

Diagnostics and decision-making of the company management within the period of economic crisis and recession

Diagnostika a rozhodování podnikového managementu v období ekonomické krize a recese

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Abstract: Enterprises are socio-economic entities with bonds to their environment. Their economic health is evaluated by the means of adequate diagnostic methods. When evaluating a processing business as a living organism, these diagnostic methods enable to determine their health condition. These business entities pass through individual stages of their life cycle and, in real time, their momentary condition corresponds with the homeostasis existing between the company's system and its environment. A diagnosis defined by the means of diagnostic methods must help to implement the goals which lead, on the base of business management activities, to the generation of an adequate response to the given momentary situation existing in the diagnosed enterprise. The definition of a proper diagnosis is important especially in those periods when the enterprise passes through its life crisis under the conditions of market recession. This scientific paper presents data formulated within the framework of research focused on the analysis of managerial, financial and economic risks and on the methods of their solution within the framework of strategic business management in a new business environment as influenced by the phenomena resulting from the integration processes, development of information technologies and factors of globalisation. This diagnostic method was applied when analysing in detail the operation of a company producing bioveterinary drugs and preparations.

Keywords: diagnostics; homeostasis; crisis management; business environment

Abstrakt: Podniky jsou socioekonomickými jednotkami s vazbami na prostředí. Pro zjištění jejich zdraví v reálném čase používáme vhodné diagnostické metody. Diagnostika podnikatelských zpracovatelských subjektů slouží k zjištění podnikového zdraví, když posuzujeme podniky jako živé organizmy. Tyto podnikatelské subjekty procházejí životními fázemi rozvoje a jejich stav v reálném čase odpovídá stavu homeostáze systému podniku a jeho prostředí. Stanovená diagnóza určená metodami diagnostiky musí napomoci realizovat cíle, které aktivitami managementu vedou k vytvoření odpovídající reakce na daný zjištěný stav diagnostikovaného podniku. Stanovení cílů předchází stanovení podnikové anamnézy resp. diagnózy a posteriori. Stanovení správné diagnózy je významné zvláště v období, kdy podnik prožívá svou životní krizi v podmínkách recese trhů. Příspěvek uvádí poznatky zformulované ve výzkumu se zaměřením na analýzu manažerských, finančních a ekonomických rizik a metody jejich řešení ve strategickém řízení podnikového managementu v novém podnikatelském prostředí s vlivy vyvolanými integračními procesy, rozvojem informačních technologií a faktory globalizace. Předmětem aplikace diagnostiky a podrobné analýzy byla společnost produkující bioverinární léčiva.

Klíčová slova: diagnostika, homeostáze, krizový management, podnikatelské prostředí

In the Czech Republic, the current business environment of economic subjects is principally influenced by its entry into the European Union, viz. by

the effects of external factors. For that reason, it is necessary to study the problems associated with the diagnostics of business subjects operating within

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the framework of agribusiness and focused on agricultural production and its transformation. This requirement results from the need to ascertain and evaluate their situation from the developmental and temporary points of view because enterprises as socio-economic subjects are also living entities and pass through individual stages of their life cycle in a similar way as all other living organisms. As far as the business subjects are concerned, such a diagnostics is nothing new, but in spite of this fact, it seems that it would be beneficial to “resuscitate” this business diagnostics within the framework of management and to apply it with regard to an enterprise apprehended as a socio-economic organisation, which is or is not in a state of homeostasis (Klimeš 1992) with all components of the business environment. Under the conditions of increasing competition, a competitive advantage is characteristic above all for those business subjects, which already have (or had) commercial contacts. In such entities, there are good preconditions and pre-requisitions for an extension of their existing business activities. In this context, a desired situation in the internal enterprise environment should be understood as a status of a dynamic balance existing among and between the individual elements of business systems on one hand, and in relation to the external business environment as a whole. The increasing competition and requirements of customers result in the more and more difficult (and also more expensive) placement of products of the individual enterprises in the market. If the company should be successful under the conditions of a strong competition, such a development makes high demands on its management. This means that the main task of the business management is not to operate and control the enterprise *per se*, but to pay a great attention to the placement of its products in the market. Quick reactions to the deteriorating business conditions (oriented at the measures in the field of finance) are only the first step on the way to the assurance of survival and further existence of the enterprise because a long-term success is dependent on an efficient exploitation of the scenario-developing technologies, an active analysis of competitors and on a proactive approach to the re-structuralisation by means of mergers, acquisitions and also sales (Tichá 2009). These facts indicate that the quality of decision-making activities of the business management is dependent on a number of rather complicated factors, which pass through individual stages of dynamic changes; in such a situation, the main task of managers is to control and influence these changes in the direction of well-defined objectives. Research activities described by Štůsek and Ulrych (2008)

concerned problems of a strategic approach to the management of agribusiness companies.

The crisis management plays an important role in the strategic decision-making and its approaches and methods enable to solve in advance the undesirable situations that could result in a marked restriction of business functions and/or even in its decline and termination. To prevent such extinction, it is necessary to involve and exploit intangible assets. This concerns above all the increasing importance of intellectual capital, which challenges and criticises the existing methods of financial statements because it cannot meet the requirements concerning providing information within the periods of recession and/or crisis (Tichá 2009). In the world, business subjects are significantly influenced by the current global economic situation, which is characterised by the crisis existing in the developed world economies since 2007. Economists participating in international economic meetings mention that the United States were the trigger and the first driver of the current economic crisis, especially due to the deregulation of the monetary policy in 2000; other factors were as follows: the boom in the market of immovable assets, too complicated financial instruments, panic, and some other problems (bankruptcies of banks and insurance companies, and prices of crude oil and food-stuffs). This study presents the results of the research supported by the grant MSM 6215648904, which analysed managerial decision-making of the selected businesses using the methods of crisis management. The objective of this study is also to “resuscitate” methodological approaches to the business diagnostics with regard to some Czech and also foreign aspects. Another part of this objective is to apply the terms *diagnostics, diagnosis and anamnesis* when evaluating a business subject as a socio-economic entity. The published results are of the methodological character and describe the formulation of an algorithm enabling to identify the causes of a crisis and find out the possibilities of its solution on the level of company management. This analysis was performed on the base of the application of the methods of crisis management; such an approach concerns practically all stages of the life cycle of an enterprise. The application of this methodology enables to prevent the occurrence of crisis situations.

This concerns above all the methods of an active prevention of the occurrence of a crisis within a company. The result of this decision-making is to create gradually such preconditions within the managerial environment, which could result in the acquisition of a competitive advantage under the conditions of a permanently increasing competition. A detailed

analysis is focused at the sphere of business management and at the possibilities of the acquisition of new business opportunities on the base of a perfectly working information system and other technical tools of management and application of modern methods of strategic decision-making at the level of the company's management when solving various crisis situations. Results of this research are gradually implemented and introduced into the practice of several business entities, especially in the company Bioveta, a.s., with the seat in Ivanovice na Hané; at present, this company exports its products into 64 countries all over the world (above all to Europe, Asia, and Latin America).

MATERIAL AND METHODS

To reach the determined objective, methods of strategic decision-making and diagnostics (Hron 2004), controlled interviews, the PEST analysis, the SWOT analysis, the EFE and IFE matrix, the BCG and SPACE analysis and the methods of crisis management were used. A special attention was paid to the application of the crisis matrix, which formulated the conditions of the probability of the occurrence of a crisis within a certain domain as well as to the formulation of its effects on the diagnosed enterprises. Companies analysed in this study represented medium-size business units with a wider spectrum of activities and modern equipment and technical managerial tools that are indispensable for the implementation of the individual kinds of financial, economic and accounting analyses as related to and linked with the analyses of managerial and marketing activities. The concrete data were obtained above all in the company Bioveta, a.s., Ivanovice na Hané. The aforementioned approaches enable to apply the methods of knowledge management under practical conditions (Tichá and Havlíček 2007). The methodological approach

consisted of partial steps that can be characterised by the means of the following algorithm:

- analysis of the current situation in decision making of the business management as described in the literature and tested in the practice of the enterprises under study,
- gradual implementation and testing of research outputs under the practical conditions of the individual enterprises, and
- formulation of practical recommendations enabling an improvement in the field of decision-making at the level of business management.

RESULTS

At present, the conditions of the development of individual businesses are demarcated by a homeostasis with the globalising business environment. From this point of view, it is suitable to perform some diagnostic activities regarding the momentary situation of a company and the stage of its life cycle. When doing this, it is recommended to use the diagnostic method described by Lemaire (1997). This method enables to analyse the capability of entering into the international environment and to evaluate both the short and long-term potential of development when trying to diversify the company's markets and to adapt its assortment and trading methods to the international situation. When diagnosing the business environment, it is recommended to use the procedure presented in Figure 1.

Another recommended diagnostics is focused on the possibilities of implementation of this method. This concerns the cases of interest in a long-term presence in one or several foreign markets. Within the framework of this diagnostics, Lemaire (1997) recommends to pay attention to those key functional points, which involve financial resources, relationships between the production process and products as well as between

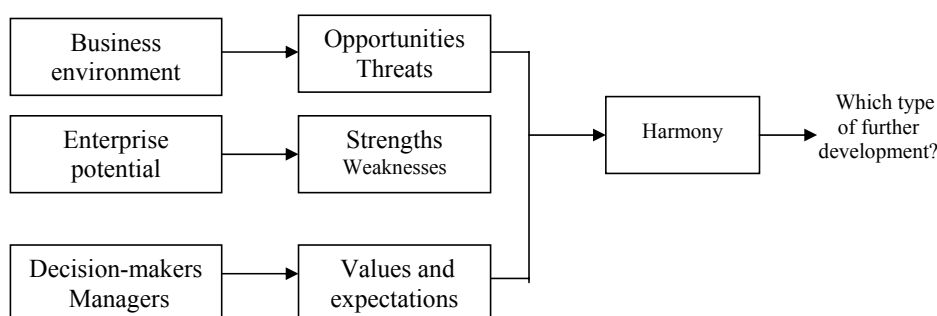


Figure 1. Types of diagnostic analyses (modified according to Gervais 1995)

the marketing and selling activities, and the relationships existing among strategy, human resources and organisational culture of the company. As far as the implementation diagnostics at the enterprise level is concerned, it is suitable to transfer it towards the evaluation of the willingness of managers to enter the international markets, to the assessment of their competencies within the framework of the functional units of the company, and to the estimation of financial, technical and technological resources (as well as to the estimation of the capability to formulate an offer adapted to the situation in the international territory. This diagnostics is thereafter confronted with the locally performed diagnosis, which is oriented to the assessment of institutional limitations (legal norms and standards), conditions and predispositions of production (costs, quality requirements), the local and international competition, logistic limitations and, quite naturally, to the habits of customers (taste, prices). The objective of these implementation diagnostics is to evaluate their homeostasis. This homeostasis then determines the measures to be taken to maintain the balance between both parts (i.e. internal and external) of the business environment.

When performing these diagnostics, it is generally recommended to use statistical data, which can help to make decisions based on the probability calculus; based on the obtained results, it is then possible to behave either as conservative managers or as considerate gamblers.

When evaluating the health condition of an enterprise (which could be in different stages of its life cycle), it is suitable to elaborate an anamnesis by the means of an *a posteriori* diagnostics based on historical data. Such a diagnosis is then used for

the elaboration of an *a priori* diagnostics, which is dependent on the expected data about the situation in the business and enables to define different variants of diagnoses concerning the future behaviour of a healthy enterprise under different conditions of business environment, i.e. from the local framework to the global situation. Within the framework of this diagnostics, the final activities may help to elaborate the proposals of variant solutions.

After the implementation of this enterprise diagnostics, it is possible to begin with the formulation of the individual objectives and activities, which enable their achievement. This means that it is possible to begin with planning as a primary sequential function of management. This may result in the definition of those goals and objectives, which correspond with the health status of the enterprise as defined on the base of its homeostasis with the business environment (Figure 2).

It has been found out that there are various managerial measures enabling a business subject to gain a competitive advantage. This can be done by the means of logical sequential steps performed within the framework of the managerial decision-making of the company management concerning the concrete spheres of activity. All these measures may contribute to the final effect, which equals to an increased profit of the company. It can be said that the prosperity of a company is based on its market orientation to customers as well as on the well formulated company's business strategy, which includes also the so-called functional strategies (i.e. marketing and trading strategy, financial and investment strategy, production strategy, quality management and management of changes).

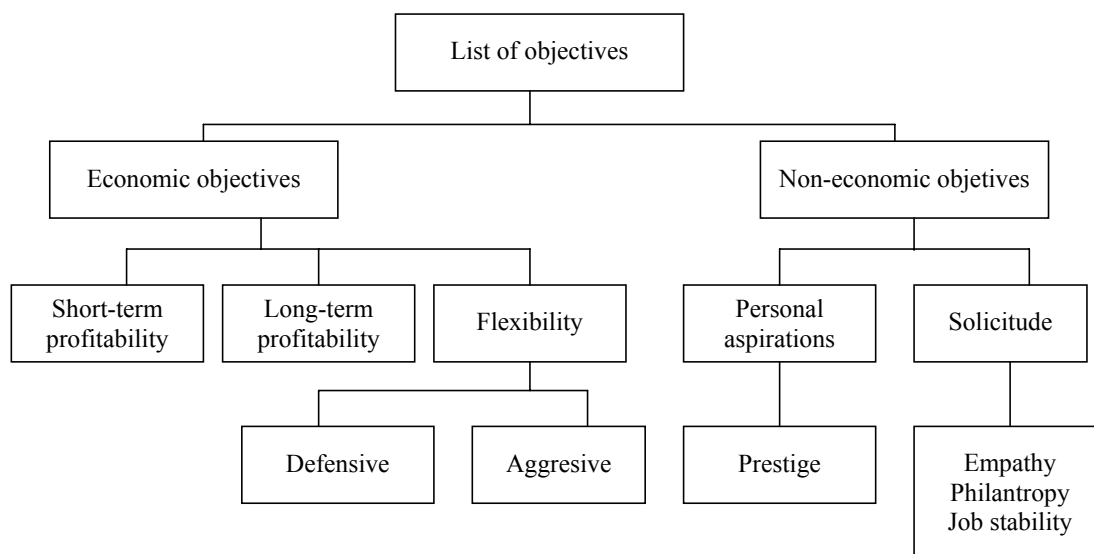


Figure 2. Elements of business strategic management (modified according to Gervais 1995)

Well formulated business strategies make new demands as far as the modern information system and information technologies of the company are concerned because these enable to fulfil all managerial functions and roles.

Based on the data mentioned above, it is possible to conclude that there are two possible ways to gaining a competitive advantage, viz. the enforcement of the strategy of minimum costs (i.e. minimisation of costs plus the differentiation of products) and/or the orientation of the factors contributing to an increase of revenues (i.e. above all the orientation on the quality of products, their assortment, marketing measures and the elimination of the effects of crisis factors).

The results of analyses performed in the company under study are presented in Table 1. The compa-

Table 1. Evaluation of internal functional areas by the EFE matrix

Factor	Weight	Response	Score
Requirements of customers	0.3	4	1.2
New contracts	0.2	3	0.6
Country's economic recession	0.1	2	0.2
Development of foreign markets	0.25	3	0.75
Strong competition	0.15	4	0.60
Overall score	1.00	–	3.35

Source: authors

Table 2. Evaluation of internal functional the IFE matrix

Factor	Weight	Response	Score
Enterprise ownership	0.15	4	0.6
Exceptionality of technologies	0.2	4	0.8
Own product development	0.1	4	0.4
Quality of human resources	0.15	4	0.6
Management of changes	0.15	3	0.45
Technologic discipline	0.1	4	0.4
Innovations	0.05	4	0.2
Quality of information system	0.1	4	0.4
Overall score	1.00	–	3.65

Source: authors

ny was analysed by the means of the EFE (External Factor Evaluation Matrix) and the IFE (Internal Factor Evaluation Matrix) methods.

It results from the analysis of the key external factors (Table 1) that the company under study is very well responding to its external environment. The total weighted score of the response of the company's management to opportunities and threats is 3.35 (the overall level may be evaluated by the grades 1–4).

Results of the analysis of factors of the internal environment are presented in Table 2 together with the assigned weights and responses. The overall calculated score 3.65 emphasises that the company management well respects the key factors of the internal environment. The EFE and IFE matrices supplement a detailed analysis of the managerial environment, which was performed by the means of the SWOT method. Considering the conclusions drawn after the application of the BCG and SPACE analyses, it is possible to evaluate the company's products with regard to their economic importance and contribution to the company's results and to rank them within the scale of the products best meeting the requirements of the company's customers and the products least meeting the requirements of the customers. This procedure enables to obtain four alternatives of the combination of both these points of view so that the company's management may decide about the most important (principal) causes of success and/or failures of the individual products supplied to the market. The final arrangement consists of four quadrants:

- I – This quadrant involves those profitable products, which fully and completely satisfy the requirements of the customers;
- II – This quadrant involves those profitable products, which partly satisfy the requirements of the customers;
- III – This quadrant involves products with a lower profitability; however, in this case the response of the company's management to the requirement of the customers is relatively good
- IV – This quadrant involves products with a low profitability, i.e. the products that do not fully satisfy the requirements of the customers.

According to the results of the analysis performed in the year 2009, the assortment of the company's products was classified as follows: Quadrant I – 57.7% and Quadrant II – 19.2% (the profitability of these products was higher than 10.1%; this means that their contribution to the economic results of the company was good). Quadrants III and IV characterise products with cost profitability lower than 10.0%. Quadrant III and IV contained 21.0% and 2.1% of products, respectively.

The aforementioned results indicated that the products from the Quadrant I corresponded with requirements of the market, not only from the viewpoint of their contribution to the economic results of the company, but also with regard to the requirements of the company's customers. Although Quadrant II contained profitable products, these were strongly endangered by the potential competitors. This situation may be solved either by the means of a more flexible response of the management to the requirements of the company's customers or by means of the transfer of these products to other markets (or by their gradual elimination from the assortment). Although the products classified into Quadrant III accepted the requirements of the customers, their contribution to the economic results of the company was low. This indicated either higher production costs or the introduction of these products into unsuitable markets. The products from Quadrant IV require a detailed evaluation of the possibilities of their innovation and improvement or of their withdrawal from the market.

It can be said that strategic management analyses not only the behaviour of the company in its external environment, but also its internal functioning within the process of decision-making and management.

DISCUSSION

Conclusions of this study correspond with the data published by Porter (1994) who concluded that competitive advantages represent the core of the performance of every company. The most important competitive advantages are as follows: low production costs, differentiation of the company from competitors, technological perfection of products and new technologies. According to Porter (1994), the attractiveness of a market, the potential growth of the market share and the possibility to gain a competitive advantage are dependent on the competitive structure of the given market and on the capability of the company to face all five competitive forces that determine the intensity of competition in the industry and its overall profit potential. The competitive landscape is also influenced by the government. Each company should reach such a position in this landscape and to select such an approach to its competitors that would reduce the effects of these competitive forces and/or to exploit these competitive forces for its benefit and for the improvement and strengthening of its competitive position in the given market.

The obtained results correspond also with the results published by other authors (Whitelay 1994;

Gozora 2000; Šimo 2000; Hron 2004; Veber et al. 2004; Štůsek and Ulrych 2008). These authors put a considerable emphasis on the effective managerial activities, the development of business activities, and the effective application of marketing activities within the framework of the company's management. These conclusions are supported also by Kotler (1998) who mentioned that managers need such data, which are generated in cooperation with the company's information system (consisting of the information system and marketing research system). Using these data, the company's managers can make decisions at a reasonable risk level.

CONCLUSIONS

When considering business socio-economic subjects to be living organisms, which pass through different stages of their existence, the diagnostics of their life cycle enables to evaluate their health condition. Their defined existing (current) status results from the homeostasis of these systems with their external environment. A homeostasis of the external and internal environments must be reached by the means of the strategic company's management based on an exploitation of all planning functions supporting the strategic decision-making of the company's management under the conditions of crisis and the possible occurrence of recession in the market. Regarding the results of the earlier observations, the diagnostic approach seems to be indispensable for the strategic managerial activities especially under the conditions of a crisis when it is possible to eliminate the effects of the negative factors and to reach a normal level of the company development. Based on such an anamnesis and data obtained in a real time, it is then possible to estimate and evaluate the possible future development. Results of this research enable to conclude that modern businesses need to have an available and well-defined system of strategic management; within the framework of this system, it is also necessary to elaborate the methods of the management of changes, which would contribute to the existence of homeostasis between the internal and external managerial environment. This concept requires the creation of a perfect information system and the application of modern technical tools of management. Quick changes, which take place above all in the external environment, require that the company's management must be able to use new methods of decision-making and to use new approaches. This can be done by the means of a well-designed algorithm, which enables a flexible response and reaction to the changing needs of

customers. The practical implementation of this concept reduces the risk of the occurrence of economic crises within the framework of the individual businesses.

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