10	100

[a] Total slightly over 100% due to rounding

Table 47. Generic competitive strategy and investment in research and development in different countries.

Generic competitive strategy or strategy combination	Country Finland	Western USA	BC, Canada	Total
	Mean investment in research and development per m³, (FIM)			
Cost leadership	1.79	2.40	1.42	2.00
Differentiation	1.56	3.57	2.89	2.38
Focus	4.12	0.65	3.80	3.52
Cost leadership & differentiation	8.85	–	0.00	5.90
Differentiation & focus	1.66	0.38	1.79	1.49
All three types	7.08	0.00	6.53	5.10
Total	3.39	2.04	3.24	3.02

The average investment in research and development per m³ should be higher in sawmills applying differentiation and focus strategies. This connection (see Table 47) is most clearly observable in BC, Canada and also somewhat in Finland. In the Western USA the connection exists with sawmills applying differentiation strategy but not with sawmills applying focus strategy.

These connections between generic competitive strategies and marketing structures and functions are in general rational and thus support to the validity of the operationalization of the competitive strategy concept is obtained.

5 Summary and discussion

5.1 Background and objectives

A combination of scientific curiosity and practical information needs of the sawmill industry justifies this study. The scientific curiosity in the area of strategy research arises from a wide variety of explaining factors behind strategy and the ambiguity of the terminology concerning strategic planning and strategies and the diversity of theories in this field. This study also endeavours to further develop and build theory concerning marketing strategy.

The practical information needs in the sawmill industry arise from the long-term difficulties of the Finnish sawmill industry to adapt to the turbulent environment. Some of the reasons for those difficulties were the various changes in the operating environment, the changing customer needs, problems in the raw material procurement and increasing competition. The sawmill industry can be regarded as a maturing industry and thus the importance of a clear strategy is essential for the survival of a company. The problems of the sawmill industry in Finland and also in Western North America are not merely caused by changes in external factors, but there are also internal reasons such as raw material-based and production-oriented philosophies in running the business.

There is quite a limited number of studies made in the sawmill industry concerning strategies, and especially lacking are international studies with data from several countries. The importance of international studies is increasing rapidly since the competition in the sawmilling business has become global in a sense that the exporters of sawn timber are competing in several continents. These reasons give further justification for this study.

The primary objective of this study is to produce information that would help sawmills in strategic planning when adapting to a turbulent environment and help to improve their competitiveness. To achieve the objectives of the study requires analysis on both theoretical and empirical levels.

On the theoretical level the objective is to further develop and strengthen the theoretical basis of marketing planning especially in the area of marketing strategies, and to clarify the concepts associated with strategy. Theoretical objectives include the analysis of definitions of strategy concept and clarification of both the operationalizations and the methods of measurement of the strategy concept. The relationship between marketing strategy and competitive strategy is also examined.

On the empirical level the objective is to investigate how large sawmills in Finland and Western North America differ concerning marketing strategies and generic competitive strategies. The connections between generic competitive strategy and marketing strategy are analyzed, and connections of both of these strategy concepts with marketing structures and functions are also examined.

5.2 Theoretical framework

The theoretical background for the study is constructed by combining theories concerning strategy and marketing. The objective of this combination is to develop an extensive foundation for the choices of strategy concepts to be used and for the empirical analyses to be made. The evolution of strategic planning is presented on a general level and the relationship of strategy and marketing is also discussed. An extensive analysis of the definitions of strategy concept used in strategy research was made through classifying these definitions into five different types. It was found that strategy concept has developed during the last thirty years from being a planning oriented concept to a one where competitive advantage has a key role. However, there still remain a few basic decisions to be made in strategy that have not changed over the years: the decisions concerning markets to be served and products to be offered.

Two different strategy concepts were chosen to be used in this study. To measure the overall competitive strategy the well-known Porter (1980) model was chosen. This concept justifies its place as a leading concept of competitive strategy. Another chosen concept is the marketing strategy by Juslin (see Juslin and Tarkkanen

1987). According to this concept marketing strategy is formed by making decisions on products, customers, market areas and marketing competences. The reasons for choosing this concept is that Juslin sees marketing strategy and corporate strategy to be at the same hierarchical level. Furthermore, this marketing strategy concept has been developed to be easy to measure and one of its merits is the division of strategy into strategic decisions or components. In connection with Juslin's marketing strategy a new term "marketing competence" is also presented.

A prerequisite to identify or measure strategy or any other theoretical concept is that it is made measurable. This is done by operationalizing the strategy concept and in this vein different types of approaches to operationalize the strategy concept are presented. The operationalization of strategy concept is followed by the problem of measurement and the choice of variables and thus also major approaches to the measurement of strategy are presented.

The operationalizations of the used strategy concepts were also presented, relationships between them discussed and assumptions of these concepts are made at the hypothetical level. The defined framework for the empirical analyses is presented in Section 2.7 with the construction of variables for the used strategy concepts and other areas to be measured.

5.3 Data and analysis

The objects of this study are large sawmills in Finland and in Western North America including the Western USA and British Columbia, Canada. The data was collected in two phases. The Finnish data was collected by Sirkka-Liisa Rinta in 1988 in connection with her Master's thesis project and the Western North American data was collected by the author in 1991. The aim in the data collection was to gather total population of the largest sawn timber producers in each country. The data collection was done by personal interviews which were based upon a fixed written questionnaire.

The final population included 118 sawmill units and an interview was held with 102 units resulting in a response rate of over 86%. The sawmill units included in the data represented almost 71% of the production in Finland, about 77% in BC, Canada and about 58% in the Western USA. The production figures concerning Finland are from the year 1987 and concerning Western North America from the year 1990.

Arithmetic means and distributions were the basic univariate statistical techniques used in description of the data, excluding the description of marketing strategy. The marketing strategy is described with strategic dimensions, which were based on the analysis of common variance in the original variables. Factor analysis was used to find out these underlying dimensions of marketing strategy. For the subsequent analyses also factor scores per observation for each dimension were calculated. Discriminant analysis is used when revealing the strategic marketing decisions characterising different countries or competitive strategies. The connections between strategy concepts and marketing structures and functions were analyzed by cross-tabulations.

5.4 Results

5.4.1 Respondent companies

In terms of annual production, the sawmills interviewed in BC, Canada and in the Western USA are considerably larger than those in Finland. The production of the sawmills was very commodity product-oriented, over two-thirds of the production in all three countries is commodity products and in Finland even more. The sawmills in Finland and in BC, Canada are very export-oriented, whereas the sawmill units in the Western USA are very domestic-oriented. With respect to business types, the integrated forest products producer is the most common business type among the sawmills in Finland and in BC, Canada. The most common business type among the sawmills in the Western USA was multiple sawmills.

5.4.2 Generic competitive strategies

The generic competitive strategy was measured with Porter's (1980) model, i.e. with three different strategy types. However, only 22% of the respondents could identify their company's strategy with one strategy type and 78% of the respondents indicated that their company's strategy has components from more than one type, and thus a new classification for competitive strategy was formed. It includes the three pure strategy types and three different kinds of combinations of these pure strategy types.

The differentiation and focus strategies are the most common in Finland and BC, Canada, whereas differentiation and cost leadership are the most common in the Western USA. The combination strategies represented about a fifth of the competitive strategies applied by the sawmills in all countries. The sawmills applying differentiation and focus strategies were found to be smaller in terms of average annual production and also more export-oriented than sawmills applying cost leadership strategy.

5.4.3 Marketing strategies

The marketing strategy concept in this study assumes that it is formed with joint influence of strategic decisions. This means that the decisions have to be analyzed simultaneously, i.e. common variance has to be analyzed. The internal dimensions of marketing strategy were revealed by factor analyses. Two different factor analyses were performed, one with product-, customer- and market area decisions variables and the other with strategic marketing competence variables. The examination of the correlation matrix and the theoretical significance supported the making of two factor analyses.

In the first factor analysis the most interpretable and theoretically most significant was the two-factor solution. These dimensions of marketing strategy were named as target market dimension and product dimension. In the other factor analysis a three-factor solution was chosen and the dimensions were named as effectiveness of marketing, customer contacts and price. In this study the reliability was evaluated in connection with factor analyses with method presented by Tarkkonen (1987). Reliability was found to be satisfactory with all factors. Also construct validity of the used operationalization of marketing strategy can be evaluated in connection with factor analyses. Very strong support for the construct validity was found in the first factor analysis and also to some extent in the second.

The locations of sawmills of different countries on these dimensions of marketing strategy were analyzed and the Finnish sawmills were found to most emphasize few customers and market areas and also custom-made and specialty products. On marketing competence dimensions the sawmills in the Western USA feel they have more competence on effectiveness of marketing than sawmills in other countries. Sawmills in the Western USA and Finland feel they have more competence in customer contacts than sawmills in BC, Canada. In the price dimension of marketing strategy sawmills in Western North America feel that they have more competence in price than sawmills in Finland.

The combinations of the dimensions of marketing strategy were examined. On the basic combination of target market and product dimensions most observable connections were found in Finland, i.e. emphasis on custom-made and specialty products was connected with emphasis on few customer groups and market areas. When examining the combinations of product dimension and marketing competence dimensions, the clearest connections were found with customer contacts and price dimensions in all countries. The sawmills emphasizing custom-made and specialty products felt that they possessed competence over competitors on customer contacts. Correspondingly, the sawmills emphasizing commodity products felt that they possessed competence over competitors on lower price. Concerning the combinations of target market dimension and marketing competence dimensions consistent connections that would apply in all countries were not observed, however logical connections within countries were found.

Strategic marketing decision variables characterising different countries were analyzed by discriminant analysis and the results confirmed that the Finnish sawmills differ from the sawmills in Western North America. The Finnish sawmills are more customer-oriented than sawmills from Western North America. Furthermore, it was confirmed that the sawmills in the Western USA are the most commodity product-oriented, however they feel that they possess more marketing competence over competitors than sawmills in Finland and BC, Canada.

5.4.4 Relationship between generic competitive strategy and marketing strategy

The relationships between marketing strategy and generic competitive strategies that were discussed on the theoretical level were also analyzed with empirical data. The relationships were analyzed by calculating the relative location of each competitive strategy type or combination of types on each dimension of marketing strategy.

The relationships between the generic competitive strategies and core dimensions (target market and product dimensions) of marketing strategy are verified according to assumptions on an aggregate level. However, there are differences between countries in how well the relationships evolve. The relationships in the Finnish sawmills appear to be the most clear with both product and target market dimensions, i.e. companies applying differentiation and focus strategy are emphasizing custom-made and specialty products and companies applying focus strategy are targeting to few customer groups and market areas. In the Western US sawmills the relationships work well with the product dimension and are fairly rational concerning the target market dimension. The relationships appear to be the least satisfactory in British Columbia, Canada.

The relationships between generic competitive strategies and marketing competence dimensions of marketing strategy are not as clear as are the connections with the core dimensions of marketing strategy. Thus a discriminant analysis was made to find out which strategic marketing decisions characterize generic competitive strategies and which strategic marketing decisions separate the companies applying different generic competitive strategies. The results show very clear separation of the three different pure competitive strategy types. The nature of the differences between generic competitive strategies regarding the original strategic marketing variables even more clearly validate the assumptions made about this relationship in Section 2.4.3, i.e. cost leadership is characterized by commodity products and many customers and market areas whereas focus and differentiation strategies are characterized by custom-made and specialty products and additionally focus is characterized by few customers and market areas.

5.4.5 Connections between marketing strategy and marketing structures and functions

Strategies are followed by structures and structures by functions. The implementation of strategies requires certain marketing structures and the marketing strategies can only be realized through marketing functions. The marketing strategy of a company can be seen in the actual execution of daily marketing functions. The examination of the connections between marketing strategies and marketing structures and functions is important when seeking additional validation for the used operationalization of the marketing strategy concept and to investigate the logic of marketing planning. If rational connections can be found, they give additional support for the validity of the used operationalization of strategy concept.

Marketing structures were measured with the amount of marketing personnel and export distribution channels. The most logical was the connection between the product dimension of marketing strategy and the average number of marketing personnel per 1000 m^3, i.e. marketing of custom-made and specialty products is characterized by a higher number of marketing personnel than marketing of commodities. Also the connection between the target market dimension of marketing strategy and the number of marketing personnel is rational, i.e. emphasizing many customers and markets requires relatively more marketing personnel than targeting to few customers and markets.

Concerning the connections between the product dimension and personal contacts it was observed that intermediate parties of marketing channel were the main targets of personal contacts regardless of the emphasis on the product dimension. However, sawmills emphasizing custom-made and specialty products are targeting more of the personal contacts towards industrial end-users than sawmills emphasizing commodities in all countries.

The connections between collection of market information and the product dimension of marketing strategy are very rational. Emphasis on custom-made and specialty products is characterized by more intense collection of marketing information and higher average number of marketing research projects per 1000 m^3 than emphasis on commodity products. The connections between the target market dimension of marketing strategy and collection of market information are rational concerning the sources of market information and the number of marketing research projects. Sawmills emphasising selective target markets use more other sources of market information than sales contacts, and do relatively more marketing research projects than sawmills emphasizing unselective target markets.

Marketing communication in terms of average investment in advertising and promotion per m^3 and allocation of advertising expenses was rationally connected with the product dimension in the Western USA and Finland. Sawmills emphasizing commodity products are characterized by a higher investment on average per m^3 in advertising and promotion than sawmills emphasizing custom-made and specialty products. The target market dimension of marketing strategy in all countries was rationally connected with marketing communication, i.e emphasis on unselective target markets is connected with a higher investment on average per m^3 in adverising and promotion than emphasis on selective target markets.

Custom-made and specialty products are characterized by continuous and systematic product development in all countries, and also with higher average investment in R & D in the Western USA and in BC, Canada than commodity products. The starting-points of product development reveal that sawmills in Western North America are raw material-oriented regardless of the emphasis on the product dimension of marketing strategy. The most important starting point of product development for the Finnish sawmills is clearly customer needs, and for the sawmills emphasising custom-made and specialty products even more important than for the sawmills emphasizing commodities.

On this examination connections were found to exist between the core dimensions of marketing strategy and marketing structures and functions which provides additional validation for the used operationalization of the marketing strategy concept. These connections confirm a similar structure that was already observed in connection with discriminant analysis, i.e. that sawmills from the Western USA and BC, Canada resemble each other, while the Finnish sawmills differ from them in many aspects.

5.4.6 Connections between generic competitive strategy and marketing structures and functions

Implementation of a certain competitive strategy should be reflected to some degree in the company's marketing structures and functions. Some supposedly most logical connections between competitive strategy and marketing structures and functions were examined. The results indicate rational connections, i.e. differentiation and focus strategy are characterized by a higher average number of marketing personnel per 1000 m^3, more intense collection of market information and higher average investment per m^3 in R & D. These rational connections between generic strategies and marketing structures and functions support the validity of the operationalization of the competitive strategy concept.

5.5 Discussion

The objectives of this study were both theoretical and empirical. The theoretical objective was to further develop and strengthen the theoretical basis of marketing planning especially in the area of marketing strategies and to clarify the concepts associated with strategy. The theoretical background for the study is constructed by combining theories concerning strategy and marketing, but still the starting-point of this study is based on marketing. Definitions of strategy concept used in strategy research were examined and a classification including five types of definition was made to bring some kind of order to the jungle of definitions of strategy concept. The different types of the definitions of strategy concept are by no means exclusive, since definitions of strategy concept are frequently presented fairly vaguely in the literature and as a result of this the analysis of different definitions of strategy concept is always a subjective issue.

Two different kinds of strategy concepts were chosen for the empirical analysis. The chosen marketing strategy concept, which is more extensive than marketing strategy concepts in general, was on a theoretical level further developed to be more compatible with the chosen concept of competitive strategy. This theoretical development and clarification of the chosen marketing strategy concept included a presentation of a new term *marketing competence* which is one of the most significant theoretical contributions from this study in addition to an extensive review of the definitions of strategy concept.

The theoretical objectives of the study also included the clarification of the operationalizations and the methods of measurement of strategy concept. The investigation concerning the operationalizations and measurements of strategy concept produced theoretical material that has both practical and theoretical importance for anyone planning research concerning strategies, and a clear description of the process from the theoretical concepts through the operationalizations to the measurements.

The analysis of generic competitive strategies revealed that the Finnish sawmills are applying more advanced competitive strategies (focus and differentiation) than sawmills in Western North America. In connection with generic competitive strategies it was found out that sawmills in all countries clearly had difficulties in identifying with only one competitive strategy type. The use of a combination of generic competitive strategy types has been noted on both theoretical and empirical levels in previous studies in general and also in forest products industry. In the sawmill industry it seems to be especially difficult to concentrate on one pure competitive strategy type, since concerning e.g. products, typically some share of production is falling commodity products and in general the technical characteristics of sawn timber are quite uniform.

The description of marketing strategies by strategic dimensions clearly showed that on both of the core dimensions of marketing strategy — target market and product dimensions — a more advanced marketing strategy and on the other hand a less advanced marketing strategy existed. When the marketing strategies by countries were analyzed, clear differences between different countries could be observed. The Finnish sawmills were very customer oriented, i.e. focusing on custom-made and specialty products and on few target markets. In contrast, the sawmills in Western North America were emphasizing more commodity products and targeting to many target markets. These results were further confirmed by the discriminant analysis, i.e. the same kind of structure, separating the Finnish sawmills from the Western North American Sawmills, was observed. Furthermore, this structure was also observed in some of the connections between marketing strategies and marketing structures and functions.

These results can be somewhat explained by larger size in terms of annual production of the companies in Western North America and especially by the domestic orientation of the sawmills in the Western USA. It is known that for a large sawmill the application of advanced marketing strategy or advanced competitive strategy is not as viable as it is for a smaller sawmill. There are also differences in the operating environments or strategic arenas in Finland and in Western North America. The Finnish sawmills, while having small domestic markets, have to survive in the fierce competition on the international markets whereas the sawmills in Western North America are much less dependent on export. For the sawmills in BC, Canada export markets in the USA are very much like the domestic markets.

The results of the analysis of the internal structure of the marketing strategies and the dimensions that were revealed give a very good construct validity for the used operationalization of strategy concept. The core dimensions of marketing strategy (product and target market dimension) are the same that typically have been described as the core decisions in any strategy.

One of the objectives of the study was to analyze the relationship between generic competitive strategy and marketing strategy. The connections between these two strategy concepts were discussed on the theoretical level and tested on the empirical level. The relationships between the generic competitive strategies and core dimensions of marketing strategy are verified according to assumptions on an aggregate level. However, there are differences between countries in how well the relationships are established. These relationships are confirmed by discriminant analysis, which was made to obtain a more detailed idea of which strategic marketing decisions characterize generic competitive strategies. Based on the results it can be said that enough evidence has been found to support the validation of the relationship between generic competitive strategy and marketing strategy.

The connections between the core dimensions of marketing strategy and marketing structures and functions were analyzed to obtain additional validation for the used operationalizations of strategy concepts. It is appropriate to stress that the objective was not to present a detailed analysis of marketing structures and marketing functions. The findings concerning these connections clearly gave the additional support for the validation of the operationalization of the strategy concepts searched for.

One of the fundamental objectives of this study was to produce information that would help sawmills in their strategic planning activities. For management the theoretical findings of this study provide a clear framework to better understand concepts related to strategies and also to understand and evaluate the significance of strategy in their own company. Perhaps one of the most important outcomes of this study seen from the point of view of a manager is the understanding that strategy is not necessarily a planned, proactive and rigid statement that should be implemented no matter what happens in the environment. Instead strategy is incremental by nature, it can also contain emergent parts that were never

planned or intended and the ultimate objective of strategy is to create competitive advantage over competition. A clear strategy is a result of consistent decisions and it will lead to competitive advantage and form the recipe for a sawmill´s success. The empirical results of the study provide valuable information of the strategies used by large sawmills in Finland and Western North America which should be very useful for the managers of sawmills when considering the global developments of sawn timber markets lately. This kind of international comparison giving information of the strategies of competitors is important and interesting especially when developing export marketing strategies and hopefully provokes assessments of the present marketing strategies and initiates changes in them.

It must be emphasized that the results presented in this study are not meant to be generalized to apply to the whole sawmill industry in each data collection area. The results are applicable only to large sawmills in a certain area where the data was collected from. The generalization concerning large sawmills to other areas must be made with caution. However, the response rates in each data collection area were high and thus the data is quite representative among large sawmills and also the number of observations is quite high when compared to similar studies made earlier.

Furthermore, there is a time difference between data collection in Finland and in Western North America: the Finnish data was collected in 1988 and the Western North American data in 1991. The results indicated that Finnish sawmills were applying more advanced strategies than sawmills from Western North America already in 1988 and thus the time difference is not considered significant with respect to the results of this study, since it is unlikely that development in Finland has regressed. Had the Finnish data also been collected in 1991, most likely the differences between Finnish and Western North American sawmills would have been even more extreme.

When interpreting the results of this study it must be kept in mind that the data was collected by personal interviews and most of the interviews were held with one person within the sawmill. The answers then of course to some extent reflected the thinking of one person about company's strategy. Efforts were made to locate the most suitable person within each company. There is also a possible problem between the researcher and the interviewed person if they do not speak the same language, and if both persons are not familiar with the terminology. Use of multiple data sources within companies would have increased the validity of the results. Further, the multinationality in this study could cause additional problems, since there are cultural differences between North America and Finland, which have to be kept in mind.

The results obtained in this study, broadly speaking, support the findings from the other studies. The structure of the measured strategy concepts proved to be according to generally accepted theories. The empirical results especially concerning the Finnish sawmills follow very closely the results obtained from earlier studies. In Western North America correspondence between results is also somewhat observed, although the number of previous studies of strategy concerning the sawmill industry was quite limited. This study increases the number by one, but there still remain various research questions to be explored in the strategies of sawmills. However, it is evident that the sawmill industry has to progress and develop more sophisticated strategies to be able to respond to the challenges it is going face.

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Seloste

Markkinointilähtöinen strategia-käsite ja sen empiirinen testaus suurilla sahoilla

Tutkimuksen tausta ja tavoitteet

Tämän tutkimuksen lähtökohtana on tieteellinen mielenkiinto ja käytännön ongelmiin perustuva informaatiotarve sahateollisuudessa sekä pyrkimys markkinointistrategian teorian edelleen kehittämiseen. Tieteellisen mielenkiinnon taustalla ovat monimuotoiset strategiaa selittävät tekijät sekä strategiakäsitteen epäselvyys.

Käytännön ongelmat löytyvät lähinnä Suomen sahateollisuuden pitkään jatkuneista ongelmista sopeutua muuttuneeseen toimintaympäristöönsä. Ongelmien taustalla ovat monenlaiset toimintaympäristön muutokset mm. asiakkaiden muuttuneet tarpeet, ongelmat raaka-aineen hankinnassa ja yhä kiristyvä kilpailu. Sahateollisuutta voidaan pitää kypsänä toimialana, ja tällöin selkeän strategian merkitys korostuu entisestään. Suomen, kuten myös Pohjois-Amerikan sahateollisuuden, ongelmat eivät ole ainoastaan ulkokohtaisia, vaan ne ovat myös osittain sahateollisuuden itsensä aiheuttamia ja johtuvat raaka-aineja tuotantolähtöisestä ajattelusta liiketoiminnassa.

Sahateollisuuden strategiatutkimuksesta puuttuvat kansainväliset vertailut ja myös strategiatutkimusten määrä on kohtalaisen vähäinen. Tällaisten kansainvälisten strategiatutkimusten tärkeys lisääntyy jatkuvasti, sillä sahateollisuudesta on tullut maailmanlaajuista liiketoimintaa.

Tutkimuksen ensisijaisena tavoitteena on tuottaa tietoa, joka auttaa sahateollisuutta strategisessa suunnittelussa ja vahvistaa näin sen kilpailukykyä. Tutkimuksen teoreettisina tavoitteina on kehittää ja vahvistaa markkinoinnin suunnittelun, erityisesti markkinointistrategioiden, teoreettista pohjaa ja selventää strategiakäsitteistöä. Tutkimuksen yksityiskohtaisina teoreettisina tavoitteina ovat:

1. Analysoida strategiatutkimuksessa käytettyjä strategiakäsitteitä
2. Selventää strategiatutkimuksessa käytettyjä operationalisointeja ja mittausmenetelmiä.
3. Analysoida markkinointistrategian ja kilpailustrategian suhdetta.

Tutkimuksen empiirisenä tavoitteena on tuottaa informaatiota suomalaisen ja pohjoisamerikkalaisen sahateollisuuden eroista markkinointistrategioiden ja kilpailustrategioiden suhteen. Tutkimuksen yksityiskohtaisina empiirisinä tavoitteina ovat:

1. Kuvata Suomen ja läntisen Pohjois-Amerikan suurten sahojen markkinointistrategioita ja identifioida kullekin maalle tyypillisiä strategisia markkinointipäätöksiä.
2. Kuvata Suomen ja läntisen Pohjois-Amerikan suurten sahojen kilpailustrategioita ja identifioida kullekin kilpailustrategialle tyypillisiä strategisia markkinointipäätöksiä.
3. Analysoida kilpailustrategian ja markkinointistrategian yhteyksiä.
4. Etsiä kutakin markkinointistrategiaa luonnehtivat markkinoinnin rakenteet ja toimenpiteet.
5. Etsiä kutakin kilpailustrategiaa luonnehtivat markkinoinnin rakenteet ja toimenpiteet.

Tutkimuksen teoreettiset puitteet

Tutkimuksen teoreettinen tausta rakentuu siten, että yhdistetään markkinointi- ja strategiateorioita. Tarkoituksena on kehittää laaja perustelu strategiakäsitteiden valinnalle empiirisiä analyysejä varten. Strategisen suunnittelun kehitystä kuvataan viimeisen 40 vuoden ajalta ja käsitellään myös strategian ja markkinoinnin suhdetta. Kohtalaisen laaja analyysi kirjallisuudesta löytyvistä erilaisista strategiakäsitteistä tehdään jakamalla nämä käsitteet viiteen tyyppiin. Tämän analyysin tuloksena voidaan havaita, että strategiakäsite on kehittynyt viimeisen 30 vuoden aikana suunnittelu-orientoituneesta käsitteestä kilpailuetukeskeiseksi käsitteeksi. Muutamat avainpäätökset ovat kuitenkin säilyttäneet paikkansa strategiakäsitteiden määritelmissä, nimittäin päätökset siitä mitä markkinoita palvellaan ja mitä tuotteita tarjotaan.

Tässä tutkimuksessa valitaan kaksi erilaista strategiakäsitettä. Kilpailustrategia mitattiin Porterin (1980) mallilla, joka puolustaa paikkaansa johtavana kilpailustrategiamallina. Toinen valittu strategiakäsite on Juslinin (ks. Juslin ja Tarkkanen 1987) markkinointistrategia, jossa strategian katsotaan muodostuvan tuote-, asiakas-, markkina-alue ja kilpailuetupäätöksistä. Juslinin markkinointistrategiakäsite on laajempi kuin tyypilliset markkinointistrategiakäsitteet, koska Juslinin markkinointistrategia on hierarkisesti samalla tasolla kuin yhtymästrategia. Se on myös rakennettu operationalisointiensa avulla helposti mitattavaksi, ja yksi sen eduista on strategian jako komponentteihin/strategisiin päätöksiin. Tässä yhteydessä esitellään myös uusi termi *markkinoinnin menestystekijä*.

Strategian mittaamisen edellytyksenä on, että srategia on operationalisoitu. Tutkimuksessa esitellään erilaisia strategian operationalisointitapoja. Operationalisointia seuraa loogisesti mittauksen ongelma, ja tähän liittyen tutkimuksessa esitellään yleisimpiä strategian mittauksessa käytettyjä lähestymistapoja. Tarkemmin esitetään tässä tutkimuksessa käytettävien strategiakäsitteiden operationalisoinnit ja tehdään hypoteeseja kahden käytetyn strategiakäsitteen yhteyksistä. Tutkimuksen empiiristä toteutusta ohjaava yksityiskohtainen viitekehys ja muuttujavalinnat esitetään luvussa 2.7.

Aineisto ja analyysit

Tutkimuksen kohteena ovat suuret sahat Suomessa ja Pohjois-Amerikan länsiosassa, eli USA:n länsiosassa ja Kanadan Brittiläisessä Kolumbiassa. Aineisto kerättiin kahdessa vaiheessa. Suomen aineiston keräsi Sirkka-Liisa Rinta pro gradu-työnsä yhteydessä 1988, ja Pohjois-Amerikan aineiston keräsi kirjoittaja 1991. Haastattelut tehtiin henkilökohtaisina haastatteluina strukturoidulla kysymyslomakkeella, ja tavoitteena oli totaaliaineisto kunkin alueen suurimmista sahoista.

Lopulliseen populaatioon sisältyi 118 sahaa, joista haastattelu suoritettiin 102 sahan kanssa ja vastausprosentiksi tuli 86%. Haastateltujen sahojen tuotanto edusti 71% Suomen tuotannosta, 58% USA:n länsiosan tuotannosta ja 77% Kanadan Brittiläisen Kolumbian tuotannosta. Tuotantoluvut Suomen osalta ovat vuodelta 1987 ja Pohjois-Amerikan osalta vuodelta 1990.

Tilastollisina menetelminä käytetään keskiarvoja ja jakaumia aineiston kuvauksessa, paitsi markkinointistrategian osalta. Markkinointistrategiaa kuvataan muuttujien yhteisvaihtelun analyysiin perustuvien strategiadimensioiden avulla. Yhteisvaihtelun analysointiin käytetään faktorianalyysiä ja jatkoanalyysejä varten lasketaan myös faktoripistemuuttujat. Eri maita ja kilpailustrategioita luonnehtivien strategisten markkinointipäätösten analyysissä käytetään erotteluanalyysiä. Strategioiden ja markkinoinnin rakenteiden ja toimenpiteiden välisiä yhteyksiä tutkittaessa käytetään ristiintaulukointia.

Tutkimuksen tulokset

Tutkitut yritykset

Sahat läntisessä Pohjois-Amerikassa ovat vuosittaisen tuotantomääränsä suhteen huomattavasti isompia kuin suomalaiset sahat. Tuotannon rakenne oli keskimäärin samanlainen kaikissa maissa eli noin kaksikolmasosaa tuotannosta oli vakiotuotteita, Suomessa jopa hieman enemmänkin. Suomalaiset ja kanadalaiset sahat olivat erittäin vientiorientoituneita kun taas amerikkalaiset sahat olivat suuntautuneet kotimarkkinoille. Yritystyypiltään yleisimpiä olivat Suomessa ja Kanadassa metsäteollisuustuotteita tuottavaan integraattiin kuuluneet sahat kun taas USA:ssa yleisimpiä olivat yritykset joilla oli useampia sahoja.

Kilpailustrategiat

Kilpailustrategia mitattiin Porterin (1980) kolmella strategiatyypillä. Vastaajista vain 22% pystyi identifioimaan yrityksen käyttämän strategian puhtaasti yhteen kilpailustrategiatyyppiin ja 78% vastaajista ilmoitti että yrityksen strategiassa on piirteitä useammasta kuin yhdestä kilpailustrategiatyypistä. Tämän seurauksena tehtiin uusi luokitus, joka sisältää kolme puhdasta kilpailustrategiaa ja kolme eri kilpailustrategioiden yhdistelmää.

Suomessa ja Kanadan Brittiläisessä Kolumbiassa ovat differointi- ja keskittymisstrategiat ja Länsi-USA:ssa differointi- ja kustannusjohtajuusstrategiat yleisimpiä. Uudessa luokittelussa yhdistelmästrategioiden osuus on noin viidennes jokaisessa maassa. Sahat, jotka noudattavat differointi- ja keskittymisstrategioita ovat keskimäärin pienempiä ja vientiorientoituneempia kuin kustannusjohtajat.

Markkinointistrategiat

Tässä tutkimuksessa sovellettavan markkinointistrategiakäsitteen mukaan strategia muodostuu strategisten päätösten yhteisvaikutuksesta, mikä edellyttää, että strategiset päätökset on analysoitava samanaikaisesti. Tämä yhteisvaihtelun analysointi tehtiin faktorinalyysillä. Tutkimuksessa tehtiin kaksi erillistä faktorianalyysiä, joista toisessa olivat mukana tuote-, asiakas- ja markkina-aluepäätökset ja toisessa markkinoinnin menestystekijäpäätökset. Kahden erillisen faktorianalyysin käyttö on perusteltua korrelaatiomatriin tarkastelun pohjalta sekä teoreettisen merkitsevyytensä puolesta.

Ensimmäisessä faktorianalyysissä tulkinnallisesti yksinkertaisin ja teoreettisesti merkitsevin oli kahden faktorin ratkaisu. Nämä dimensiot nimettiin kohdemarkkinaja tuotedimensioiksi. Toisessa faktorianalyysissä valittiin kolmen faktorin ratkaisu ja dimensioiden nimiksi tuli: markkinoinnin tehokkuus, henkilökohtaiset kontaktit ja hinta. Tutkimuksen reliabiliteetti arvioitiin faktorianalyysien yhteydessä Tarkkosen (1987) esittämällä menetelmällä ja reliabiliteetti oli tyydyttävä kaikkien faktoreiden osalta. Käytetyn markkinointistrategian rakennevaliditeetti voidaan myöskin arvioida faktorianalyysin yhteydessä. Hyvin vahvaa tukea rakennevaliditeetin puolesta saatiin ensimmaisestä faktorianalyysistä ja myös jossain määrin toisesta faktorianalyysistä.

Sahojen sijoittuminen näillä straegiadimensioilla analysoitiin maittain ja suomalaiset sahat painottivat eniten selkeästi määriteltyjä asiakasryhmiä ja harvoja markkina-alueita sekä asiakas- ja erikoistuotteita. Markkinoinnin tehokkuus -dimensiolla USA:n länsiosan sahat tuntevat olevansa paremmassa asemassa kilpailijoidensa suhteen kuin sahat muissa maissa. Henkilökohtaisten kontaktien suhteen suomalaiset ja USA:n länsiosan sahat tuntevat olevansa paremmassa asemassa kuin sahat Brittiläisessä Kolumbiassa verratessaan itseään kilpailijoihinsa. Alhaisimman hinnan suhteen parhaimmassa asemassa tuntevat olevansa sahat läntisessä Pohjois-Amerikassa.

Markkinointistrategian dimensioiden yhdistelmistä kohdemarkkina- ja tuotedimensioiden osalta selvin yhteys on suomalaisilla sahoilla. Asiakas- ja erikoistuotteet liittyvät selkeästi keskittymiseen määriteltyihin asiakkaisiin ja harvoihin markkina-alueisiin. Tuotedimension ja markkinoinnin menestystekijä -dimensioiden osalta selkeimmät yhteydet löytyivät henkilökohtaiset kontaktit- ja hintadimension osalta. Sahat jotka keskittyvät asiakas- ja erikoistuotteisiin tuntevat olevansa paremmassa asemassa henkilökohtaisten kontaktien suhteen kuin kilpailijat. Sahat jotka keskittyvät vakiotuotteisiin taas tuntevat olevansa paremmassa asemassa kilpailijoihin nähden alhaisemman hinnan osalta. Kohdemarkkinadimension ja markkinoinnin menestystekijä -dimensioiden välillä ei löytynyt selkeitä yhteyksiä, jotka olisivat voimassa kaikissa maissa, joskin loogisia yhteyksiä maittain löytyi.

Erotteluanalyysillä pyrittiin selvittämään strategisia markkinointipäätöksiä, jotka luonnehtivat eri maita ja tulokset vahvistivat käsitystä, että suomalaiset sahat ovat asiakaslähtöisempiä kuin sahat läntisessä Pohjois-Amerikassa. Lisäksi erotteluanalyysi vahvisti käsitystä, että USA:n länsiosan sahat ovat vakiotuoteorientoituneimpia ja toisaalta ko. sahat tuntevat olevansa paremmassa asemassa kilpailijoihin nähden markkinoinnin menestystekijöiden suhteen kuin sahat Suomessa tai Kanadan Brittiläisessä Kolumbiassa.

Kilpailustrategian ja markkinointistrategian yhteydet

Kilpailustrategian ja markkinointistrategian yhteydet, joita käsiteltiin teoreettisella tasolla luvussa 2.4.3 analysoitiin myös empiirisellä aineistolla. Yhteyksiä tarkasteltiin kilpailustrategiatyyppien tai niiden yhdistelmien sijainnin suhteen kullakin markkinointistrategian dimensiolla.

Yleisellä tasolla kilpailustrategian ja tuote- ja kohdemarkkinadimensioiden yhteydet toteutuivat olettamusten mukaan, mutta maittain tarkasteltuna eroja on havaittavissa. Yhteydet toteutuvat selvimmin suomalaisilla sahoilla, differointi- ja keskittymisstrategiaa noudattavat sahat keskittyvät asiakas- ja erikoistuotteisiin, ja sahat, jotka noudattavat keskittymisstrategiaa, suuntaavat harvoihin asiakasryhmiin ja markkina-alueisiin. USA:n länsiosassa ko. yhteydet toteutuvat hyvin tuotedimension osalta ja jossain määrin myös kohdemarkkinadimension osalta. Vähiten tyydyttävästi yhteydet toteutuvat Kanadan Brittiläisen Kolumbian sahoilla.

Yhteydet kilpailustrategioiden ja markkinoinnin menestystekijöiden suhteen eivät ole yhtä selkeitä kuin edelliset. Erotteluanalyysillä pyrittiin selvittämään vielä yksityiskohtaisemmin, mitkä markkinoinnin strategiset päätökset luonnehtivat eri kilpailustrategioita ja mitkä erottavat kilpailustrategiat toisistaan. Tulokset osoittavat, että kilpailustrategiat eroavat hyvin selkeästi toisistaan. Kustannusjohtajuutta luonnehtivat vakiotuotteet, monet asiakkaat ja markkina-alueet, kun taas keskittymis- ja differointistrategioita luonnehtivat asiakas- ja erikoistuotteet. Keskittymisstrategiaa luonnehtii vielä lisäksi harvat asiakkaat ja markkina-alueet. Nämä erot kilpailustrategioiden välillä osoittavat hyvin selvästi kappaleessa 2.4.3 tehdyt hypoteesit valideiksi.

Markkinointistrategian yhteydet markkinoinnin rakenteisiin ja toimenpiteisiin

Strategioita seuraavat rakenteet ja rakenteita toimenpiteet. Strategioiden toteuttaminen vaatii tietynlaisia markkinoinnin rakenteita ja strategioita toteutetaan markkinointitoimenpiteiden avulla. Yhtiön markkinointistrategia ilmentyy päivittäisten markkinointitoimenpiteiden toteuttamisessa. Markkinointistrategian ja markkinoinnin rakenteiden ja toimenpiteiden välisten yhteyksien tutkiminen on tärkeää, sillä jos yhteyksiä löytyy ne validoivat käytetyn markkinointistrategiakäsitteen ja sen operatioinalisoinnin.

Markkinoinnin rakenteita mitattiin markkinointihenkilöstön määrällä ja viennin jakelukanavilla. Loogisin oli yhteys markkinointistrategian tuotedimension ja keskimääräisen markkinointihenkilöstön määrän per 1000 m^3 välillä. Asiakas- ja erikoistuotteiden markkinointi vaatii suhteellisesti enemmän markkinointihenkilöstöä kuin vakiotuotteiden markkinointi. Myös kohdemarkkinadimension osalta looginen yhteys toteutuu, eli keskittyminen moniin asiakkaisiin ja markkina-alueisiin vaatii suhteellisesti enemmän markkinointihenkilöstöä kuin keskittyminen harvoihin asiakkaisiin ja markkina-alueisiin.

Tuotedimension ja henkilökohtaisten kontaktien välisistä yhteyksistä voidaan todeta, että markkinointikanavan välijäsenet olivat ko. kontaktien pääasiallisin kohderyhmä huolimatta painotuksista eri tuotedimensiolla. Toisaalta kuitenkin kaikissa maissa sahat, jotka keskittyvät asiakas- ja erikoistuotteisiin kohdistavat enemmän henkilökohtaisia kontakteja teollisiin loppukäyttäjiin kuin vakiotuotteisiin keskittyvät sahat.

Markkinainformaation hankinnan ja tuotedimension välisestä selvästä yhteydestä voidaan todeta, että keskittymistä asiakas- ja erikoistuotteisiin luonnehtii intensiivisempi markkinainformaation keräys ja suhteellisesti korkeampi lukumäärä markkinatutkimuksia per 1000 m^3 kuin vakiotuotteisiin keskittyjiä. Kohdemarkkinadimension osalta loogiset yhteydet toteutuvat markkinainformaation lähteiden osalta sekä markkinatutkimusprojektien määrän suhteen, eli sahat, jotka valikoivat kohdemarkkinoitaan, käyttävät enemmän muita lähteitä kuin myyntikontakteja sekä tekevät suhteellisesti enemmän markkinatutkimusprojekteja.

Suomessa ja USA:n länsiosassa sahoja, jotka keskittyvät vakiotuotteisiin, luonnehtivat suuremmat investoinnit mainontaan ja tiedotukseen per 1000 m^3 kuin sahoja, jotka keskittyvät asiakas- ja erikoistuotteisiin. Kohdemarkkinadimension ja markkinointikommunikaation välillä on looginen yhteys kaikissa maissa. Sahat, jotka eivät ole valikoivia kohdemarkkinoiden suhteen, investoivat suhteellisesti enemmän mainontaan ja tiedotukseen kuin sahat, jotka ovat valikoivia kohdemarkkinoidensa suhteen.

Verrattuna vakiotuotteisiin keskittyviin sahoihin asiakas- ja erikoistuotteisiin keskittyviä sahoja luonnehtivat jatkuva ja systemaattinen tuotekehitys kaikissa maissa ja suuremmat suhteelliset investoinnit tutkimus- ja kehitystyöhön USA:n länsiosassa ja Kanadan Brittiläisessä Kolumbiassa. Tuotekehityksen lähtökohdat osoittavat, että sahat läntisessä Pohjois-Amerikassa toimivat raaka-ainelähtöisesti huolimatta painotuksista markkinointistrategian tuotedimensiolla. Suomalaisilla sahoilla asiakkaiden tarpeet ovat tuotekehityksen tärkein lähtökohta erityisesti asiakas- ja erikoistuotteita painottavilla sahoilla.

Markkinointistrategioiden kahden päädimension (tuote- ja kohdemarkkinadimension) ja markkinoinnin rakenteiden ja toimenpiteiden yhteyksien tutkiminen osoitti, että yhteyksiä on olemassa, mikä antaa tukea käytetyn markkinointistrategiakäsitteen ja sen operationalisoinnin validiteetille.

Kilpailustrategian yhteydet markkinoinnin rakenteisiin ja toimenpiteisiin

Tietyn kilpailustrategian noudattaminen heijastuu jossain määrin yrityksen markkinoinnin rakenteisiin ja toimenpiteisiin. Eräitä loogisimmiksi oletettuja yhteyksiä analysoitiin ja tulosten perusteella ne toimivat. Differointi- ja keskittymisstrategiaa luonnehtivat keskimäärin suurempi markkinointihenkilöstön määrä per 1000 m^3, intensiivisempi markkinainformaation keräys ja keskimäärin suuremmat investoinnit per m^3 tutkimukseen ja kehitystyöhön. Nämä loogiset yhteydet antavat tukea käytetyn kilpailustrategiakäsitteen operationalisoinnin validiteetille.

Tutkimuksen tulosten tarkastelu

Tutkimuksen teoreettisessa taustassa yhdistyvät teoriat sekä markkinoinnin että strategioiden alueelta, mutta tutkimuksen peruslähtökohtana on kuitenkin markkinointi. Strategiatutkimuksessa käytettyjä strategiakäsitteitä analysoitiin ja tämän analyysin pohjalta kehitettiin luokittelu, joka sisältää viisi strategiakäsitteen tyyppiä. Luokittelun tarkoituksena oli selventää strategiakäsitettä. Eri strategiatyypit eivät ole kuitenkaan toisiaan poissulkevia, koska strategiakäsitteiden määrittelyt on usein esitetty varsin epäselvästi ja tämän seurauksena strategiakäsitteiden analysointi on aina subjektiivista.

Kaksi erilaista strategiakäsitettä valittiin empiiriseen analyysiin. Valittua markkinointistrategiakäsitettä, joka on laaja-alaisempi kuin markkinointistrategiakäsitteet yleensä, kehitettiin teoreettisella tasolla yhteensopivammaksi kilpailustrategian käsitteen kanssa. Tähän teoreettiseen markkinointistrategian kehittämiseen ja selventämiseen sisältyi myös uuden termin *markkinoinnin menestystekijä* esittely, mikä on tämän tutkimuksen merkittävimpää teoreettista antia strategiakäsitteiden määrittelyjen analysoinnin ohella.

Tutkimuksen teoreettisiin tavoitteisiin kuului myös strategiakäsitteen operationalisoinnin ja mittaamisen selventäminen. Operationalisoinnin ja mittaamisen analyysin tuloksena oli teoreettista materiaalia, joka on käytännöllisessä ja teoreettisessä mielessä tärkeää kenelle tahansa, joka suunnittelee tutkimusta strategioista. Tutkimuksessa tuotettiin myös varsin selkeä kuvaus prosessista; teoreettisista käsitteistä operationalisoinnin avulla mittaamiseen.

Kilpailustrategioiden analyysi osoitti, että suomalaisilla sahoilla on edistyksellisemmät kilpailustrategiat (differointi ja keskittyminen) kuin sahoilla Pohjois-Amerikan länsiosassa. Mitattaessa kilpailustrategioita sahoilla kaikissa maissa tuntui olevan vaikeuksia identifioitua vain yhden kilpailustrategiatyypin kanssa. Kilpailustrategioiden yhdistelmiä on teoreettisella ja empiirisellä tasolla löydetty myös aikaisemmissa tutkimuksissa. Sahateollisuudessa keskittyminen puhtaasti yhteen kilpailustrategiaan tuntuu olevan erityisen vaikeaa, sillä esimerkiksi tuotteiden suhteen tyypillisesti aina osa tuotannosta on lankeavia vakiotuotteita. Yleisellä tasolla myös sahatavaran tekniset ominaisuudet ovat hyvin yhtenäisiä tuottajasta riippumatta.

Markkinointistrategian kuvaus dimensioittain osoitti, että molemmilla perusdimensioilla — kohdemarkkina- ja tuotedimensio — esiintyy selvästi toisaalta hyvin edistyksellinen strategia ja toisaalta vähemmän edistyksellinen strategia. Selviä eroja maitten välillä havaittiin tutkittaessa markkinointistrategioita maittain. Suomalaiset sahat ovat hyvin asiakaslähtöisiä eli ne keskittyvät asiakas- ja erikoistuotteisiin ja harvoille kohdemarkkinoille. Sen sijaan Pohjois-Amerikan länsiosan sahat painottavat enemmän vakiotuotteita ja monia kohdemarkkinoita. Nämä

tulokset vahvistuivat erotteluanalyysissä.

Nämä tulokset selittyvät osittain Pohjois-Amerikan länsiosan sahojen suuremmalla vuosituotannolla ja erityisesti läntisen USA:n sahojen kotimaa-orientoituneisuudella. Pienempi saha pystyy toimimaan joustavammin ja tästä johtuen edistyksellisemmän markkinointi- tai kilpailustrategian noudattaminen on helpompaa pienemmälle sahalle kuin suursahalle. Eroja on myös suomalaisten ja pohjoisamerikkalaisten sahojen toimintaympäristöissä ja strategisissa areenoissa. Suomalaisten sahojen on, kotimarkkinoiden pienuuden vuoksi, pystyttävä selviämään kovassa kansainvälisessä kilpailussa, kun taas sahat USA:n länsiosassa ja Kanadan Brittiläisessä Kolumbiassa ovat keskimäärin vähemmän riippuvaisia viennistä. Kanadan Brittiläisen Kolumbian sahoille vienti USA:han on lähes samanlaista kuin myynti kotimaahan.

Markkinointistrategian sisäisen rakenteen analyysi vahvistaa olettamusta käytetyn markkinointistrategiakäsitteen ja sen operationalisoinnin validiteetista. Markkinointistrategian perusdimensiot ovat samat, jotka tyypillisesti kuvataan ydinpäätöksiksi missä tahansa strategiassa.

Yksi tutkimuksen tavoitteista oli analysoida kilpailustrategian ja markkinointistrategian yhteyttä. Näiden kahden strategiakäsitteen yhteyttä analysoidaan teoreettisella ja testataan empiirisellä tasolla. Yhteydet kilpailustrategian ja markkinointistrategian perusdimensioiden kanssa toteutuvat tehtyjen olettamusten mukaan yleisellä tasolla. Maiden välillä on kuitenkin eroja olettamusten toteutumisessa. Nämä yhteydet vahvistuvat myös erotteluanalyysissä, jossa selvitettiin, mitkä strategiset markkinointipäätökset luonnehtivat kilpailustrategioita. Tulosten perusteella voidaan sanoa, että tarpeeksi todisteita löytyy tukemaan kilpailustrategian ja markkinointistrategian yhteyden validiteettia.

Markkinointistrategian ja markkinoinnin rakenteiden ja toimenpiteiden yhteyksiä analysoitiin strategiakäsitteiden operationalisointien validoimiseksi. On tarkoituksenmukaista korostaa, että tavoitteena ei ollut yksityiskohtaisesti analysoida markkinoinnin rakenteita ja toimenpiteitä. Tulokset näistä yhteyksistä antavat selvästi lisätukea strategiakäsitteiden operationalisointien validiteetille.

Tutkimuksen yhtenä perustavoitteena oli tuottaa informaatiota, joka auttaisi sahateollisuutta strategisessa suunnittelussa. Liikkeenjohdon kannalta tutkimuksen teoreettiset tulokset tuottavat selkeän viitekehyksen strategiaan liittyvien käsitteiden ymmärtämiseen ja myös strategian merkityksen ymmärtämiseen ja arviointiin omassa yrityksessä. Yksi tutkimuksen tärkeimmistä tuloksista sahan johtajan kannalta katsottuna on ajatus siitä, että strategia ei välttämättä ole etukäteen suunniteltu jäykkä lausuma, jota täytyy toteuttaa ympäristön muutoksista huolimatta. Strategia voi sisältää myös osia, joita ei ole etukäteen suunniteltu ja strategian lopullinen tavoite on saavuttaa kilpailuetu kilpailijoihin nähden. Selkeä strategia on johdonmukaisten päätösten tulos ja johtaa kilpailuetuun sekä muodostaa yrityksen menestymisen perustan. Tutkimuksen empiiriset tulokset tuottivat arvokasta informaatiota suomalaisten ja Pohjois-Amerikan länsiosan suurten sahojen strategioista, minkä pitäisi olla hyödyllistä sahojen johtajille ajatellen sahatavaramarkkinoiden viimeaikaisia maailmanlaajuisia tapahtumia. Tällainen kansainvälinen vertailu, joka tuottaa informaatiota kilpailijoiden strategioista, on tärkeää ja kiinnostavaa erityisesti vientimarkkinointistrategioita kehitettäessä, ja toivottavasti se myös herättää arvioimaan nykyisiä markkinointistrategioita ja aiheuttaa muutoksia niissä.

On korostettava, että tämän tutkimuksen tulokset eivät ole suoraan yleistettävissä koko sahateollisuuteen kussakin maassa. Tulokset ovat sovellettavissa vain suuriin sahoihin aineiston keräysalueilla. Yleistäminen suuriin sahoihin muualla on tehtävä varovaisesti. Vastausprosentit olivat kuitenkin korkeita, joten aineisto edustaa hyvin suuria sahoja ja myös aineiston havaintojen määrä on kohtalaisen korkea verrattuna samantyyppisiin tutkimuksiin aikaisemmin.

Maittaisten aineistojen välillä on myös aikaeroa, Suomen aineisto kerättiin vuonna 1988 ja Pohjois-Amerikan länsiosan aineisto vuonna 1991. Tulosten mukaan suomalaisilla sahoilla oli edistyksellisemmät strategiat kuin Pohjois-Amerikan länsiosan sahoilla jo vuonna 1988 ja on epätodennäköista, että kehitys Suomessa on kääntynyt taaksepäin. Jos suomalainen aineisto olisi kerätty myös vuonna 1991, olisivat erot maiden välillä ilmeisesti olleet vieläkin suuremmat.

Tuloksia tulkittaessa on muistettava, että aineisto kerättiin henkilökohtaisilla haastatteluilla ja useimmat haastatteluista tehtiin yhden henkilön kanssa. Vastaukset heijastelevat täten yhden henkilön ajatuksia yhtiön strategiasta. Kustakin yhtiöstä pyrittiin löytämään sopivin henkilö vastaajaksi. Ongelmia saattaa aiheutua myös jos tutkija ja haastateltava eivät puhu samaa kieltä eli eivät tunne terminologiaa. Useimpien tietolähteiden käyttö yhtiöissä olisi lisännyt tutkimuksen tulosten validiteettia. Edelleen kulttuurierot Pohjois-Amerikan ja Suomen välillä saattavat aiheuttaa ongelmia, jotka on pidettävä mielessä.

Yleisesti ottaen tämän tutkimuksen tulokset tukevat muista tutkimuksista saatuja tuloksia. Strategiakäsitteiden rakenteet osoittautuivat mittauksissa olevan yleisesti hyväksyttyjen teorioiden mukaisia. Empiiriset tulokset erityisesti suomalaisten sahojen osalta ovat aikaisempien tutkimusten tulosten mukaisia. Pohjois-Amerikan länsiosassa vastaavuutta aikaisempien tutkimusten kanssa oli myös havaittavissa, joskin aikaisempien tutkimusten määrä oli kohtalaisen rajoitettu. Tämä tutkimus lisää tuota määrää yhdellä, mutta sahojen strategioihin jää yhä monia tutkimattomia alueita. Selvää on kuitenkin se, että sahateollisuuden on mentävä eteenpäin ja kehitettävä edistyksellisempiä strategioita pystyäkseen vastaamaan tulevaisuuden haasteisiin.

Appendix 1. The prenotification letter and questionnaire used in the Western USA.

May 13, 1991

Dear Director of Lumber Sales and Marketing,

My name is Juha Niemelä and in conjunction with The Forest Products and Engineering Division at the College of Forest Resources, University of Washington, I am conducting a survey about marketing strategies in the softwood lumber industry in Western North America. The survey is part of my efforts to complete my Ph.D. degree. Your company was scientifically selected from among the hundred largest softwood lumber producers in this region. Because of the small amount of selected companies, your response to the enclosed survey is of key importance for both to the success of this research and to the completion of my doctoral degree and would be greatly appreciated.

The purpose of the survey is to better understand the marketing strategies used in the lumber industry and produce information that may assist respondents in strategic marketing planning. The study will be cross-national comparing Western Canada and Western U.S.

The information will be collected by personal interviews. I will be contacting you in the next two weeks to set up an interview. The questions I will ask appear in the enclosed questionnaire. Because the survey deals with some fairly precise issues about marketing strategies, we ask you to forward this questionnaire to the person who is responsible for the planning of lumber marketing strategies in your company.

This survey has been designed for easy completion. For the survey results to be reliable, I need a high rate of response, so your answers are crucial. I would appreciate if you could spare about one hour of your time so I could meet personally with you and review the questions.

The results of the study will be aggregated and presented only on a industry basis so that individual firms cannot be identified. All answers are strictly confidential. You will receive a copy of the study report by checking the appropriate box in the last question.

Thank you in advance for your cooperation and help!

Sincerely,

Juha S. Niemelä
Research Assistant
Forest Products Marketing
Tel. (206) 685-2338

Enclosure

University of Washington
College of Forest Resources
Seattle, Washington

QUESTIONNAIRE: MARKETING STRATEGIES OF LARGE WESTERN NORTH AMERICAN SOFTWOOD LUMBER PRODUCERS

Name of the company: ______________________

Name of the respondent: ______________________

Title of the respondent: ______________________

1. What was your company's softwood production, export and sales volumes in the Northwest (WA, OR and Northern CA) in 1990?

Production volume __________ MBF
Export volume __________ MBF
Sales revenue __________ $ 000

2. Is your company's sawmilling business:

a. Single sawmill (__)
b. Multiple sawmills (__)*
c. Multiple sawmills integrated with forest products producer (sawn products plus pulp, paper or panels) (__)*

* If your firm has multiple sawmills (b. or c. above), please rank the degree of freedom the sawmills have in strategic planning.

Each site conducts its own strategic planning 1 2 3 4 5 All strategic planning is done at corporate headquarters

App. 1. continued

For the following questions:

- Commodity products are lumber manufactured to standard lumber sizes according to ALS standards.
- Specialty products differ from traditional lumber in drying, grading, lengths and/or dimensions or in level of value-added. (For example: lumber cut to special sizes/lengths, treated, stress graded, finger joint, or specially kiln dried lumber)
- Custom-made products are manufactured according to the needs of a specific customer. Customer needs are taken into consideration in production planning and the end-user of certain lumber is already known when lumber is produced. (For example: Furniture/window components produced for specific customer.)

3. How was your production divided between following product groups in 1990 and what do you anticipate it to be in 1995?

	1990	1995		1990	1995
Commodity products	___ %	___ %,	Export proportion	___ %	___ %
Specialty products	___ %	___ %,	Export proportion	___ %	___ %
Custom-made products	___ %	___ %,	Export proportion	___ %	___ %
Total	100 %	100 %			

Please define your specialty and custom-made products by highest volume in 1990:

Our specialty products are: ______________________

Our custom-made products are ______________________

4. What was your approximate sawmill capacity utilization and Lumber Recovery Factor in 1990?

Capacity utilization _______ %
Lumber Recovery Factor __________

5. Most important export countries and percent of export of each country in 1990?

Country of export	Percent of exports in 1990	
	Commodity products	Specialty/ custom-made products
1. Canada	______	______
2. Japan	______	______
3. China (PRC)	______	______
4. South Korea	______	______
5. Other Asia, please specify	______	______
a. ______	______	______
b. ______	______	______
c. ______	______	______
6. United Kingdom	______	______
7. Italy	______	______
8. Other Europe, please specify	______	______
a. ______	______	______
b. ______	______	______
c. ______	______	______
9. Australia	______	______
10. Others, please specify	______	______
a. ______	______	______
b. ______	______	______
c. ______	______	______
Totals	100 %	100 %

6. What were your major customer types in 1990 in order of volume with 1 = largest volume of products sold?

Examples of customer types are:

- Export trading company (domestic or foreign)
- Importers
- Lumber traders/brokers
- Window and door manufacturers
- Planing mills
- Furniture manufacturers
- Builders/Contractors
- Truss manufacturers, etc.
- Retailers
- Wholesalers
- Distributors
- Transfer within company
- Miscellaneous manufacturers

	CUSTOMERS FIELD OF OPERATION	APPROXIMATE % OF PRODUCTION	COUNTRY
1.	______	______	______
2.	______	______	______
3.	______	______	______
4.	______	______	______
5.	______	______	______
6.	______	______	______
7.	______	______	______
8.	______	______	______
9.	______	______	______
10.	______	______	______
	Total	100 %	

7. The table below lists alternative distribution channels for export markets. Please find the channels that your company is using and give the percentage of each channel in 1990 for commodity and specialty/custom-made products. (For example alternative 1. means that your are selling a certain percent directly to industrial end-users.)

Export markets (including Canada):

	Commodity products %	Specialty/ Custom -made products %
1. Manufacturer -- Industrial end-user		
2. Manufacturer -- Retailer -- Private end-user		
3. Manufacturer -- Wholesaler -- Industrial end-user		
4. Manufacturer -- Wholesaler -- Retailer -- Private end-user		
5. Manufacturer -- Importer -- Industrial end-user		
6. Manufacturer -- Domestic agent -- Industrial end-user		
7. Manufacturer -- Foreign agent -- Industrial end-user		
8. Manufacturer -- Company owned overseas sales office -- Ind. end-user		
9. Manufacturer -- Company owned overseas sales office -- Importer -- Industrial end-user		
10. Manufacturer -- Company owned overseas sales office -- Retailer -- Private end-user		
Others, please specify		
Total	100 %	100 %

8. Below is a list of alternative product, customer, and market area strategies. How does each alternative correspond to the strategy in your company?

Corresponds to our company strategy:

	exactly	well	somewhat	poorly	not at all
Product strategy emphasizes:					
- Competitive commodity products	5	4	3	2	1
- Specialty products	5	4	3	2	1
- Custom-made products	5	4	3	2	1
Targeted customer groups are:					
- As many customer and end-user groups as possible	5	4	3	2	1
- Few well-defined end-use segments	5	4	3	2	1
- Known end-users	5	4	3	2	1
Market areas are:					
- As many countries/regions as possible	5	4	3	2	1
- Few, well-defined countries/regions	5	4	3	2	1

9. Where do you see your company positioned compared to your competitors relative to the following company/marketing success factors?

Our company has:

	Clearly in a more advantageous/ better position		Equal position		Clearly in a more disadvant ageous/worse position
1. Effective marketing	5	4	3	2	1
2. Customer relationships (historic or service)	5	4	3	2	1
3. Intensive personal selling	5	4	3	2	1
4. Market share	5	4	3	2	1
5. Aggressive credit policy (discounts, terms of payment, pricing ranges)	5	4	3	2	1
6. Effectiveness of marketing channel	5	4	3	2	1
7. Competitive prices	5	4	3	2	1
8. Well known product brand	5	4	3	2	1
9. Transportation expertise	5	4	3	2	1
10. Research and Development work	5	4	3	2	1

Please rank in order of importance five of the above factors that your firm emphasizes as competitive advantages:

1. (_) 2. (_) 3.(_) 4. (_) 5. (_)

10. Using the descriptions provided below classify the strategy used in your company.

TYPE 1.
- Cost leadership by using economies of large scale production. Minimisation of production costs is the main objective. Differentiation of products and customers is avoided. Costs of product development and marketing are minimized.

TYPE 2.
- Differentiation of products and/or services. The objective is uniqueness. Differentiation can be based on customer service, product image, distribution and/or a reputation as an innovator in developing new products.

TYPE 3.
- Focus on a certain customer group, market area or product group. The company, or a product/market area-group inside the company, builds its strategy to serve certain target group as well as possible - better than competitors who are serving a broader area. (The company can thereby achieve a cost- or differentiation advantage within a chosen target group.)

Our company's strategy corresponds most closely to type (___)

If there are components in your strategy from more than one type, how it is divided between the above described types?

Type 1 _____ %
Type 2 _____ %
Type 3 _____ %

Total 100 %

11. Please describe how is the manager's time within the sawmill/division on average divided between the following operations?
- Raw material procurement _____ %
- Production _____ %
- Marketing _____ %
- General administration _____ %
- Other, please specify _____ %

Total 100 %

12. How many full time equivalent employees do you have devoted to marketing functions in your lumber operations?

_________ Full time equivalent(s)

13. Has the number of marketing personnel from 1980 - 1990:
a) Increased (__), if so by what percent ______ %
b) Stayed the same(__)
c) Decreased (__), if so by what percent ______ %

14. How is the time spent by sales managers in customer contacts divided between the following customer types?
- Retailer _____ %
- Wholesaler _____ %
- Domestic agent _____ %
- Foreign agent _____ %
- Importer _____ %
- Industrial end-user _____ %
- Others, please specify _____ %

Total 100 %

15. How much did you invest in research and development in 1990?

Percent of sales _____ % = $ ____________

17. In your opinion, is it possible to improve the success of North-American sawmill industry by investing into research and education?

More investment for:	Effect on the success of the industry: Significant effect				No effect
• Technical research	5	4	3	2	1
• Marketing research	5	4	3	2	1
• Skilled engineering personnel	5	4	3	2	1
• Skilled marketing personnel	5	4	3	2	1
• Post-graduate education	5	4	3	2	1

16. Are there difficulties in the following areas of research and development within your company?

	Lot of difficulties				No difficulties at all
• Economic resources	5	4	3	2	1
• Technological resources	5	4	3	2	1
• Technical skills	5	4	3	2	1
• Marketing skills	5	4	3	2	1
• Obtaining market information	5	4	3	2	1
• Attitudes towards research and development	5	4	3	2	1
• Use of outside consulting	5	4	3	2	1
• Obtaining outside technical information	5	4	3	2	1
• Organization of research and development	5	4	3	2	1
• Lack of qualified personnel	5	4	3	2	1

18. Following is a list of research and development objectives. How are these objectives emphasized in your company?

	High degree of emphasis				No emphasis
• Reduction of production costs	5	4	3	2	1
• Refining existing products	5	4	3	2	1
• Developing new products	5	4	3	2	1
• Making the production process more efficient (increasing recovery)	5	4	3	2	1

19. Is there any product development done in your company? Which of the following alternatives best describes the situation in your company?

a. Continuous and systematic product development (__)*
b. Occasional or casual product development (__)*
c. No product development (__)

* What kind of product development is it? ______________________________

20. Rank the following starting points of product development from 1-3 (1 is the most important and 3 the least).

The objective of product development is to:
- More effectively use raw materials and adapt production to raw material possibilities (__)
- Utilize and develop production technology (__)
- Satisfy customer needs (__)

21. Is market information collected in your company? Which of the following describes best the situation at your company?

a. The collecting of market information is continuous and systematic (_)*
b. Gathering is occasional or casual (_)*
c. No gathering at all (_)

* How is the gathering of market information done? ________________

22. How do you acquire market- and customer information?

a. In sales contacts .... ____ %
- Wholesaler ____ %
- Retailer ____ %
- Domestic agent ____ %
- Foreign agent ____ %
- Importer ____ %
- Industrial end-user ____ %

Total 100 %

b. Marketing/market research .... ____ %
- Done by own personnel ____ %
- Outside consultants ____ %

Total 100 %

c. Others (trade journals, periodicals, association meetings, please specify ____________) .... ____ %

TOTAL 100 %

23. How many marketing research projects did your company start in 1990?

______

24. Give rough estimates on how is your advertising and promotion budget divided between following areas?

- Advertising ____ %
- Public Relations (i.e.. customers visits) ____ %
- Sales Promotion (i.e.. exhibitions) ____ %
- Other, please specify __________ ____ %

Total 100 %

25. In total approximately how much was spent into these categories above in 1990?
$ ________

26. How do you divide advertising expenses?

a. General advertising in trade journals .... ____ %

b. Target group advertising .... ____ %
- Wholesaler ____ %
- Retailer ____ %
- Importer ____ %
- Industrial end-user ____ %
- Effect groups ____ %

Total 100 %

c. Other, please specify __________
__________ .... ____ %

TOTAL 100 %

27. Would you like to receive a summary of the results of this study?

Yes (_)
No (_)

THANK YOU !

Appendix 2. The list of variables used in final analysis.

Number	Name	Type / Explanation
1	OBSNUM	Number of observation
2	TITLE	Title of respondent
3	COUNTRY	Country
4	STATE	State/Province
5	PRODBF	Production in 1000 m³
6	EXPORTS	Exports in 1000 m³
7	EXPPER	Export proportion of production, %
8	SALESFIM	Sales revenue in 1990 in FIM (mill.)
9	BUSTYPE	Business type
10	COMM90	Proportion of commodity products in 1990, %
11	COMMEX90	Export proportion of commodity products in 1990, %
12	SPEC90	Proportion of specialty products in 1990, %
13	SPECEX90	Export proportion of specialty products in 1990, %
14	CUSTM90	Proportion of custom-made products in 1990, %
15	CUSTEX90	Export proportion of custom-made products in 1990, %
16	EXPCO1	Country of Export
17	COMMEX1	Percent of commodity exports in 1990, %
18	SPECEX1	Percent of specialty/custom-made exports in 1990, %
19	EXPCO2	Country of Export
20	COMMEX2	Percent of commodity exports in 1990, %
21	SPECEX2	Percent of specialty/custom-made exports in 1990, %
22	EXPCO3	Country of Export
24	COMMEX3	Percent of commodity exports in 1990, %
25	SPECEX3	Percent of specialty/custom-made exports in 1990, %
26	EXPCO4	Country of Export
27	COMMEX4	Percent of commodity exports in 1990, %
28	SPECEX4	Percent of specialty/custom-made exports in 1990, %
29	EXPCO5	Country of Export
30	COMMEX5	Percent of commodity exports in 1990, %
31	SPECEX5	Percent of specialty/custom-made exports in 1990, %
32	EXPCO6	Country of Export
33	COMMEX6	Percent of commodity exports in 1990, %
34	SPECEX6	Percent of specialty/custom-made exports in 1990, %
35	EXPCO7	Country of Export
36	COMMEX7	Percent of commodity exports in 1990, %
37	SPECEX7	Percent of specialty/custom-made exports in 1990, %
38	EXPCO8	Country of Export
39	COMMEX8	Percent of commodity exports in 1990, %
40	SPECEX8	Percent of specialty/custom-made exports in 1990, %
41	EXPCO9	Country of Export
42	COMMEX9	Percent of commodity exports in 1990, %
43	SPECEX9	Percent of specialty/custom-made exports in 1990, %
44	EXPCO10	Country of Export
45	COMMEX10	Percent of commodity exports in 1990, %
46	SPECEX10	Percent of specialty/custom-made exports in 1990, %
47	COMMCH1	Distribution channel, % of commodity products
48	COMMCH2	Distribution channel, % of commodity products
49	COMMCH3	Distribution channel, % of commodity products
50	COMMCH4	Distribution channel, % of commodity products
51	COMMCH5	Distribution channel, % of commodity products
52	COMMCH6	Distribution channel, % of commodity products
53	COMMCH7	Distribution channel, % of commodity products
54	COMMCH8	Distribution channel, % of commodity products
55	COMMCH9	Distribution channel, % of commodity products
56	COMMCH10	Distribution channel, % of commodity products
57	COMMCH11	Distribution channel, % of commodity products
58	COMMCH12	Distribution channel, % of commodity products
59	COMMCH13	Distribution channel, % of commodity products
60	COMMCH14	Distribution channel, % of commodity products
61	COMMCH15	Distribution channel, % of commodity products
62	COMMCH16	Distribution channel, % of commodity products
63	COMMCH17	Distribution channel, % of commodity products
64	SPECCH1	Dist. channel, % of specialty/custom-made products
65	SPECCH2	Dist. channel, % of specialty/custom-made products
66	SPECCH3	Dist. channel, % of specialty/custom-made products
67	SPECCH4	Dist. channel, % of specialty/custom-made products
68	SPECCH5	Dist. channel, % of specialty/custom-made products
69	SPECCH6	Dist. channel, % of specialty/custom-made products
70	SPECCH7	Dist. channel, % of specialty/custom-made products
71	SPECCH8	Dist. channel, % of specialty/custom-made products
72	SPECCH9	Dist. channel, % of specialty/custom-made products
73	SPECCH10	Dist. channel, % of specialty/custom-made products
74	SPECCH11	Dist. channel, % of specialty/custom-made products
75	SPECCH12	Dist. channel, % of specialty/custom-made products
76	SPECCH13	Dist. channel, % of specialty/custom-made products
77	SPECCH14	Dist. channel, % of specialty/custom-made products
78	SPECCH15	Dist. channel, % of specialty/custom-made products
79	SPECCH16	Dist. channel, % of specialty/custom-made products
80	SPECCH17	Dist. channel, % of specialty/custom-made products

81	COMMSTR	Product strategy fit, commodoity products
82	SPECSTR	Product strategy fit, specialty products
83	CUMASTR	Product strategy fit, custom-made products
84	MANYCUST	Customer strategy fit, as many as possible
85	FEWCUST	Customer strategy fit, Few well-defined
86	KNOWNCUST	Customer strategy fit, known end-users
87	MANYCOUNT	Market-area strategy fit, many countries/regions
88	FEWCOUNTR	Market-area strategy fit, few well-defined count/regs
89	EFFMKTG	Comp adv. compared to competitors: Effective mktg
90	CUSTREL	Comp adv. compared to competitors: Customer relations
91	PERSELL	Comp advant compared to competitors: Personal selling
92	MSHARE	Comp advantage compared to competitors: Market share
93	CREDPOL	Comp advantage compared to competitors: Credit policy
94	EFFDISCH	Comp adv compared to competitors:Effective distributn
95	COMPRICE	Comp adv. compared to competitors: Competitive price
96	BRAND	Comp adv. compared to competitors: Well known brand
97	TRANSP	Comp adv. comprd to comptrs: Transportation expertise
98	RD	Competitive advantage compared to competitors: R&D
99	COMPADV1	Emphasis as competitive advantage
100	COMPADV2	Emphasis as competitive advantage
101	COMPADV3	Emphasis as competitive advantage
102	COMPADV4	Emphasis as competitive advantage
103	COMPADV5	Emphasis as competitive advantage
104	PORTER	Porter's strategy
105	PCOST	Porter's strategy, %, cost ledership
106	PDIFF	Porter's strategy, %, diffrentiation
107	PFOCUS	Porter's strategy, %, focus
108	RAWMPRO	Manager's usage of time: Raw material procurement, %
109	PRDCTN	Manager's usage of time: Production, %
110	MKTG	Manager's usage of time: Marketing, %
111	GENADM	Manager's usage of time: General administration, %
112	MTIMEOTH	Manager's usage of time: Other, %
113	MKTGPERS	Number of marketing personnel
114	MPDEVLP	Development trend of marketing personnel
115	INCREASE	Increase, %
116	DECREASE	Decrease, %
117	SCONRET	Time spent by sales mngrs: Retailer, %
118	SCONWHL	Time spent by sales mngrs: Wholesaler, %
119	SCONDOMA	Time spent by sales mngrs: Domestic agent, %
120	SCONFORA	Time spent by sales mngrs: Foreign agent, %
121	SCONIMP	Time spent by sales mngrs: Importer, %
122	SCONINDE	Time spent by sales mngrs: Industrial end-user, %
123	SCONOWNS	Time spent by sales mngrs: Own sales office, %
124	SCONOTHE	Time spent by sales mngrs: Other, %
125	RDPERC	Investment in R&D, percentage of sales, %
126	RDFIM	Investment in R&D, FIM
127	ECONRES	Difficulties in R&D: Economic resources
128	TECHRES	Difficulties in R&D: Technological resources
129	TECNSKI	Difficulties in R&D: Technical skills
130	MKTGSKI	Difficulties in R&D: Marketing skills
131	OBTMAINF	Difficulties in R&D: Obtaining market information
132	ATTITUDE	Difficulties in R&D: Attitudes towards R&D
133	OUTSCONS	Difficulties in R&D: Use of outside consulting
134	OUTTECIN	Difficulties in R&D: Obtaining outside technical info
135	RDORGAN	Difficulties in R&D: Organization of R&D
136	LACKPERS	Difficulties in R&D: Lack of qualified personnel
137	PRODCOST	Objectives of R&D: reduction of production costs
138	EXPRRDCT	Objectives of R&D: Refining existing products
139	NEWPRDCT	Objectives of R&D: Developing new products
140	EFFPROC	Objectives of R&D: Efficient production process
141	PRDCTDEV	Product development
142	OBJRAWM	Objective of product development: Raw material
143	OBJPRDEV	Objective of product development: Production technlogy
144	OBJCUSNE	Objective of product development: Satisfy customer needs
145	MKTINFO	Collection of market information
146	MKTISACO	Market & customer info: IN SALES CONTACTS, %
147	MKTIWHL	Market & customer info: Wholesaler, %
148	MKTIRET	Market & customer info: Retailer, %
149	MKTIDOMA	Market & customer info: Domestic agent, %
150	MKTIFORA	Market & customer info: Foreign agent, %
151	MKTIIMP	Market & customer info: Importer, %
152	MKTIINDE	Market & customer info: Industrial end-user, %
153	MKTIOWNS	Market & customer info: Own sales office, %
154	MISACOOT	Market & customer info: Other, %
155	MKTIMRES	Market & customer info: MARKETING RESEARCH, %
156	MKTIOWNR	Market & customer info: Own marketing research, %
157	MKTIOUTR	Market & customer info: Outside consultants, %
158	MKTIOTHR	Market & customer info: OTHERS, %
159	MKTGRENR	Number of marketing research projects in 1990
160	BUDADV	Advertising and promotion budget: Advertising, %
161	BUDPR	Advertising and promotion budget: Public relations, %
162	BUDSP	Advertising and promotion budget: Sales promotion, %
163	BUDOTHR	Advertising and promotion budget: Other, %
164	ADVBUDFI	Advertising and promotion budget, FIM
165	ADEXPTRJ	Advertising expenses: GENERAL IN TRADE JOUR., %
166	ADEXPTAR	Advertising expenses: TARGET GROUPS ADVERT., %
167	ADEXPWLS	Advertising expenses: Wholesaler, %
168	ADEXPRET	Advertising expenses: Reatiler, %
169	ADEXPIMP	Advertising expenses: Importer, %
170	ADEXPIND	Advertising expenses: Industrial end-user, %
172	ADEXPEFG	Advertising expenses: Effect groups, %
173	ADEXPOTH	Advertising expenses: OTHER

Appendix 3. Classification method for the new classification of Porter's strategy types (including also combination strategies).

When a respondent indicated that the company had components from more than one strategy type, the following rules were used when classifying sawmills:

1. If a sawmill had components from two different strategy types it was considered to apply a combination strategy unless one of the strategy types represented 65% or more when the sawmill was considered to apply this one strategy type.
2. If a sawmill had components from all three strategy types it was considered to apply a combination of all types unless one of the strategy types represented 50% or more when the sawmill was considered to apply this one strategy type. In few cases were two strategy types represented 90% or more the sawmill was considered to apply the combination of two types (typically combinations of two strategy types of 50% plus 40%).

Appendix 4. Correlation matrix of variables describing strategic marketing decisions included in the factor analysis. (Significant correlations at 0.05 level in bold).

	81	82	83	84	85	86	87	88	89	90	91	92	94	95	96	97	98
81																	
82	**-.26**																
83	**-.46**	**.41**															
84	.12	.05	-.08														
85	-.00	**.21**	.08	**-.52**													
86	-.19	.18	**.43**	**-.20**	**.26**												
87	.04	-.03	.05	**.57**	**-.45**	-.08											
88	-.02	.16	.03	**-.52**	**.49**	.17	**-.73**										
89	.19	-.04	.07	.15	-.06	.01	**.21**	-.06									
90	.12	.00	.03	.02	.12	.18	.03	.11	**.25**								
91	.07	.06	**.22**	.09	.11	**.40**	-.05	.05	**.31**	**.38**							
92	.04	-.01	.00	.06	-.14	.04	.17	-.03	**.52**	**.20**	.14						
94	-.00	.00	.15	.00	.10	.08	.12	-.14	**.43**	.19	**.27**	**.29**					
95	**.23**	-.06	-.18	.12	-.14	-.03	.05	.01	.07	**.22**	.00	.11	-.04				
96	-.06	.01	.03	-.04	.17	.08	.08	-.00	**.27**	**.37**	**.20**	**.38**	**.36**	.01			
97	.08	.04	-.03	-.04	.13	**.25**	-.02	-.05	.05	**.20**	.17	.12	**.20**	**.25**	**.25**		
98	-.12	.02	.08	.02	.07	.10	-.13	-.02	.15	.11	**.21**	**.22**	.06	-.01	**.21**	**.24**	

Appendix 5. Principal axis solutions.

Pricinpal axis solution. Variables describing product, customer and market area decisions.

Variable	I	II	III	h^2_3
	Loadings			
Commodity products	-0.18	0.43	0.18	0.25
Specialty products	0.31	-0.69	0.58	0.90
Custom-made products	0.27	-0.75	-0.32	0.73
As many customer groups as possible	-0.70	-0.21	0.22	0.58
Few well-defined segments	0.64	0.06	0.04	0.42
Known end-users	0.34	-0.33	-0.24	0.28
As many countries/regions as possible	-0.75	-0.33	-0.06	0.68
Few-well defined countries/regions	0.79	0.22	0.12	0.68
Eigenvalue	2.39	1.53	0.60	4.52
Total variance (%)	28.1	20.9	7.5	56.5

Pricinpal axis solution. Variables describing strategic marketing competences.

Variable	I	II	III	IV	h^2_4
	Loadings				
Effective marketing	0.77	-0.18	-0.45	-0.42	1.00
Customer relationships	0.48	0.14	0.16	0.10	0.28
Intensive personal selling	0.64	-0.14	0.70	-0.27	1.00
Market share	0.55	-0.02	-0.28	0.07	0.38
Effectiveness of marketing channel	0.50	-0.13	-0.08	0.07	0.28
Competitive price	0.20	0.97	-0.04	-0.15	1.00
Well-known product brand	0.59	-0.04	-0.06	0.49	0.60
Transportation expertise	0.31	0.22	0.12	0.23	0.22
Research & development	0.29	-0.02	0.06	0.14	0.11
Eigenvalue	2.35	1.08	0.83	0.61	4.87
Total variance (%)	26.1	12.0	9.2	67.8	54.1

Appendix 6. Discrimination of countries regarding strategic marketing decisions.

Nature of strategic differences between countries including all correlations and coefficients for standardized variables. (Significant correlations in bold)

Variable	Discriminant function I Correlation	Discriminant function I Coefficient	Discriminant function II Correlation	Discriminant function II Coefficient
Commodity products	-0.10	0.32	**-0.36**	-0.15
Specialty products	0.11	-0.27	0.26	0.23
Custom-made products	**0.55**	0.78	0.12	0.14
As many customers as possible	-0.22	0.19	-0.13	-0.14
Few well-defined segments	**0.33**	0.22	-0.08	-0.06
Known end-users	**0.36**	0.12	-0.12	0.01
As many countries/regions as possible	**-0.41**	-0.37	0.04	0.27
Few-well defined countries/regions	0.28	0.13	-0.02	0.19
Effective marketing	-0.08	0.12	**-0.37**	-0.16
Customer relationships	**-0.32**	-0.39	**-0.67**	-0.58
Intensive personal selling	0.28	0.25	**-0.73**	-0.59
Market share	**-0.35**	-0.27	-0.02	0.19
Effectiv of mktg channel	-0.10	-0.13	**-0.32**	-0.17
Competitive price	**-0.50**	-0.47	-0.04	0.08
Well-known product brand	**-0.33**	-0.29	-0.16	0.09
Transportation expertise	-0.07	0.23	0.04	0.26
Research & development	0.17	0.20	0.01	0.15

Criterion for the discrimanting power of the variable set:

Wilks' lambda 0.390

Signficance of the separation of the countries

Rao's F appr. F(34, 166)= 2.93, prob=1.00

Coefficients for original (non-standardized) variables.

Variable	Coefficient: Discriminant function I	Coefficient: Discriminant function II
Commodity products	0.26	-0.12
Specialty products	-0.23	0.20
Custom-made products	0.58	0.11
As many customer groups as possible	0.14	-0.11
Few well-defined segments	0.20	-0.06
Known end-users	0.09	0.00
As many countries/regions as possible	-0.28	0.21
Few-well defined countries/regions	0.11	0.16
Effective marketing	0.14	-0.19
Customer relationships	-0.59	-0.88
Intensive personal selling	0.26	-0.62
Market share	-0.28	0.20
Effectiveness of marketing channel	-0.15	-0.19
Competitive price	-0.51	0.08
Well-known product brand	-0.30	0.08
Transportation expertise	0.09	0.23
Research & development	0.20	0.15

Appendix 7. Discrimination of generic competitive strategies regarding strategic marketing decisions.

Nature of strategic differences between generic competitive strategy types including all correlations and coefficients for standardized variables. (Significant correlations in bold)

Variable	Discriminant function I		Discriminant function II	
	Correlation	Coefficient	Correlation	Coefficient
Commodity products	**0.37**	0.17	**0.44**	0.42
Specialty products	-0.20	0.04	**-0.39**	-0.39
Custom-made products	**-0.32**	-0.22	**-0.49**	-0.01
As many customers as possible	**0.56**	0.37	0.02	0.14
Few well-defined segments	-0.26	-0.14	-0.26	-0.34
Known end-users	**-0.48**	-0.52	-0.10	0.01
As many countries/regions as possible	0.30	0.01	-0.13	-0.00
Few-well defined countries/regions	**-0.39**	-0.21	0.08	0.54
Effective marketing	0.13	0.12	-0.29	-0.70
Customer relationships	**0.44**	0.49	0.01	-0.10
Intensive personal selling	0.19	0.29	-0.09	-0.07
Market share	-0.28	-0.76	0.18	0.44
Effective distribution	0.04	0.01	-0.07	0.21
Competitive price	0.14	-0.12	**0.64**	0.47
Well-known product brand	0.18	0.29	-0.07	-0.11
Transportation expertise	0.03	0.07	**0.38**	0.36
Research & development	0.00	0.01	0.09	0.11

Criterion for the discrimanting power of the variable set:

Wilks' lambda 0.372

Signficance of the separation of the countries

Rao's F appr. F(34, 122)= 2.29, prob=1.00

Coefficients for original (non-standardized) variables

Variable	Coefficient	
	Discriminant function I	Discriminant function II
Commodity products	0.15	0.36
Specialty products	0.03	-0.33
Custom-made products	-0.16	-0.01
As many customer groups as possible	0.29	0.11
Few well-defined segments	-0.13	-0.31
Known end-users	-0.42	0.00
As many countries/regions as possible	0.00	-0.00
Few-well defined countries/regions	-0.18	0.46
Effective marketing	0.13	-0.78
Customer relationships	0.71	-0.14
Intensive personal selling	0.28	-0.07
Market share	-0.78	0.46
Effectiveness of marketing channel	0.01	0.22
Competitive price	-0.13	0.53
Well-known product brand	0.28	-0.11
Transportation expertise	0.07	0.34
Research & development	0.01	0.11

Instructions to authors — Ohjeita kirjoittajille

Submission of manuscripts

Manuscripts should be sent to the editors of the Society of Forestry as three full, completely finished copies, including copies of all figures and tables. Original material should not be sent at this stage.

The editor-in-chief will forward the manuscript to referees for examination. The author must take into account any revision suggested by the referees or the editorial board. Revision should be made within a year from the return of the manuscript. If the author finds the suggested changes unacceptable, he can inform the editor-in-chief of his differing opinion, so that the matter may be reconsidered if necessary.

Decision whether to publish the manuscript will be made by the editorial board within three months after the editors have received the revised manuscript.

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Form and style

For matters of form and style, authors are referred to the full instructions available from the editors.

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