

Andrea Sujová<sup>1</sup>

# **SWOT analysis - Information support for building development strategy of the Slovakian wood industry**

## **SWOT analiza - informacijska potpora izgradnji razvojne strategije slovačke drvne industrije**

**Pregledni rad • Review paper**

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**ABSTRACT** • *The changes and restructuralisation will provide a possibility of revalorisation of the present business activities and relocation of resources to many Slovakian wood processing firms. The target is a successful strategy orientation. The success of the change/restructuralisation process particularly depends on the choice of the methods for assessing the exterior and interior relevant factors. This paper is focused on the SWOT analysis, which enables an assessment of macro-economic starting points in the restructuralisation of wood-processing firms. The results of the SWOT analysis are a support to fundamental information on precise identification of the required changes in wood-processing firms, and the possibilities for ensuring future strategic development.*

**Key words:** *wood industry, restructuralisation, SWOT analysis, SWOT matrix, strategic development*

**SAŽETAK** • *Promjene i restrukturalizacija za mnoga će slovačka drvnoindustrijska poduzeća značiti mogućnost revalorizacije sadržaja sadašnjih poslovnih aktivnosti i relokaciju izvora te definiranje ciljeva uspješne buduće strateške orijentacije. Uspjeh procesa promjena i restrukturalizacije osobito ovisi o izboru metoda utvrđivanja vanjskih i unutrašnjih relevantnih činitelja. U radu je težište na SWOT analizi koja omogućuje utvrđivanje makroekonomskih početnih točaka restrukturalizacije drvnoindustrijskih poduzeća. Rezultati SWOT analize potpora su temeljitim informacijama za detaljno određivanje potrebnih promjena u drvnoindustrijskim poduzećima i definiranje mogućnosti ostvarenja budućega strateškog razvoja.*

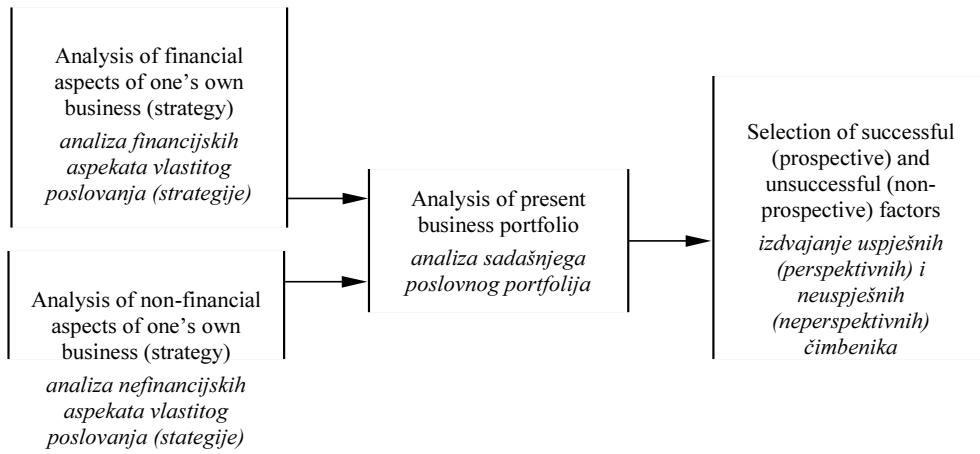
**Ključne riječi:** *drvna industrija, restrukturalizacija, SWOT analiza, SWOT matrica, strateški razvoj*

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<sup>1</sup>Author is lecturer at Faculty of Wood Sciences and Technology, Technical University in Zvolen, Slovakia.

<sup>1</sup>Autorica je predavačica na Fakultetu za znanost o drvu i tehnologiju Tehničkog sveučilišta u Zvolenu, Slovačka.





**Figure 1**  
Diagram of interior factor analysis (Aaker, 1995)  
**Slika 1.**  
Prikaz analize unutrašnjih čimbenika (Aaker, 1995)

elements:

1. exterior factor analysis,
2. interior factor analysis,
3. benchmarking,
4. SWOT analysis,
5. strategy choice,
6. introduction and application of the chosen strategy.

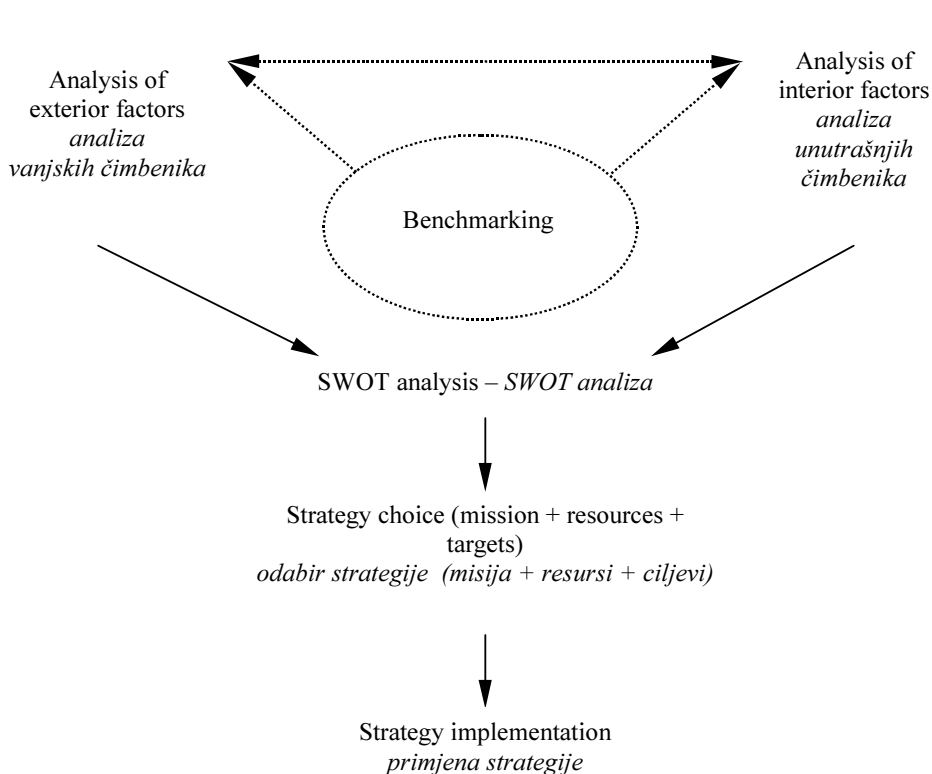
The analysis of exterior factors involves the analysis of the buyer, market and competition. The interior factor analysis consists of the analysis of financial and non-financial standpoints of one's own business, and the analysis of the present business portfolio (Fig. 1).

The analysis of exterior and interior factors is done for understanding the respective specific features of a firm. A useful possibility is the application of benchmarking. It is the art of assessing how and

why the business of some firms is better than the one of others. It helps in the search for the best people and organisations within a particular sector, for the purpose of employing their knowledge - adapted and improved - in the function of their own successful business.

Another step in developing strategy, the SWOT analysis (the analysis of strength, weakness, opportunities, and threat) is the establishment of interior powers and weaknesses, as well as exterior circumstances and threats, in order to use and enhance the strength and circumstances, and eliminate, neutralise, or remove the weaknesses and threats (Fig. 2).

The vision of the whole procedure is the specific target, a real image of the desired future. This is active strength. The determination of the mission is the estab-



**Figure 2**  
Process and phases of developing basic strategy (modified after Aaker, 2001; Sujová, 2004)  
**Slika 2.**  
Proces i faze oblikovanja temeljne strategije (modificirano prema Aaker, 2001; Sujová, 2004)



B) Strength, weaknesses, and opportunities profile

The factors of this field are determined by means of four criteria, and two profiles are built accordingly:

- strength and weakness profile, and
- opportunity and threat profile.

C) Evaluation of important factors of each criterion

Each of the criteria (strength, weakness, opportunities, and threat) has some significant factor determined by points ranging between one and five. The most significant factor has five points.

D) Establishment of the most significant criteria

Step C results in showing the most important strengths and weaknesses in the environment, and the most important opportunities and threats for wood-processing firms. These factors are regarded as the criteria of strategy and information support in the processes of change and restructuring of the Slovakian wood industry.

E) Choice of strategic alternatives

Based on the results of step C, total value of each criterion is presented. By mutual combination and comparison of the criteria, wood-processing firms are offered the choice of four possible strategies (Rašner at al, 2000):

- SO - offensive strategy: strengths - opportunities
- ST - defensive strategy: strengths - threats;
- WO - union strategy: weaknesses opportunities
- WT - liberating strategy: weaknesses - threats.

The comparison of the final value of the difference between strength and weakness on the one hand, and opportunities and threats on the other resulted in the choice of the most appropriate strategy.

In order to get information on steps B and C, questionnaires were developed by a specific method. The middle and high management of the Slovakian wood-processing firms obtained the evaluation factors and criteria by using these questionnaires. The obtained data were analysed, processed and interpreted by using statistical methods (Hitka, 2004).

The results were used for choosing an alternative strategy.

### 3 RESULTS AND DISCUSSION

#### 3 REZULTATI I RASPRAVA

The management of the Slovakian wood-processing firms divided the profile criteria factors in exterior and interior

analyses. As shown in Table 1, this division demonstrates the strategic profile of the strength and weaknesses of wood-processing firms. Columns 1 - 2 present strength, column 3 is neutral, while columns 4 - 5 show weaknesses. Column 1 and 5 are the extremes of the most significant factors of both sides.

The strategy profile in Table 2 shows the opportunities and threats. The factors of columns 1 and 2 present opportunities. Those in columns 4 and 5 present threats, while column 3 is neutral. Columns 1 and 5 are extremes of both sides.

Depending on all previous phases of the basic strategy development, the choice of an actual wood-processing firm strategy is based on redefining the mission, specification of targets, resource assessment, and formation of elements.

The following step is determined by interior strength and weaknesses, and the exterior opportunities and threats are identified by managers. They are classified according to their significance. The most significant factor has the value 5, while the least significance is marked by number 1. The results are shown in Tables 4 and 5.

The strength analysis reveals that the most significant strength is the energy resource gathering from all sources, product quality, and a wide assortment programme. Slow management decision making, financial indicators, and insufficient market information were regarded as weaknesses.

According to exterior analysis the best grades were obtained by free and flexible labour market in the region, with appropriate qualifications and sufficient raw material base. The biggest threats come from strong foreign market competition, inappropriate structure of buyers' needs, insufficient financial resources for future development, and the risk of replacement of wood products by composite materials, light metals, plastics, etc.

Based on the analysis carried out by interaction between strength, weakness, opportunities and threats, the SWOT matrix has been developed with four possible strategies as the final interpretation of the achieved results (Table 6).

The final step is the choice of appropriate strategy. Total value of strengths and weaknesses on the one hand and opportunities and threats on the other have been compared, and differences calculated:

strengths (S) - weaknesses (W):  

$$26 - 33 = - 7 \quad (1)$$

opportunities (O) - threats (T):  

$$32 - 29 = 3 \quad (2)$$

**Table 1**  
Distances between machines  
**Tablica 1.**  
Udaljenosti između strojeva

Factors – Činitelji	Strength Snaga (S)			Weakness Slabost (W)	
	1.	2.	3.	4.	5.
<b>Current situation – Trenutačna situacija</b>					
Geographic location – Zemljopisna lokacija					
Region's industrial tradition – Industrijska tradicija u regiji					
Infrastructure level – Razina infrastrukture					
Size of firm – Veličina poduzeća					
Access to new markets – Ulazak na nova tržišta					
<b>Production – Proizvodnja</b>					
Production capacity – Proizvodni kapaciteti					
Technical and technological level – Razina tehnike i tehnologije					
Range of production program – Asortiman proizv. programa					
Product quality – Kvaliteta proizvoda					
Product programme conformity – Usklađenost proizvodnog programa					
Production costs – Proizvodni troškovi					
<b>Sales and marketing – Prodaja i tržišni poslovi</b>					
Calculation methods – Kalkulacijske metode					
Sales volume – Obujam prodaje					
Promotion – Promocija					
<b>Finance – Financije</b>					
Profit development – Razvoj profita					
Capital structure – Struktura kapitala					
Liquidity – Likvidnost					
<b>Management – Upravljanje</b>					
Efficiency of decision making - Brzina donošenja odluka					
Sufficiency of market information – Dostatnost tržišnih informacija					
<b>Input gathering – Okupljanje ulaznih resursa</b>					
Energy gathering – Energetsko okupljanje					
Suppliers stability – Uravnoteženje dobavljača					

**Table 2**  
Strategic profile of opportunity and threat  
**Tablica 2.**  
Strateški profil prilika i prijetnji

Factors – Činitelji	Opportunity Prilika (O)			Threat Prijetnja (T)	
	1.	2.	3.	4.	5.
<b>Current situation – Trenutačna situacija</b>					
<b>Macro-environment development</b> Razvoj u makrookruženju					
Environmental issues – Ekološka opterećenost					
Governmental economic policy – Vladina ekonomska politika					
Inflation rate – Stopa inflacije					
Demographic development – Demografski razvoj					
Available financial sources – Raspoloživi financijski izvori					
Utilisation of foreign cooperation - Korištenje stranih kooperacija					
Influence of trade unions – Utjecaj trgovačkih saveza					
<b>Development in micro-environment</b> Razvoj u mikrookruženju					
Utilisation of sector capacity – Korištenje kapaciteta u struci					
Sector organisation – Organizacija struke					
Market segmentation – Segmentacija tržišta					
Market increase – Širenje tržišta					
Market share – Tržišni udio					
Production quality of the competition – Proizvodna kvaliteta konkurencije					
Competition on foreign markets – Konkurentnost na stranim tržištima					
Purchase of basic raw material – Nabava osnovnih sirovina					
Purchase of semi-products and services – Nabava poluproizvoda i servisiranje					
Buyers' market strength – Tržišna snaga kupaca					
Structure of buyers' needs – Struktura potreba kupaca					
Possibility of product substitution – Mogućnosti zamjene proizvoda					
Free and flexible labour market – Slobodno i prilagodljivo tržište radne snage					

Strength – Snaga (S)		Weakness – Slabost (W)	
Convenient geographic location <i>Pogodnost zemljopisne lokacije</i>	3	Liquidity – <i>Likvidnost</i>	5
Size of firm <i>Veličina poduzeća</i>	2	High production costs <i>Visoki troškovi proizvodnje</i>	3
Infrastructure development <i>Razvijenost infrastrukture</i>	3	Calculation methods <i>Metode kalkulacije</i>	3
Range of production program <i>Asortiman proizvodnog programa</i>	3	Sales issues – <i>Problemi prodaje</i>	2
Region's industrial tradition <i>Industrijska tradicija u regiji</i>	2	Low technical and technology level <i>Niska razina tehnike i tehnologije</i>	3
Production capacity <i>Proizvodni kapaciteti</i>	2	Profit trend – <i>Trend profita</i>	2
High product quality <i>Visoka kvaliteta proizvoda</i>	3	Capital structure <i>Struktura kapitala</i>	3
Stability of suppliers/Uravnoteženost dobavljača	2	Efficiency of decision making <i>Brzina donošenja odluka</i>	5
Energy gathering from own sources <i>Energetsko okupljanje svih resursa</i>	4	Lack of market information <i>Nedostatnost tržišnih informacija</i>	4
Production range conformity <i>Usklađenost proizvodnog programa</i>	2	Difficult access to new markets <i>Teško otvaranje novih tržišta</i>	3
Total evaluation – <i>Ukupna vrijednost</i>	26	Total evaluation – <i>Ukupna vrijednost</i>	33

**Table 4**  
*Internal analysis - profile of strengths and weaknesses*  
**Tablica 4.**  
*Unutrašnja analiza - profil snaga i slabosti*

The result shows that the Slovakian wood-processing firms have more weaknesses (W) and more opportunities (O). The most appropriate strategy of the Slovakian wood-processing firms is the WO strategy, the strategy of union.

Unless the Slovakian wood-processing firms improve their financial position and find financial resources for carrying out the necessary changes, they will have to consider the accessibility to foreign investors, or fusion with strong partners. Unfavourable financial conditions in wood-processing firms indicate the need for making necessary changes and restructuralisation.

The results of the SWOT analysis

offer thorough and significant information on certain changes, preparatory phase of the restructuralisation process, and possibilities of future development of the Slovakian wood-processing firms (Sujová, 2004).

The crucial factors resulting from the strategic analyses suggest the necessity of **imperative change** in the Slovakian wood-processing firms focused on achieving flexibility and competitiveness. The following are the points to be dealt with:

- stabilisation of financial position;
- flexibility of present technology and mechanical equipment;
- low production costs/prices, change of production calculation system;
- product alteration;

Opportunity – Prilika (O)		Threat – Prijetnje (T)	
Utilization of the sector capacity <i>Korištenje kapaciteta u struci</i>	3	Ecological burden <i>Ekološko opterećenje</i>	2
Sector organization <i>Organizacija struke</i>	2	Governmental economic policy <i>Vladina ekonomska politika</i>	3
Market segmentation <i>Segmentirano tržište</i>	3	High inflation rate <i>Visoka stopa inflacije</i>	3
Market share – <i>Tržišni udio</i>	3	Demographic development <i>Demografski razvoj</i>	2
Production quality by competitors <i>Proizvodna kvaliteta konkurencije</i>	3	Market strength of customers <i>Tržišne snage kupaca</i>	3
Purchase of the basic raw materials <i>Nabava osnovnih sirovina</i>	5	Strong competition on foreign markets <i>Jaka konkurencija stranog tržišta</i>	3
Purchase of semi-products and services <i>Nabava poluproizvoda i servisiranje</i>	4	Unavailability of financial sources <i>Nedostatnost finansijskih izvora</i>	4
Free and flexible labour forces <i>Slobodno i prilagodljivo tržište radne snage</i>	5	Influence of trade-unions <i>Utjecaj trgovačkih saveza</i>	2
Utilization of foreign cooperation <i>Korištenje stranih kooperacija</i>	2	Structure of customers' needs <i>Struktura potreba kupaca</i>	4
Market increase – <i>Širenje tržišta</i>	2	Possibility of products substitution <i>Mogućnosti zamjene proizvoda</i>	3
Total evaluation – <i>Ukupna vrijednost</i>	32	Total evaluation – <i>Ukupna vrijednost</i>	29

**Table 5**  
*External analysis - analysis of opportunities and threats*  
**Tablica 5.**  
*Vanjska analiza - analiza prilika i prijetnji*

**Table 6**  
SWOT matrix strategic alternatives

**Tablica 6.**  
SWOT matrica strateških alternativa

	<b>Strengths – Snage (S)</b> - resource energy gathering energetsko okupljanje resursa na izvoru - product quality – kvaliteta proizvoda - geographic location zemljopisna lokacija - infrastructure development razvijenost infrastrukture - production programme proizvodni program	<b>Weaknesses – Slabosti (W)</b> - slow decision making sporo donošenje odluka - liquidity – likvidnost - opening of new markets otvaranje novih tržišta - market information tržišne informacije - outdated technology zastarjela tehnologija
<b>Opportunities – Prilike (O)</b> - free and flexible market in the region – slobodno i prilagodljivo tržište radne snage u regiji - sufficient wood raw material dostatnost sirovine drva - sector capacities kapaciteti struke	<b>SO Strategy – SO strategija</b> • orientation to foreign markets orijentacija na strana tržišta • development of new products razvoj novih proizvoda	<b>WO Strategy – WO strategija</b> • licensed production licencirana proizvodnja • accessibility to new investors otvorenost prema novim investitorima
<b>Threats – Prijetnje (T)</b> - buyers' demands potrebe kupaca - no crediting nemogućnost kreditiranja - wood product substitutes zamjena drvnih proizvoda	<b>ST Strategy – ST strategija</b> • use of reserves korištenje rezervi • widening of production programme – proširenje proizvodnog programa	<b>SW Strategy – SW strategija</b> • firm revalorisation revalorizacija poduzeća • firms in other regions poduzeća u drugim područjima

- increase of flexibility toward changes and market/buyer requirements;
- low production costs/prices, change of production calculation system;
- production programme range adjusted to market;
- development of efficient motivation programmes.

Market conditions and sources offer the following **possibilities for the development of the Slovakian wood-processing firms:**

- production volume increase of leading products;
- widening of production programme by increasing the range of materials;
- increased finalisation of sawmill products;
- accessibility to foreign investors;
- possibility of fusion with strong partners.

In accordance with the results of the SWOT analysis, the Slovakian wood-processing firms must choose appropriate

approach/methods, and start preparatory procedures for the process of change and restructuralisation.

#### 4 CONCLUSION 4 ZAKLJUČAK

The SWOT analysis provides a fundamental range of necessary information. The analysis can be carried out in different ways. Various methods, participants and time periods are used, depending on specific features of the sector, firms, organisation and actual needs.

The SWOT analysis enables the Slovakian wood-processing firms to focus on the elimination of weaknesses and threats, supporting the strengths and use of market opportunities. The results are used for assessing the future development strategy. The achieved results and the chosen wood-processing firms reveal critical situations, as well as the necessity for making changes and restructuralisation. The required pre-conditions for restructuralisation are to determine the changes, strategy development and actual targets, and to choose the appropriate method for realising the changes based on detailed analysis of wood-processing firms and their environments.

The strategy of the Slovakian wood-processing firms should be comprehensive, sufficiently wide, containing a general number of priorities, visions and targets, which are consciously developed by the management. On this basis, co-ordinated business efforts and activities could be

**Figure 4**  
SWOT matrix  
**Slika 4.**  
SWOT matrica





made, and the mission accomplished.

The result of the SWOT analysis in the Slovakian wood industry shows that the union strategy is the most suitable. Licensed production should be introduced, and accessibility should be assured to new investors.

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Corresponding address:

Ing. ANDREJA SUJOVÁ, PhD. Lecturer  
 Faculty of Wood Sciences and Technology  
 Technical University in Zvolen  
 T. G. Masaryka 24,  
 960 53 Zvolen  
 SLOVAK REPUBLIC  
 e-mail: asujova@vsld.tuzvo.sk