

## MODERN MARKETING EDUCATION: MODELING APPROACH & E-LEARNING

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*In marketing pedagogy the most important thing is to understand how the student creates competence and how the teacher can support the competence creation process. The competencies of a high level marketing specialist are connected with marketing planning and development. The main planning and development tools are models and information. The marketing students should learn how to work on a conceptual level using models and information but on the other hand he or she should learn thoroughly what marketing is all about in practice. This article describes how to combine scientific method and practical marketing reality. The combination of modeling approach and illustrative E-learning is called Model-based Action Learning Method.*

*Keywords: forest products marketing, modeling, e-learning, education*

### Introduction

In marketing pedagogy the most important thing is to understand how the student creates competence and how the teacher can support the competence creation process. The Degree Program of Forest Products Marketing at the University of Helsinki has defined the following educational targets: students should learn how to think, how to write and how to speak. The targets may sound simple but according to our experience a graduate mastering thinking, writing and speaking is very capable for various organizations requiring high-level marketing expertise. These three skills are needed both in the academic and business worlds. The most important competence is ability to think.

Helping a company adapt to its operating environment or building the bridge between a company and its environment are the core functions of marketing. At the management level, this means planning and development, which are the key components in the future, success of companies. At the individual level, planning and development require skills of thinking. Marketing requires creative thinking, a vision, comprehensiveness and philosophical views. Tools of thinking are structures, concepts and knowledge – models. Models have an important role in scientific thinking.

Scientific thinking may sound strange to a practical marketing person. What has science to do with every-day marketing practice? However, we know that through scientific working methods it is possible to develop better tools

and procedures – also for marketing. A real challenge for academic marketing pedagogy is to integrate theoretical and abstract model thinking with concrete marketing practice.

**The purpose** of this paper is to describe a pedagogical approach to marketing education, which combines theoretical model thinking with concrete marketing practice. The paper presents a scientific, modeling, and information-based approach which is integrated with marketing practice through electronic educational material on a website. The combination of a modeling approach and e-learning is called Model-based Action Learning Method.

The paper and the approach is **structured** around the Integrated Model of Marketing Planning (IMMP). The use of the model is motivated by introducing scientific and planning approaches in marketing pedagogy. IMMP and the Information Environment Model serve as frames of reference for both the modeling approach and e-learning. Using the new medium – Internet – in combining the modeling approach with practical examples is presented as a way to educate people about how modeling thinking works and can be utilised in the marketing planning. Concluding remarks summarise how scientific thinking, basic principles of learning theory, and Internet-based teaching and learning tools are used to create a Model-based Action Learning Method for marketing education.

## **Basic Approaches in Marketing Pedagogy**

### *Scientific Approach in Marketing*

The background of a modeling approach is the scientific method. The basis and target of University education is scientific thinking. It is important not to separate practical problem solving and research from scientific working processes and academic research.

The following example shows how solving marketing problems (planning marketing communication) can follow the same steps as the scientific method:

#### **Description**

The planner must know the concepts and constructs of communication planning. Through this knowledge she can conceptualize and master the planning situation. It is impossible to start planning without a systematic, comprehensive picture of the phenomenon.

#### **Explanation and understanding**

To influence customers the communication planner must know customer behaviour and understand why people act the way they do. Theories and models explaining consumer behaviour are needed.

#### **Prediction**

Exact descriptions and explanations of why things happen the way they do make predictions possible. For example based on certain social-psychological theories it is possible to predict that using certain incentives increases the tendency of the target group to make certain choices.

#### **Control**

Description, explanation and prediction are prerequisites of control. This means the communication planner can influence the behaviour of the consumer.

Concepts, theories and models are central in the scientific method. A scientific approach means an ability to use theories and models to help solve practical marketing problems. Figure 1 illustrates how the solution to a marketing problem can be developed through moving back and forth between marketing reality and marketing abstractions (theories, models).

When a marketing manager meets a problem, she converts it into a theoretical construct using all the experience, theoretical concepts, models and theories in her possession. From this redu-

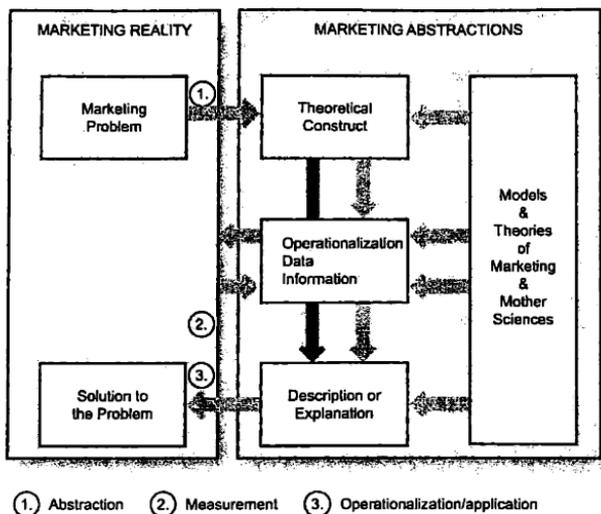


Figure 1. The Scientific Approach in Marketing

ced theoretical construct it is possible to see essential features and dependencies of a problem situation. The theories of related sciences help the manager to find explanations to problem situations or solutions to the problems. The last step is to apply the theoretical explanation or solution to the practical marketing situation. It can be concluded that the essential point in the scientific approach is the ability to use:

- Concepts, models and theories;
- Information based on scientific research or practical experience.

### Planning Approach in Marketing

Marketing planning is grounded decision-making related to future choices. What may be the most important aspect of planning is simply the learning and development that occurs among all the participants during the planning process. For a marketing manager or person responsi-

le for marketing, marketing means marketing planning. A marketing plan explains, adjusts, guides, and coordinates all that is happening in marketing. As such it is a management instrument that can be used to communicate with all those parties in the company implementing marketing. In a modern, marketing-oriented company, the network of parties implementing marketing is quite extensive.

Marketing planning is necessary for a number of reasons. As already mentioned, a critical aspect is the learning process that occurs during the planning process. At a conceptual level, marketing planning can be thought of as a run-through of the entire marketing process, a sort of conceptual simulation. At a practical level it is a document that helps implement marketing on the ground and can be compared with actual outcomes.

In order to operate at the conceptual level, a marketing designer needs models that desc-

ribe the functional environment as well as models that describe the functions. Models describing the functions (marketing) show the decisions to be made during planning. The models should also show the information that is needed for decision making. The main planning tools are models and information. The whole structure of a modeling approach follows a planning model and the necessary information is analyzed thoroughly.

## Frames of Reference Used

### *Model of Marketing Planning*

The core of a modeling approach in marketing pedagogy is a model of marketing planning. We use the Integrated Model of Marketing Planning (Figure 2), which has been developed and used in education and research within the forest products marketing program at the University of Helsinki. Several generations of Finnish students have structured their view of marketing around the model and used it as a guide in graduate research. The model has seen high-level scientific testing via a number of doctoral and licentiate theses. It has also been used to guide many practical development projects, especially in the Finnish sawmill industry.

The model contains four hierarchical levels: strategies, structures, functions and action plans. The hierarchy in the model signifies that the highest decisions must be made first and they then set objectives for the following levels. Strategies come first and structures (and systems)

follow. When there are changes in strategies there should also be changes in structures. The company operates with marketing functions to realize strategies. These marketing functions are required to satisfy the needs of the customer. In many other models they are seen as tools for competition against the other companies.

Strategies, structures and functions form a strategic marketing plan that is implemented through action plans, often called annual marketing plans. Action plans create steps for implementing strategies and functions. Strategies act as objective that guide the annual planning of marketing

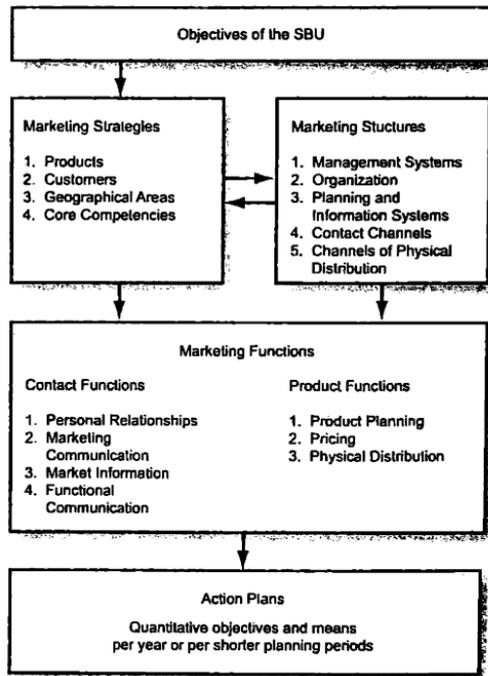


Figure 2. The Integrated Model of Marketing Planning (IMMP)

Plans related to marketing functions guide the decisions concerning the marketing measures carried out during the planning period.

**Model of the Marketing Environment**

Marketing helps a company adapt to its environment. More precisely strategies are seen as adjusters between a company and its environment. Understanding the operating environment is prerequisite for marketing. Adequate information about the environment is prerequisite for marketing planning especially for strategic marketing planning. When planning future strategies the planner is interested in market attractiveness, opportunities and threats. For a marketing specialist in leading position, marketing is marketing planning. The planner has to be able to see the operating environment comprehensively and systematically as information. Marketing education at University level should aim at that.

The following Information Environment Model (Figure 3) is designed to fit different approaches and levels of marketing planning. Various information blocks are emphasized de-

pending on the planning situation. It is up to the user which blocks are included and how they are stressed. Generally macro environment is emphasized in strategic planning.

While information of micro environment is needed more in planning of structures and functions. It is often difficult for the marketing researcher or planner, especially a beginner, to know what sort of information should be collected. This leads us to the most important aspect of the model – operationalization. To be able to use the model to produce (measure) information concerning markets and customers we must operationalize the concepts of the model. It is too general to say that demand must be measured. Instead we must define exactly what is to be measured.

*Example: Operationalization of demand*

- 1) Future demand in the short term (under 1 year)
- 2) Future demand in the medium term (1–3 years)
- 3) Future demand in the long term (over 3 years)
- 4) Future demand by customer groups
- 5) Future demand by end-uses
- 6) Future demand by countries
- 7) Price prospects

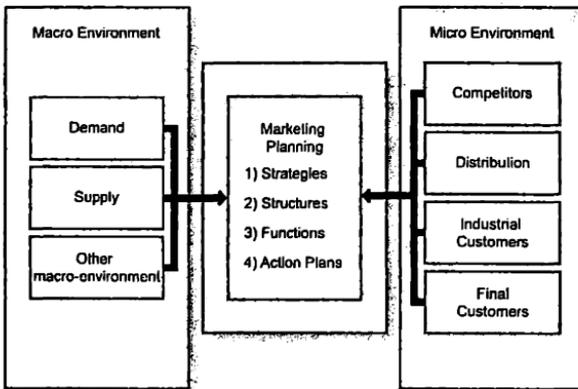


Figure 3. The Information Environment Model

Note that there are numerous ways to operationalize the concepts of the model and the most appropriate operationalization depends on the questions presented by the specific planning situation and the information needed to answer them.

When a student has internalized the modeling thinking, a model of the marketing environment and the concept of operationalization, he or she is able to create the dimensions for description of the practical market environment for various purposes.

## Examples of Model Use

### *The Decisions Needed for Marketing Execution*

In many ways marketing planning is a process of decision-making. Implementation of marketing is to put decisions into practice. Once the student has internalized the modeling approach to marketing planning, identifying the necessary decisions is straightforward.

#### Strategies

- What product(s) should the company produce?
- For what group(s) of customers are the products targeted?
- In what geographical region will the operations take place?
- Upon what core competencies will marketing be based?

#### Structures

- What management philosophy or system should be used?
- What is the most appropriate way to organize marketing?
- Which planning and information systems will be used?
- Which marketing channels will be used?

#### Functions

- How will personal selling be implemented?
- How will other forms of communication be implemented?
- How will market information be collected?
- How will customer support be implemented?
- How will new product development be implemented?
- How will pricing be implemented?
- How will physical distribution be implemented?
- How will the daily marketing communication routines (customer service) be implemented?

#### Action Plans

- What are the marketing targets per planning period
- What are the means to be used
- What amount of money will be used
- What is the schedule of the marketing measures

### *Revealing the Planning Gap*

For a marketing planner it may be sometimes difficult to recognize and justify when, how or why marketing practices (structures or functions) should be developed. Marketing theory can help in this process. Identifying the need for further development of marketing strategies and practices can be done by using an 'ideal' model of marketing as a benchmark. Marketing theories are the most typical form of ideal models of marketing. The IMMP is one example of an 'ideal model' that can be used when identifying needs for further development. The following figure shows how the accuracy of marketing strategies, structures and functions can be evaluated against marketing theory.

Analysis of market opportunities and threats and company strengths and weaknesses

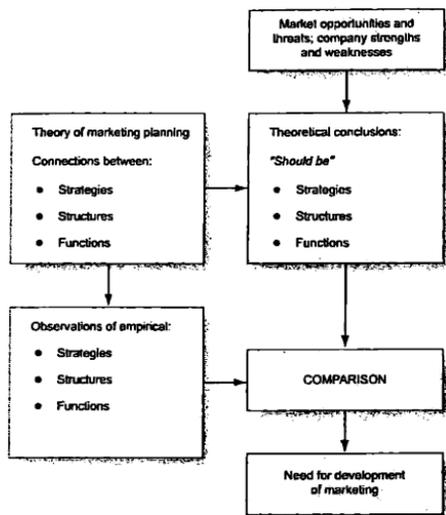


Figure 4. Identifying Research and Development Gaps

(SWOT analysis) helps identify appropriate strategies for the company in its present situation. According to theory, marketing structures and functions should flow logically from the chosen strategies. Thus, when we know the strategies of a company, we should also know what sort of marketing structures and marketing functions it should utilize. Based on SWOT analysis and theoretical reasoning, we conclude the theoretical “should be” strategies, structures and functions. When comparing the “should be” and real marketing strategies, structures and functions the need for development can be revealed.

An empirical example could illustrate use of the principles mentioned above. Based on competitor analysis, customer demands and company capabilities, SWOT analysis could indicate special or custom-made product strategies. Theory (relationships between strategy

components) tells what sort of customer groups and market areas the company should serve and what sort of core competencies it should rely on. Also according to theory we might expect that a company moving from a commodity product strategy to a special or custom-made product strategy should change its marketing structures and functions accordingly. Customer contacts must be closer, marketing channels shorter, planning and information systems more sophisticated, product planning more active etc. Identifying the research and development gap is based on a comparison between ‘should be’ marketing (based on theory) and actual marketing practice. If company’s marketing structures and functions don’t meet the theoretical requirements described above they must be developed.

### E-learning method to combine models and practice

E-learning can be understood as deliberate or non-deliberate learning using information networks. This may include information searching, using material published at the information networks and more developed virtual learning spaces. In this paper we will use the term “e-learning” when speaking about electronically published material that supports other conventional educational means.

#### *E-learning Objective at the University of Helsinki*

One goal in the development of education at the University of Helsinki has been the introduction of virtual learning spaces, where the course components and tools are delivered at least partly by using information networks. Faculties and departments are encouraged to set

courses using the Internet. At the Department of Forest Economics this goal is also realised and initial plans for establishing courses using the Internet are established. The applications available at the University are WebCT (Web Course Tools) (<http://www.webct.com>) and BSCW (Basic Support for Cooperative Work) (<http://bscw.gmd.de/>).

### *Forest Products Marketing Educational Package*

Simultaneously with the goals of the University, an interest towards using this new medium in the forest products marketing education emerged at the Department of Forest Economics in 2000. The idea was to provide an educational package containing a textbook and electronic educational material that could be used together to teach forest products marketing.

The Forest Products Marketing Educational Package includes the recently published textbook (*'Strategic Marketing in the Global Forest Industries'* by Heikki Juslin and Eric Hansen), and supporting on-line educational material.

Forest products marketing education on-line application is provided in cooperation by the Department of Forest Economics, University of Helsinki, Finland and Department of Wood Science and Engineering, Oregon State University, USA.

### **Forest Products Marketing Education On-line Material**

The on-line material presents the forest products marketing practices with the modeling approach and theories available in the textbook. It aims at illustrative description what forest products marketing is all about in practice. In addition the on-line material is planned to work as a database and service for students and forest pro-

ducts marketing instructors. This combination provides the users with practical examples of forest products marketing with supporting material and tools.

To find the practical examples, some fieldwork is necessary. Hence, the literature and contents for the educational on-line material consist of interviews of industry representatives of each distribution stage, photographs, trade documents used in each stage, maps of site locations, as well as additional information related to the distribution of forest products. The interviews and material collection took place in tandem with the other processes in 2001 and continues.

Two pioneer projects are completed. One is describing the forest products marketing of Finnish lumber in UK markets and the other shows the practical examples of forest products marketing in US lumber markets.

### *The Concept*

The basic design of the on-line material has three main categories showing the (a) theoretical framework (IMMP), (b) practical examples of marketing (Virtual Tours), and (c) supporting material (Tool Box and Library).

The fundamental idea in the educational on-line material is that the practical examples of forest products marketing are embedded within a comprehensive information set that is structured around the Integrated Model of Marketing Planning (see Fig. 2). This means, for example, that when viewing various components of the supply chain, the student can always refer back to the model of marketing planning to better understand how marketing theory and practice are directly related.

As another example, during the 'Virtual Tour' the trading terms of the example company will be documented. If the student is curious about

all the potential INCOTERMS that are used in product trade, this will be one click away.

### *IMMP in the On-line Material*

The section of IMMP (Integrated Model of Marketing Planning) is used to review the essential elements of the model and to familiarise the users with the framework used and referred to in the 'Virtual Tours' section. As the framework is given in total depth in the textbook, only short descriptions are needed to guide the users. Each component of the framework is accessed by entering the respective part of the interactive map of the model. Each section and subsection are linked to practical examples.

### *'Virtual Tours' Introduces the Flows in Forest Products Marketing*

'Virtual Tours' are the heart and soul of the online material. 'Virtual Tours' are comprised of descriptions of flows of forest products from the forest to end-users. The user can choose to visit the site, or learn the flow of goods or the trade flow (Table 1 and Fig. 5). In addition, during the 'Virtual Tours' users have access to the trade documents used in every stage. We wanted to focus both on the physical distribution phases and on the related sales and marketing routines needed. This called for a separation of the flows. Examples of the various distribution chains of forest products are

introduced and illustrated visually. In addition, the trade processes of various forest products are described in detail to show the transactions.

'Virtual Tours' gives detailed information of how orders of forest products are turned to goods available at customers' and / or consumers' premises. The narration of the people is used in order to tell the 'story' in convenient way.

'Virtual Tours' gives the user a clear picture of how various intermediaries are involved in the distribution chain and how intermediaries see their role in the distribution chain and in the marketing of forest products. The user will learn how the responsibilities are distributed in the distribution chain, which intermediary carries out which responsibility including marketing communication, contacts to customers, etc. In addition the user can get better knowledge of the operational environments in various stages or intermediaries and learn the considerations required in the total distribution of forest products.

These all are related of course with the framework of marketing planning. Users are provided with easy reference – and what is more important – access to review the theoretical frame of reference when needed.

### *Supporting Material*

Other sections included in the on-line material were developed to help learning in the 'Virtual Tours' and to provide tools necessary in the

**Table 1. Options in Virtual Tours**

<p><i>Physical Flow of Goods:</i> The production processes and shipment procedure are introduced; the user 'follows' the <u>goods</u>.</p> <p><i>Trade Flow and Documents:</i> The way intermediaries communicate is introduced; the user follows the <u>order</u>; the roles of each document in each stage of trade or physical flow are introduced as well.</p> <p><i>Stages:</i> Stages provide all the necessary information regarding marketing, sales, and physical flow of goods along with related background information.</p>
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marketing of forest products. 'ToolBox' functions as a collection of all the necessary detailed information on forest products marketing such as terms of shipment. The 'Library' section was developed to guide the students to existing sources of material. 'It functions as a reference library, which describes and discusses special topics in more detail. Both local and global sources are referred.

### Future of Forest Products Marketing Education On-line material

The future of the forest products marketing education on-line material will include the collection and addition of new 'Virtual Tours', addition of the supporting material and tools as well as the

adaptation of the electronic educational material at the forest products marketing courses both in the University of Helsinki in Finland and Oregon State University in Corvallis, OR, USA.

Currently envisioned enhancements of the on-line material include the following:

a) Additions to the Contents:

Currently considered future additions to the contents include in-depth industry examples and / or visitors' perspectives, industry analyses, forest products marketing research articles, a newsletter and A / V excerpts and examples. These would help to attract the users to the on-line service and help to learn about forest products marketing issues in new way.

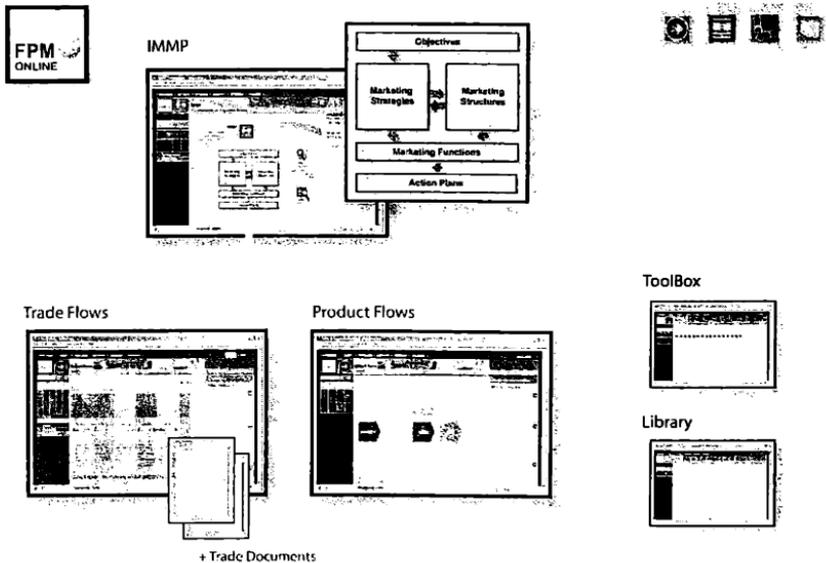


Figure 5. Basic Structure and Connections of the On-line Material

b) Differentiated on-line service:

Alongside the public offerings, a differentiated on-line service for each of the following user categories is under consideration. Username and password would give the users access to services tailored to that particular user group needs. Currently planned groups include forest products marketing professionals, students and instructors.

To use the full potential of the forest products marketing educational package and the on-line application under development, it is of utmost importance to adapt e-learning methods by establishing courses in the Internet using currently available virtual learning spaces.

This will require interest from both the instructors and students. The instructors should learn to use new methods and use the material provided by the educational package. In addition the instructors should give feedback of the future development areas of the educational package. The students should be taught to adapt new learning methods and environment so that they could easily use the on-line material available.

## Conclusions

### *Model-based Action Learning Method*

We call the combination of a Modeling Approach and E-learning the Model-based Action Learning method. It combines the principles of scientific thinking and modern Internet-based teaching and learning technology. Our approach also employs basic principles of learning theory.

Model-based Action Learning method means:

- 1) The holistic concept of marketing is learned and internalized through the Integrated Mo-

del of Marketing Planning and supported by the Information Environment Model.

- 2) The models are connected to practical markets and marketing through operationalizations.
- 3) Deep theoretical and practical understanding of the use of models is ensured by using them in various exercises and study tasks. The models serve as mental tools and frames of reference in numerous connections.
- 4) Our approach not only offers knowledge and ready-made solutions. Instead, it is intelligence oriented. The models tell what sorts of decisions are made in marketing planning and what kind of information is needed to support the decision-making. Information sources are also introduced (especially in the Internet) and the students are trained to use those sources.
- 5) The internalized, model-based thinking and action will be transferred to the tasks in business when the student leaves the University.

The basic principles of learning theory are used through:

- 1) The Integrated Model of Marketing Planning serves as a mental frame to which the details can be logically connected. The simplified holistic approach helps coping with the complex reality. When one basic model is over learned, the others can be evaluated and adopted by comparing them to the basic model.
- 2) Concepts are learned and internalized better by connecting them to structures, pictures, experiences and stories. The holistic model and modern Internet-based teaching and learning technology used applies this principle.

Modern Internet-based teaching and learning technology:

- 1) A computer-based teaching and learning program is built. The Integrated Model of Marketing Planning serves as a structure of this program. The details of marketing and marketing planning can be found by clicking various elements of the model.
- 2) The theoretical concepts of the model will also be connected to the practical business world by Virtual Tours. Virtual Tours can be used when, for example, demonstrating the production process of a certain forest industry product or when following the supply chain of a product from forests to final consumers.

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## MODERNUS MARKETINGO MOKYMAS: MODELIAVIMAS IR ELEKTRONINĖS STUDIJŲ PRIEMONĖS

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### Santrauka

Straipsnyje nagrinėjami marketingo specialistų rengimo ir dėstytojo vaidmens šiame procese klausimai. Tyrinėdami studijas autoriai kartu gilinasi į naujų metodų plėtojimo ir taikymo marketingo ir verslo stu-

dijose problemas. Straipsnyje iškelta originali veiklos studijų metodo modelio idėja; ji grindžiama modeliavimo ir įvairių e. studijų derinimu.