

# New approaches to the solving of economic crisis in business management

## *Nové přístupy při řešení ekonomických krizí v podnikovém managementu*

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**Abstract:** The paper presents the results of the research focused on crisis management, which is based on the process of change management by the author-formulated methodology of the creation, implementation and changes of business strategies and requirements for their improvement due to the incidence of a turbulent management environment and other essential factors. The main factors of crisis and methods of their analysis are formulated. Thereinafter, the strategies of solving crisis situations are formulated. The company Bioveta, Inc. is analysed in detail. The research has proved that companies with modern management need a well-made and working system of crisis management due to their complexity and risks.

**Key words:** crisis management, algorithm, company life cycle, crisis matrix

**Abstrakt:** Vědecký příspěvek uvádí závěry výzkumu se zaměřením na krizový management, který v procesu řízení změn se opírá o autorem zformulovanou metodiku tvorby, implementace a změn podnikatelských strategií a jejich potřeby zpřesňování v důsledku působení turbulentního prostředí managementu a dalšími významnými vlivy. Jsou uvedeny hlavní příčiny, které vedou ke vzniku krizových situací a metody jejich analýzy. Dále jsou formulovány strategie řešení vzniklých krizových situací. Předmětem analýzy jsou vybrané podnikatelské subjekty. Podrobně je analyzován podnik Bioveta, a.s. Ivanovice na Hané. Výzkum prokazuje skutečnost, že moderně řízené podniky, vzhledem k jejich složitosti a rizikům, nutně potřebují mít k dispozici funkční a dobře propracovaný systém krizového managementu.

**Klíčová slova:** krizový management, algoritmus, životní cyklus podniku, krizová matice

As stated by Drucker (1998), no other century in the history of mankind has seen as many radical changes as the 20th century. In the publication entitled "Management at the Time of Big Changes", the quoted author publishes the practical experience of companies and the particular approaches on how the respective situations can be approached and used in a practical manner. The integration processes, characterizing the current state and prospects of changes in Europe and world-wide, significantly affect the behaviour of all economies, i. e. including the economy of the Czech Republic as a part of the

EU. Other important factors include globalization of the market environment, which penetrates almost all spheres of the society.

Hron (2001) states that the basic constant in managing the development of business entities is change, the good mastery of which is the basic criterion for evaluating the managerial work of all company managers.

In addition, the economic situation characterized by the development of a crisis that has been occurring gradually in advanced economies world-wide since last year fully confirms the mentioned opinion.

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Švejnar (2008) stated at the International Economic Forum that the first driving force of the mentioned crisis were the United States of America, particularly by relaxing the monetary policy in 2000, then there was a boom in the real estate market, complicated the financial instruments, panics and some other problems, bankruptcies of banks and insurance companies, the price of crude oil and food, etc.

The behaviour of business entities also has a significant effect on the development of new information technologies. Gates (1999) states that the digital flow of information enables transforming all kinds and forms of information into a unified digital form and subsequently storing it in any computer, processing and resending it further. This fact is very important in all areas of management as all control processes are decision-making processes, subsequently influencing the processes and control processes while all the mentioned processes are in fact realized through information processes. The company information system should satisfy all the company functions while ensuring them with the necessary amount, structure and quality of information. These individual functions fulfil the complex of the company operation while the function is understood as a specific activity.

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 and Hron (2006) note that the opportunity for learning is greater in a firm with a higher knowledge basis than in a less well equipped firm. 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) and Tomšík et al. (2008) are concerned with the diagnostics of business health and finds that the resulting diagnosis determined by diagnostic methods has to help reaching the goals, which – based on the activities of the business – leads to the generation of an appropriate reaction to the identified status of the diagnosed business.

The quality of managerial decision-making depends on a number of factors that undergo dynamic changes and the task of good managers is to affect the changes successfully in the direction of properly set objectives. An inadequate reaction to any of the important factors of the external or internal business environment may lead to the occurrence of a partial or more comprehensive crisis situation.

## MATERIAL AND METHODS

The objective of the present scientific contribution is to publish the results of the author's research, the MSM 6215648904 (Brno 2009), in which the subject of the analysis is the area of decision-making of the company management in selected companies during their life cycle while stating the circumstances which can lead to crisis situations in the company management. One of the tasks of the performed analyses is the timely reaction of the company management, which makes it possible for it to reduce the impacts of the possible crises significantly, or to prevent a coming crisis. The published results have a methodological character and they state the formulation of an algorithm of monitoring the causes of a crisis with the possibilities of their solution by the company management. The analysis is carried out according to the approach formulated by Svoboda (2002), Svoboda, Bittner (2006) and Svoboda et al. (2006): the application of which relates to almost all phases of the company life cycle in which the crises may occur. The contribution states the causes of the occurrence of crisis situations in the analyzed business entities, in the area of economic, financial and accounting activities with the possibilities for their solution using the principles of crisis management with application of the principles of knowledge management.

Methods of strategic decision-making, controlled dialogue, methods of management environment analysis, economic and financial analyses and in particular, methods of crisis management application were used with the focus on the markets in the Czech Republic and the EU and on the international markets. The analyzed companies represent medium-sized business entities with a more extensive scope of business and equipped with the modern technical means of control that are necessary for carrying out the individual kinds of financial and economic analyses, specifically in connection with the analyses of management and marketing. The Bioveta, a.s. in Ivanovice na Hané is analyzed in detail. During the research, analyses were carried out, specifically the PEST analyses, the EFE analysis (External Factor Evaluation Matrix), the IFE (Internal Factor Evaluation Matrix) and the BCG and SPACE analyses, the results of which form the basis for crisis management. The analysis of the Boston Consulting Group and the related SPACE analysis, which evaluate the position of the respective company on individual markets, were realized from 1998 to 2008. In this contribution, the results from 1998 to the present, i.e. to the end of 2008, are specified.

## RESULTS AND DISCUSSION

Due to the limited scope of this contribution, we will present the results of the BCG analysis, the SPACE analysis and the analysis according to Miles and Snow and their context will be provided.

The BCG monitors the market according to two basic parameters, specifically with regard to the market growth and market share of the analyzed company. These two dimensions make it possible to formulate the relations matrix with four quadrants. The results of the BCG for the given time period are given in Table 1.

The SPACE analysis evaluates the company's position on the market with regard to the field environment when it correlates with the basic factors of changes in the field and on the other hand, the prerequisites and changes in the decision-making factors on the company level. These data are stated in Table 2. Thus the mutual relationships of the selected decision-making factors of the strategic position on the market are shown. From the performed BCG analysis, the general positive trend in the product portfolio is apparent in the individual quadrants even though relatively high annual fluctuations are obvious, to which the company management must react by its measures and it must coordinate them.

It is obvious from the changes in the percentage representation of products in the individual quadrants that it is rather beneficial for the analyzed company, as most products belong to the quadrants I to III. It is also obvious from the results of the analysis that

the company is applying the strategy of innovation of its products well, shown in the quadrant II at the beginning of its implementation into practice. The data in this quadrant were growing in time until 2005, when a decline to 29.7% was noticed. In the following period, the share was also increased to 31.1%, specifically in 2008. Those crucial for the volume of sales and the satisfaction of clients are the products in the quadrant I. These are the products that are suitably located in the emerging market. It is apparent that the company applies the strategy of diversification well, which can be noticed in the growth of its representation in the market – the growth in the quadrants I to III. The quadrant IV informs the company management about the representation of the products that are not successful in the market and therefore are not economically beneficial for the company. A significant and positive reduction of products in the quadrant was the result of the good use of the application of stock management with the system of managers' motivation depending on the volume of the required stock of ready-made products. A fluctuation occurred only in 2005 and 2006 due to the growth of competition particularly in the EU markets.

The SPACE analysis supplements the previous conclusions and its summary results show that the field of sale of veterinary biological preparations and pharmaceuticals is relatively stable, but with high dynamics of change in the sale of individual products. The results in the monitored timeline are obvious from Table 2.

As shown in Table 2, the financial strength of the company grew significantly in the monitored period, evaluated by the point scale, from 4.7 points to 5.6 points. Its highest value was reached in 2003, specifically 6.0. It was reduced in 2004 mainly due to the effect of preliminary problems in the entrance to the new markets. The competitive advantage of the company was also improved as its initial value was 4.9 points and the value in 2008 was 5.6 points. With regard to business in the field of the production of pharmaceuticals and organic preparations, it can be evaluated as stable, with the initial values of 3.5 points and current values of 3.9 points. In addition, the level of attractiveness has been a good opportunity for the company in the entire time period. The initial value was 3.2 points and the current value is 4.5 points. The selected values characterize the selected markets and they are average values.

We will further state the selected data of the market evaluation according to Miles – Snow, together with the experience of the management of the analyzed company in the individual markets.

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
2008	39.2	31.1	23.3	6.4

Source: Svoboda (2009)

If we notice the characteristics of the individual markets with regard to the Bioveta offer, we can state that the company always has a wide portfolio of products in the domestic and foreign markets. In addition, the behaviour in the individual markets is adapted to the particular conditions. The protective approach (1) may be applied by the company in the Czech market only, specifically for the products that it receives as a public order. In 2009, it is much more difficult to get these orders. The prospecting approach (2) is used particularly for entering the foreign markets. This approach is usually combined with the analyzing approach (3). In the Czech and foreign markets, the reacting approach is also used, in particular for products with a high competitiveness or for the products that are pushed aside by more up-to-date and more effective preparations.

The experience of the company's TOP management shows very different characteristics, particularly in the foreign markets. Veterinary pharmaceuticals and organic preparations in the current EU are characterized by the compliance with all the rules with high administrative demands, particularly in the registration of the individual products in these markets. The main representative of the markets for the Bioveta are the German markets. These markets can also be characterized by good payment ethics and compliance with the business rules.

The Asian markets can be briefly characterized by an easier entrance to the market compared to the EU, a wide portfolio of products and a high competition, which is demonstrated by the pressure on low prices. The other important sign is the high risk in the payment ethics of the companies. The requirements for the quality of products are standard, i.e. the quality is lower compared to the EU. The markets in South America and other countries on the continent have the specific and high competitive strength of the American and Mexican companies.

Strong specifics can be noticed on the markets of Belarus and Russia. In particular, there are few clearly defined business rules, non-standard measures are used, the business is mostly realized through agents.

Due to the effects of the world economic crisis, it has been necessary for Bioveta to reduce its business contacts in the markets of Ukraine and all the Baltic states specifically due to their poor solvency.

The current situation of the analyzed company in the individual foreign markets with the exception of the mentioned states can be evaluated as good, as the financial strength of the company is growing significantly and the company is gradually managing to penetrate new markets. It is obvious from the performed analyses that this is due to two groups of factors. The first group includes top-quality products and flexible price strategies in the individual

Table 2. Results of the SPACE analysis (points)

Year	Characteristics			
	field		company	
	degree of attractiveness (1)	stability (2)	financial strength (3)	competitive advantage (4)
1998	3.2	3.5	4.7	4.9
1999	3.7	3.6	4.9	5.1
2000	4.2	4.0	5.2	5.0
2001	3.9	4.0	5.2	4.9
2002	4.3	3.9	5.7	5.3
2003	4.4	4.0	6.0	5.4
2004	4.2	3.9	5.4	5.5
2005	4.4	3.7	5.2	5.2
2006	4.4	3.8	5.3	5.7
2007	4.2	3.9	5.5	5.6
2008	4.5	3.9	5.6	5.6

Source: Svoboda (2009)

markets and the stabilization of prices, or their slight decline. The second group of factors includes the application of the fundamental strategy in costs, which creates the basis for setting the adequate prices for the individual products compared to the competition. The price relations for the individual products are monitored by the analysis of a complex value index, which makes it possible to reflect the changes in sales for the products sold, due to changes in the amount of products and price effects. The company creates good prerequisites for achieving profit in all company products.

One very important factor in the whole analyzed range is a good orientation of the company toward the requirements of clients and the market segmentation. Since 1990, there has been a significant decline in the number of livestock in the Czech Republic and the related reduction of the demand of agricultural companies for veterinary products, thus there was also a decline in the sales of the Bioveta. In connection with the current development of the purchase prices of animal products, we can expect that there will be a further reduction in the volume of milk and the numbers of cows and pigs. This will reduce the need for veterinary preparations and their sale by the Bioveta. The mentioned problem was gradually handled in the past by two groups of measures, specifically by extending the assortment of products and moving to the "Hobby Programmes" for pets, i. e. for dogs and cats, for the domestic and foreign markets. The second measure monitored the significant expansion of all requested products of the Bioveta in the foreign markets. Both measures mentioned will have to be perfected and continued.

## DISCUSSION

We can say that company management during a crisis can be regarded as a state when a company does not fulfil some of its long-term objectives, i.e. there is a partial crisis, or there are more long-term objectives that are not met; then it is a deeper or general crisis. Therefore, a crisis can have a partial or a comprehensive character.

The procedure that makes it possible to predict a crisis or to deal with it can be divided into three stages, specifically the analysis of the degree of risk (1), the formulation of a crisis strategy with specification of the degree of risk, or the elimination (2) or the realization of a crisis strategy, i.e. the reduction or removal of the cause of the crisis (3). The analysis of the degree of danger builds on the process of strategic decision-making, specifically on the methods of the

management environment analysis. Based on the methods, the individual factors are formulated with the probability of their occurrence, from the internal and external management environments. We will create a crisis matrix by classifying the above factors according to the probability of their occurrence and their classification from the highest to the lowest and with the parallel definition of the impacts that the crisis causes. By analyzing the crisis matrix, we will define the crisis strategy, i.e. we will specify the measures and the process of the elimination or removal of the crisis. It is obvious from the above facts that there can be four basic combinations of the probability of occurrence of a crisis with the definition of their impacts: high probability of occurrence of danger with the above-average to significant economic impacts (I), high probability of the occurrence of risk with the below-average to minor impacts (II), medium to minor probability of the occurrence of risk with significant economic impacts (III), medium to minor probability of the occurrence of risk with minor economic impacts (IV). The mentioned alternatives are obvious from Figure 1.

Drafting a crisis matrix is a guideline for the possible solution of a crisis. The situations I and III require the elimination of the possible sources of the crisis, either by not including the respective activity, the elimination of the activity by termination, or by formulating an alternative solution. The situation II requires either the elimination of the respective activity or looking for an alternative solution to the respective problem and the situation IV enables solving a crisis with an alternative or using common measures. After determining the crisis strategy, a

		<i>D</i>	
		Significant	Minor
<i>P</i>	1		
	2		
	3	Significant	I
	.		
	.		
Weaknesses	.		
	.		
	.	Low	III
	.		
	<i>m</i>		

Figure 1. Crisis matrix

*P* = probability of occurrence, *V* = high probability, *N* = low probability, *D* = impacts incurred

plan can be set in the case of the occurrence of a crisis, the realization of which can eliminate or solve the crisis. The data from the crisis matrix serve for a detailed drafting of a risk map, including all areas of the company activity. The results of the paper are applied in practice by the analyzed business entities.

The ascertained results correspond to the works of some authors. These include in particular Hron (2006), Gozora (2001), Šimo (2000), Švejnar (2008), Šulér (1995), Tomšík (2004), Whitelay (1994), Zuzák (2008). The quoted authors put a significant emphasis on managerial work, developing business activities and the effective application of the marketing activity in the company management.

## CONCLUSION

As is obvious from the performed analysis, if a company wants to be successful in growing competition, it must strive to obtain valuable information about the management environment and other facts, it will get from performing the managerial, marketing, economic and financial analyses. We can state that a well-run economy puts new and important demands on strategic decision-making of a company's management with the application of the methods of crisis management. This regards the preference of the following requirements:

- Application of the system of a governmental recommendation to eliminate the effects of the financial and economic crisis in practice.
- Adequate reaction of the company management to the changing environment, in particular the external environment with the necessary degree of creativity and respecting the clients' requirements.
- Application of modern methods of decision-making with a well-operating company information system using the modern information technologies with good awareness in the area of strategic decision-making and with the application of suitable systems of the motivation of the managers and all the company employees.
- In the case of problems in fulfilling the fundamental company objectives, a timely application of the recommended and applied methods of crisis management.

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