

# Strategic decision-making of the company management using the findings of knowledge management

## *Strategické rozhodování podnikového managementu s uplatněním poznatků znalostního managementu*

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**Abstract:** This scientific paper shows the results formulated in the author's research focused on strategic decision-making of the company management in a new entrepreneurial environment resulting from changes caused by integration processes, the development of information technologies and globalisation factors. The goal of this paper is to publish the changes in behaviour of the management of the selected entrepreneurial entities resulting from new factors of changes affecting the entrepreneurial environment. This is reflected in the process of strategic decision-making of entrepreneurial entities in the necessity to use new methods of decision-making of the company management as a reaction to factors of the external as well as the internal environment. Rapid changes in particular in the external environment require the company management to select new approaches and methods of decision-making and to have a well conceived algorithm enabling a flexible response to customer wishes using the findings of knowledge management.

**Key words:** business management, decision-making, entrepreneurial environment, strategic management, information technology

**Abstrakt:** Příspěvek uvádí poznatky autora zaměřené na strategické řízení podnikového managementu v novém podnikatelském prostředí vlivem změn vyvolaných integračními procesy, rozvojem informačních technologií a faktory globalizace. Cílem práce je publikování změn v chování podnikového managementu vybraných podnikatelských subjektů, vyvolaných novými faktory změn ovlivňujícími podnikatelské prostředí. To se projevuje v procesu strategického řízení podnikatelských subjektů potřebou nových metod rozhodování podnikového managementu, a to jak v reakci na faktory vnějšího prostředí, tak i na faktory vnitřního prostředí. Změny zejména ve vnějším prostředí vyžadují od podnikového managementu volbu nových přístupů a metod rozhodování, jeho dobře koncipovaný algoritmus, umožňující pružné reagování na potřeby zákazníků, a to při využívání poznatků znalostního managementu.

**Klíčová slova:** podnikový management, rozhodování, podnikatelské prostředí, strategické řízení, informační technologie

The successful management of any entrepreneurial entity depends on the proper mastery of important prerequisites of which the decision-making of the company management, for which the requirements continue to increase in the dynamically changing environment of the management, takes a critical position.

The integration and globalisation processes in Europe have gradually created a new entrepreneurial environment for entrepreneurial entities of the Czech

Republic upon its accession to the EU, in which a number of substantial changes of both positive and negative character are reflected. With respect to the extent of the changes, a virtually new entrepreneurial environment has been created. These changes pertain to the principal factors that will limit the behaviour of all entrepreneurial entities in future years.

Most agricultural and processing companies in the Czech Republic have not yet been sufficiently linked with the processes of vertical integration; specifically,

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neither with the integration processes towards the customers nor with the reverse integration and for that reason, their reactions are frequently perceived individually and separately by the market.

As mentioned by Hron (2001), the basic constant in managing the development of entrepreneurial entities is a change, the proper mastery of which is a basic criterion for the assessment of the managing work of all company managers. In the field of strategic management, he/she emphasizes the necessity to create homeostasis, i.e. the desirable adaptation of the internal environment of the management to the external environment in the company.

Gates (1999) shows the method by which information technologies manage the business sector and says that every manager should know how to keep pace with this development.

Hron (2006) writes that knowledge management has become much more a matter of information technologies, and although the discussion on knowledge usually started at the level of strategic management in an enterprise, it very quickly moved on towards the area of designing applications, architecture of the knowledge databases, searching for tools, etc. Tichá, Hron (2006) note that the opportunity for learning is greater in a firm with a higher knowledge basis than in a firm less well equipped. Hron (2004) deals with the diagnosis of business health. He mentions that every business grows, develops and dies within its life-cycle, dependent on its relations with the external and internal environment.

Also Tomšík (2004) is concerned with the diagnostics of business health and finds that the resulting diagnosis determined by diagnostic methods has to help to reach the goals which – based on the activities of the business – lead to the generation of an appropriate reaction to the identified status of the diagnosed business.

Tomšík (2002) mentioned that the environmental analysis in the enterprise was necessary for strategic management and for the business strategy formulation.

Also Svoboda et al. (2006) are in consensus with this author. The cited authors mention a number of decision-making methods in their literary publication that investigate the results of analyses of the management environment, i.e. of both the external and internal environments.

The paper describes the synthetic results of the author's research MSM 621 564 890 4 with focusing on the analysis of strategic decision-making of the company management. The goal of the paper is the analysis of the behaviour of entrepreneurial entities in the process of controlling changes of the selected

companies with a focus on the field of strategic decision-making, specifically in the period after accession of the Czech Republic to the European Union when major changes in the entrepreneurial environment took place. The Bioveta, a.s. (joint-stock company) Ivanovice na Hané in which the author has carried out a long-term research is the object of the detailed analysis. Attention is paid to utilizing the modern methods of strategic decision-making of the company management with use of the principles of the knowledgeable management.

## MATERIAL AND METHODS

The research is carried out on the basis of the methodology formulated by the author of this paper, i.e. through the methodology of the formation, implementation and changes of the entrepreneurial strategies outlined and successively verified in the practice of entrepreneurial entities. The results of the decision-making are applied to the partial business strategies of the selected entrepreneurial entities in the fields of subject of activity, marketing, stock management, quality control and management of changes, human resources management and company financing.

The methodological procedure is based on the partial steps that can be characterized with the following algorithm:

- Analysis of the current status of strategic decision-making of the company management in literature and the practice of the companies investigated;
- Progressive introduction and verification of the results of the research into the company practice;
- Formulation of practical recommendations for improving the strategic decision-making of the selected entrepreneurial entities.

The analysed companies participating in the research represent medium-sized entities with a more extensive range of activities, provided with modern technological means of management and communication. The selected specific data with the application of the individual methods of strategic analysis are obtained from the joint-stock company Bioveta Ivanovice na Hané, which deals in the research and development, the production and sale of the veterinary and certain human drugs in the markets of the Czech Republic, the EU member states and a number of other countries of Asia, India, Latin America etc. Bioveta currently does business with approximately 67 countries throughout the world.

The methods of strategic decision-making and the method of a controlled interview with the TOP

management of the company and the members of the board were used for the research. The methods from the field of marketing and certain other associated fields were also utilized. The methods mentioned are based on the conclusions obtained with the methods of the analysis of the management environment. The BCG and SPACE analyses follow.

The SPACE was undertaken with the construction of 35 input characteristics divided into 4 summarized fields, i.e. for analysis of the financial strength of the company, its competitive advantages, environmental stability and strength of the industry. These fields are ranked with a point system (0 to 6 points),

The Boston Consulting Group (BCG) analysis is carried out according to the selected markets on which the Bioveta offers its products, i.e. both in the market of the Czech Republic and in foreign markets, specifically from the year of the transformation of the Bioveta from a limited liability company to a joint-stock company (1998 to 2007). The results of the analysis are listed in a summarized percentage representation of the individual products in the selected markets. The data are summarized in the individual quadrants in Table 1, i.e. in the relative expression in the monitored markets due to not publishing some quite specific addressing data that should be kept confidential, owing to the interests of the company, for which the author bears a full responsibility. Quadrant I illustrates products with a high development of the market and with a large share of own products in the market, quadrant II indicates a high development of the market with a low share of own products in the given market, quadrant III contains products with a decreasing rate of market changes and with a large share and quadrant IV depicts products with a decreasing rate of market changes and with a low share.

A very important applied analysis of competition is that according to the Porter's model and the Miles-Snow model, which differentiate companies with their approach according to the reactions to the external business environment, specifically as defending (1), prospecting (2), analysing (3) and reacting (4).

The first approach is characterized in particular by a narrow market segment, a high quality of products and their wide dissemination. The second approach is characterized by an effort to assert itself in an unstable and – for the company – new entrepreneurial environment. This reaction is characteristic of a wide spectrum of the subject of activity and flexible and creative reactions with a quick launch in the market. The third type of reaction is called analysing (3), which limits the space between the defending and prospecting approaches and attempts to combine the approaches (1, 2). The last approach is called reacting

(4), which is characterized by the strategic failure of the company, i.e. with failure in a certain market. The approaches listed above are analysed in the research according to individual groups of the products offered and according to the individual markets in the Czech Republic and foreign markets.

## RESULTS AND DISCUSSION

A brief characterization of the process of strategic management in the joint-stock company Bioveta Ivanovice na Hané that supplies in particular products in the market of veterinary drugs and bio-preparations above all for breeding farm animals will now follow. The company produces and supplies 29 groups of products in 410 variants and types of packaging, including some human medicine products for the given industry at the present time. The quite extensive and comprehensive subject of activity mentioned above requires the analysed company to provide a flexible and creative adaptation to the requirements of the market, i.e. to an important element of the external entrepreneurial environment. Other company systems are associated with the subject of activity; the organizational system, the system of company and internal management, the economic and financial system, the human resources management system and the information system that displays and integrates all the preceding systems, thus deciding significantly on approaches to the management of the individual fields of activity of the company belong among these in addition to the subject of activity of the company.

In connection with the strategic decision-making of the company management, we will mention the implemented approaches in the process of changes, namely in the system of the company and internal management of the analysed company. The company reacted gradually to the changes of the external and internal environments by applying new approaches in the process of controlling the company management.

After the privatisation of the former Bioveta state enterprise (1994), this company was transformed to a limited liability company and later to a joint-stock company (1998). The current system of management builds on the financial and economic management of the company and its internal units with a relatively high economic independence of the internal units. The mentioned system of management and other company systems are supported and provided with data from the information system with the use of advanced information technologies. The general director of the Bioveta manages, in a linear connec-

tion, the director of the financial control section, the director of the section for the development and sale of veterinary bio-preparations and drugs, the director of the quality management and control section and the marketing and the sales director. The director of the section for the registration of the Bioveta products is also on the same level. The individual control activities are specified with the tools of the direct and indirect control in the company and the internal management in which economic and financial tools that limit the economic framework with their upper and lower limits occupy the principal position.

In this connection, the applied stock management, which differs from the traditional stock management as it has its important specific features consisting especially in the fact that the company must keep a certain minimum limit of finished products, i.e. the individual drugs in order to cover the potential occurrence of various infections and epidemics, plays an important role. The maximum limit is specified quarterly for each product and exceeding it is sanctioned.

The company management system indicates signs of simplicity and a precise delimitation of competences and responsibilities, with a considerable space for economic decision-making of the individual functional positions of the company and internal management. This is delimited with a precisely defined system of motivation of the managers and employees of the company. These rules specify the fields and activities for which each employee is remunerated with a clearly defined amount of remuneration.

The mentioned comprehensive subject of activity requires modern methods of management, of which a number were applied in the cooperation with the research works of the authors mentioned above.

In particular, the following analyses and methods of the following areas are utilized for the field of the production and sale of drugs from a number of procedures:

- Management environment, with formulation of its changes,
- Creation, implementation and changes of entrepreneurial strategies,
- Subject of activity of the company and its assessment according to a number of indicators and requirements,
- Stock of the completed products and its management,
- Market marketing survey,
- Research, development and sale of the individual products,
- BCG and SPACE analyses,
- Receipts etc.

The results of the Boston Consulting Group (BCG) analysis and the related SPACE analysis that investigate the position of the company on individual markets will be listed in this paper. These methods are complemented with the methods of assessment of competition strategies according to Miles-Snow.

The BCG monitors the market from two basic dimensions, namely from the viewpoints of market growth and the share of the analysed company in the market. These two dimensions allow formulating a matrix of links with four quadrants.

A total positive trend in the portfolio of products in the individual quadrants is apparent from the data listed in Table 1 even if relatively high deviations from year to year are also obvious; the company management must respond to them with their measures and direct them.

We carried out analyses of the selected markets using both the BCG and SPACE methods in the Bioveta in the period from 1998, i.e. from the year when a joint-stock company was established from the Bioveta limited liability company by transformation, to 2007. The analyses always characterize the status as of December 31 of the respective year. The data were obtained from and processed by the information system of the monitored company.

This paper will contain only the input and output data with the characterization of the relation of their changes. The representation of the products in quadrant I amounted to 38.1% in 1998 and increased to 42.1% in 2007, which means a growth of 4.0%. The following changes took place in quadrant II in

Table 1. Representation of products according to the BCG analysis (in %)

Year	Quadrant			
	I	II	III	IV
1998	38.1	24.0	25.7	12.2
1999	43.4	27.5	27.0	2.1
2000	34.5	31.0	30.0	4.5
2001	32.1	34.2	26.0	7.7
2002	27.2	34.5	22.1	16.2
2003	45.1	34.0	18.2	2.7
2004	38.7	35.1	17.9	8.3
2005	32.1	29.7	26.8	11.4
2006	34.1	30.1	24.5	11.3
2007	42.1	29.9	24.6	3.4

Source: Svoboda (2008)

the mentioned period: the former representation of 24.0% increased to 29.9%, which means a growth of 5.9%. A slight drop from the initial representation of 25.7% to 24.6% occurred in quadrant III. An even more significant drop occurred in quadrant IV, where the initial representation of 12.2% dropped to 3.4%. It is apparent from the changes in the percentage representation of the products in the individual quadrants that most of the products are classified in the quadrants I through III. It is also seen from the results of the analysis that the company applies the strategy of innovation of its products that is depicted in quadrant II at the beginning of the introduction into practice. Its values grow in time from 24.0 to 29.9%. The products in quadrant I are critical for the volume of sales and the satisfaction of the customers. These products are well located in the developing market.

It is also apparent that the company is applying the strategy of diversification successfully; this fact can be seen from the increments of representation on the market – the increments of quadrants I through III. Quadrant IV informs the company management about the representation of the products that are unsuccessful in the market and thus also economically disadvantageous for the company. A significant desirable final reduction of products in this quadrant is the result of a good utilization of the application of stock management together with the system of motivating managers on the quantity of the required stock of the completed products.

The SPACE analysis complements the preceding conclusions and its summarized results indicate that the industry of the sale of veterinary bio-preparations and drugs is relatively stable, however, with high dynamics of changes in the sales of the individual products.

The financial strength of the company increased significantly from the initial status for the monitored period according to rating by the means of a point scale, from 4.7 points to 5.7 points. The maximum value was achieved in 2003, specifically 6.0. The reduction in 2004 occurred above all as a result of the initial problems with launching on new markets. The competitive advantage of the company also improved as its input value represented 4.9 points and the value in 2007 represented 5.8 points. As to the business in the field of the production of drugs and bio-preparations, it can be assessed as stable with an input value of 3.5 points and a current value of 4.0 points. The measure of attractiveness is also a good opportunity for the company for the whole period. The input value amounted to 3.2 points and the current value represents 4.6 points. The mentioned

results characterize the selected markets and are average values.

Selected data from the assessment of the markets according to Miles and Snow and according to the experience of the company management of the analysed company will be listed now. If you take note of the characterization of the individual markets from the viewpoint of the Bioveta offered range of products, it can be stated that the company is always simultaneously represented by a wide spectrum of products both in domestic and foreign markets. The behaviour in the individual markets is simultaneously adapted to the specific given conditions.

The company can apply the defending approach (1) in the Czech market only, specifically in the case of products for which a government contract is awarded. The prospecting approach (2) is utilized above all for launching in foreign markets. This approach is usually combined with the analysing approach (3). The reacting approach is also utilized in both Czech and foreign markets, especially in case of products with a strong competition or products that are superseded by more modern and more efficient preparations.

The experience of the TOP management of the company indicates very different characteristics, especially of foreign markets. Markets with veterinary drugs and bio-preparations in the EU are characterized by the observance of all rules with a high administrative exactingness in particular upon the registration of the individual products in these markets. They can also be characterized with a good payment discipline and observance of business rules. The Bioveta with its products is fully competitive in the EU markets.

Asian markets can be characterised briefly with an easier access when compared to the EU, a wide portfolio of products and a strong competition, which results in the pressure on low prices. Another important attribute is a high risk in the payment discipline of companies. Requirements for the product quality are standard, i.e. the quality is lower when compared to the EU. The markets of South America and other countries of this continent have specific features and a high competitive ability of American and Mexican companies for the analysed company.

Distinctive specific features can be traced in the markets of Ukraine, Belarus and Russia. There are, above all, a few precisely defined business rules here, non-standard means are used and the business takes place via mediators to a large extent. The business rules in these markets develop and improve only slowly.

The position of the analysed company in individual markets can be assessed as good because the financial strength of the company is growing considerably and the company is successful in penetrating new markets.

It is obvious from the analyses carried out that two groups of effects participate in this fact. The first group includes very good price strategies monitoring the individual markets and the stabilization of prices, or even their slight decrease. If this strategy cannot be used, the company utilizes the reallocation of products in other markets. The second group of factors consists in the application of the strategy of primary position in costs, i.e. the strategy of minimum costs that forms a good base for the specification of reasonable prices for the individual products with respect to the competition.

The price relations for the individual products are monitored through analysis of the summary value index, which allows reflecting changes in receipts for products sold through the effect of changes of the quantity of the product and price influences. The company creates good conditions for achieving the profitability of all products of the company.

A good knowledge of the requirements of the customer and the market segmentation is an important factor in the whole analysed series. A significant drop of the number of farm animals and with it the associated reduction of the demand of agricultural companies for veterinary products and thus also a drop of receipts has taken place in the Czech Republic since 1990. The mentioned problem has been faced virtually with two groups of measures, i.e. the extension of the range of products and the conversion to the "Hobby programs" for pets, i.e. dogs and cats, namely for domestic and foreign markets. The other measure represents a significant extension, i.e. the expansion of all requested Bioveta products on foreign markets.

The described results of this research correspond to a number of authors. Gates (1999) states that the digital flow of information allows transforming all types and forms of information into a uniform digital form and consequently saving it in any computer, processing in the computer and communicating the information further. The circumstance mentioned is very important above all in all fields of management, as all managing processes take place as decision-making processes and consequently as influencing and inspection processes, but all these processes actually take place through information processes. The field of the company management draws information from its information system both for the horizon of strategic, tactical and operating management and for control in real time.

Other significant authors, Hron et al. (1995), Gozora (2000), Porter (1994), Šimo (2000), put a considerable emphasis on the managing work and the application of marketing activity in the company management.

These attitudes are also supported especially by works by Kotler (1998), who states that for their work the managers need processing information, in which the information system of the company, divided into the reporting system and the marketing research system, participates. These opinions are also supported by Svoboda (2007).

## CONCLUSION

As is obvious from the results achieved in the company management, the knowledge management penetrates all managing activities of the individual positions of the company management and requires a specific method of work and a potential change of priorities. It also emphasizes the meaning of the sharing and utilization of knowledge, thus contributing towards the creation of a better environment for a higher efficiency of the new directions introduced.

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