

EVALUATION AND DEVELOPMENT OF MANAGERIAL COMPETENCIES

Martina Königová, Jiří Fejfar

Abstract: *In the current environment characterised by dynamic development and changes, the personality of a manager, as a holder of managerial competencies that are the main source of achieving a competitive advantage, becomes increasingly important. Managerial competencies, i. e. behaviour necessary to reach the desired level of a manager's performance, together with efficient management thus become the key factor of success. The article focuses on the identification of the process of development of a competency model and its utilization by organizations. The first part deals with theoretical approaches to competency issues. The second part identifies the process of competency model development and its utilization by organizations, specifies the individual phases of this process and proposes the methods of measurement and comparison of deviations from the aspirational levels of individual competencies. A comprehensive comparison of individual managers has been carried out by means of the TOPSIS method. The final part summarises the benefits and difficulties of applying the competency-based approach as a tool of efficient management of organizations for the purpose of achieving a competitive advantage.*

Keywords: *Managerial Competencies, Competency Models, Multi-Criteria Decision Analysis (MCDA), TOPSIS, Evaluation, Development.*

JEL Classification: *M12, J24, Y80.*

Introduction

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. The traditional scheme of qualification gaining has been changing. The accent is put on new conceptions in human resources management aimed primarily at the use of human, or rather work potential of employees. The application of competencies in the management process enables organization's requirements and employee's opportunities to interlink in a way to permit their development in mutual harmony and ensure organization's competitiveness in the market. Thus managerial competencies, just like knowledge, become valuable sources for achieving a competitive advantage.

1 Statement of Problem

1.1 Competencies

The term “competency” was first used by White [15] to describe the characteristics of a personality that are connected with an excellent performance and high motivation. In his 1973 contribution David McClelland [8] emphasised the idea that candidates for work positions should be selected primarily based on their competencies, not intelligence. Later Boyatzis [1] stressed the difference between a task that is to be fulfilled and abilities and other qualities an employee has to have to be able to perform the task as required. That means that he distinguishes between what is to be done (the result that the activity should produce) and the behaviour necessary to perform the task at an excellent level.

At present, there are many definitions of the term “competencies”. In principle, there are two main meanings on which individual definitions of competencies are generally based. The first characterises competencies as a power and a scope of authority associated with a certain person or body. The second meaning of competencies refers to the capacity, i.e. abilities to perform a certain activity, to have certain general and specific characteristics and skills, to be qualified in the given area. Generally, it can be said that it is a set of knowledge, skills, abilities, attitudes and values essential for the personal development and successful participation of each person in an organization. That in fact means behaviour necessary for achieving the required level of performance. This refers to the performance aspect of a competency determined by the level of inputs (knowledge, skills and abilities) and measured by the analysis of outputs (real behaviour and results).

The broad use of competencies for management purposes is given by a number of factors, one of which is the non-existence of uniform consensus as regards the definition and content of a competency and the broad scale of possibilities of applying the competency approach. According to its development, it is possible to divide competencies into three main development phases. The first group, whose representatives are Boyatzis [1]; Carroll and McCrackin [2]; McClelland [8]; Schroder [12]; Spencer and Spencer [13]; White [15]; Woodruffe [16], concentrates on individual competencies. The second group is based on the possibility of managing competencies in an organization by means of competency models (Lucia and Lepsinger [6]; Mansfield [7]; McLagan [9]; Rothwell and Lindholm [11]). The third phase is the identification of core competencies, a sum of organization key competencies that may be exploited to gain competitive advantage (Coyne, Hall and Clifford [3]; Delamare and Wintertone [4]; Gallon, Stillman and Coates [5]; Prahalad and Hamel [10]; Rothwell and Lindholm [11]; Ulrich and Lake [14]).

Managerial competencies are a specific type of individual competencies. Based on a survey, Boyatzis [1] defined competencies as a human ability to behave in a way to meet job requirements in parameters given by the organization’s environment and thus to achieve the required results. In his work he defined threshold competencies as competencies crucial for managerial work, however, not having any significant causal relationship to its efficiency and better results. Management competencies are

activities, knowledge, skills or attitudes and perhaps also personal characteristics necessary to improve management performance.

1.2 Competency Models

Competency models originated in the USA and exploit a number of methods that are commonly used in traditional analyses of work positions. They were developed as a response to dissatisfaction with candidate testing that was to determine a suitable employee for the given position. McClelland [8] laid down the base of competency-based modelling by challenging intelligence tests as indicators of a candidate's suitability. He suggested that an alternative approach based on the prediction of a candidate's competencies be applied. Rothwell and Lindholm [11] generally characterized a competency model as an outcome of the process of competency identification.

At present, there are many approaches to the creation of competency models (the borrowed approach, the tailored approach, the borrowed and tailored approach (Rothwell and Lindholm [11]); the single-job competency model, the one-size-fits-all competency model or the multiple-job competency model (Mansfield [7]); starting from scratch or starting with a validated competency model (Lucia and Lepsinger [6]), etc.).

2 Methods

The objective of the article is to identify the process of development of a competency model, to determine the individual phases of this process and propose a method of measuring and comparing deviations from the aspirational levels of individual competencies. The article is organized as follows. The first part of the article deals with theoretical approaches to competencies issues and competency models development. The second part identifies the process of competency model development and its utilization by organizations, specifies the individual phases of this process and proposes the methods of measurement and comparison of deviations from the aspirational levels of individual competencies. A comprehensive comparison of individual managers has been carried out by means of the TOPSIS method. The final part summarises the benefits and difficulties of applying the competency-based approach as a tool of efficient management of organizations for the purpose of achieving a competitive advantage. The article has been produced on the basis of the analysis of secondary data sources, in particular research studies focusing on competencies and competency models. Primary data is derived from the survey carried out that was focused on the identification of managerial competencies in knowledge-based organizations.

2.1 TOPSIS Method

TOPSIS (Technique for Order Preference by Similarity to an Ideal Solution) method is a popular approach to Multi-Criteria Decision Analysis (MCDA). TOPSIS reviews individual alternatives in terms of their distances from the ideal and basal alternatives.

The TOPSIS method procedure can be summarized as follows:

1. Conversion of minimization criteria into maximization criteria based on the following relation $y_{ij} = -y_{ij}$. (1)

2. Construction of a normalized criteria matrix R according to the formula

$$r_{ij} = \frac{y_{ij}}{\sqrt{\sum_{i=1}^p y_{ij}^2}} \quad (2)$$

3. Calculation of a weighted criteria matrix W in compliance with relation

$$w_{ij} = v_j r_{ij} \quad (3)$$

4. Determining ideal alternative H with the valuation h_1, \dots, h_k and basal alternative D with the valuation d_1, \dots, d_k with respect to W matrix values.

5. Calculation of distances of individual alternatives from the ideal alternative

$$d_i^+ = \sqrt{\sum_{j=1}^k (w_{ij} - H_j)^2} \quad (4)$$

$$d_i^- = \sqrt{\sum_{j=1}^k (w_{ij} - D_j)^2} \quad (5)$$

and from the basal alternative

6. Calculation of the relative indicator of distances of individual alternatives from

$$c_i = \frac{d_i^-}{d_i^+ + d_i^-} \quad (6)$$

the basal alternative pursuant to the following formula:

The alternatives are subsequently ranked according to the values of c_i . The alternative with the highest value of c_i is the best.

3 Problem Solving

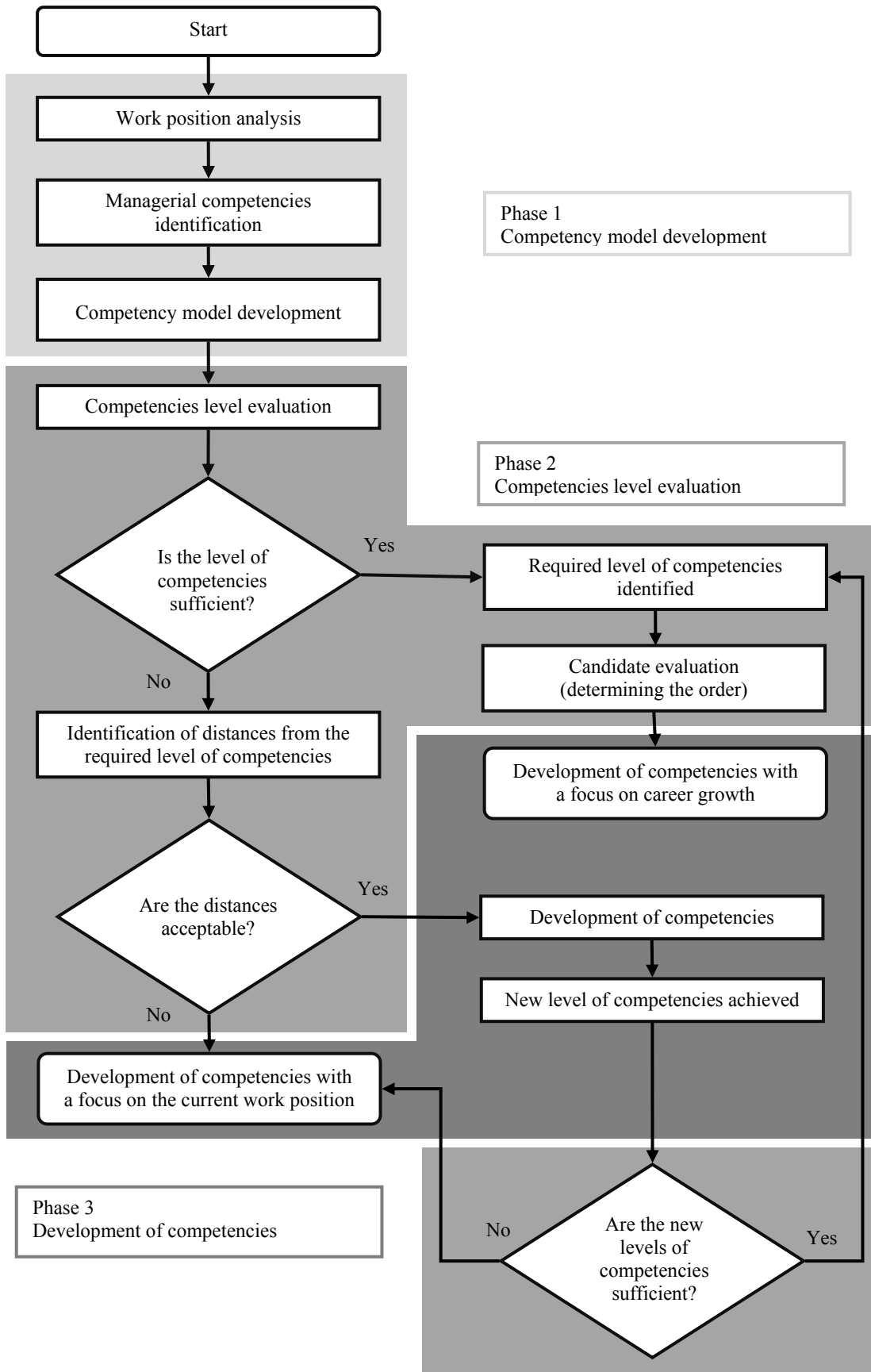
3.1 Process of Developing a Competency Model and Its Utilization in Organizations

When working with competencies, it is convenient to start with the analyses of work and the relevant work position and make a comparison with the performance characteristic directed at management through preset goals and defined by the behaviour necessary for achieving the required level of performance. For a better identification of managerial competencies, the above-mentioned analyses may be supplemented by standardized interviews, expert panels and observation. Identified competencies have to be precisely named and described and the required work behaviour for the given competency has to be defined. These competencies are subsequently used to create a competency model. A managerial competency model contains key characteristics required to achieve the needed level of a manager's performance. The optimal number of competencies is 10-12. Should more competencies be required, it is suitable to create competency clusters.

The regular evaluation of managerial competencies (for example through a development centre or the 360° method) comparing the defined behaviour with the real one, i.e. the goal is to determine whether the required level of a competency (manifested in work behaviour) is sufficient. Each competency is evaluated according to the set criteria using a pre-defined scale. Simultaneously, it is possible to determine the relevance of individual competencies using weights. The level of managerial competencies may be graphically represented by a polygon.

Regular evaluation 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. If the manager fails to demonstrate the required level of competencies, the distance between the required and real level of competencies is measured. If these distances are acceptable, the competencies are developed with the aim to improve their level. This is followed by a new measurement and evaluation. Should the newly achieved level of competencies still be insufficient, the competencies are subsequently further developed with a focus on the competencies necessary for the current work position. The selected form of development is dependent on the specific development need, i.e. the character of the competency that is being developed. Provided the requested level of competencies is achieved (during the first or the following measurement), the outcomes of the evaluation serve as background information for planning of the personal development of an individual that is targeted at career growth, i.e. positions are determined in which the manager could utilize his/her potential. Such an individual development plan has to specify particular goals and steps leading to the efficient development of an employee. Apart from the individual development plan, organizations may also use other methods of managerial skill development, such as coaching, mentoring and action learning, the advantage of which is that it permits solving real problems in real time and involve individual, group and organizational skills and knowledge. Managerial competency development has a number of advantages for organizations; it broadens the work potential of managers and thus also the possibilities for dynamic development of work teams and subsequently of the organization as a whole. In order to achieve this effect, the development programme of an organization has to have a clear and systematic conception that would take into account expected future changes. The process of developing a competency model and its utilization are shown in Figure 1.

Fig. 1: Process of Developing a Competency Model and Its Utilization



Source of data: Authors' own elaboration

3.2 Proposal for the Utilization of the Identified Process of Competency Model Development

The process of development of a competency model is divided into three phases that monitor not only the development of a specific competency model, but also the subsequent use thereof. Activities that are associated with the competency models can include the following: quantification, setting aspirational levels, comparison and evaluation. A model example is based on the proposed process (see Fig. 1). The process of measurement and comparison of deviations from the aspirational levels of individual competencies of the identified managerial competencies has been proposed. A subsequent comprehensive comparison of individual managers has been carried out by means of the TOPSIS method.

Phase 1: Competency model development

In the first phase, it is necessary to develop a competency model, i.e. to identify managerial competencies and determine their weights. The identified competencies need to be precisely defined and described and for each competency the required work behaviour needs to be specified. The identified managerial competencies that are used in the model example above are based on the data obtained from the survey carried out to identify managerial competencies in knowledge-oriented organizations. Individual competencies and their normalized weights are shown in Tab. 1.

Tab. 1: Identified Competencies and Their Normalized Weights

Competency		Weight
C1	Leadership	0.25
C2	Communicativeness	0.17
C3	Flexibility	0.10
C4	Comportment	0.10
C5	Responsibility	0.09
C6	Organizational Skills	0.09
C7	Proactivity	0.08
C8	Decisiveness	0.02
C9	Loyalty	0.03
C10	Self-confidence	0.07
Sum		1.00

Source of data: Authors' own elaboration

Phase 2: Competency level evaluation

When evaluating managerial competencies, it is necessary to adopt a systematic approach ensuring objective evaluation. Testing through development centres seems to be the most suitable method for the evaluation and subsequent development of managerial competencies as it allows for the recording and classification of specific manifestations of behaviour based on partially standardized observation. Each competency of a monitored participant has to be qualitatively evaluated by observers. In order to ensure validity, it is necessary to quantify each competency. This can be done, for example, by means of a scoring method. The level of each required competency is subjectively evaluated by each observer in several model situations

using a predefined scale. Valid measurements can then be used to calculate the average value for each competency. The model example refers to four managers who were evaluated (through a development centre) in several model situations using a scale of 0 to 10 points (see Tab. 2).

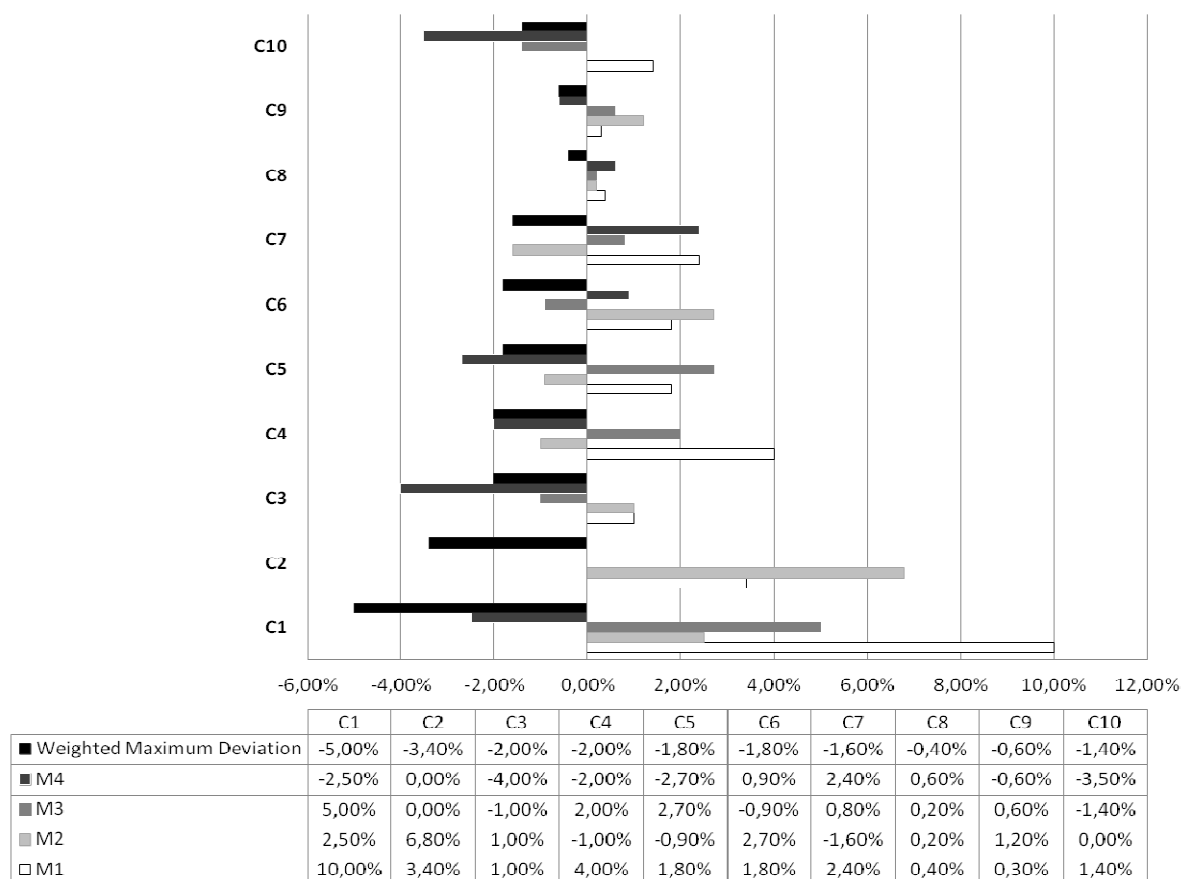
Tab. 2: Evaluation of Competencies through a DC

Manager	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
M1	10	8	7	10	8	8	9	8	7	8
M2	7	10	7	5	5	9	4	7	10	6
M3	8	6	5	8	9	5	7	7	8	4
M4	5	6	2	4	3	7	9	9	4	1

Source: authors' own elaboration

Simultaneously, the aspirational levels have been set – i.e. limits for (1) the required level of a competency (6 points), the exceeding of which means the possibility of career growth and (2) limits for an acceptable level (4 points), the exceeding of which means the possibility of conditional career growth. All values need to be weighted and subsequently can be used to develop Fig. 2 which displays normalized relative weighted distances from the required levels of competencies.

Fig. 2: Distances from the Required Levels of Competencies



Source of data: Authors' own elaboration

In fact, this is a method of aspirational levels with a conjunctive approach. Negative values are those that matter more than others. Each competency primarily shows the weighted maximum deviation, which is the maximum acceptable distance for the required level of competency. This limit should not be exceeded by any manager who wishes to join a career development programme. In the model example manager 4 (M4) exceeded this limit in the following competencies: self-confidence, responsibility, and flexibility. This manager would be recommended to develop these specific competencies with a focus on a current work position.

The best results were achieved by manager 1 (M1) whose deviations from the required level of each of the competencies take non-negative values. In the event of filling a new position, the organization would opt for this manager. In the terminology of MCDA this is the so-called real ideal alternative and therefore there is no need to search for a compromise alternative by using other methods.

Fig. 3 permits not only the mutual comparison of managers in terms of individual competencies, but is also important for the individual development of each manager as it reveals both positive and negative deviations from the required level.

In the process of manager evaluation (setting the order) a variety of methods can be applied to find a compromise alternative in models of multi-criteria analysis of alternatives, such as AHP (Analytic Hierarchy Process) or WSA (Weighted Sum Approach). With respect to the fact that in the course of the evaluation process different distances (deviations) are applied, the authors recommend using the TOPSIS method that measures the distances of partial alternatives (managers) from the basal and ideal alternatives. In the model example, the selection would be made among managers 1 (M1), 2 (M2) and 3 (M3). The fourth manager (M4) is, based on the aspirational levels, excluded from the group. Under common circumstances manager 1 would be selected as he meets the required levels in relation to all criteria while managers 2 and 3 would only be included in the tender after individual development of their competences and achieving the required level. For demonstrative reasons in the model example (with respect to its scope) all four former managers will be compared. The evaluation of individual managers by the TOPSIS method is shown in Tab. 3.

Tab. 3: Quantification Using the TOPSIS Method

Manager's choice - TOPSIS method		
	Distance from the basal alternative	Order
M1	0.832462	1
M2	0.537217	2
M3	0.528455	3
M4	0.187112	4

Source of data: Authors' own elaboration

The results have been obtained by means of the MCAKOSA accessory for MS Excel which has been developed at the Department of Systems Engineering of the Faculty of Economics and Management of the Czech University of Life Sciences in Prague. The best results were achieved by the first manager whose distance from the

basal alternative is the biggest. On the contrary, the worst evaluation is connected with the fourth manager. The distance between managers 2 and 3 is minimal.

Phase 3: Development of competencies

Recommendations for competency development are based on the outcomes of the previous phase of managerial competencies level evaluation. Should the manager fail to reach the required level of competencies, the distances from the required levels of competencies are identified. If these distances are acceptable, the competencies are developed with the aim to improve their level. This is followed by a new measurement and evaluation. Should the newly achieved level of competencies still be insufficient, the competencies are subsequently further developed with a focus on the competencies necessary for the current work position. Provided the requested level of competencies is achieved (during the first or the following measurement), the outcomes of the evaluation serve as background information for planning of the personal development of an individual that is targeted at career growth, i.e. positions are determined in which the manager could utilize his/her potential.

4 Discussion

In compliance with the resource-based approach to the creation of a competitive advantage, in the 21st century it is the people who, thanks to their competencies, represent the main source of achieving a competitive advantage. Therefore organizations need to support and develop talented managers and thus prepare them for current and future challenges and more and more frequent changes in both the external and internal environment of their organizations and help them respond to them. At present, there are more demands placed on managers and their competencies (i.e. specific knowledge, skills, abilities, attitudes and values) than ever before and these are crucial for their successful participation in the organization and strengthening the organization's position in the market. With respect to the fact that managerial competencies also include explicit and tacit knowledge, the process of working with knowledge leads to continuous organizational learning. The durability of a competitive advantage therefore derives both from unique knowledge as well as the abilities to use this knowledge.

A number of organizations are aware of the competency-based approach, however, they are often unable to utilize competencies appropriately. Simultaneously, there is not a common consensus as regards the competencies that managers have to possess to perform his/her work at the required (excellent) level. In practice, therefore, managerial competencies are often connected with an organization's values rather than individual work positions. An efficient utilization of a competency-based approach is dependent on the correct identification of managerial competencies and the subsequent development of a suitable competency model as well as their evaluation and development. Difficulties may occur in any phase of the process (see Fig. 1). Within the context of competency evaluation, it is important how competencies are transformed into the description of the final behaviour that is characteristic of them. This behaviour shows what is meant by the required performance for each competency and the pre-set weights also play a role. Another problem is that the conclusions made

based on testing in development centres derive from the current performance as competencies are connected with the observed behaviour. It means that if a competency is defined as a set of knowledge, skills, abilities, attitudes and values important for personal development and the successful involvement of each person in an organization, then all aspects of a competency are displayed indirectly, through behaviour. On the contrary, the benefit of the competency-based approach is that it focuses on one specific individual, not a work position, which complies with the philosophy of human resources management. In this conception, human resources management means taking concentrated and targeted care of employees. Organizations have to focus this care not only on education and personal development, but also on career growth (in compliance with the Maslow's hierarchy of needs). Simultaneously, it is necessary to take into consideration an organization's employee together with all their social relationships in which the personal characteristics of other employees are reflected and to encourage their attempts to improve and develop.

Conclusion

Should the organization decide to integrate the competency-based approach into its management, it is possible to increase its contribution by managing work performance and thus 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 an 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 an individual's work performance. The management of work performance from an individual to the whole and vice versa, however, requires: (1) a strategic complex systematic approach to human resources; (2) active involvement of managers; (3) harmonisation and integration of partial areas of human resources management into one whole; (4) regular and systematic review and evaluation of work performance; (5) efficient in-company 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 identification with the organization, development, participation and responsibility.

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Contact Address

Ing. Martina Königová, Ph.D.

(Abstract, Introduction, Chapters: 1; 2; 3.1; 4, Conclusion)

Czech University of Life Sciences in Prague

Faculty of Economics and Management, Department of Management

Kamýcká 129, 165 21 Prague 6 – Suchbát, Czech Republic

Email: konigova@pef.czu.cz

Phone number: +420 22438 2037

Ing. Jiří Fejfar, Ph.D.

(Abstract, Keywords, Chapters: 2; 2.1; 3.2; 4)

Czech University of Life Sciences in Prague

Faculty of Economics and Management

Department of Systems Engineering

Kamýcká 129, 165 21 Prague 6 – Suchbát, Czech Republic

Email: fejfar@pef.czu.cz

Phone number: +420 22438 2181

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