The Strategic Management Analysis of Wood Manufacturing Companies in Latvia - Interdisciplinary approach

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Abstract—Strategic management decision making is among the most complex functions in entrepreneurship, especially, in context of improvement of competitiveness level of enterprises. Topicality of the research highlights also a fact, that in the process of developing company’s management, interdisciplinary approach may be useful also for another branch companies to use the advantages of strategic management. The aim of the research is to define improvement opportunities for strategic management for wood manufacturing companies. Research objectives are to identify the importance of strategic management, to evaluate its theoretical and practical aspects, and to consider the theoretical contents of interdisciplinary fields for improving the level of competitiveness, in order to offer scientific solutions and practical proposals for the adoption of strategic decisions and for approbation in interdisciplinary fields. The achieved results of the current research may be applied by wood manufacturing companies and by other business representatives as well, as the research has an interdisciplinary approach.

Keywords—strategic management decisions; competitiveness; management; interdisciplinary approach

I. INTRODUCTION

The level of competitiveness depends not merely on changes in macroeconomics or on natural resources, but also on the enterprise’s ability to achieve high productivity, by using the resources at its disposal. The aim of the research is to define improvement opportunities for strategic management for wood manufacturing companies. Within the framework of the study, the object of the research is manufacturing of wood products, as the companies of this sector has one of the leading positions in the structure of national economy of Latvia, including one of the highest export volumes and high added value volumes as well. The hypothesis of the study is following: the adoption of optimum strategic management decisions in interdisciplinary fields can foster an increased competitiveness of enterprises.

The theoretical and methodological foundation of the study is built upon studies, papers, and scientific publications by Latvian and foreign scientists and specialists of economy, regulatory enactments governing the field of entrepreneurship, data published by the Central Statistical Bureau of the Republic of Latvia (RL), electronic resources, databases, publications in mass media, materials of scientific conferences and seminars, as well as the results of studies conducted by the authors.

To achieve the set study aim, generally recognized theoretical study methods have been used in the process of conducting the study, namely, analyses and syntheses, information analyses and summaries, comparisons, data grouping, studying regulatory enactments, as well as gathering statistical materials among other study methods.

II. PROBLEM FORMULATION

The adoption of strategic management decisions is crucial for achieving long-term goals of every company [1], by developing relevant solutions to organize economic operations and implement management at all levels of the enterprise. In the adoption of strategic management decisions, it is important to account for characteristics (price, quality, value of use, packaging, etc.) of the manufactured products and/or rendered services, as well as strategies of distribution and market promotion among other activities.

In order to attain the strategic goals successfully, effective formulation and creation of a strategy is required using specific methods and activities [3]. Based on strategic management advantages and the vast opportunities of using them [4], to maintain and improve an enterprise’s competitiveness, strategic management must be implemented at all three levels:

- corporate level;
- business level;
- functional level.

All of the above listed levels must be considered, since productivity of entrepreneurial activity in a long-term is usually related to adopting a range of important interdisciplinary decisions.

The concept “interdisciplinary” has become topical among the world scientists along with the formation of new sectors/related sectors, because no sector stands alone, studies are necessary in all sectors relating to interdisciplinary solutions. In
The scientific literature [5] interdisciplinary studies are defined as studies, for the implementation of which integration of several scientific sectors (information, data, methodologies, tools, and approaches, etc.) is required, for creation of knowledge and solving problems, which cannot be resolved within a single sector or science. In the light of the above, it must be noted that the activity and growth of any sector of economy is usually related to studies which cover several fields, such as education [5], medicine, entrepreneurship, environmental science [5] etc.

The production of wood products was selected as the research object within the research because the companies of this sector deserve one of the leading roles in the economy of Latvia. Since forests and timber are the key resource of Latvia (forests cover ~50% of the total area of Latvia) [8], the authors believe that further development of production of wood products, improving competitiveness of enterprises operating in it [10], and the promotion of export of wood products are among the solutions to “crisis” phase in the context of Latvian economy development.

The aforementioned considerations prove the need for the adoption of strategic management decisions to improve the overall competitiveness of production of wood products, as the improvement of competitiveness of any company and its products/services is one of the key strategic challenges for long-term operations of a company in a market.

Based on the abovementioned, the authors believe that in the process of competitive strategic management it is useful for companies dealing with the manufacture of wood products to employ advantages offered by strategic management, as the development of strategy is one of the main and most difficult functions of entrepreneurial policy, especially if it concerns factors of competitiveness.

During the study development, having examined the advantages of strategic management in the process of taking strategic management decisions, the authors conclude that the concept “strategy”, its meaning and contents in economic doctrine [3] is regarded rather broadly. Historically, strategy is related to “military operations” - the science and art of war for general planning and implementation of broad scale battle operations. In a general sense, “the battlefield” in economy is the competitive environment, whereas “the science and art of war” is regarded as the strategy plan for achieving goals [3].

Thus, strategic management must be regarded as an independent and dynamic process, during which the following activities are taking place within the enterprise:
• adaptation to changes in the external environment;
• more effective use of the enterprise’s competitive advantages;
• gradual elimination of the detected shortcomings.

It is important to note that the strategy in itself does not ensure success in entrepreneurship, but rather the developed strategy must be effectively managed and the performed work must be evaluated, by making strategically well-founded decisions to achieve further success. The strategy consists of planned conduct and needed improvements - previously unplanned conduct [3], therefore it is important to balance the changes of the external environment of wood product manufacturing with “studying” internal problems of companies involved in the manufacture of wood products and development of possible solutions. Taking into account external and internal factors related to the manufacture of wood products, it is necessary to choose the most suitable and economically, socially, and ecologically most balanced “road” to development - a relevant strategy and tactics must be chosen for adopting strategic management decisions.

The implementation of competitive strategic management involves also strategic planning and management processes of an enterprise in order to attain the overall aims of the enterprise, therefore, it is important to harmonize the factors affecting the enterprise’s environment with manifestations of factors of external environment. It must be added that the aim of the process of competitive strategic management is to give an opportunity for a company to find out how it differs from its competitors and to create a competitive advantage [5].

Despite the fact that the strategic management process is a difficult and complex one as it includes a very broad range of analyses and evaluations of the current situation, it is necessary to use strategic management opportunities in solving issues of competitive management in a competitiveness-driven management. To ensure successful operations in a long term, the strategy must develop in line with the environment, in which the enterprises involved in the manufacture of wood products are functioning. The choice of strategy determines the progress of the entire sector in the future, the possible response to opportunities and threats [4]. In respect to the above, it is important to find out the effect that the new strategy has on the activities of the sector on the whole, on individual fields of the sector (such as, wood processing, eco-tourism, energetic, furniture manufacturing, etc.), as well as on the related industries (science, education, construction, etc.).

Based on the summarized competitive strategic management advantages, an informative-logical model of competitive entrepreneurship management for the manufacture of wood products has been created, depicting the guidelines to the implementation of competitive management, based on the adoption of strategic management decisions in interdisciplinary fields (see Fig. 1).
The informative-logical model depicts differences between the manufacture of high quality wood products and competitive management. The key differences are observed specifically in the wood product manufacture approach, because “a high quality wood product” will not always be “a competitive wood product”, as quality is only a part of features characterizing a competitive product [10, 12]. It must be added that the model shows mutual relation between an enterprise’s levels of operations, the market operation mechanism, and interdisciplinary solutions.

According to Figure 1, the manufacture of a wood product starts with forest management activities, which are related to cultivating forests. During this stage, strategic management decisions must be made with regard to the following issues:

- recruitment of professional employees for the performance of forest management tasks (training professional specialists, staffing, etc.);
- selection of certified plant material (normative regulation, etc.);
- professional planting and tending of a forest according to the forest growth conditions (higher education establishments, study programmes, teaching staff, etc.) [13].

The stage of forest management covers managerial decision-making regarding the choice of the optimum solutions of obtaining wood material [8, 9, 13] and implementation thereof - weather conditions, transport availability, recruitment, etc.

The next stage after forest management is timber transport is related to observing and monitoring a range of factors affecting its implementation (transport, available infrastructure, etc.), involving a complex adoption of strategic management decisions.

Material preparation depends on the characteristics of wood products to be manufactured (wood material processing, drying, storage, etc.).

The stage of wood product manufacturing includes all “components” related to the production process (the use of modern technologies, recruitment of highly qualified employees, the choice of approaches to work organization, etc.).

Whereas, quality management is effectuated throughout the entire stage of manufacture of the wood product, ensuring the production of a quality wood product and distribution of the product on the market. The said stages are undoubtedly linked to the adoption of strategic management decisions in interdisciplinary fields, which justify the topicality of the study.

Based on the aforementioned, the authors conclude that the adoption of strategic management decisions holds an important role in competitive management and improvement of competitiveness with regard to the attainment of a company’s long-term goals. It is necessary to develop relevant solutions for organizing and managing the manufacture of wood products at all levels of an enterprise (corporate, business, and functional level), taking into consideration the availability of production resources, characteristics of the wood product, distribution strategies, market promotion, and other interdisciplinary activities.

III. PROBLEM SOLUTION

Upon examining the availability of wood resources in Latvia, the authors conclude that there are sufficient wood resources in Latvia for both the domestic market demand, and for the export of the manufactured wood products [8, 9, 13]. Despite the fact that each year wood resources in Latvia are “obtained” from Latvian forests, there are three alternatives in the process of obtaining wood resources:

- use only Latvian timber resources;
• use only imported timber resources;
• use timber resources in percentage proportions.

According to the previous research, 21% of the target audience of companies prefers obtaining exactly timber resources [12]. For achieving aim if the research, a new original qualitative research between top managers of small, medium and large wood products manufacturers was done. According to conducted questionnaire, it was found, that in 97% of cases they use local timber resources in manufacturing wood products, whereas 3% of companies do not use local timber resources (see Fig. 2).

![Fig.2: Companies using local timber resources [authors’ original]](image)

The authors conclude that the use of local timber resources in the manufacture of wood products in Latvia has been predominant, because only 3% of all timber resources were imported in the respondent companies.

In the light of the above, it is established that the key factors determining the choice in favour of local timber resources are the availability of resources (67% of respondents) and the price of resources (33% of respondents). It can be claimed that a part of companies own forests, which to a certain extent enables the companies to be more flexible with regard to the availability of local timber resources (see Fig. 3).

![Fig.3: Factors determining the choice of timber resources [authors’ original]](image)

There are companies, which use both domestic and imported timber resources in the manufacture of wood products. The authors recognize that also in this case the companies have their own approaches in choosing between domestic and imported timber resources. Resource availability and resource price are mentioned as the most important factors for choosing either in favour of domestic or imported timber resources. If compared to manufacturers, who use only local resources in the manufacture of wood products, companies, which use also imported timber resources in manufacturing, recognize that they choose Latvian timber resources due to both their availability and the accessible price.

The key factors for choosing imported timber resources to manufacture wood products is the problematic access to domestic timber resources (79%), as well as the price of resources (21%), which is an important factor with regard to the cost formation of a wood product.

Having analyzed the key import markets of timber resources, the authors recognize that for several years the import markets among enterprises are stable, the largest being the European Union (EU) member states (80%), a part (13%) of the timber resources are imported from the Commonwealth of Independent States (CIS), and other countries (7%).
Within the research, having established the markets, where wood products manufactured by companies involved in the manufacture of wood products are sold (distributed on the Latvian market or exported) and having evaluated the share distribution of these markets, the authors conclude that even though it is believed that the majority of companies mostly export the products, 87% of all respondent companies sell a part of the products also in the domestic (local) market in Latvia (see Fig. 4).

Fig.4: Wood product distribution share in the domestic (local) market [authors’ original]

Taking into account the important role of the manufacture of wood products in the export of Latvia and the main export countries, the summarized study results show that 91% of companies primarily export to the EU, while other export countries include the CIS countries (~4%), the Asian market (~1%) and other countries (~4%), which constitute a small part of the overall proportion.

Based on the authors’ studies, as well as according to companies involved in the manufacture of wood products and pursuant to opinions by industry experts, one of the most important indicators affecting competitiveness of companies is the provision of timber resources and the distribution of finished wood products on the market [10, 12]. Upon identifying the approaches that companies use to distribute timber resources and wood products on the market, it is established that most of the respondent companies perform the product distribution tasks themselves (70%), whereas 30% of respondents engage intermediaries for the performance of the said tasks and functions (see Fig. 5).

Fig.5: Approaches to the distribution of products [authors’ original]

Based on the fact that the proportionally larger part of companies distributes timber resources and products themselves (70%), the methods related to the effectuation of the distribution task were determined. The respondent’s answers offered to the authors allow concluding that 45% of respondents use transport at the disposal of the company, whereas a half of all companies, who distribute the products themselves, use logistics providers (see Fig. 6).

Fig.6: Companies’ methods of distributing products [authors’ original]
From the summarized results with regard to the crucial importance of distribution of wood products in the manufacture of wood products the authors conclude that one of the interdisciplinary solutions for the improvement of competitiveness of companies is the adoption of strategic management decisions for enhancing and streamlining logistics processes [14, 15, 16], as a significant part of companies (70 %) handle logistics-related issues themselves.

To ensure effective functioning of a logistics system, one of the logistics tasks in competitive management is to reduce time consumption in the implementation of logistics processes. By reducing the total time necessary to perform logistics functions, it is also possible to reduce the total costs for the fulfillment of logistics functions [14]. The time during which the value of a wood product is increased and the time, which increases the costs, are visually depicted in Figure 7.

![Fig.7: Time consumed in a logistics channel [authors’ original, based on [17]]](image)

The authors draw attention to the fact that this graphic model does not show real costs in monetary units related to the material flow and the production process, transporting wood products and other logistics-related tasks, but rather depicts only the correlations related to the increase in the value of a wood product and the time consumed for performing logistics functions.

Considering the time spent for the performance of logistics functions as shown in the model, the authors believe that it is necessary to improve the effectiveness of logistics processes, thereby reducing the overall time necessary to perform all the logistics functions, resulting in overall logistics costs, which is why the model includes also the “Process control” stage. The authors emphasize that the introduction of this function would enable control of time spent in a logistics channel, thereby exploiting the potential of competitive management for reducing the total time spent in a logistics channel.

By reducing the inputs storage time at a warehouse, it is possible to reduce the storage costs [15]. Streamlining the production process stage would lead to a reduced time needed for manufacturing the wood products. Meanwhile, the reduction of storage of finished products at a warehouse would reduce the warehouse costs for storing the products.

It was established during the research that consumers of wood products pay ever more attention to whether companies, in manufacturing wood products, observe the principles of sustainable forest management and administration [12, 18]. Based on the available information, it must be noted that in 2014, more than 300 companies have been certified in Latvia in compliance with the requirements of the FSC (Forest Stewardship Council) certification system (in 2012 - 200 companies) [19], whereas already six companies have been certified in compliance with the PEFC (Programme for the Endorsement of Forest Certification) certification system [20].

The authors recognize that control of operations of a company in the area of quality is also crucial - whether they have chosen to receive certification of a company with one of the certification systems, such as ISO 9000 series standards (ISO - International Organization for Standardization) and in the field of environmental control (such as ISO 14000 series standards) [21, 22]. The authors consider that the introduction of certification systems in the operations of companies for the quality system control in the manufacture of wood products facilitates also the compliance with competitive management principles and manufacture and distribution of competitive wood products.

The authors would like to draw attention to the fact that already 13.4 % of the respondent companies are already “observing” the principles of sustainable forest management and administration when certifying the manufacture of wood products [12]. From the summarized study results, the authors conclude that 80 % of the respondent companies have no certification system. Based on a summary of opinions of industry experts, it must be recognized that one of the factors affecting company decision-making in relation to the introduction of certification systems in companies is the availability of financial resources. 20 % of the respondent companies have certified their operations with one of the certification systems.
IV. CONCLUSIONS

Based on the topicality of the study, which is linked to the importance of the manufacture of wood products in the economy of Latvia, the authors believe that before adopting a decision in strategic management, it is important for companies manufacturing wood products to elaborate on the interdisciplinary sector discourse for the purposes of evaluating the potential of improving the competitiveness of companies in the sector.

The authors conclude that the geographic situation, the amount of forests and their quality place Latvia among countries, where wood products are offered for domestic consumption and external trade alike.

The authors conclude that the integration of education and science in the manufacture of wood products and in related fields plays an important role in ensuring sustainable development of the manufacture of wood products, therefore it is recommended for the responsible legislators of the RL to improve the regulatory enactments governing the process of manufacturing wood products, by harmonizing and balancing them with international legal standards.

The authors believe that the development of the manufacture of wood products must be based on well-balanced indicators of obtaining wood resources and recreating them to ensure sustainable development.

In the informative-logic model of competitiveness-driven management prepared by the authors, in the manufacture of wood products, guidelines of competitive management are depicted, based on the adoption of strategic management decisions in interdisciplinary areas.

The manufacture of wood products must develop along with the operations and development of other sectors of Latvian economy, therefore companies involved in the manufacture of wood products should pay additional attention to all stages of the manufacture of wood products (cultivating timber resources, obtaining resources, manufacture of wood products, timber resources, wood products, financial and information flows), by ensuring sustainable development of the sector with the aim of increasing the competitiveness of wood products on the market.

The authors recognize that to implement competitiveness-driven strategic management, companies involved in manufacturing wood products need the adoption of strategic and tactic managerial decisions for the improvement of the logistics system to perform the necessary tasks: closer ties should be developed between manufacturers of wood products, processing entities, and companies promoting the finished wood products.

A stronger integration of the processing parties with logistics and trade companies would foster the potential of investing in highly specialized technologies and machinery, it would provide a broader access to wood product distribution channels, thereby increasing sales effectiveness and reducing the distribution costs, and it would promote the creation and manufacture of new wood products, by enhancing the manufacture of wood products.

Upon summing up the study results, the authors conclude that the competitiveness-driven management discourse is to be resolved “systematically”, the competitiveness of companies dealing with the manufacture of wood products affect the competitiveness of the manufacture of wood products as a whole, whereas the competitiveness of companies is depicted in the manufacture of competitive wood products - the increasing of competitiveness is related to a range of interdisciplinary solutions: the availability of high quality timber resources, relevant infrastructure, manufacturing high quality products, introduction of innovative solutions in the work of companies dealing with the manufacture of wood products, using strategic management advantages, as well as introduction of logistics solutions in the manufacture of wood products. One of future research directions can be a comparison between the wood industry in Latvia and other countries.

REFERENCES


BIography

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