

The Model for Assessing the Professional Competencies of Employees in Today's Labor Market

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Abstract

The article aims to improve the methodology of assessing the professional competencies of employees in today's labor market. The study was carried out using the structural-logical method. This method is used to compile a competencies map, in which types of competencies are distinguished by the criterion of content. The article also uses the method of modeling socio-economic systems. Using this method, an information model is compiled for assessing the professional competencies of employees and its use for assessing the personnel of an organization in the current labor market. As a result of the study, the following results were obtained. First, a competencies map has been compiled, in which types of competencies are distinguished according to the criterion of content. Secondly, an information model was compiled for assessing the professional competencies of employees and its use for assessing the personnel of an organization in the current labor market. The results obtained contribute to the literature through strengthening the scientific and methodological apparatus of the competency-based approach to HRM. The practical significance of the author's conclusions and applied developments lies in the fact that they make it possible to increase the efficiency of applying the competency-based approach to HRM in the practice of modern business.

Keywords

 $\begin{aligned} & Global\ economy \cdot Labor\ market \cdot Human\ capital \cdot \\ & Employment \cdot Internet\ platforms \cdot Digitalization \cdot Digital \end{aligned}$

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labor market \cdot Digital economy \cdot Digital labor \cdot Digital skills \cdot Digital transformation

JEL codes

 $E24 \cdot F6 \cdot J6$

1 Introduction

Nowadays employers are not satisfied with the professional abilities of young employees. The effective work of employees is achieved due to the unique individual qualities of people—their knowledge, skills, experience, and personal characteristics manifested in behavior, attitude, dedication, and initiative. Almost every leader is interested in having highly qualified, talented, and progressive managers and employees to work for them. In this regard, the most relevant question in today's unstable economic conditions is what skills employees should have.

2 Method

The study was carried out using the structural-logical method. This method is used to compile a competencies map, in which types of competencies are distinguished by the criterion of content. The article also uses the method of modeling socio-economic systems. Using this method, an information model is compiled for assessing the professional competencies of employees and its use for assessing the personnel of an organization in the current labor market.

3 Results and Discussion

It is necessary to attract talented employees, that is, productive employees who constantly show high labor results and demonstrate readiness for development and learning (Anisimov et al., 2017; Gavrina, 2017, pp. 28–40; HR Portal, 2014; Mizintseva et al., 2021; Sizova & Khusyainov, 2017, pp. 376–396). Generally, the concept of talent is translated into the area of measurable values, that is, competencies.

Nowadays, competencies are one of the main tools for personnel performance management. If the leaders of small organizations can simply agree on management standards and requirements for employees, then large organizations need a clear personnel management system, and the corporate competency model becomes the basis of this system (Petrochenko, 2018, pp. 288–293).

Competence is the readiness of a person for a certain activity. As a rule, competence is based on the knowledge and experience that a person possesses, acquiring them in the process of learning. It is also important to consider that the presented qualities of personality are interrelated (Anisimov et al., 2017; Aptekman et al., 2017). It should be noted that there are a considerable number of classifications of competencies on various grounds. For example, according to the content, there are four types of competencies: corporate, managerial, professional, and personal (Fig. 1).

The primary meaning of competency lies in the fact that it indicates to the employee the qualities that he or she must possess to perform the work qualitatively (Veselko & Gaurav, 2021, pp. 107–117). Thus, in the context of digitalization, employees should have such relevant competencies as the ability to recognize the risks and opportunities in the process of applying new technologies, the ability for lifelong learning (self-education), the possession of project management methods, adaptability, work in conditions of uncertainty, a deep understanding of their professional field, possession of skills in related fields, the ability to work with big data, skills in working with visualization tools, systems thinking, emotional intelligence, teamwork skills, and the

Fig. 1 Types of competencies by content. Source: Compiled by the authors based on (Tolmacheva, n. d.)

understanding of the basics of cybersecurity (Anisimov et al., 2021, pp. 903–907; Bobrysheva, 2019; Grigoriev, 2022; Kuzmina, 2021, pp. 204–206; Sysoeva, 2022, pp. 113–126).

It is necessary to have analytical skills and the capability of effective teamwork. An information model was formed to assess the professional competencies of employees (Loginova, 2019, pp. 563–571). Figure 2 presents a generalized view of the model for assessing the professional competencies of employees and its use for assessing the personnel of an organization.

There are 3 levels: (1) organization's aim; (2) organization's tasks, the implementation of which is necessary to achieve the goals; (3) the organization's employees, that is, those who perform the tasks. All three levels are interconnected with each other. The presence of connections means that an employee of a certain position is associated with the performance of a specific task.

Let us introduce the notation:

- p_{ij} —self-assessment of the readiness of the *i*th employee to execute the *j*th task, $0 \le p_{ij} < 1$;
- q_{ij} —assessment of the manager's readiness to entrust the *i*th employee with the execution of the *j*th task, $0 \le q_{ij} \le 1$.

Then, value assessment of the *i*th employee in terms of readiness for the implementation of the *j*th task is calculated as follows:

$$H_{ij} = -q_{ij}\log(1 - p_{ij}) \tag{1}$$

Therefore, based on the personal assessment of the employee and the assessment of the manager, it is possible to determine the effectiveness of a particular employee.

At the next stage of work assessment, it is recommended to introduce an additional level—the personal and professional qualities of employees. This model allows distributing tasks among employees of the organization depending on their competence, personal interest, and professional training.

Corporate competencies

Competencies accepted in the company.
They are the same for any position.

Managerial competencies

 Management competences. For example, the ability of an employee to independently take control, plan and organize their activities.

Types of competencies by content

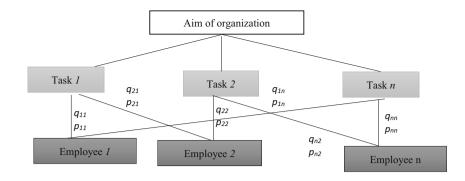
Professional competencies

 Competences that apply to a specific group of positions. For example, sales skills, team leadership, customer focus.

Personal competencies

 Personal aspects, including achievements, results, attitude towards them and much more. For example, high adaptability, leadership, initiative.

Fig. 2 Information model for assessing the professional competencies of employees and its use for assessing the personnel of an organization in the current labor market. Source: Compiled by the authors based on (Loginova, 2019, pp. 563–571)



4 Conclusion

As a result of the study, the following results were obtained. First, a competencies map has been compiled, in which types of competencies are distinguished according to the criterion of content. Secondly, an information model was compiled for assessing the professional competencies of employees and its use for assessing the personnel of an organization in the current labor market.

The results obtained contribute to the literature through strengthening the scientific and methodological apparatus of the competency-based approach to HRM. The practical significance of the author's conclusions and applied developments lies in the fact that they make it possible to increase the efficiency of applying the competency-based approach to HRM in the practice of modern business.

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References

Anisimov, V. G., Anisimov, E. G., Arslanov, R. F., Arslanova, A. P., Bogoeva, E. M., Goloskokov, V. I., et al. (2017). *Economic and customs risk management*. Russian Customs Academy.

Anisimov, V. G., Saurenko, T. N., Anisimov, E. G., Kasatkin, V. V., & Los' V. P. (2021). Information security incident forecasting. *Automatic Control and Computer Sciences*, 55(8), 903–907. https://doi.org/10.3103/S0146411621080277

Aptekman, A., Kalabin, V., Klintsov, V., Kuznetsova, E., Kulagin, V., & Yasenovets, M. (2017). *Digital Russia: A new reality*. McKinsey. Retrieved from https://corpshark.ru/wp-content/uploads/2017/07/ Digital-Russia-report.pdf (Accessed 15 March 2022).

Bobrysheva, O. (2019, December 16). Why Robert Solow's "idea of introducing new ideas" is becoming more and more relevant every year. Foreign Economic Relations. Retrieved from https://eer.ru/ article/issledovaniya/u78/2019/12/16/1270 (Accessed 1 February 2022)

Gavrina, E. G. (2017). Impact of the digital economy on the development of modern labor market. Scientific Research of the Faculty of Economics. *Electronic Journal*, 9(4), 28–40. https://doi.org/10.38050/2078-3809-2017-9-4-28-40

Grigoriev, A. Evaluation and development of basic competencies of employees. Retrieved from http://hr-portal.ru/article/ocenka-irazvitie-bazovyh-kompetenciy-sotrudnikov (Accessed 1 February 2022)

HR Portal. (2014, February 18). Labor market, its current state, and problems. Retrieved from http://hr-portal.ru/article/rynok-truda-ego-sovremennoe-sostoyanie-i-problemy (Accessed 1 February 2022).

Kuzmina, O. M. (2021). Competencies in demand in the labor market in the digital economy. In A. K. Ganieva, V. Ostryk, & A. Yanovskaya (Eds.), Digital content of social and ecosystem development of the economy: Proceedings of the International Scientific and Practical Conference (pp. 204–206). Arial.

Loginova, A. V. (2019). Application of the informational approach of A. A. Denisov to the organization of a personnel assessment system. In System analysis in design and management: Collection of scientific works of the XXIII Scientific and Practical Conference (Vol. Part 1, pp. 563–571). Polytech Press.

Mizintseva, M. F., Gerbina, T. V., Sardaryan, A. R., & Chugrina, M. A. (2021). The role of smart technologies in the process of the labor market transformation: Tendencies and problems. In E. G. Popkova & B. S. Sergi (Eds.), "Smart technologies" for society, state and economy (pp. 483–489). Springer. https://doi.org/10.1007/978-3-030-59126-7 54

Petrochenko, A. A. (2018). Key competences of talented employees on the contemporary labor market. In *Socially oriented management in* the context of globalization: Proceedings of the All-Russian scientific-practical conference (pp. 288–293). Peoples' Friendship University of Russia.

Sizova, I. L., & Khusyainov, T. M. (2017). Labor and employment in the digital economy: The problems of the Russian labor market. Bulletin of St. Petersburg University. Series: Sociology, 10(4), 376–396. Retrieved from https://dspace.spbu.ru/bitstream/11701/ 9064/1/01-Sizova.pdf (Accessed 1 February 2022).

Sysoeva, E. A. (2022). Managers' modern competencies in the digital economy. *Leadership and Management*, 9(1), 113–126. https://doi. org/10.18334/lim.9.1.114284

Tolmacheva, D. G. (n.d.). *Types of competencies*. Retrieved from http://center-yf.ru/data/Kadroviku/vidy-kompetenciy.php (Accessed 15 March 2022).

Veselko, A. A., & Gaurav, S. (2021). Modern labor market in the conditions of digital economy development. In D. B. Solovev, V. V. Savaley, A. T. Bekker, & V. I. Petukhov (Eds.), *Proceedings* of the International Science and Technology Conference "FarEastSon 2020" (pp. 107–117). Springer. https://doi.org/10. 1007/978-981-16-0953-4_10