AN ANALYSIS OF MAKING AN INVESTMENT DECISION UTILIZING SELECTED METHODS OF STRATEGIC MANAGEMENT

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Abstract

The aim of this article is to analyze the making of a decision to purchase a machine for a selected company, to analyze the making of a decision to purchase a machine was made with the methods of strategic management, for example the swot analysis, the space analysis and the porter's five forces analysis.

1. Introduction

Strategic management is a specific concept of enterprise management, which is focused on development, and based on the analysis of future activities. Strategic management should guide the organization in order to establish coherent missions, goals and strategies [1]. Analyzing a company is an extremely important activity because it allows for the detection of strengths and weaknesses. Constant analysis of current activities and making future decisions that are supported by specific results make it easier for the company to function and grow [7, 8] These analyzes should be conducted in accordance with the assumptions and management methods that enable the correct and effective implementation of the strategic planning process.

2. The selected methods of strategic management

The most commonly used methods of conducting strategic controlling are SWOT analysis, analysis of 5 Porter's forces or SPACE analysis. These tools can be used in all types of organizations, their simple form and the possibility of constant modification make them applicable to all kinds of problems.

2.1. The SWOT analysis

The SWOT analysis (Strengths, Weaknesses, Opportunities and Threats), is counted among the methods that support the strategic planning process. This method is often used when determining the strategy for the development of enterprises and organizations, as well as when assessing various types of projects [3]. The SWOT analysis is a comprehensive analysis that is used to examine the organization's area. It is a proposal of systematic and comprehensive assessment of external and internal elements that determine the current state of the organization and its development potential [10].

The SWOT analysis consists of assessing the strengths and weaknesses of the organization as well as opportunities and threats in the market. It is a flexible method of strategic assessment which can be used for the whole company or only for a selected range of products. It also finds its application during the assessment of investment projects [11]. The information regarding the analyzed problem is collected according to four SWOT categories. Strengths and weaknesses are included in internal factors, and opportunities and threats to external factors. Strengths (advantages) contribute to taking advantage of opportunities and help to overcome potential threats. In contrast, weaknesses (defects) contribute to the development of threats and cause that the organization can't develop [3]. The essence of this analysis is to find opportunities in the analyzed environment for development as well as possible threats that may block this development. This method analyzes an added area – for example economic trends and the closer environment – using Porter's 5 forces analysis. Thanks to the SWOT analysis, one can determine the strengths of the organization that should be developed, as well as weaknesses of the organization that should be eliminated. By comparing strengths and weaknesses it is possible to look for the organization's potential strategic advantages [4].

2.2. The structural analysis of the sector

The structural analysis of the sector, otherwise referred to as Porter's 5 forces analysis or Porter's 5 forces model, is one of the basic methods used in the strategic analysis of the company. This analysis helps to determine the strength of competitors from a closer environment, which may pose a threat to the analyzed company. The development of the Porter 5 force model is to help in estimating the profitability of the sector. If the result obtained from the analysis shows a high intensity of competition, then it will be a sign of lower profitability as well as lower potential of a given sector [9].

Analyzing the competitive environment of the company, the analysis of suppliers, customers, consumers and other entities is carried out. The factors that should be analyzed in accordance with the model of Porter's five forces are: the threat of new competitors emerging, the bargaining power of suppliers and buyers successively, the availability of substitutes and the strength of competition in the industry or sector [5]. If Porter's strength in the analyzed enterprise is strong, virtually none of the organizations create a profitable return on investment. If the system is gentle and the forces have a slight impact on each other, then the rate of return is high [6]. The sector is more attractive when the impact of the participant on suppliers and buyers in the sector is high, if the threat posed by the emergence of new competitors is low, if the importance of substitutes is low, and if there is less competition [5].

2.3. The SPACE analysis

The SPACE analysis (Strategic Position and Action Evaluation) is a method used for the exploration and assessment of the overall development capability of a company [11]. This method evaluates the company's position as well as its operations. The assessment is four dimensional, wherein two relate to the internal conditions of the organization, and the other two characterize the company's environment. Internal determinants are the financial strength and the competitive advantage.

External conditions are characterized by the environmental stability and the industry strength [2].

3. The analysis of the solution to the problem using selected strategic management methods

The company, based in the Podkarpackie Voivodship, was considering the purchase of a machine that engraved on glass baubles in a circle. The decision was difficult because the machine was both difficult to access and expensive. In addition, the management of the company had fears about the purchase of the machine. In order to solve the problem, a strategy analysis was carried out, during which three strategy management methods were used.

In the first stage of the research, the SWOT analysis was made. A group of people including management and three employees of the company pointed to a dozen of factors which could influence making the decision to buy the machine. Each factor was grouped and assigned to the correct category according the SWOT analysis (Table 1).

By analyzing the above matrix of the SWOT model and pointed factors, it was noted that there were many more positive aspects regarding the purchase of the machine, and they were characterized in the external and internal area. The results showed that the strengths of this company include, for example, the lack of another company with such a machine in the vicinity in the Podkarpackie Voivodship as well as its convenient location. As far as opportunities are concerned, this company presented a big development potential on the market and the expansion of the sales offer.

Apart from the positive sides of the investment, there were also some negative aspects. For each of the factors the weightings and assessments were assigned (for strengths and opportunities: 1 – the best, 5 – the worst, for weaknesses and threats: 1 – the worst, 5 – the best) for each factor (Table 2).

Table 1. The matrix of SWOT.

	Strengths	Weaknesses
Inside	1. There are no stationary companies offering such products in the immediate vicinity. 2. Well-functioning online sales. 3. Many regular customers. 4. Very good location. 5. Good cooperation with other enterprises.	1. Lack of qualified employees. 2. High cost of purchasing resources. 3. Small marketing range. 4. Many foreign companies offering similar services. 5. Lack of knowledge about the expected return on investment.
	Opportunities	Threats
Outside	1. Big market potential. 2. Greater profit on sales. 3. Expanding the sales offer. 4. Establishing permanent contacts with external clients (companies). 5. Acquiring new clients, including foreign ones. 6. The opportunity to present an innovative sales offer at companies' fairs. 7. Mass sales, and thus more profit.	1. Seasonal sales. 2. Less than the expected return on investment. 3. A small number of customers who will be interested in the offer. 4. Unit sale (not mass).
	Positive	Negative

Table 2. The SWOT analysis extended by weights and scores.

Assessment criteria		Weights 0–1	Scores 1–5
Strengths	There are no stationary companies offering such products in the immediate vicinity	0.4	5
	Well-functioning online sales	0.1	4
	Many regular customers	0.1	3
	Very good location	0.25	4
	Good cooperation with other enterprises	0.15	4
Opportunities	Big market potential	0.1	4
	Greater profit on sales	0.05	4
	Expanding the sales offer	0.2	4
	Establishing permanent contacts with external clients (companies)	0.15	4
	Acquiring new clients, including foreign ones	0.35	4
	The opportunity to present an innovative sales offer at companies' fairs	0.05	3
	Mass sales, and thus more profit	0.1	4
Weaknesses	Lack of qualified employees	0.15	−3
	High cost of purchasing resources	0.25	−4
	Small marketing range	0.1	−4
	Many foreign companies offering similar services	0.25	−5
	Lack of knowledge about the expected return on investment	0.25	−2
Threats	Seasonal sales	0.25	−5
	Less than the expected return on investment	0.25	−4
	A small number of customers who will be interested in the offer	0.25	−5
	Unit sale (not mass)	0.25	−4

After the weightings and grades were assigned to each factor, the weighted average for each criterion was calculated. Then, the differences between absolute values of thee weighted average strengths and weaknesses as well as the opportunities and threats were calculated. The results obtained are shown in Fig. 1.
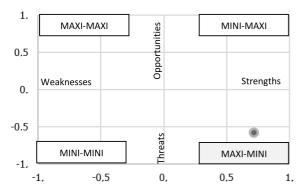

Fig. 1. The result of SWOT analysis and strategy indication.

The obtained results indicated that the company's strategy is a conservative strategy (maxi-mini). Strengths outweigh the weak sides, but at the same time overcome threats over opportunities. The company should remember to counteract the threats when deciding to buy a machine. The activities that will stimulate the company's growth will be mass sales and the development of their range of products, so that sales could be maintained throughout the year.

Due to the fact that the SWOT analysis largely depends on the subjective assessment of the people performing the analysis, and also on the decision which concerns a machine producing a particular type of products, it was decided to compare the results with the results obtained from the Porter's 5 forces analysis. The analysis of Porter's 5 forces was undertaken in order to determine the strength of competitors and to estimate the profitability of the sale of engraved balls. By analyzing the discussed problem, the following characteristics were specified for 5 Porter forces [6]:

1. Buyer's bargaining power, whose result shows to what extent the customer influences the price and quality of the products.
2. The bargaining power of suppliers, where the influence of suppliers on the control of the product is estimated.
3. Strength within the sector, indicating the number of competitors in the proximal area.
4. Substitutes.
5. Threat to the emergence of new products.

To each of the five areas the corresponding factors were assigned and their impact on the area of the enterprise was assigned using a percentage method (Table 3).

The analysis indicates that it will be difficult for competitive companies to enter the market with the production of such products, due to financial barriers or the need to have trained employees. The advantage is low competition and the lack of possible substitutes for glass (and thus engraved) baubles, which increases the company's chance for effective product sales.

A large increase in investments will create beneficial relationships with suppliers of glass balls, as well as mass sales for external customers (Fig. 2).

Table 3. The analysis of Porter's 5 forces.

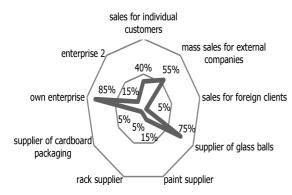| No.	Description of strength	Factor	Scores %
1	Bargaining power of buyers	sales for individual customers	40%
		mass sales for external companies	55%
		sales for foreign clients	5%
2	Bargaining power of suppliers	supplier of glass balls	75%
		paint supplier	15%
		rack supplier	5%
		supplier of cardboard packaging	5%
3	Strength within the sector	enterprise 1 (own)	85%
		enterprise 2	15%
4	Substitutes	absence	
5	New products	big financial barriers	–
		permission to operate	
		trained employees	

Fig. 2. Graph of results from Porter's 5 forces analysis.

The analysis of Porter's five forces showed that it would be beneficial to purchase a glass engraving machine. These products aren't sold by the companies in the immediate vicinity, and these products don't have equivalents. In addition, easy access to product suppliers could be beneficial to the development of production of such products. The company could lead to increased profitability because no competitors threatening it were observed in its environment.

In the last stage of the research, the overall development capability of the company was assessed. For this purpose, the SPACE method was used. As in the case of the SWOT method, a group consisting of management and three employees were gathered. Each person selected the appropriate factors for a given criterion, which were grouped and ordered (Table 4).

Then, each factor was evaluated on a scale of 1–6, where for the strength of the sector and financial strength: 1 – the best value, 6 – the worst value, for competitive ability and stability of the environment: 1 – the worst value and 6 – the best value (Table 5).

From the evaluations and weights the weighted averages for each factor were calculated. Then, the weigh-

ted averages for the strength of the sector and the competitive ability were added twice and successively for the financial strength and stability of the environment.

The obtained results allowed for the creation of a graphical matrix on which the area of the company's strategy was indicated (Fig. 3). The results of the SPACE analysis indicate that the strategic position of the company is a competitive strategy.

The competitive strategy is characterized by activities involving market penetration as well as activities focused on the development of the enterprise. The company should use current resources and expand the range of products by introducing changes to the offer. This strategy is also described by the concentration of the company's activities on the target market.

The decision was making with the use of the algorithm (Fig. 4).

Table 4. The SPACE analysis with grouped factors.

Internal conditions	
Financial strength	A small, stable profit Average profitability No long-term debt Good financial ability
Competitive ability	Unlimited lifetime of products Customer loyalty Large market share A thriving online sale
External conditions	
Ambient stability	High barriers to entry into the sector Price stability Stability of competition in the industry High innovation in the industry Big changes in demand
Strength of the sector	Potential of demand growth Price stability Low risk of substitutes Relative stability of people in the sector

Table 5. The SPACE analysis extended with evaluations and weights.

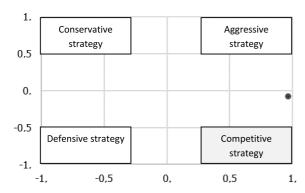| Assessment criteria		Weights 0–1	Scores 1–6
Financial strength	A small, stable profit	0.3	2
	Average profitability	0.15	3
	No long-term debt	0.25	2
	Good financial ability	0.3	3
Competitive ability	Unlimited lifetime of products	0.2	−1
	Customer loyalty	0.35	−4
	Large market share	0.1	−6
	A thriving online sale	0.35	−2
Ambient stability	High barriers to entry into the sector	0.3	−1
	Price stability	0.15	−3
	Stability of competition in the industry	0.15	−3
	High innovation in the industry	0.1	−4
	Big changes in demand	0.3	−3
Strength of the sector	Potential of demand growth	0.4	2
	Price stability	0.15	3
	Low risk of substitutes	0.4	6
	Relative financial stability of people in the sector	0.05	4

Fig. 3. The result of the SPACE analysis.

The algorithm indicates which actions should be taken at every stage of making decisions about buying the machine. The analysis made with the use of the algorithm indicated that it would be beneficial to purchase an engraving machine. The result is in the area of "threats – strengths" or "opportunities – strengths" and was identified with such factors as: low competition, no substitutes, easy access to suppliers.
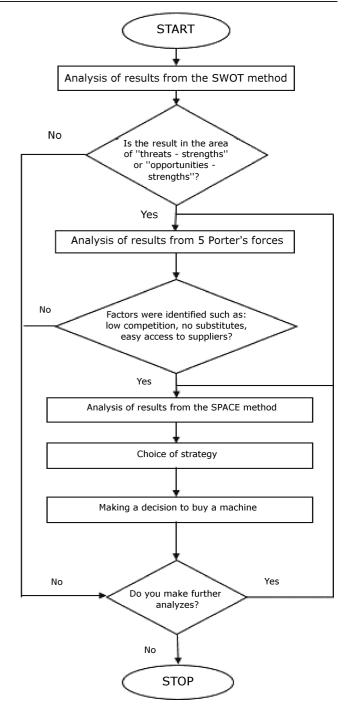
Fig. 4. The algorithm with help in investment decision making.

Summary

The analysis indicated that it would be beneficial to purchase an engraving machine. As illustrated by the results of the SWOT analysis, the company is characterized by strengths that can help in the development of its operations. Strengths, such as lack of competition or good company location, can contribute to the elimination of potential threats and will make it possible to take advantage of emerging opportunities. Despite the fact that in this analysis the threats were highlighted, further analysis using the SPACE method directs the

company to make a decision on the purchase of the machine. A result which was obtained in the SPACE analysis suggests the company should follow the assumptions of the competitive strategy. This strategy indicates the need to expand the range of products and make changes to the offer. Again, as in other methods, the result of the SPACE analysis indicated to purchase an engraving machine. The results obtained from the third analysis, which was carried out using the Porter 5 force model, as the previous ones, indicated that it will be beneficial to purchase the machine. This is evidenced by the minimal amount of competition and the lack of possible substitutes, which significantly increases the company's chance to effectively sell this type of products.

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