

# Methodology for the identification of managerial competencies in knowledge-based organizations

MARTINA KÖNIGOVÁ, JAN HRON

*Department of Management, Faculty of Economics and Management,  
Czech University of Life Sciences Prague, Prague, Czech Republic*

**Abstract:** In the current entrepreneurial environment characterised by the dynamic development and changes, organizations have to promote the development of their employees in order to achieve a competitive advantage. Therefore, the personality of a manager who is a holder of specific knowledge, abilities, skills, traits, motives, attitudes and values becomes increasingly important as it is the main source for gaining a competitive advantage. Managerial competencies, i.e. the individual characteristic necessary to reach the required level of a manager's performance, together with an efficient management thus become the key factor of success. The article focuses on the identification of managerial competencies in knowledge-based organizations in the Czech Republic. The first part of the article focuses on the theoretical approaches to managerial competencies, competency models and knowledge-based organizations. The second part of the article deals with the proposed methodology for the identification of managerial competencies. The final part summarizes the benefits and difficulties of applying the competency-based approach as a tool of the efficient management of organizations for the purpose of achieving a competitive advantage. The utilization of managerial competencies to achieve competitive advantage is important in all fields including the economics and management of agriculture and other similar fields.

**Key words:** manager, managerial competencies, knowledge-based organizations, human resource management, competitive advantage

In compliance with the resource-based approach to achieve a competitive advantage, i. e. perceiving an organization as a unique set of resources and competencies based on which a strategy for the best possible use of opportunities is defined, it is necessary for organizations to identify, evaluate and develop key managerial competencies in order to achieve a competitive advantage. Managerial competencies development is one of the important tools of the human resources management aimed at achieving strategic organizational goals (Boyatzis 1982; Spencer and Spencer 1993; Lucia and Lepsinger 1999; Sanghi 2007; Jeou-Shyan et al. 2011). The application of competencies in the management process enables the organization's requirements and the employee's opportunities to interlink in a way to permit their development in mutual harmony and to ensure the organization's competitiveness in the market.

According to Hron et al. (2011), the contemporary processes of science knowledge find often its other potential in the interdisciplinary relations which bring many times new and surprising cognitions that have the premise to become a new paradigm of

the 21<sup>st</sup> century science. Tichá (2010) adds that the organizational capability acts as a linchpin between the strategy and human resources, therefore, human resources become a proactive source of competitive advantage rather than reactive in focusing on the performance gaps. From the point of view of these facts, the utilization of managerial competencies to achieve competitive advantage is important in all fields including the economics and management of agriculture and other similar fields.

Managerial competencies are a specific type of individual competencies. Based on a survey, Boyatzis (1982) defined competencies as a human ability to behave in a way to meet job requirements in the parameters given by the organization's environment and thus to achieve the required results. In his work, he defined the threshold competencies as competencies crucial for the managerial work, however, not having any significant causal relationship to its efficiency and better results. According to Spencer and Spencer (1993), managerial competencies are a specialized subset of the competencies, expressing the intention to have certain specific effects. These

---

Supported by the Czech Science Foundation (Grant No. GP402/09/P616) and by the Ministry of Education, Youth and Sports of the Czech Republic (Projects No. MSM 604070904).

specific intentions are particularly important for managers. Managerial competencies are the activities, knowledge, skills or attitudes and perhaps also personal characteristics necessary to improve the management performance. Managerial competencies that are required for the normal and superior performance determine the managerial competency models. These performance-based competencies are assessed through observed behaviours (Chong 2011).

Competency models have originated in the USA and they exploit a number of methods that are commonly used in the traditional analyses of work positions. They were developed as a response to the dissatisfaction with candidate testing that was to determine a suitable employee for the given position (McClelland 1973). At present, there are many approaches to the creation of competency models (the single-job competency model, the one-size-fits-all competency model or the multiple-job competency model (Mansfield 1996); starting from scratch or starting with a validated competency model (Lucia and Lepsinger 1999); the borrowed approach, the tailored approach, the borrowed and tailored approach (Rothwell and Lindholm 1999, etc.). According to Mansfield (2005), in recent years, organizations have begun to use competency models in new ways. These new competency models, of necessity, describe the emerging and anticipated skill requirements, rather than the skills that have been effective in the past. Because organizations are changing more rapidly, the "shelf life" of a competency model has diminished. Frequent reorganizations change the job roles and make the existing job descriptions and competency models obsolete. Recently, competency models have been widely used to align the individual competencies with the core competence of the organizational performance (Brophy and Kiely 2002).

## **MATERIAL AND METHODS**

The objective of the article is to design the methodology for identification of managerial competencies in knowledge-based organizations in the Czech Republic. The article is organized as follows. The first part of the article focuses on theoretical approaches to managerial competencies, competency models and knowledge-based organizations. The second part of the article deals with the proposed methodology. The final part summarizes the benefits and difficulties of applying the competency-based approach as a tool of the efficient management of organizations for the purpose of achieving a competitive advantage. The article has been produced on the basis of the analysis of primary and secondary sources of

data, in particular research studies focusing on the competency modelling. Primary data is derived from the survey (the structured interviews) carried out that was focused on the identification of managerial competencies in knowledge-based organizations in the Czech Republic.

## **RESULTS AND DISCUSSION**

Knowledge-based organizations are the organizations applying a knowledge-based approach to the organization. This approach perceives organizations as a means for the development, integration, preservation, sharing and application of knowledge. In literature, we can also come across the following terms: the knowledge creating company (Nonaka and Takeuchi 1995), the knowledge organization, the organization of knowledge, the knowing organization (Choo 1998). According to Wu et al. (2008), knowledge-based organizations allocate resources to intangible assets in the rapidly changing and highly competitive business environment in order to gain competitive advantages. Hess and Bacigalupo (2010) add that knowledge-based organizations may benefit from the utilization of behaviours most often attributed to emotional intelligence. Given the presence and complexities of internal and external influences, the manager is often faced with the prospect of reacting to constant changes in the internal and external environment. In order to be effective in that regard, the manager must possess the personal characteristics necessary to improve management performance.

Therefore, how to identify managerial competencies has become one of the most important issues. In compliance with the resource-based approach to achieve a competitive advantage, it is necessary for organizations to identify, evaluate and develop the key managerial competencies in order to achieve a competitive advantage. On the other hand, organizations have to dispose of knowledge permitting them to identify these managerial competencies. The identified managerial competencies become valuable sources for achieving a competitive advantage.

### **Methodology for the identification of managerial competencies in knowledge-based organizations**

The introduction of the competency-based approach into human resources management means a system view of an organization's behaviour. In the current environment characterised by dynamic changes, the

competency-based approach brings organizations a number of advantages. It broadens the work potential of managers and thus also the possibilities for the dynamic development of work teams and subsequently of the organization as a whole.

The identification of competencies is one of the crucial steps in the competency-based approach application. An efficient use of managerial competencies in the process of human resources management in an organization depends on how successfully the managerial competencies are identified and transformed into the resulting behaviour description. The proposed methodology for the identification of managerial competencies consists of 11 steps (Figure 1). Each of these is described below. The identification of managerial competencies cannot be perceived as a separate factor, but in connection

with other steps leading to the development of a managerial competency model.

### Step one: Defining the objectives

The first step lies in clearly and specific goals definition. The development of a competency model is both time and finance-consuming. Based on an organization's need to develop a managerial competency model, it identifies the unit of analysis, selects the approach (the borrowed approach, the tailored approach, the borrowed and tailored approach (Rothwell and Lindholm 1999), determines the success factors, sets the time schedule and selects the method of applying the model in the organization. Techniques utilized in this phase include the document analysis (technical literature, internal organization documents) and the structured interviews.

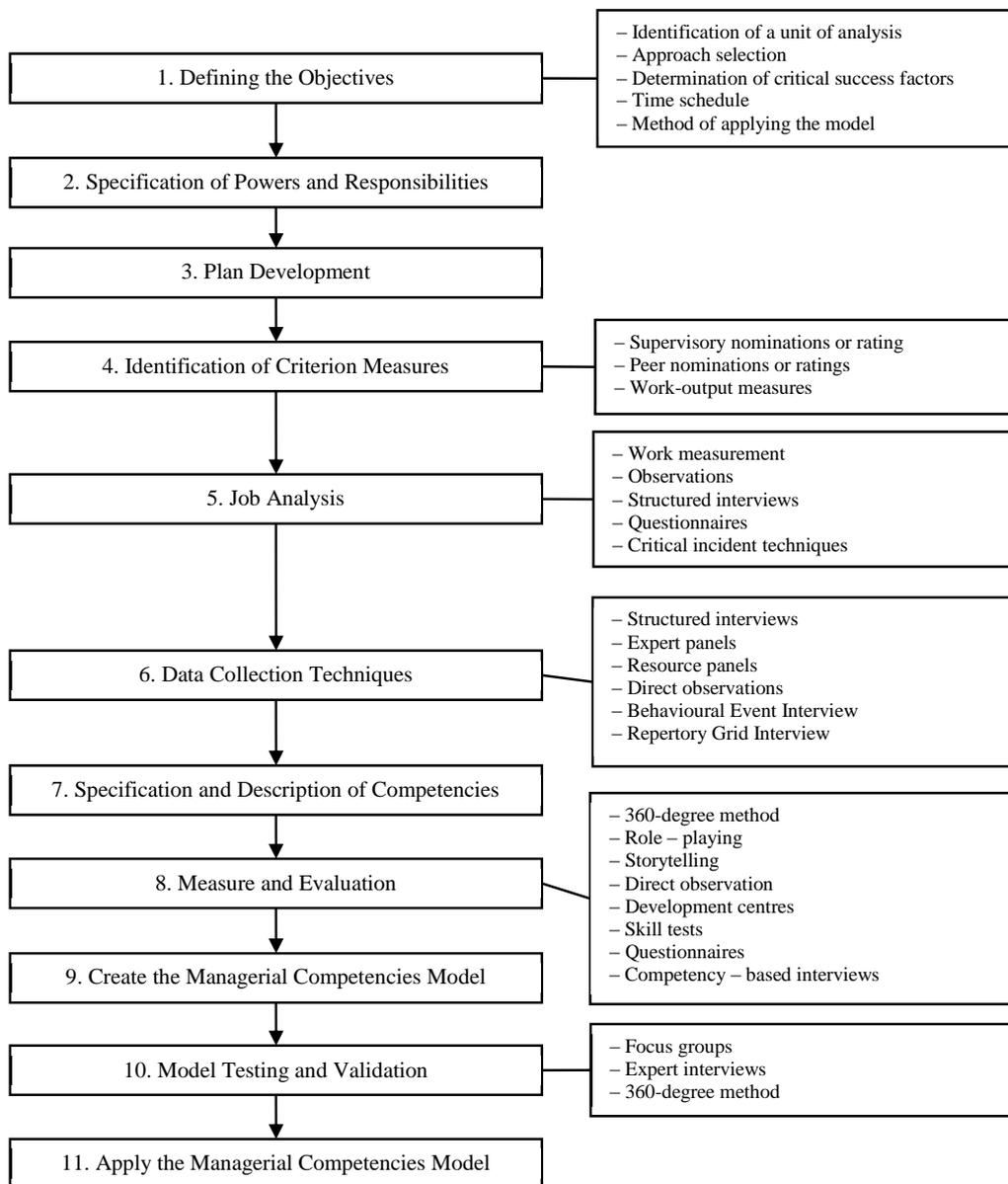


Figure 1. Methodology for the Identification of Managerial Competencies

### **Step two: Specification of powers and responsibilities**

The introduction of the competency-based approach by an organization has to be harmonised with other activities of the organization. The development of a competency model is demanding; it is therefore necessary to define the powers and responsibilities of people that are authorised to develop and implement the competency model in the organization.

### **Step three: Plan development**

In the third step, a plan is developed which will serve as a basis for the managerial competency model designing. The plan is the primary tool to manage the identification of managerial competencies.

### **Step four: Identification of criterion measures**

The managerial competency model specifies the individual activities of successful managers to whom the model relates. Therefore, it is necessary to determine the appropriate measure of the job performance. This is the only way to identify managers that deliver a superior, average or poor performance. Without an adequate measure of the job performance, the validation of a managerial competency model is impossible. According to Boyatzis (1982), there are three types of the criterion measures: (1) supervisory nominations or ratings; (2) peer nominations or ratings and (3) work-output measures. Work-output measures are the direct output measures which often are not available or are difficult to identify. Therefore, the supervisory and/of peer assessments must be used. Ratings are a respondent measure in which a person is asked to use some form of a scale to assess the performance of a number of persons. Nominations are an operant measure, in which a person is asked to identify one or more individuals who have performed in an effective and/or superior manner the job investigated (Boyatzis 1982).

Lucia and Lepsinger (1999) add that the quality of the measure of the job performance is particularly important because it serves as the foundation for many other steps: it helps to develop the interview questions that best reveal the relevant behaviours, offers a useful measurement tool when analysing the information gathered from incumbents, and serves as the basis for validating the model to ensure that the people who have or use the identified competencies actually demonstrate a superior performance.

### **Step five: Job analysis**

Job analysis is a very important activity in the system of the personnel management. It is a point of departure for the execution of a number of other personnel activities. It provides information on the

position and thus creates a picture of an employee who would be suitable for the job. Since competencies always relate to a certain job, they cannot be identified without a prior job analysis. Job analysis is a systematic process of gathering and assessing data on the character of the position in question. The job analysis creates a list of competencies that lead to the required (superior) job performance. There are various techniques to the job analysis, e.g. work measurement, observations, structured interviews, questionnaires, critical incident techniques. It is common to use more than one of these techniques.

### **Step six: Data collection techniques**

When working with competencies, it is convenient to use the job analysis and to make a comparison with the performance characteristic directed at the management through the present goals and defined by the behaviour necessary for achieving the required level of performance. For a better identification of managerial competencies, the job analysis may be supplemented by structured interviews, expert panels, resource panels (Mansfield 2005) and direct observations. Among the factors that influence the selection of data collection technique, there are: validity, reliability, accessibility, effectiveness, and viability. At the same time, it is necessary to combine several techniques.

Provided the identification of managerial competencies focuses on the identification of competencies of a superior performance, it is suitable to use the so-called Behavioural Event Interview (BEI) (an adaptation of the critical-incident interview originally developed by Flanagan (1954), further elaborated by Dailey (1971), and codified by McClelland (1973) or the Repertory Grid Interview (RGI) (Kelly 1955) and its modifications and to complement them with the above-mentioned techniques. The Behavioural Event Interview is a structured interview used for the collection of information on the past behaviour for the purpose of predicting the future behaviour. Using a series of open questions asked face to face, the interviewer learns about the interviewee's behaviour in the past. It is a technique focusing on past event analysis with the aim of determining key managerial competencies by the means of recognising and comparing the successful (outstanding) and average (typical) managers' behaviours in critical situations. Critical event interviews with superior performers also provide a significant source of data. The Repertory Grid Interview is an interview-based technique originally developed to explore the personal constructs about interpersonal relationships in a clinical context. The underlying idea is that people represent their

experiences by placing alternative constructs upon them (Kelly 1955). Later the RGI was applied in the organizational practice as a technique permitting the generation of information on the work position.

Both the above-mentioned techniques are time-consuming and professionally demanding. Therefore, they can be recommended in particular for the identification of competencies of a superior performance. To identify specific individual competencies, i.e. the managerial competencies “tailored” to the needs of the given organization, it is suitable to use less exigent methods (structured interviews, expert panels, resource panels and direct observations).

#### **Step seven: Specification and description of competencies**

In the previous phase, the list of managerial competencies has been generated grouped according to similar behavioural manifestations. Now it is necessary to characterise the individual competencies and to describe them in a way to define, as precisely and clearly as possible, the requested behaviour. Subsequently, the given managerial competency is given a suitable title. The title of the given managerial competency should represent the behaviour that forms its basis.

#### **Step eight: Measure and evaluation**

In the eighth step, it is necessary to define the method of managerial competency measurement and evaluation. It is essential to create a scale for each managerial competency, i.e. to describe various manifestations of the competency according to the level of its development. The description of the individual levels starts from negative manifestations of behaviour and continues to higher levels and up to the superior level of the given competency. Each level of the competency has to be described through such manifestations of behaviour to be unambiguously distinguishable from the previous level. On the basis of the defined behavioural scale, the levels of managerial competencies are subsequently measured. Simultaneously, it is possible to determine the relevance of managerial competencies using weights.

The measure of managerial competencies enables comparing the defined behaviour with the real one, i.e. the goal is to determine whether the required level of a competency is sufficient. A regular measure allows for the identification of the difference between the required and the real states of the measured level of managerial competencies and defining the goals to be achieved by the relevant employee.

There are a number of methods used for the managerial competency measurement that differ in terms

of their suitability, precision, and the level of difficulty of their implementation. They include the review performance methods, such as the 360-degree method, role-playing, storytelling, direct observation, development centres, skill tests, questionnaires, and competency-based interviews. The choice of a suitable method depends on the type of the competency measured, i.e. the method selected needs to measure the level of the given competency as precisely and reliably as possible. It is convenient to combine the recommended methods.

#### **Step nine: Create the managerial competencies model**

The ninth step involves the integration of the results of the previous steps. The identified competencies are used to create a managerial competency model. The managerial competency model contains the key characteristics required to achieve the effective and/or superior level of a manager’s performance. Should more competencies be required, it is suitable to create competency clusters as described above.

#### **Step ten: Model testing and validation**

The managerial competency model needs to be tested and validated, i.e. it is necessary to verify in practice whether the model really describes the requested (superior) behaviour and whether it is possible to use the model in the organization to achieve the goals defined in the first step. The model can be tested through focus groups or expert interviews and validated via the 360-degree performance review method.

#### **Step eleven: Apply the managerial competencies model**

The completion of a managerial competency model does not mean that our work is over. On the contrary, in order to meet the ambitious goals laid down in the first step, it is necessary to ensure a smooth implementation of the managerial competency model into the organization’s system of the human resources management. Such implementation is easier if those who are to use the managerial competency model in the future took part in its design.

The proposed methodology embodies the development of a tailor-made managerial competency model (the tailored approach (Rothwell and Lindholm 1999)) for the given organization. This approach requires a detailed knowledge of both the internal and external environment of the organization. It is time-consuming and rather challenging in the terms of methodology. On the other hand, it is the only one that creates a prerequisite for the efficient management of human

resources in the present rapidly changing and turbulent entrepreneurial environment.

In compliance with the resource-based approach to the competitive advantage development, it is the people/employees who become, due to their competencies, an important source for achieving a competitive advantage. The value of the managerial competencies model consists in its application. It works best if applied in all areas of the organization's human resources management. In the fully integrated human resources management system employing the competency-based approach, competencies represent a key prerequisite for the efficient performance. Employees know exactly what competencies are required and how they will be subsequently evaluated.

Organizations may utilize the managerial competency model in the following areas: (1) strategic workforce planning, (2) recruitment, (3) selection, (4) employee evaluation, (5) training, (6) employee development, (7) talent management, (8) career management, (9) performance management, (10) succession planning, and (11) rewarding and recognition (Spencer and Spencer 1993; Lucia and Lepsinger 1999; Marrelli et al. 2005; Sanghi 2007; Noe 2008; Ramo 2009).

Managerial competencies play an important role in the strategic development of knowledge-based organizations. They provide a basis for the establishment of an integrated system of the human resources management by linking together the individual personnel activities. At the same time, they reflect the organization values and its mission and become a part of the organizational culture.

A number of organizations are aware of the competency-based approach; however, they are often unable to utilize the competencies appropriately. Simultaneously, there is not a common consensus as regards the competencies that a manager has to possess to perform his/her work at the required (superior) level. In practice, therefore, managerial competencies are often connected with the organization's values rather than with the individual work positions. An efficient utilization of a competency-based approach depends on the correct identification of managerial competencies and the subsequent development of a suitable competency-based model as well as their measure, evaluation and development.

## CONCLUSION

The theory of performance is the basis for the concept of competency (Boyatzis 1982). Should the organization decide to integrate the competency-based approach into its management, it is possible to increase

its contribution by managing the work performance and thus to exploit the synergic effect that such a complex approach brings. The management of performance as such can be perceived as the management relating to the activity of the organization as a whole or as the management relating to the performance of individuals who work in the organization. This is a process that enables the transformation of strategic goals of the organization into the individual's work performance. The management of work performance from an individual to the whole and vice versa, however, requires: (1) strategic approach to human resources, (2) active involvement of managers, (3) integration of the partial areas of human resources management into one whole (an integrated human resources management system), (4) regular and systematic evaluation of the work performance, (5) efficient communication, (6) effort aimed at achieving a competitive advantage, (7) co-operation in order to gain a synergic effect, (8) flexibility, and (9) support for the identification with the organization, the participation and responsibility. This is confirmed by Marrelli et al. (2005) who also point out that the application of the competency based approach must be carefully planned and supported by the leadership of the organization, and concerted efforts must be made to communicate with those involved or potentially affected. The development and application of managerial competency models is a proven approach for investing in human resources in order to achieve a more effective and productive workforce.

## Acknowledgements

The article originated as a part of the Grant Project of the Czech Science Foundation GP 402/09/P616 – Use of Competencies in Knowledge-Based Organization and is associated with the research project of the Czech University of Life Sciences in Prague entitled Information and Knowledge Support of Strategic Management (MSM 6046070904).

## REFERENCES

- Boyatzis R.E. (1982): *The Competent Manager: A Model for Effective Performance*. John Wiley & Sons, New York; ISBN 0-471-09031-X.
- Brophy M., Kiely T. (2002): *Competencies: a new sector*. *Journal of European Industrial Training*, 26: 165–176.
- Dailey C.A. (1971): *Assessment of Lives: Personality Evaluation in a Bureaucratic Society*. Jossey-Bass, San Francisco.

- Flanagan J.C. (1954): The critical incident technique. *Psychological Bulletin*, 51: 327–358.
- Hess J.D., Bacigalupo A.C. (2010): The emotionally intelligent leader, the dynamics of knowledge-based organizations and the role of emotional intelligence in organizational development. *On the Horizon*, 18: 222–229.
- Hron J., Macák T., Jindrová A. (2011): The theory of preferential choice and its utilization in managerial decision-making. *Agricultural Economics – Czech*, 57: 211–216.
- Chong E. (2011): Managerial competencies and career advancement: A comparative study of managers in two countries. *Journal of Business Research*; doi:10.1016/j.jbusres (in press).
- Choo CH.W. (1998): *The Knowing Organization: How Organizations Use Information to Construct Meaning, Create Knowledge, and Make Decisions*. Oxford University Press, Oxford; ISBN 0195110129.
- Jeou-Shyan H., Hsuan H., Chih-Hsing L., Lin L., Chang-Yen T. (2011): Competency analysis of top managers in the Taiwanese hotel industry. *International Journal of Hospitality Management*, 30: 1044–1054.
- Kelly G.A. (1955): *The Psychology of Personal Construct*. Norton, New York.
- Lucia A.D., Lepsinger R. (1999): *The Art and Science of Competency Models: Pinpointing Critical Success Factors in Organizations*. Jossey-Bass/Pfeiffer, San Francisco; ISBN 0-7879-4602-8.
- Mansfield R.S. (1996): Building competency models: Approaches for HR professionals. *Human Resource Management*, 35: 7–18.
- Mansfield R.S. (2005): *Practical Questions in Building Competency Models*. Workitect, Fort Lauderdale, Florida. Available at <http://workitect.performatechnologies.com/pdf/PracticalQuestions.pdf>
- Marrelli A.F., Tondora J., Hoge M.A. (2005): Strategies for developing competency models. *Administration and Policy Mental Health*, 32: 533–561.
- McClelland D.C. (1973): Testing for competence rather than for intelligence. *American Psychologist*, 28: 1–14.
- Noe R.A. (2008): *Employee Training and Development*. McGraw-Hill, New York; ISBN 9780390147530.
- Nonaka I., Takeuchi, H. (1995): *The Knowledge-Creating Company. How Japanese Companies Create the Dynamics of Innovation*. Oxford University Press, New York; ISBN 978-0195092691.
- Ramo L.G. (2009): How can we make sense of emotional and social competencies within organizational settings? *Research on Emotion in Organizations*, 5: 1–21.
- Rothwell W.J., Lindholm J.E. (1999): Competency identification modelling and assessment in the USA. *International Journal of Training and Development*, 3: 90–105.
- Sanghi S. (2007): *The Handbook of Competency Mapping*. Sage Publications India, New Delhi; ISBN 978-0-7619-3598-8.
- Spencer L.M., Spencer S.M. (1993): *Competence at Work*. John Wiley & Sons, New York; ISBN 0-471-54809-X.
- Tichá I. (2010): Organizational capabilities as a source of competitive advantage: a conceptual framework. *Agricultural Economics – Czech*, 56: 159–162.
- Wu L.Ch., Ong Ch.S., Hsu Y.W. (2008): Knowledge-based organizations evaluation. *Decision Support Systems*, 45: 541–549.

Arrived on 30<sup>th</sup> November 2011

---

*Contact address:*

Martina Königová, Jan Hron, Czech University of Life Sciences Prague, Kamýcká 129, 165 21 Prague 6, Czech Republic  
e-mail: [konigova@pef.czu.cz](mailto:konigova@pef.czu.cz), [hron@pef.czu.cz](mailto:hron@pef.czu.cz)

---