

APPLICATION OF TOWS/SWOT ANALYSIS AS AN ELEMENT OF STRATEGIC MANAGEMENT ON THE EXAMPLE OF A MANUFACTURING COMPANY

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Purpose: The analysis of strengths and weaknesses is very important in the strategic management of an enterprise. The article uses TOWS/SWOT analysis in one of the manufacturing companies. Based on the analysis, it was proposed to adopt an aggressive strategy (maxi-maxi).

Design/methodology/approach: The aim of the article was to analyze the strengths and weaknesses of an industrial enterprise. As part of the research, a TOWS/SWOT analysis was carried out, based on which the company's strengths and weaknesses were presented. In the next stage, survey research was carried out.

Findings: Based on the TOWNS/SWOT analysis, it was found that the most desirable option for the company is to adopt an aggressive strategy (maxi-maxi).

Research limitations/implications: The major limitation of the paper is that it is based on one case of an organization. In the future, it will be necessary to conduct studies in more organizations so as to find out if the same result can be achieved.

Practical implications: The analysis shows that the basic strengths on which the company's strategic advantage should be built are the leading position on the market of aluminium profiles (51%) and flexible packaging (21%) and the company's constant development. Investing in the development of the company through the development of activities in segments (investments in modern technologies, elimination of costs) and obtaining their shares in the country and on the foreign market.

Originality/value: The examined company has not yet conducted a TOWN/SWOT analysis that would indicate what strategy should be implemented to improve company management.

Keywords: analysis, TOWN, SWOT, strategic management, business.

Category of the paper: case study.

1. Introduction

Recognising the situation in the immediate market environment and analysing and assessing one's own capabilities provide the foundation for determining the strategic situation of an enterprise and formulating conclusions regarding its future development. It is important to understand two key aspects: the opportunities and threats arising from the current state and evolution of the market environment, and the strengths and weaknesses flowing from the company's internal resources (Gierszewska, Romanowska, 2017; Abdi et al., 2013; Yu, Wang, 2022).

On the one hand, identifying opportunities involves identifying favourable conditions, market trends, new technologies or regulatory changes that can create growth prospects for the company (Oziębło, 2022). At the same time, it is necessary to identify threats related to competition, changes in customer preferences, the macroeconomic situation or other factors that may negatively affect the business. On the other hand, the analysis of strengths and weaknesses focuses on the company's internal resources. Strengths are strengths such as unique competencies, advanced technologies, a strong brand or qualified staff. Weaknesses, on the other hand, are areas where the company may face constraints, such as deficiencies in infrastructure, inefficient processes or limited financial resources (Ogórek, Strycharska, 2019; Bryszawska, Kulesza, 2022).

Determining these two aspects allows a more complete picture of the company's situation to be completed, which in turn enables effective development strategies to be developed. Thanks to this comprehensive analysis, the company can maximise its strengths, minimise the impact of weaknesses, exploit the opportunities of the environment and effectively counter potential threats. In this way, strategic management becomes a solid foundation for the long-term success of the company (Shobha, Parul, 2017; Widjaja, 2020; Biernat et al., 2022).

2. Literature review

SWOT/TOWS type analyses belong to the canon of strategic management tools and are an integral element used in strategic management. Their role in the strategic planning process is to systematically combine two complementary approaches to the organisation: "from the outside in" and "from the inside out". TOWS/SWOT analysis aims to examine the systematised combination of two complementary approaches to the organisation, i.e. 'from the outside in' and 'from the inside out', and to identify the best option for strategic action in the company under study (Proctor, 2000; Mierzwa, Goliszek, 2017; Dandage et al., 2019).

SWOT analysis is a strategic tool in the form of a matrix that includes four key categories of data. The first element of this matrix is strengths, representing the internal strengths, advantages and skills that underpin a company's strategy. These are the elements that can be used to efficiently implement strategic plans (Kowalik, 2020b). The next segment of the matrix is weaknesses, encompassing negative determinants that may constitute obstacles to the effective implementation of strategic activities. This is an important category to identify areas for improvement or adjustment to avoid potential difficulties. Then, moving on to external factors, there are opportunities, representing favourable phenomena and trends that can create favourable conditions for the achievement of strategic objectives. These are opportunities that are worth exploiting in order to maximise the company's success (Żabińska, 1997; Jagodziński et al., 2012). The final element of the SWOT matrix is threats, comprising impediments and barriers from the external environment. These are factors that can lead to setbacks or delays in achieving set goals, so it is important to identify and effectively manage them (Aslan et al., 2012; Buyukozkan, Ilicak, 2019).

The TOWS method is a variation of the SWOT method, this approach is referred to as 'from the outside in'. During a SWOT analysis, the focus is on identifying an organisation's strengths and weaknesses in order to exploit them in a given environment. TOWS analysis takes the opposite approach - a company's strategy should be based on flexible adaptation to the signals coming from its environment (Bieda, Brzozowska, 2017; Černý et al., 2018). This means that a company should be ready to dynamically adapt its strategies in order to effectively respond to challenges and take advantage of emerging opportunities. TOWS analysis places emphasis on the ability to respond flexibly to the environment, which can be crucial for effective management in a dynamic market environment (Kowalik, 2020a; Sadłowska-Wrzesińska et al., 2020).

3. Research methodology

When using the SWOT-TOWS methodology, the following points need to be taken into account:

- when analysing the aggregated results of the interactions occurring in the SWOT-TOWS method, attention should be paid not only to the dominant number of interactions, but also to the distribution of the weighted number of interactions;
- when compiling groups of factors in which the relationships are examined from the point of view of the impact of a negative factor - a matrix with questions as well as to the impairment of opportunities for strengths or opportunities;

- by juxtaposing groups of factors in which the relationships are examined in terms of the impact of a positive factor (matrix with questions), as many interactions as possible are expected, i.e. positive factors are strengthened (Czerniejewski, Heller, 2022; Fitriani, 2022).

In practice, TOWS analysis does not simply transform the data in a table by swapping columns with rows and reordering both rows and columns. The factors from the different fields of the table (quadrants) of the SWOT analysis are placed in the column headings (starting with the 2nd column) and in the first column of the table, and at their intersection actions are written referring to these factors. This results in four groups of strategic actions called, in turn, aggressive, competitive, conservative and defensive strategies (Table 1).

Table 1.
TOWS matrix

| | Strengths (S) | Weaknesses (W) |
|--------------------------|--------------------------|-------------------------|
| Opportunities (O) | Aggressive strategy SO | Competitive strategy WO |
| Threats (T) | Conservative strategy ST | Defensive strategy WT |

Source: (Miszevska, Niedostatkiewicz, 2020; Czerniejewski, Heller, 2022).

In practice, due to limited financial resources, a company chooses one of the following strategies depending on its own condition and current external conditions. Companies can use one of the following strategies:

- An aggressive SO (maxi-maxi) strategy refers to a situation where the organisation's strengths outweigh its weaknesses and there are more opportunities than threats in its environment. It is a strategy of strong expansion and diversified growth.
- Competitive strategy WO (mini-maxi) is suitable for an organisation that has a preponderance of weaknesses but is favoured by the pattern of external conditions. The strategy is to exploit these opportunities while reducing or improving the organisation's weaknesses.
- A conservative ST (maxi-mini) strategy can be applied when the source of the organisation's barriers to growth is an unfavourable pattern of external conditions. The strategy opposes threats with a high internal potential and consists of overcoming them using its strengths.
- A defensive WT (mini-mini) strategy is suitable for organisations lacking development opportunities, with low potential, operating in an unfavourable environment. It boils down to a struggle for survival and the resolution of constantly erupting crises in various locations (Adamus, 2004).

TOWS-SWOT, as a comprehensive method of strategic analysis, makes it possible not only to identify the internal and external factors affecting an enterprise, but also to integrate this information, which allows the formulation of concrete actions aimed at maximising benefits and minimising risks. In this way, TOWS-SWOT analysis becomes an invaluable tool to support strategic decision-making in the context of a complex environment (Miszevska, Niedostatkiewicz, 2020; Sanito et al., 2020).

In this article, a SWOT-TOWS analysis of a selected manufacturing enterprise is performed.

The subject of the study was an aluminium company. This organisation produces aluminium casting alloys and mordants - around 50 alloy types in total. The alloys are produced in the form of ingots, liquid metal, granules used in metallurgy for deoxidising steel and ingots for in-house use for further processing. The alloys produced are used in domestic industry for remelting and obtaining finished castings (e.g. automotive, aerospace, machinery and equipment, household appliances).

4. Results

The first activity in the TOWS/SWOT analysis was to define a list of the company's opportunities, threats, strengths and weaknesses and assign them weights to determine their relevance in terms of their impact on the company's ability to grow (Table 2) (Adamus, 2004).

Table 2.

Table of the company's strengths, weaknesses, opportunities and threats in the environment

| Weight | External factors | Weight | Internal factors |
|--------------|------------------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------------------------------------------|
| 0.1 | OPPORTUNITIES extending the product range with new products; | 0.15 | STRENGTHS ISO 9001:2000 quality and ISO 14001 environmental management certifications; |
| 0.2 | optimisation of processes within the Group (with a positive impact on service quality); | 0.05 | stable and experienced management staff; |
| 0.05 | large area of company operations; | 0.15 | a well-functioning organisational structure that conditions the correct course of business processes; |
| 0.1 | attracting new investors; | 0.35 | constant development of the company (consistent investments) ensuring competitive advantage; |
| 0.3 | expanding markets outside the EU; | 0.1 | efficient and quick system of dealing with all complaints; |
| 0.25 | good financial condition of potential buyers' industries; | 0.2 | leader on the domestic market of aluminium profiles (51%) and flexible packaging (21%); |
| Total = 1.00 | | Total = 1.00 | |
| 0.25 | THREATS volatility of macroeconomic indicators (inflation, interest rates, exchange rates); | 0.15 | WEAKNESSES underutilisation of production capacity; |
| 0.05 | adverse developments in the labour market (unemployment); | 0.2 | insufficient modern equipment to eliminate products with hidden defects; |
| 0.15 | increasing competition from foreign companies; | 0.2 | lack of authorisations (certificates) to manufacture products for industries such as the military; |
| 0.1 | aluminium price volatility on the LME (London Metal Exchange); | 0.15 | limited ability to compete on price; |
| 0.3 | capital market risk (secondary market price movements); | 0.25 | weakening of the company's financial position through loan and interest repayments; |
| 0.15 | recession in the European market; | 0.05 | seasonality of the market; |
| Total = 1.00 | | Total = 1.00 | |

The next activity was to examine in parallel, i.e. 'from the outside in' and 'from the inside out', the relationships occurring between strengths and weaknesses and opportunities and threats. To this end, the following questions were formulated:

Will the threats that may arise weaken the identified strengths?

The two most important threats, which definitely diminish the importance of the strengths available to the organisation, are considered to be, respectively, capital market risk and the associated changes in secondary market prices and the volatility of macroeconomic indicators.

The two strengths most susceptible to the impact of the defined threats are the company's continued growth and market leadership. In practice, this means that when threats first occur, these very strengths will lose their importance as a basis for building strategic advantage.

Will the opportunities that may arise amplify the identified strengths?

An opportunity for the company is to expand its markets outside the European Union. Another opportunity is the emerging possibility of optimising processes within the Group. The optimisation of all processes identified in the company will positively influence the quality of services and allow for full use of advanced computer technology supporting quality management in the company. It will guarantee the company a professional way of serving the customer and, therefore, ensure that the company gains an advantage over its competitors.

Will threats that may arise exacerbate existing weaknesses?

Potentially emerging threats, such as an unfavourable national economic situation and the growth of competing companies in the market, will significantly exacerbate a company's existing weaknesses. They will weaken the company's position as a national market leader and significantly affect its financial position.

Will the opportunities that may arise overcome existing weaknesses?

The appearance of an opportunity to do business in prospective segments of the economy gives the company the opportunity to overcome existing weaknesses. The company will be able to increase its production capacity, thus achieving higher profits and improving its financial situation. As a result, the company will be able to invest in the purchase of modern equipment to eliminate the production of products with hidden defects and complete the company's restructuring process, which has been initiated with the aim of reducing costs. The company will be able to compete on the market with the price of products and will significantly improve their quality.

Will the strengths identified, allow the company to take advantage of opportunities that may arise?

The company's strengths: the national market leadership position and the company's continued growth will have the greatest impact when opportunities arise. This means that these company strengths can significantly help to exploit future opportunities.

The opportunity most likely to be influenced by the company's strengths is the optimisation of business processes.

Weaknesses identified will they prevent the exploitation of opportunities that may arise?

Lack of authorisations (certificates) to manufacture products for the industry, e.g. the military, and insufficient state-of-the-art equipment to eliminate products with hidden defects may be the reason why the opportunity to win new markets is missed.

An opportunity for the company is also to broaden its commercial offer and direct it into prospective segments of the economy, which is where the company operates. However, the company's weakened financial position may not allow it to take advantage of this opportunity. If the company does attract an investor, it will be in a position to take advantage of future opportunities.

Will the identified strengths allow the company to overcome the threats that may arise?

The company's strengths are its market leadership position and its continuous investment in business development. The company is certified in accordance with the requirements of the standards: ISO 9001:2000 and ISO 14001, and a well-functioning organisational structure that determines the correctness of business processes. The company's identified strengths will enable the company in the future to overcome risks that may arise, especially the emergence of competition in connection with EU accession. Also, the risks associated with the capital market situation (in connection with such strong company strengths) would be surmountable if they depended on the company alone. Indeed, capital market developments are influenced by many other factors beyond the company's control.

Will the weaknesses identified, reinforce the impact of the risks that may arise?

The weakening of a company's financial position is the factor that most amplifies the impact of risks. The emergence of foreign competitors will significantly amplify the company's weakening (Adamus, 2004).

The aggregated totals obtained (Table 3) after the TOWS/SWOT analysis clearly indicate that, with the defined configuration of external and internal factors and the established weighting system, the most desirable course of action for the company is to adopt an aggressive strategy (maxi-maxi).

A maxi-maxi strategy means that strengths prevail within the company, while opportunities prevail in the environment.

Table 3.

Summary of the TOWS/SWOT analysis results

| Combination | Results from the analysis TOWS | | Results from the analysis SWOT | | Summary overview TOWS/SWOT | |
|--------------------------|-----------------------------------|----------------|-----------------------------------|----------------|-------------------------------|----------------|
| | total interactions | total products | total interactions | total products | total interactions | total products |
| Opportunities/Weaknesses | 16/2 | 2.4 | 24/2 | 4.3 | 40/2 | 6.7 |
| Threats/Weaknesses | 20/2 | 3.9 | 11/2 | 2.25 | 31/2 | 6.15 |
| Opportunities/Strengths | 26/2 | 5.35 | 28/2 | 4.05 | 54/2 | 9.4 |
| Threats/Strengths | 26/2 | 4.8 | 7/2 | 1.35 | 33/2 | 6.15 |

A maxi-maxi strategy means that strengths prevail within the company, while opportunities prevail in the environment.

5. Discussion

The analysis shows that the basic strengths on which the company's strategic advantage should be built are the leading position on the market of aluminium profiles (51%) and flexible packaging (21%) and the company's continuous development. Investing in the company's development through further business development in the segments (investments in modern technologies, cost reduction) and increasing their share in the domestic and foreign market (increasing exports and overall sales) will definitely allow the company to take advantage of the two most important opportunities from the point of view of the future development of the sector, which are: integration with the EU and activity in prospective segments of the economy (especially food, chemical and pharmaceutical industries).

In addition to this, the possession of certificates of compliance with the requirements of ISO 9001:2000 and ISO 14001, considered as assets, conditioning the high quality of products and services offered and the correctness of business processes, gives the company the opportunity to compete in the market with foreign companies (EU countries).

An aggressive strategy is a strategy of strong expansion and diversified development. However, the best option for the company would be to adopt a competitive (mini-maxi) strategy. Considering the aggregate results of the TOWS/SWOT analysis, this strategy is the closest to the result achieved by the aggressive strategy.

A competitive strategy addresses the weaknesses in an organisation's performance and builds its competitive strengths by maximising the exploitation of existing opportunities that favour growth. The company pursues just such a strategy of action: it improves products, reduces costs, and invests in maintaining a competitive advantage, all through quality management.

As the authors point out, SWOT/TOWS analysis is a valuable analytical tool, but provided it is done carefully, consistently and consciously. The most common mistakes that can be made are:

- incorrectly placing a factor in the matrix area,
- incorrectly interpreting the origin of an identified factor,
- entering a factor in the matrix that does not correspond to reality,
- omission of a relevant factor or giving it an inappropriate weighting (Żemła, 2019; Romanowska, 2009).

In order to avoid misinterpreting the results of the method, which may result in serious consequences in the future, the SWOT/TOWS analysis should be properly prepared. Special attention should be paid to the selection of the analytical team and the multi-stage verification of the results. Progress in the implementation of the implemented strategy should be monitored and, if forced, e.g. by changes in the company's environment, the study should be repeated and the previously chosen strategy modified (Oziębło, 2022).

The SWOT/TOWS analysis, as a specific algorithm, is a universal tool commonly used in many areas of an organisation's activities, not only in the context of overall development. It can also be mentioned, for example, in safety management, risk management, financial management, sustainability, marketing and many others (Sadłowska-Wrzesińska et al., 2020; Marczevska-Kuźma, Ostrowska, 2018; Asejczyk-Woroniecka, 2016; Dandage et al., 2019; Kowalik 2020; Yu, Wang, 2022; Biernat et al., 2022).

6. Conclusions

Quality management is an integral part of a company's growth strategy. Fierce market competition and increasing customer demands mean that only the best quality products will find buyers in the future. Packaging production, in particular, is an activity that requires manufacturers to pay extraordinary attention to quality. The better the packaging, the greater the guarantee that the goods inside will retain all their properties or will not be accidentally damaged. No less important is the marketing role of packaging, i.e. packaging as a "silent salesman" must meet the aesthetic requirements of a specific customer group. In order to meet all these requirements, it is necessary to build product quality based on European standards. Therefore, in its future plans, the company should endeavour to obtain authorisations (certificates) to produce specific products for the industry, e.g. military. Quality management in the company requires not only a well-thought-out concept of operation, but also appropriate technical and research facilities, so the company should also invest in the purchase of more modern equipment to eliminate products with hidden defects.

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