

OCCUPATIONAL COMPETENCE FOR IMPROVING INDUSTRIAL ENTERPRISE COMPETITIVE STANDARDS

PROFESNÍ KOMPETENCE PRO ZLEPŠENÍ KONKURENČNÍCH STANDARDŮ PRŮMYSLUVÉHO PODNIKU

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Abstract

Success of enterprises is usually measured by their achievements. This success results from the competence of people working for the company. The employee competence can be understood as the sum of their actual performance and their latent abilities. Both is essential and provides for the competence completeness. Missing or inadequate occupational competences cause problems in running industrial enterprises, and thus a continuous improvement process of competence levels is a must. If a company is aware of the importance of people competences in relation to success or failures and strives to develop them, it is able not only solve current problems, but also remove causes of future problem incidences. This paper focuses on the assessment of the occupational competences and competence models as an important tool in the management of human resources.

Abstrakt

Úspěchy firem jsou většinou poměřovány jejich dosaženými výsledky. Za základ těchto úspěchů lze považovat úroveň kompetencí lidí, kteří pro firmu pracují. Kompetence lidí chápeme jako souhrn dosahovaného výkonu a přinášeného potenciálu. Jestliže chybí jedno, pak chybí i kompetence jako celek. Problémy, které vznikají ve firmách můžete tedy převést na chybějící nebo nedostačující kompetence a je tedy nutné doplnit to, co v oblasti kompetencí chybí. Uvědomí-li si firma význam kompetencí lidí ve vztahu k úspěchům nebo neúspěchům a zaměří-li se na jejich rozvoj, odstraňuje tím příčiny vznikajících problémů, ne jen jejich viditelné problémy. Článek je zaměřen na posouzení kompetencí a kompetenčních modelů jako významného nástroje v oblasti řízení lidských zdrojů.

Key words: competence, competence model, job market, industrial enterprise, investigation.

1 INTRODUCTION

The key managerial tasks of a company – its size makes no difference – consist in collecting, combining, and utilizing financial, material, and human resources. As the human resources activate all other resources, they represent a decisive factor of entrepreneurial prosperity and competitiveness. [3]

Whereas material, financial, and information resources can be easily emulated (for example by utilizing the same or better technologies), the competence levels are not that easy to balance and level off. As such, the occupational competence is a key competitive edge factor, and its systematic monitoring should be a matter of routine.

All companies need competent employees whose performance standards exceed average levels. Preconditions of such performance are not only professional knowledge and training, but also their personal and social characteristics.

Job application requirements should be the focus points of the selection procedure. A competence model might be an appropriate tool for assessing the occupational competence. The model could provide for the selection of applicants whose abilities suit best the job and its related position requirements. However, competence models are usually not too general and universally oriented. Only the models oriented by specific competence requirements can be of major assistance as regards the selection of appropriate candidates for specific job positions.

Only some competences can be regarded as relevant to all job position needs. They are called key competences. If more specific competence assessments are needed, differences between individual professions should be taken into account, and specific models developed.

The authors of this paper focused on the occupational competence as a major HR management tool. The related research provided for the distinguishing of individual competence relevance as seen from three vantage points, namely:

- Competence relevance to discharge of office,
- Significance of incorporating development of competences into HE study programmes,
- Competence categories and their levels anticipated by selection procedures.

2 MEANING AND CATEGORIES OF COMPETENCES

If practical relevance of competence model utilization is scrutinized, some clarification of the meaning of competence as such is needed.

The concept of competence has basically two meanings – legal and technical. For one thing, it means an official right of direct or delegated control – power, authority, jurisdiction. For another, it means skills that are needed to perform a particular job or a particular task. The lawful idea of competence is of a French-German origin (*compétence*, *die Kompetenz*). The technically oriented idea of competence is rather common for the Anglo-Saxon environment. For example, the Penguin Dictionary of Psychology, quote: competence 1. Generally, ability to perform some task or accomplish something.

This paper deals with the competence as suggesting ability to perform actions to be able to do something.

There are many approaches to competence categorization and it is difficult to cover the subject in its entirety.

The competences can be basically classified as generic and specific or cognitive, social, key, and functional competences. [5]

A clear, ‘traditional’ arrangement of the competence is shown in Fig. 1. [7]

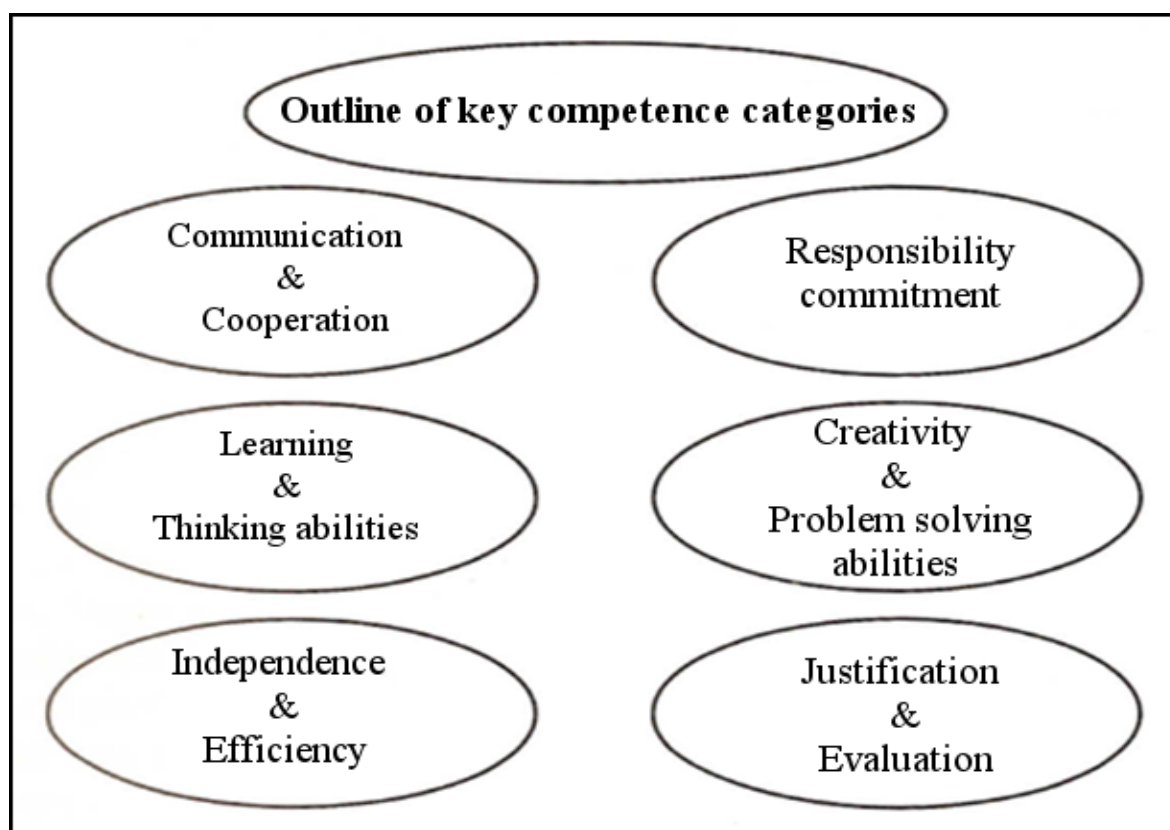


Fig. 1 Traditional arrangement of key competence categories (Veteška, Tureckiová, 2008)

The competence categorization based on the work performance and its related skills and knowledge was used by Tyron whose classification includes the following competence categories: managerial, interpersonal, and technical competences. Carrol and McCrackin classify the competences as key, team, functional, leadership, and managerial competences. [4]

Armstrong's categorization of competences is also quite well known:

- Soft skills,
- Hard skills,
- Generic, basic, specific competences. [5]

As such, there are many approaches to the classification of competences which results in a wide spectrum of individual competence categories.

3 COMPETENCE MODELS

Competence models identify the knowledge, skills, personal, and professional abilities that are necessary to successfully perform critical work functions in an industry or occupation. They provide for a HR tool of major importance.

The competence model development is influenced by many factors. It is important to be aware of the individual model function and utilization. In the framework of personal activities, it is especially about solving problems of employee selection or planning educational programmes. The models can be also instrumental in the performance evaluation of employees and their career planning.

The competence model can embody a competence common to the staff of a whole organization - the so called core competence. Another model can focus on specific competence categories of working for a particular company.

A company can develop its own competence model or can have it tailor made. Another option is in customizing a generic competence model in offer. [7]

The question is whether it is of advantage to develop models at generic levels or specify an individual competence more closely, concentrating on differences between specific professions (branches, functions, management hierarchy, etc.). The research conducted by Tett et al. [6] pointed to the conclusion of the competence model increased specificity. They consider the existing models to be too generic and unable to provide for appropriate selection procedures, career development, and assessment of employees.

The importance of competence models becomes clear if we want to answer the question which competence categories of individual employees are needed to ensure the existence of a sustained competitive advantage for a company.

4 INVESTIGATION OF SOME COMPETENCE CATEGORIES

As mentioned above, the competence model forte is in facilitating the selection, career development, and performance assessment of company employees. The true is that the staff selection procedures can be decisive factors of competitiveness and that an appropriate attention should be paid to the preparation and running of the employee selection procedures.

The authors of this paper researched the field of the technical competence. It was a two-stage investigation. In the framework of these two stages, the respondents answered questions about the competence categories as follows:

Professional competence: Fundamental knowledge of statistics and company financial analysis, computer literacy, knowledge of company functioning, role of modern machinery, and state-of-the-art technology knowledge.

Language competence: Knowledge of foreign languages (this competence was subject to a detailed analysis within the second stage of investigation), Czech language correct communication, i.e. grammar and vocabulary.

Personal competence:

- Intrapersonal: Self-confidence, self-control and time management, stress management, change process flexibility, target orientation, initiative, independence;
- Cognitive: Conceptual thinking, analytical thinking;
- Interpersonal: Task commissioning, staff motivation, briefing, coaching, dialog performance, resolving disagreements, reaching agreements, stimulating competition, empathy, presentation abilities, managerial ethics, deportment and etiquette.

The choice of the specific competence categories was made so that specific features of managerial work were best reflected, having regarded the intermediate management level of industrial enterprises.

For the competence assessment, a five-grade scale was employed that provided for sufficient differentiation. Without distinguishing individual features of observation, the results of the questionnaire investigation served as the input data for the calculation of competence significance values as arithmetic averages for all respondents who had participated in the questionnaire action. The values of the aggregated competence were always calculated as an arithmetic average of partial, further indivisible competences. The MS Access 2007 provided for the needed calculations which were adapted and presented in the form of figures and tables by the MS Excel 2007.

In the framework of the first stage of investigation, an interrogatory action was performed among students of combined courses of the Faculty of Mining and Geology, i.e. it concerned students that had some previous practical experience, and as such were able to assess significance of some specific competences in practice.

In total, 157 students were addressed. In view of the fact that the questionnaire investigative action took place during the students' regular teaching hours, the rate of return was 100 %.

The respondents' task was to assess some competence categories as regarded their significance for performing a job position and for developing them by HE teaching courses. The significance assessment for the job performance competence is given in Tab. 1.

Tab. 1 Significance of competence for job performance

Competence	Significance
Personal competence	3.76
Thereof:	
Intrapersonal	4.05
Cognitive	3.85
Interpersonal	3.50
Language	3.72
Professional	3.16

Tab. 2 shows the significance assessment of competence as developed by the HE programmes of study.

Tab. 2 Competence significance as regards development by HE study programmes

Competence	Significance
Language competence	3.85
Personal competence	3.66
Thereof:	
Cognitive	3.98
Intrapersonal	3.78
Interpersonal	3.46
Professional	3.39

Fig. 2 provides for significance comparison from both perspectives.

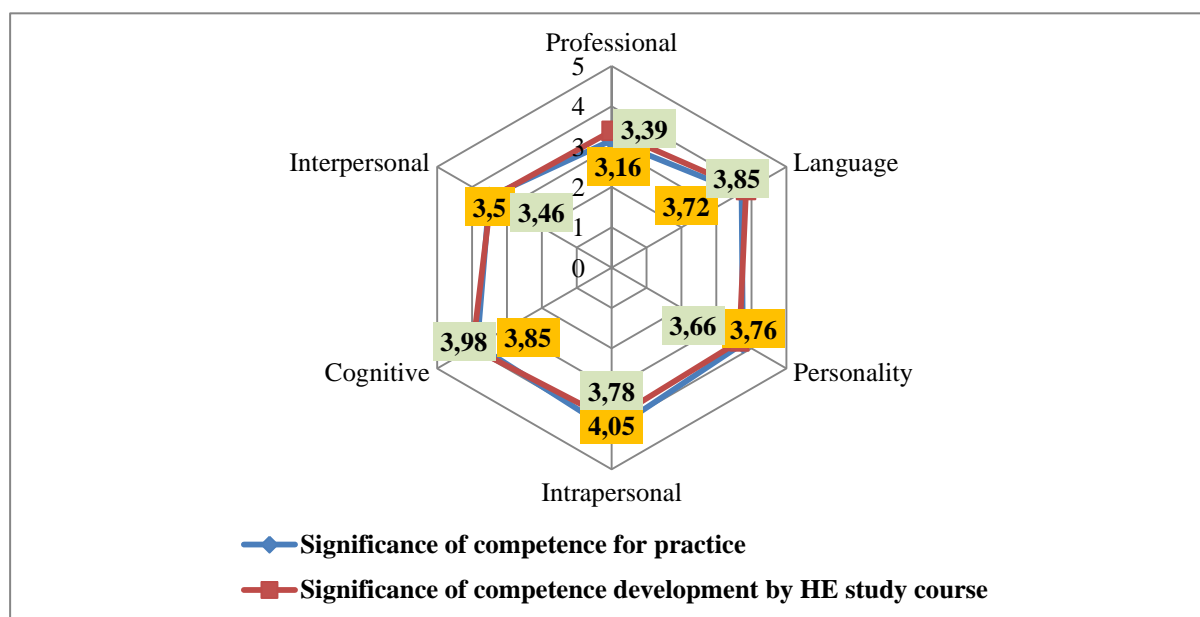


Fig. 2 Competence significance assessment from the perspectives of practice and HE study programme incorporation and development.

The comparison of the significance assessments of competences for practice and HE development yielded these results:

The assessment rate for all the investigated competence categories is in excess of 2.5 which means that all respondents considered the specific competence significant not only for the job performance, but also as a subject for development by HE courses of study.

In contrast to others, the professional competence got the lowest assessment rates, namely job performance, 3.16; HE study programme incorporation, 3.39. The computer literacy was rated rather highly; job performance, 4.00; HE development, 3.99 which suggests that computer the literacy belongs to basic qualifications of job applicants.

The language competence was rated high as regards its HE development significance, namely 3.85, which can be interpreted as respondents' expectations of coping successfully with needs of practical foreign language communication after graduation.

The personal competence was also rated quite high from both perspectives, i.e. job performance, 3.76; HE development, 3.66. The intrapersonal, cognitive, and interpersonal competence categories were assessed individually in the framework of the personal competence.

As regards the intrapersonal competence, the independence was rated as the most significant from both perspectives (job performance, 4.36; HE development, 4.09. Concerning the cognitive competence, the conceptual thinking received the highest rating, namely job performance, 3.80; HE development, 3.93. The interpersonal competence significance was rated the same from both perspectives where the presentation ability took up the first place (job performance, 3.87; HE development, 4.03). [2]

The questionnaire action evaluation was also performed regarding respondent individual characteristics. The women-to-men ratio was almost even, namely 82 men (52 %), and 75 women (48 %). The age group, 31-50 years, was the biggest, 104 respondents (66 %). The age group, 18-30 years, comprised 53 respondents (34 %). There were no respondents in the age category of 51 years plus.

The respondent education structure was as follows: secondary, 76 respondents (48 %), higher professional, 9 respondents (6 %) and HE, 72 respondents (46 %). The respondents usually worked in the tertiary sector (101 respondents, i.e. 64 %). Concerning the primary sector, there were 16 respondents (10 %), and 40 respondents (26 %) from the secondary sector. The assessment of competence significance, as regards the individual respondent characteristics, is illustrated in Figs. 3-6.

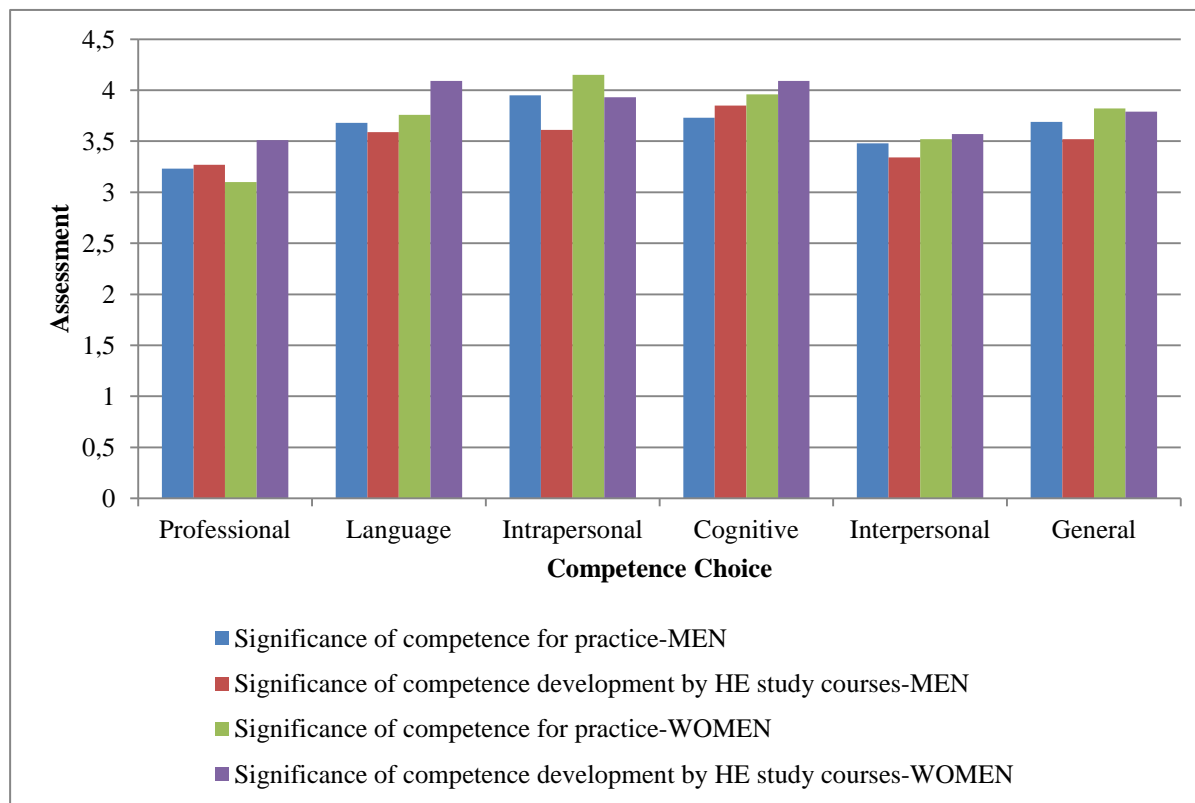


Fig. 3 Competence significance according to sex of respondents

The assessment of competence as sex dependent evidenced that women considered some competence categories more important than men did, which was valid for both the aspect of job performance and the aspect of competence development by HE study programmes. The only opposite view concerned the professional competence needed to meet requirements for a specific job position.

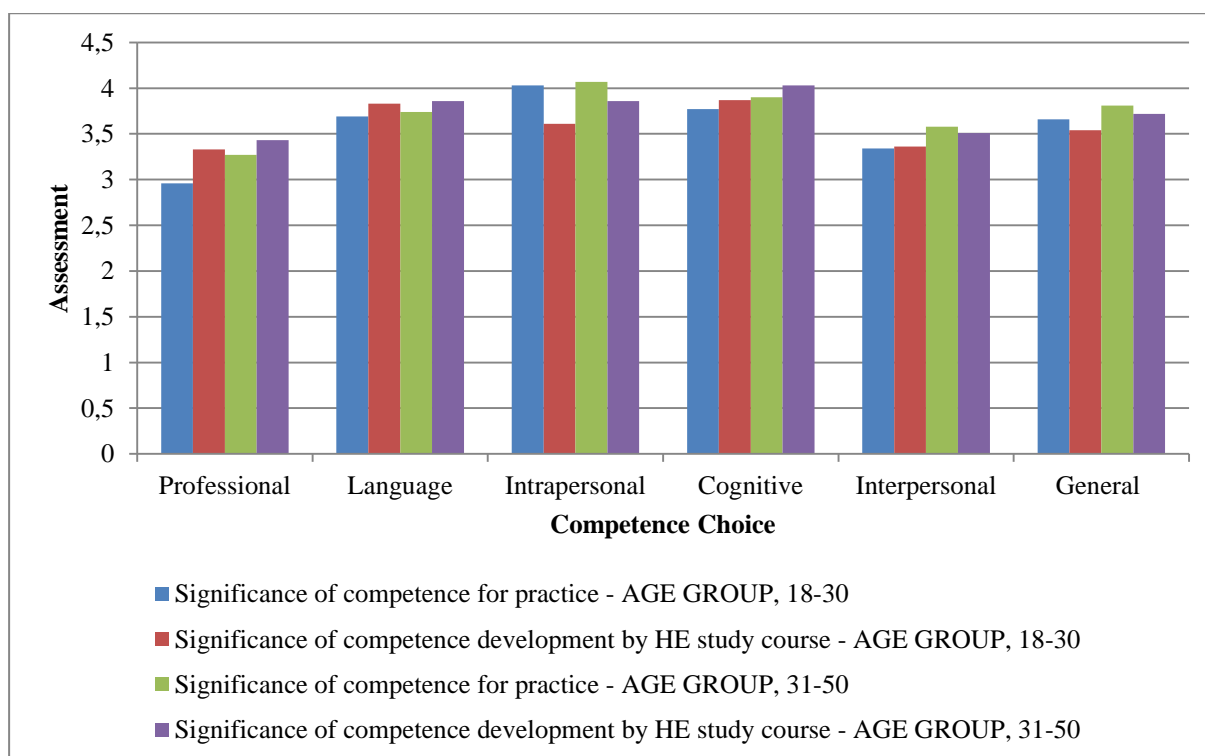


Fig. 4 Competence significance related to respondents' age

The age related responses testified increased the significance of the language and cognitive competences from the perspective of developing them by HE study programmes. In contrast to this view, the intrapersonal competence was considered more important for meeting job performance requirements which was also the case of the interpersonal competence as regarded the respondent age group, 31-50 years. The respondent age group, 18-30 years, attached almost the same importance to the competence from both perspectives.

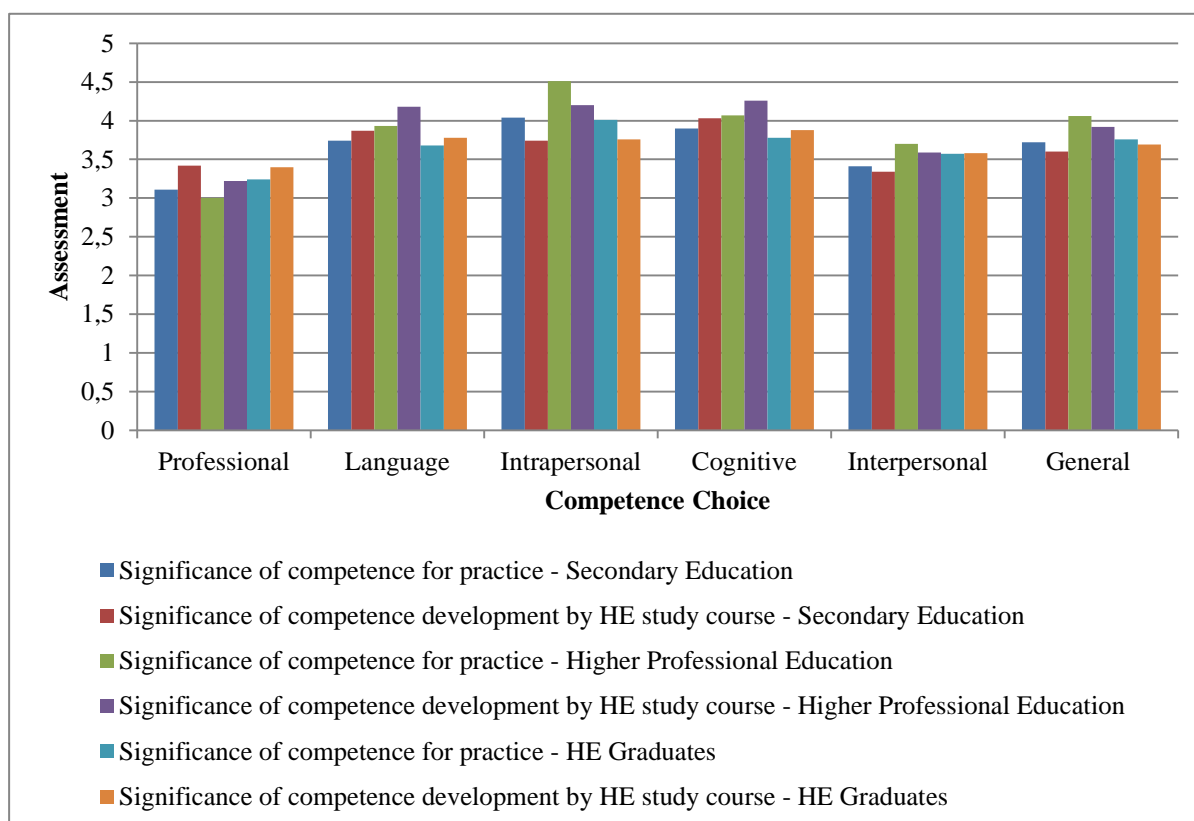


Fig. 5 Competence significance related to respondents' education level

The education level of respondents influenced their assessments of competence significance in analogy to the age dependence. The stress was given to professional, language, and cognitive competences as regarded their HE study programme development. An opposing view concerned the intra- and interpersonal competences.

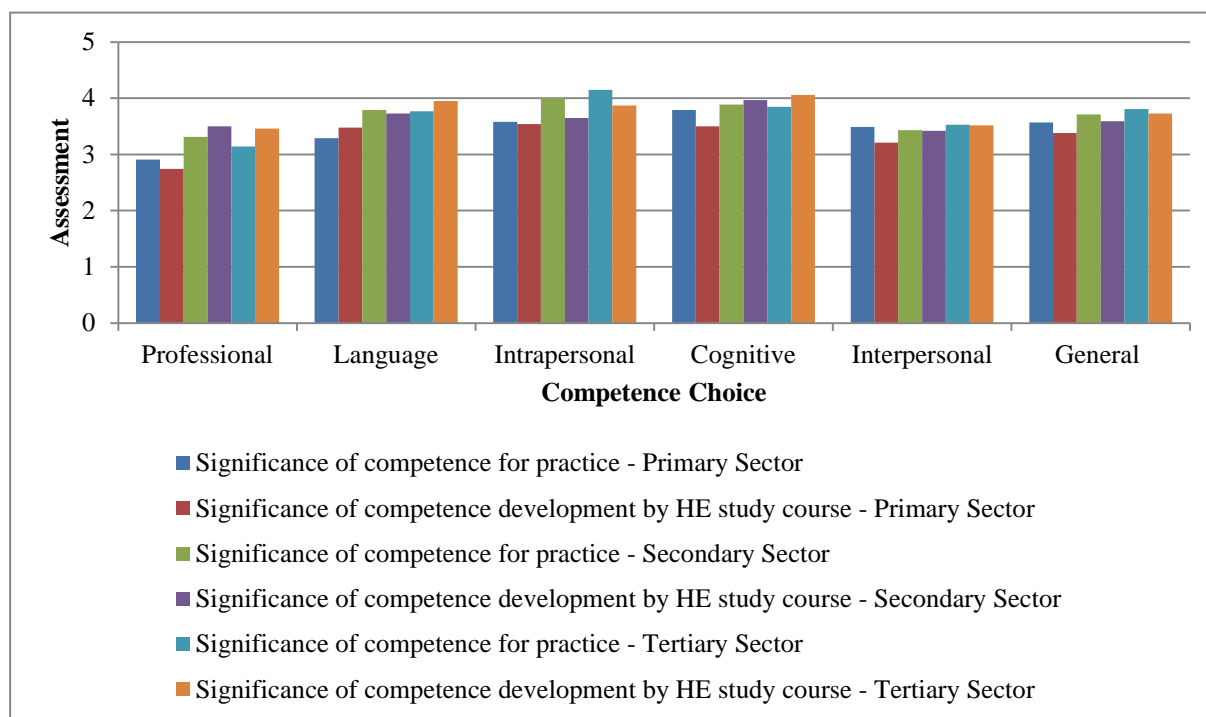


Fig. 6 Sector oriented assessment of competence significance

The sector (primary, secondary or tertiary) oriented assessment of the competence significance was the last item for the respondents to decide. This was to the same effect as was the case for the intrapersonal and interpersonal competences. The employees of individual work sectors put a special stress on competences related to job performance. Nevertheless, they consider the competence development by HE study programmes necessary.

The second part of the investigation concentrated on the assessment of competence by mining enterprises. The objective was to find out the level of competence that the HE graduates should have as job applicants. The respondents also voiced their opinion to the issue of hiring fresh HE graduates. The total of 15 mining companies was addressed.

As it is obvious from Fig. 7, not even a single respondent preferred the hiring of fresh HE graduates. A positive fact is that 46 % of respondents did not demand previous practical experience which represents a chance for new graduates to succeed as job applicants.

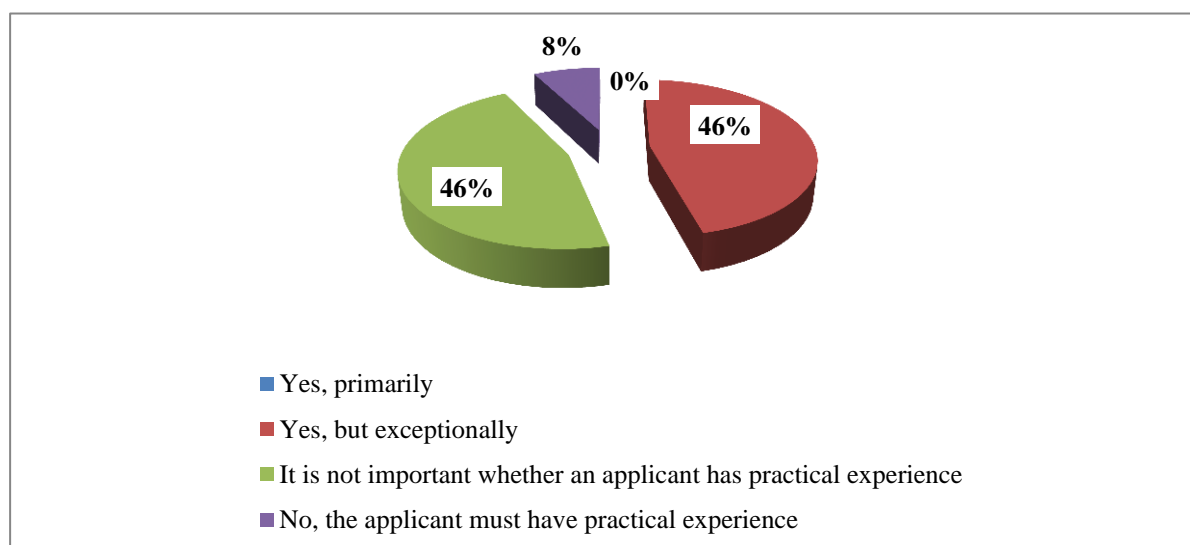


Fig. 7 Hiring selection procedures - applicants' preferences

Tab. 3 Expected competence level

Competence	Significance
Language competence	3.92
Personal competence	3.40
Thereof:	
Intrapersonal	3.82
Cognitive	3.69
Interpersonal	3.38
Professional	3.23

The both perspective investigations provided for the following:

- The evaluation of the specific competence from both the perspectives of job performance and HE development was always in excess of 2.5.
- The mining companies' assessment of the expected competence levels again always resulted in the rates above 2.5.
- The results of both investigations indicate the necessity of the competence model provisions as regards selective procedures for hiring.

The evaluation results for some competence categories studied in the framework of both investigative efforts are given in Tabs. 4-6.

Tab. 4 Assessment of professional competence

Competence	Significance for job performance	Significance for HE study programme development	Expected level
Professional competence	3.16	3.39	3.42
Fundamental knowledge of company statistics and financial analysis	2.62	3.16	2.67
Computer literacy	4.00	3.99	4.00
Knowledge of enterprise functioning	3.2	3.29	3.33
Knowledge of state-of-the-art technologies and equipment	2.83	3.13	3.67

Tab. 5 Assessment of language competence

Competence	Significance for job performance	Significance for HE study programme development	Expected level
Language competence	3.72	3.85	3.89
Knowledge of foreign languages	3.22	3.83	5.00
Grammar (Czech language)	3.98	3.85	3.78
Vocabulary (Czech language)	3.97	3.87	4

Tab. 6 Assessment of personal competence

Competence	Significance for job performance	Significance for HE study programme development	Expected level
Personal competence	3.76	3.66	3.40
<i>Intrapersonal:</i>	4.05	3.78	3.82
Self-confidence	3.83	3.61	3.38
Self- and time management	4.1	3.73	3.69
Coping with stress	4.11	3.79	3.69
Competence	Significance for job performance	Significance for HE study programme development	Expected level
Flexibility vs. change	4.08	3.70	4.15
Target orientation	3.92	3.83	3.85
Initiative	3.97	3.68	4.15
Independence	4.36	4.09	3.85
<i>Cognitive:</i>	3.85	3.98	3.69
Conceptual thinking	3.8	3.93	3.77
Analytical thinking	3.78	3.97	3.62
<i>Interpersonal:</i>	3.5	3.46	3.38
Task commissioning	3.41	3.3	3.23
Motivating people	3.32	3.46	3.62
Briefing	3.02	3.29	3.08
Dialog management	3.71	3.64	3.54
Conflict management	3.7	3.25	3.46
Stimulating competition	2.86	3.01	3.23
Understanding needs of others, empathy	3.78	3.43	3.15
Managerial ethics, social behaviour	3.82	3.75	3.54
Presentation abilities	3.87	4.03	3.62

5 CONCLUSIONS

The competence models have their important role not only in the field of human resource management, but also as regards their development by HE institutions. The competence developed by education becomes an advantage for job applicants, and the employers can better choose their future employees if they have their demands on competence specified. The competence models can provide for quality selection procedures of the staff whose performance is becoming decisive for companies' competitiveness.

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RESUMÉ

Článek je zaměřen na problematiku významu kompetencí jako nástroje pro zvyšování konkurenceschopnosti průmyslových podniků.. Za cíl si autoři stanovili posoudit význam jednotlivých kompetencí z pohledu studentů kombinované formy studia a z pohledu zaměstnavatelů, konkrétně z pohledu těžebních podniků.

Pro pochopení dané problematiky obsahuje článek stručnou charakteristiku kompetencí a kompetenčního modelu. Stěžejní částí je pak průzkum kompetencí, který byl proveden ve dvou etapách. Jednalo se o posouzení významu kompetencí z pohledu studentů kombinované formy studia na VŠB-TU Ostrava, HGF. V rámci tohoto průzkumu byla hodnocena významnost jednotlivých kompetencí pro výkon funkce a významnost začlenění rozvoje kompetencí do studijních programů VŠ.

Druhá etapa průzkumu byla zaměřena na posouzení očekávané úrovně kompetencí absolventů VŠ z pohledu těžebních podniků.