

INFLUENCE OF THE DEFICIT OF HIGHLY QUALIFIED PERSONNEL ON THE COMPETITIVENESS AND INVESTMENT ATTRACTIVENESS OF INDUSTRIAL ENTERPRISES

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Abstract

The purpose of this article is described the theoretical foundations and results of an empirical study of the satisfaction of the needs of industrial enterprises in highly qualified personnel as an index of investment attractiveness and competitiveness. The object of the research is the development of investment attractiveness and competitiveness of industrial enterprises. The subject of the study is the formation of investment attractiveness of industrial enterprises on the basis of satisfying the needs for highly qualified staff requirement. To solve this problem, the authors used general scientific and special research methods, including meaningful, systematic, comparative and logical analysis, written and oral interviews. In the empirical part of the study, 100 industrial enterprises of the Sverdlovsk region took part. The main method of research is the formalized questionnaire. The study period 2013-2017. Based on the results of the analysis, priority areas for the work of enterprises to improve the work on attracting, securing, preserving, developing and retaining highly qualified specialists at industrial enterprises were established. The results of the research will be interesting to specialists in the field of personnel management of industrial enterprises, as well as scientists studying the problems of managing the labour potential of the organization.

Key words: highly qualified personnel, industrial enterprises, investment attractiveness, labor market.

JEL Code: J 21, J 23, J 44

Introduction

The management of the strategic competitiveness of industrial enterprises is inextricably linked to the achievement of a high level of production efficiency and staffing by highly qualified specialists (eg, Belousov, 2008; Bakalskaya & Kleimenova, 2017; Kosyakova, I., &

Magomadova, 2011; Zhu, L., & Cheung, S. O., 2017). Strategic competitiveness presupposes a long-term focus of the company's operations, customer orientation, introduction of modern technologies and effective management of technological changes, fair competition, as well as the ability to attract, retain and develop highly qualified specialists (eg, Palmieri, Stefania et al., 2017, Belousov, 2008; Karamyshev, 2018). Analyzing the factors of competitiveness and investment attractiveness of industrial enterprises, along with the technologies and methods of production organization, it is possible to single out the availability of a qualified workforce, the degree of staff motivation, organizational structures and forms of work that allow achieving a high level of competitiveness of workers and making better use of their labor potential (eg, Zhang , Jinglei et al., 2014; Patel et al., 2017). Also, there are a number of studies demonstrating how satisfying the needs for highly qualified staff requirement and talented employees affects not only the strategic results of the company's activity, but also the results of the work, such as the attitude and behavior of employees (eg, Krishnan, and Scullion, 2017; Gelens, Hofmans et al., 2014, Romanova, 2007).

According to a survey conducted at industrial enterprises in the Sverdlovsk region in the period 2014-2017, on average 40% of the surveyed executives noted the insufficient manning of highly skilled labor in relation to demand (report).

The key problem of industrial enterprises in the Sverdlovsk region regarding personnel policy is characterized by several points:

- The current format of the personnel policy of industrial enterprises does not lead to sufficient satisfaction of the request for the selection of highly qualified specialists for the production process.

- The positive effects of reducing the overall staff hunger in enterprises are offset by the fact that the filling is subject to predominantly vacancies that do not require high qualification.

- The deficit of highly qualified specialists increases the risks of technological lagging of industrial enterprises in the region and the reduction of their competitiveness.

Dedicated problems are hindered the formation of strategic competitiveness of industrial enterprises.

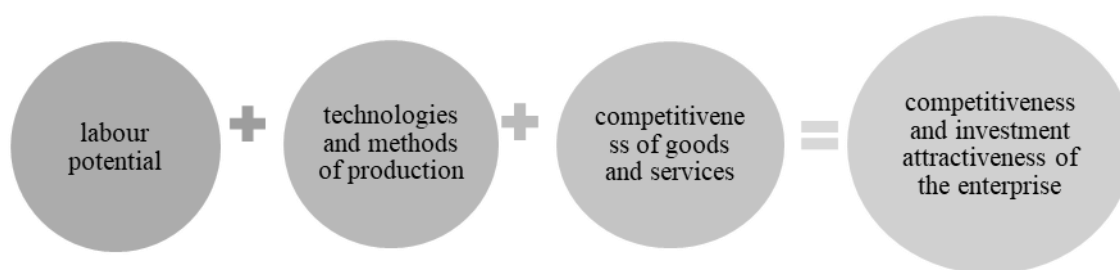
In this paper the authors draw attention to the tasks and the direction of work to meet the needs for highly skilled cadres. As the basic tools for developing the professional labor market and meeting the strategic needs for highly qualified specialists are indicated the participation of enterprises in the implementation of projects for vocational guidance of

schoolchildren and the promotion of the best experience of partnership between industrial enterprises and educational institutions in practice-oriented dual education .

1 Investment attractiveness of industrial enterprises and tasks of staffing work on increase of the competitiveness of them

Competitiveness is a significant category of the market. The competitiveness of an industrial enterprise can change even with stable characteristics of the quality of goods and services offered to the market. These changes can vary under the influence of various factors of the competitive environment.

Factors of strategic competitiveness and investment attractiveness of industrial enterprises can be represented in the form of a figure (Fig. 1).



Source: composed by the author

1.1 Analysis of competitiveness indicators of industrial enterprises in the Sverdlovsk Region

In the process of empirical analysis of the impact of insufficiency and high cost of highly qualified personnel on the economic situation and investment attractiveness of enterprises, a study was conducted of indicators of economic state of enterprises. The base of research is the statistic data about results of annual business cycles for the period from 2013 to 2017, as well as an analysis of the negative factors affecting the economic situation and investment attractiveness of enterprises in 2014-2017.

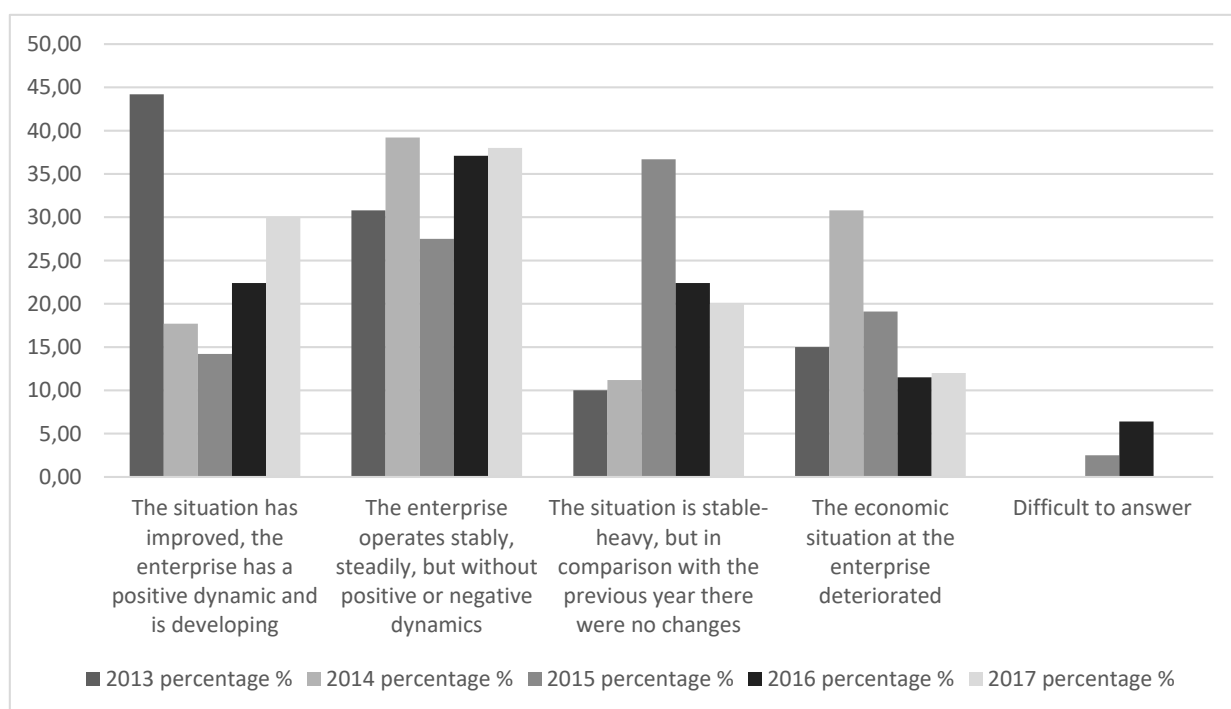
In the results of 2017 positive dynamics of the positive trends of the economy is shown: an increase of 7.6% enterprises recording the improvement of the situation and business development; also, the share of enterprises claiming stability of their economic state reached the level of 2014 (Tab.1).

Tab. 1: Evaluation of the economic state of enterprises in 2013-2017

№	situation description	2013		2014		2015		2016		2017	
		quantity	percentage %	quantity	percentage %	quantity	percentage %	quantity	percentage %	quantity	percentage %
1.	The situation has improved, the enterprise has a positive dynamic and is developing	38	44,2	19	17,7	17	14,2	35	22,4	30	30
2.	The enterprise operates stably, steadily, but without positive or negative dynamics	26	30,8	42	39,2	33	27,5	58	37,1	38	38
3.	The situation is stable-heavy, but in comparison with the previous year there were no changes	9	10	12	11,2	44	36,7	35	22,4	20	20
4.	The economic situation at the enterprise deteriorated	13	15	33	30,8	23	19,1	18	11,5	12	12
5.	Difficult to answer	-	-	-	-	3	2,5	10	6,4	-	-
	Total	86	100	106	100	117	100	156	100	100	100

Source: composed by the author. Report "About results of a sociological survey on the study of public opinion of enterprises and organizations on the socio-economic situation and the activities of the Regional Employers' Association" Sverdlovsk Regional Union of Industrialists and Entrepreneurs" over the period 2013-2017.

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Problem relevance modest of skill of present employees and high cost of skilled specialists the last two after crisis year grows (drop of attention of enterprises to trained questions on totals of 2015 from 16% to 1% it came off by growth to 14% on totals of 2016) in 2017 about 18,8% of the enterprises noted her importance (Tab. 2). Low level of attention to staffing problems in 2015 is due to that in this period other sharp situational factors were in lieu.

Tab. 2: Comparison of negative factors affecting economic situation and investment activities of enterprises in 2014-2017

№	factors	percentage %			
		2014	2015	2016	2017
1.	the measures inefficiency of support of business on the part of state	46,4	36,7	35,9	30,7
2.	high interest rates on credits / the reduction of opportunities on crediting	42,2	19,2	23,7	18,8
3.	high taxing load / introduction of new taxes and tax collections	39,1	4,2	11,5	12,9
4.	tariffs of natural monopolies	28,9	16,7	34,6	22,8
5.	the rates of natural monopolies administrative barriers and high level of bureaucracy	26,8	13,3	23,1	37,6
6.	insufficiency and high cost of qualified personnels	16,5	0,8	14,1	18,8

7.	undevelopment of engineering and social infrastructure	7,2	0	8,3	13,9
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Source: composed by the author. Report "About results of a sociological survey on the study of public opinion of enterprises and organizations on the socio-economic situation and the activities of the Regional Employers' Association" Sverdlovsk Regional Union of Industrialists and Entrepreneurs" over the period 2013-2017.

At the same time, about 16% of the respondents note a high probability of growth of high-productivity jobs and increase of the need for skilled specialists at realization of Federal program "Digital economy". Regarding the common situation with specialists, 7% of the enterprises note deterioration of the situation in 2017 as compared with 2016; It remained negative in 22% of enterprises.

1.2 Tasks and the directions of staffing work on increase of the competitiveness and investment appeal of industrial enterprises

In 2017 was carried out focus-group with engagement of HR-chiefs of leading enterprises of the region. The focus group was aimed at identifying expert opinions on the personnel situation. It was determined that the main task in in work with specialists is now in formation of strategic reserve base of staff to ensure the competitiveness and investment attractiveness of companies. The key directions are:

- preparation and development of universal (multifunctional) workers who can execute extensive coverage of labour functions.

- formation of professional standards (or more wide "frameworks of skills") and removal of legislation barriers for employment of multifunctional specialists to enterprises staff.

- organising of mutual relations with educational organisations and stakeholders labour market. Respondents emphasise that educational organisations and labour market are not able to date to satisfy to full extent such query of employers.

- development of own personal potential, cultivation of narrow-profile and universal professionals inside one's collective

One of the problems of attracting highly skilled young professionals and qualified workers concerns the questions of interaction with youth. First of all, these are inadequate career and salary claims of graduates of universities and colleges, lack of awareness in professional orientation. Secondly is a low prestige of technical and working specialties, also is a unattractiveness of remote territories and small towns for planning career tracks and employment of young people.

Based on the study, key proposals were formulated aimed at meeting the strategic needs of industrial enterprises in highly qualified employees.

1. Interaction with universities and colleges. The need for a dialogue between the educational environment and industrial enterprises is obvious, it is noted by researchers from different countries (e.g., Palmieri, Stefania et al., 2017, Belousov, V. V., 2008). In the era of innovative economy, the creation of a system of interaction between employers, educational institutions and students is conditioned by the emerging contradiction between the sectoral and market-based way of vocational training. The market principle of training qualified personnel reflects the needs of employers, the infrastructure that is formed in the country and in each individual region. Employers occupy the positions of the personnel's customers and do not always willingly participate in the educational process itself, which makes it difficult to satisfy their query on the part of vocational education. At the same time, the development of the human capital of the country, region, industry is possible only in the unity of the triad - "educational institution-employer-state".

Kuzmina Inna, who is a manager of the direction for professional and public accreditation of the personnel development department of "Roskosmos" State Corporation, noted during the meeting of the Public Chamber for the Development of Science and Education in March 2016, that there is a serious gap between the employers' needs and the competencies of the graduates. She said: "In addition to professional skills, employers need such personal qualities, as the ability to make decisions within their field of activity; the ability to work in a team and the pursuit of professional self-improvement. These qualities in can be laid the basis at school and university" (Donatovich., 2016).

Based on the survey conducted among employers, we can state that 45% of employers do not cooperate with universities, do not use the resource of preliminary recruiting. Despite the fact that there is a talented specialists shortage in a number of professions in our country for last several years, the top-manager are not ready to treat university students as their company's personnel potential; they are not ready to offer a flexible working schedule, are skeptical of the modern graduates' competence level. At the same time, 90% of respondents state the possibility of combining work in their organizations with studying at university. This is an indication of employers' distrust of relations with universities, as intermediaries between them and young specialists, and a high level of bureaucratization of such relations.

The roadmap for interaction with employers and students of the Department for Interaction with Employers and Development of Personnel Potential of USUE includes a number of areas:

1.1. Involvement of employers who are interested in talented youth for cooperation within the framework of HI-PO (High-Potential) programs:

- HR-networking project: more than 30 managers of personnel services, who identified the need for young staff, conducted an express interview for one of the students at the University;

- master classes and professional counseling from employers on behavior in the labor market and interviews.

- competitions of professional mastery and cases from employers.

1.2. Involvement of employers to participate in the implementation of academic disciplines, the organization of master classes, round tables, and other forms of interaction with students.

- an important tool for meeting the needs of graduates and employers is the emphasis on the development within the educational process of individual professional requirements put forward by employers. For this purpose, representatives of the professional community are involved in the development of the main professional educational programs and their implementation.

- Another area that promotes the active involvement of employers in the educational process is the opening of the basic departments directly in the zone of work of the main employers.

- Within the educational process, such events as excursions to enterprises became very relevant; project "Face to face: meeting with the employer": a series of open lectures and master classes from employers' representatives.

1.3. Assistance in finding employment for graduates of the university.

2. Vocational guidance work with schoolchildren. In order to ensure conditions for sustainable economic growth, development of import substitution and industrial potential of the Sverdlovsk Region, active involvement of employers in the process of anticipating training of human resources, effective realization of the creative potential of young people, the formation of a conscious choice of trainees for professional development in the Urals, "Ural Engineering School".

3. Participation in the development of professional standards and the development of an independent evaluation system for the qualifications of representatives of industrial enterprises. The Law on Independent Qualification Evaluation provides for the formation by employers' associations of a voluntary qualification assessment system for compliance with professional standards based on confidence in the quality of this assessment by the market.

4. Participation in the competitions of professional skill "Glory to the man of labor!", "WorldSkills", "Best practices of training, advanced training and retraining of workforce".

Conclusion

Taking into account the fact that the competitiveness of industrial enterprises is one of the elements of the country's economic stability, one can safely say that increasing competitiveness and investment attractiveness is a strategic task for any company. A solution of this task is possible due to a deep study of competitiveness and factors affecting it. One of the main factors of maintaining the competitiveness and investment attractiveness of industrial enterprises, as our study has confirmed, is the qualitative and quantitative conformity of human resources by enterprises needs. The formulated key proposals to meet the strategic needs of industrial enterprises in highly qualified employees are designed to help the country's industrial enterprises to solve the problem of the shortage of highly qualified personnel and ensure their flexibility in the current economic conditions.

References

- Bakalskaya, EV, & Kleimenova, EA (2017). Management of competitiveness of industrial enterprise. *Alley of Science*, 5 (16), 382-386.
- Belousov, V. V. (2008). Management of the competitiveness of an industrial enterprise. *Izvestiya of the Russian State Pedagogical University. AI Herzen*, (85).
- Donatovich C. (2016). High schools and enterprises should be by the partners. *Scholastic newspaper*. (13), 3.
- Gelens, J., Hofmans, J., Dries, N., & Pepermans, R. (2014). Talent management and organisational justice: Employee reactions to high potential identification. *Human Resource Management Journal*, 24(2), 159-175.
- Karamyshev, A. N. (2018). Analysis of Existing Approaches to Management of Industrial Enterprises. *HELIX*, 8(1), 2893-2897.

Kosyakova, IV, & Magomadova, TL (2011). Management of the competitiveness of an industrial enterprise taking into account the factor of eco-risks. Bulletin of Samara State University, (90).

Krishnan, T. N., & Scullion, H. (2017). Talent management and dynamic view of talent in small and medium enterprises. Human Resource Management Review, 27(3), 431-441.

Palmieri, Stefania; Amandolese, Daniela Edited by: Chova, LG; Martinez, AL; Torres, IC (2017). Innovation And Competitiveness Go Via Universities. Conference: 11th International Conference on Technology, Education and Development (INTED) Location: Valencia, SPAIN Date: MAR 06-08, 2017, 3081-3089.

Patel, A. S., Moake, T. R., & Oh, N. (2017). Employee Engagement for an Increasingly Educated Workforce. Journal of Personnel Psychology, 186-194.

Romanov O., Berg A., Matveeva, Я. A. (2017). Creation of competitive strategies of industrial enterprises from the standpoint of corporate social responsibility. The forecast of tendencies to economical and social changes, 138-152.

Romanova, AI (2007). Competitiveness of the enterprise: methods of evaluation, strategies for raising. Contemporary competition, (5).

Zhang, Jinglei; Sun, Sumei; Zhang, Shuchang; et al. Book Author(s): Lee, G (2014) Strengthen the School-Enterprise Cooperation, Create High-Skilled Personnel Training Base of the Leaders: Conference: 4th International Conference on Education and Education Management (EEM 2014). Volume: 65, 295-299.

Zhu, L., & Cheung, S. O. (2017). Harvesting competitiveness through building organizational innovation capacity. Journal of Management in Engineering, 33(5), 04017020.

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