

SWOT analysis as a method allowing to identify the need for changes in a production process in wood industry

NICOLETTA BASKIEWICZ¹

Czestochowa University of Technology, Faculty of Management

Abstract: *SWOT analysis as a method allowing to identify the need for changes in a production process in wood industry.* Modern economy is characterized by a great changeability. It is connected with rapid socio-cultural changes and dynamic scientific and technological progress. A measure of the company modernity, productivity and effectiveness is ability to create, or adapt new technological, organizational and production solutions. It is crucial to constantly observe and analyze the organization and its potential in context of changing environment, taking into consideration both beneficial and unfavorable variations. SWOT analysis gives possibility to identify the needs for changes in any enterprise, including the sector of wood industry.

Keywords: SWOT analysis, opportunities, threats, strengths, weaknesses.

INTRODUCTION

A leading tendency, determined by modern market is to create the „enterprises of the future”. A necessary condition for its existence on the market is to create and implement innovative solutions in a suitable time relatively to the changes in the enterprise environment. New types of services and more innovative products should satisfy increasing needs of the clients, their expectations and aspirations. It is a very common phenomenon that a company market success is a combination of technological development and meeting the customers’ demands. Organizational entrepreneurship should be characterized by active looking for new solutions in the area of technologies, markets, and deal with challenges of complex developmental strategies.

1. THEORETICAL ASSUMPTIONS OF THE SWOT ANALYSIS METHOD

Implementation of changes has to be connected with analysis of the internal and external environment of the organization. Developmental abilities of the company may be characterized with the use of analysis comparing its strengths and weaknesses, its opportunities and threats in a given environment. SWOT analysis, which allows to collect assessments of the system, is a concept leading to stating the balance of the effectiveness of certain behaviours of a given enterprise. Research used for analysis allows to identify the sources and areas of the enterprise inefficiency as well as positive features of a system. SWOT analysis describes the current condition of the company and its developmental potential. Its simple form is based on identification of the following factors:

- having a character of external, or internal factors influencing the company,
- influencing the company in a negative or positive way.

Cross-connection between these two divisions gives four categories of factors causing that „combining together of the company opportunities & threats with strengths & weaknesses allows to identify the strategic position of this enterprise”.² It is very important not to provide all factors, but only the key factors influencing the company development.

¹ e-mail: nicola@zim.czest.pl, Czestochowa University of Technology, Faculty of Management, al. AK 19B, 42-200 Czestochowa

² Gierszewska G., Romanowska M.: *Analiza strategiczna przedsiębiorstwa*. PWE. Warszawa 2001, p.207.

2. PRACTICAL USE OF THE SWOT ANALYSIS METHOD ON THE EXAMPLE OF CARPENTRY AND WOODWORKING PLANT

Subject for the analysis is a carpentry and woodworking plant operating in Poland, in the area of Częstochowa district. The enterprise has been operating since the 1970s and 35 people are employed there. The company offers a wide range of various products made of wood, nevertheless it specializes in a production of solid timbers and glued laminated timbers.

Table 1. SWOT analysis matrix

<p style="text-align: center;">ENVIRONMENT</p> <p style="text-align: center;">ENTERPRISE</p>	<p>OPPORTUNITIES –O</p> <p>O1. Possibility of getting money from the UE funds, O2. Great interest of foreign and domestic contractors in timbers made of exotic wood, or larch, O3. The excess of skilled labour in the region. O4. Great interest and significant sales of timbers in Baltic countries and Russia. O5. Possibility to increase sales by national agents and TV advertising O6. Well-organized system of information- flow and system of threat monitoring</p>	<p>THREATS –T</p> <p>T1. National economic recession T2. increase in prices of sawmill and imported materials T3. Competition in the markets of EU from South American countries in the area of sawmill materials. T4. Production of joinery from aluminium and PCV., T5. Decline in the product prices on domestic and foreign markets. T6. Increase in fixed costs in the product price, the need to reduce the profit rate.</p>
<p>STRENGTHS- S</p> <p>S1. Highly qualified and experienced employees. S2. A long-term contracts signed with domestic and foreign contractors. S3. possibility of reducing costs in a process of gluing the timbers by buying a new gluing machine. S4. profitable contacts for buying of sawmill material and possibility of buying the air- dry sawn timbers made of exotic wood (in the national market and in Russia). S5. The use of sawdust and wood waste in a process of lumber drying. S6. Possessing of a quality certificate for the wooden products used as construction materials. S7. Good financial position of the company.</p>	<p>STRATEGY S-O – offensive (MAXI-MAXI).</p> <p>S₃O₁ installing of a new more efficient gluing machine, S₁O₃ possibility of almost immediate employing of New workers in case of increase in production, S₄O₂ possibility of quick implementation of product innovation in a form of timbers made of wood with higher strength parameters. S₅O₃ reducing of labour costs by employing unemployed people registered in County Labour Office in Częstochowa.</p>	<p>STRATEGY S-T- conservative (MAXI-MINI)</p> <p>S₃T₃ production of a better-quality timber made of exotic wood with its price at the level of timber made of oak wood, and production of a timber made of Siberian larch with its price at the level of solid pine timber. S₄T₅ lowering the price of timber to the level guaranteeing safe product profitability.</p>
<p>WEAKNESSES – W</p> <p>W1. wysoki udział kosztów stałych – ubezpieczeń, energii, paliw w cenie wyrobów, W2. konieczność modernizacji hali produkcyjnej pod nowe urządzenia technologiczne, konieczność modernizacji systemu energetycznego (elektrycznego), W3. zbyt duże zapasy magazynowe tarcicy i kantówki iglastej, W4. znaczna inflacja i konieczność systematycznej podwyżki płac, W5. obciążenie spłatą rat kredytu</p>	<p>Strategia W-O - competitive (MINI- MAXI)</p> <p>W₂O₁ improvements in a production process, increase of the gluing machine efficiency for all types of wood. W₄O₃ creation of a new, flexible and motivating terms of remuneration rewarding material and energy savings</p>	<p>Strategia W-T- defensive (MINI-MINI)</p> <p>W₂T₃ looking for new markets in Nordic countries, France and Great Britain, W₁T₆ applying for Social Security relief, establishing of sheltered employment factories.</p>

zaciągniętego na część inwestycji.	W₅O₁ applying for a partial remission of a loan taken for realized pro-ecological investments.	
------------------------------------	---	--

Source: Own elaboration

Descriptive summary of the SWOT analysis may be presented in a form of a table illustrating the evaluation of the company strengths, weaknesses, opportunities and threats. For the evaluation a point scale was used, from -5 to +5, assessing each factor with corresponding number of points. .

Table 1. Summary of the point rating of the SWOT analysis elements.

Opportunities		Points	Threats		Points
1.	Factors O1	+4,0	1.	Factors T1	-3,0
2.	Factors O2	+4,0	2.	Factors T1	-2,5
3.	Factors O3	+3,5	3.	Factors T1	-3,0
4.	Factors O4	+3,5	4.	Factors T1	-2,0
5.	Factors O5	+3,5	5.	Factors T1	-3,0
6.	Factors O6	+4,0	6.	Factors T1	-3,5
Total: 22,5 points/6= 3,75 points.			Total: -16,5 points/6= -2,75 points		
Strength		Points	Weaknesses		Points
1.	Factors S1	+4,0	1.	Factors W1	-3,5
2.	Factors S2	+4,0	2.	Factors W2	-2,0
3.	Factors S3	+4,5	3.	Factors W3	-3,5
4.	Factors S4	+3,5	4.	Factors W4	-3,0
5.	Factors S5	+4,0	5.	Factors W5	-3,0
6.	Factors S6	+4,0			
7.	Factors S7	+4,0			
Total: 28points/7= 4points			Total: 15points/5= 3points		

Source: Own elaboration.

Results of the SWOT analysis are normalized, because in each area the arithmetic mean was calculated for the factors rating. A strategic position of the enterprises may be defined by summing: threats and opportunities, strengths and weaknesses. Results received in a coordinate system allow to identify one of the four basic strategic positions.

Opportunities and threats = $3,75 - 2,75 = 1$; Strengths and weaknesses = $4,00 - 3,00 = 1$

Analysis conducted show the advantage of strengths over weaknesses, in the environment there are more opportunities than threats. The enterprise should use the maxi-maxi strategy, based on strong market expansion and various developmental directions. Enterprise should use the chances appearing in the internal and external environment, buy modern gluing machine. In relation of strengths and threats it should be taken into account that there are positive factors fostering development, nevertheless it is important to constantly control the timber quality. Maxi-mini strategy should be taken into consideration in the aspect of changeable prices on the domestic and foreign markets.

Mini-maxi strategy is necessary in a situation of constantly increasing competition and shrinking markets, it appears to be a follow-up of a maxi-maxi strategy, as the enterprises is in a good financial condition and even more turbulent economic changes will not cause The company bankruptcy. Defensive mini-mini strategy is a result of the external environment influence in the area of European break, and partially, a connected with it domestic wood industry.

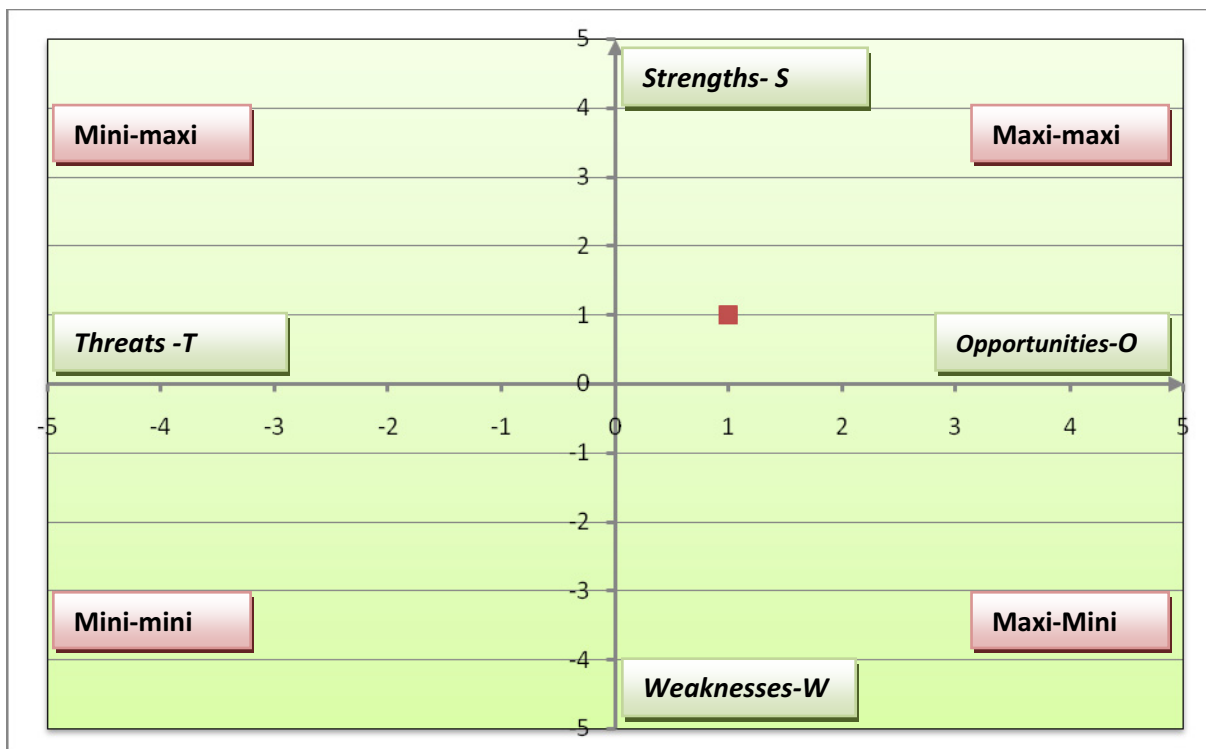


Diagram 1. Coordinate system in SWOT analysis. *Source: Own elaboration.*

Position of the point marking the strategic position (1,1) of the diagram show, that the position of the enterprises is not very good, but it remaining situations should be considered and constantly changing external and internal organizational factors of the enterprises should be observed.

CONCLUSION

Constantly changing determinants identified in the environment influence the need for permanent attention of the entrepreneurs, including entrepreneurs operating in the wood industry. Apart from constant orientation in stylistic trends, it is worth observing modern technologies and technological solutions used in production. It is also important to have ability to assess the company potential, which is a measure of a competitive ability of the company. SWOT analysis is a basic analytical- diagnostics method used to diagnose the external and internal situation of the company. This method, despite the passage of years is still up-to date, which may be proven by the frequency of its use in the enterprises.

BIBLIOGRAPHY

1. Gierszewska G., Romanowska M.: *Analiza strategiczna przedsiębiorstwa*. PWE. Warszawa 2001.

Streszczenie : *SWOT jako metoda pozwalająca na identyfikację potrzeby zmian procesu produkcyjnego w przemyśle drzewnym. Współczesną gospodarkę cechuje bardzo duża zmienność. Wynika to z szybkości przemian społeczno-kulturowych oraz ogromnego tempa rozwoju naukowo-technicznego. Miarą nowoczesności, produktywności i efektywności organizacji gospodarczej jest zdolność do tworzenia, bądź chłonięcia nowych rozwiązań techniczno-organizacyjnych i produktowych. Zasadnicze jednakże jest, by stale obserwować i analizować własny potencjał w aspekcie zachodzących w otoczeniu zmian, zarówno korzystnych jak i niekorzystnych. Metoda SWOT stwarza możliwości pozwalające na identyfikację potrzeb zmian w każdym przedsiębiorstwie, w tym również w przemyśle drzewnym.*

Słowa kluczowe: analiza SWOT, szanse, zagrożenia, mocne strony, słabe strony

Corresponding author:

Nicoletta Baskiewicz
nicola@zim.czyst.pl,
Czestochowa University of Technology ,
Faculty of Management, al. AK 19B,
42-200 Częstochowa