

Strategic Concept of Competition Model in Knowledge-Based Logistics in Machinebuilding

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Abstract. A competitive labor market needs serious changing. Machinebuilding is one of the main problem domains. The current direction to promote human capital competition demands for modernization. Therefore, it is necessary to develop a strategy for social and economic promotion of competition in conditions of knowledge-based economy, in particularly, in machinebuilding. The necessity is demonstrated, as well as basic difficulties faced this strategy for machinebuilding.

Introduction

Current employer-employee relations demand for fundamental modernization. Machinebuilding is the most problem domain, where the symbiosis of contemporary model of industry development and its traditional form can be seen. Labor force of machinebuilding doesn't meet the challenges of current labor market. For correct and timely promotion of labor force competition in machinebuilding we need to redefine completely the current market of human capital competition in this area. A strategy of social and economic competition model in conditions of knowledge-based economy can be applied in order to promote labor force competition in machinebuilding.

Main body

The strategy of social and economic competition model in conditions of knowledge-based economy is to include various directions of economy development and has to contribute to stabilization of country positions at the world market. A number of serious transformations are to be made for this purpose (Figure 1).

The data in Table 1 make it evident, that the government has been increasing expenses on social policy of the country; therefore, revenues of this direction are to be controlled and raised.

The number of small and medium-sized businesses in the country is to be controlled over, because they, competing with similar companies, influence on competition at the domestic market. According to the information provided by Federal State Statistic Agency the number of small and medium-sized businesses is reducing. Therefore, it is necessary to develop this sphere, as well as machinebuilding, because this industry will have strong positions both in small and medium-sized business and influence on big business.

Similarly to the shortening number of businesses in the country enterprises suffer from demanning. Employers and employees have to pay much attention to research activities. It is of primary importance for machinebuilding because scientific and technical basis will provide both training of skilled personal, and designs needed by machinebuilding enterprises on the whole. Moreover, research will promote economy of the country on the world stage. It's also important that research is very valuable for Russia.



Our country sells raw materials only, and research will help Russia to be in the top countries of the world even in terms of raw materials depletion.

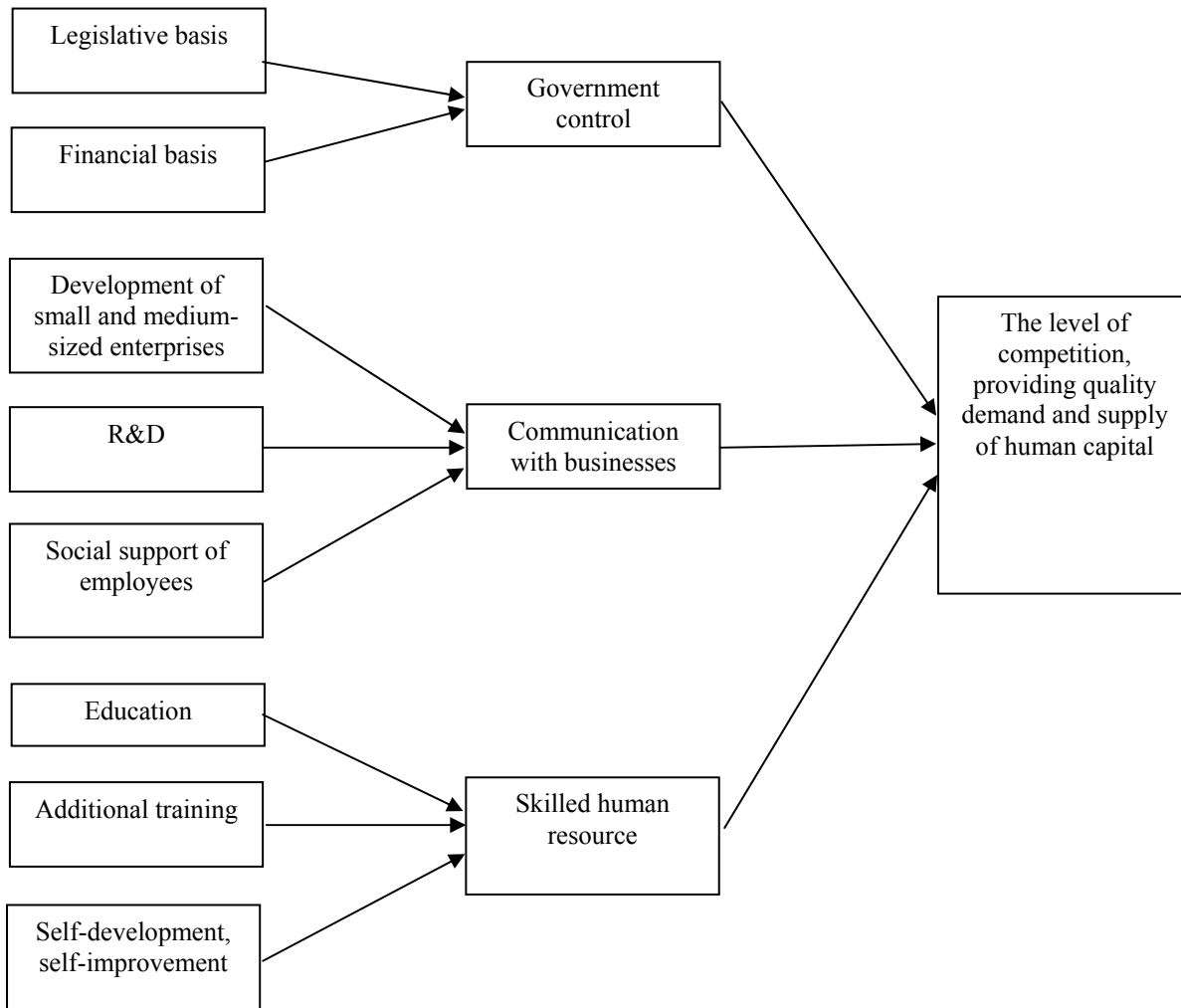


Figure 1. Development of competition level in conditions of knowledge-based economy

Table 1. Main indexes of current competition level in conditions of knowledge-based economy

Main indexes	2009	2010	2011	2012	2013	2014
Social policy expenses, milliard rubl.	310.905	344.944-	3128.5	3859.8	3839.1	1927.1
Small and medium-sized businesses, unit	69274	66574	63803	60260	58245	58959
R&D expenses, milliard rubl.	485.09	523.29	608.22	696.85	674.23	447.06

Main indexes	2009	2010	2011	2012	2013	2014
Education expenses, milliard rubl.	387.9	386.4	552.4	603.5	558.9	499.5
Social support of employees expenses, million rubl.	930.9	3370.6	3059.6	7824.0	8440.0	9092.0

After expenses on R&D rose they have been gradually reducing at the moment. This declining has a negative character, because the government spends less on research activities. Having considered the index of population scholarship a negative tendency has been also revealed over the last years.

First, the decline of University graduates with higher technical education is to be noted: 2010 – 1177.8 thousand people, 2011 – 1157.3 thousand people, and 2012 – 1125.3 thousand people [1]. Second, over the last years the expenses on education have been shortened.

One more important factor of competition development of knowledge-based economy is social support of employees, including those of machinebuilding industry. It is social support that will be an influential factor for a skilled employee of any branch; a person besides a salary, paid for his/her work wants to obtain additional compensation in form of social benefits for him/her and their family.

The government allocates funds annually aimed at social support of population. Expenses on social support of employees have been raised recently.

The general dynamics of current competition level in conditions of knowledge-based economy is shown in Figure 2.

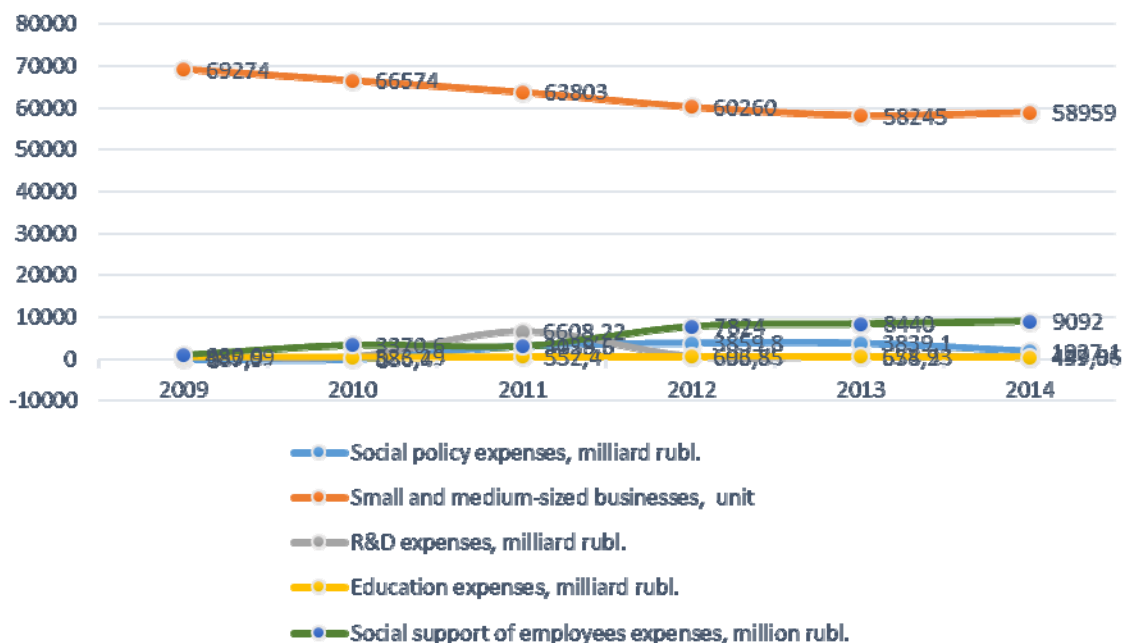


Figure 2. The dynamics of main factors of current competition level in conditions of knowledge-based economy from 2009 to 2014

All aforementioned statistics are relevant for forming competition level of human capital in the country nowadays; however, a social and economic model of competition is to be developed in conditions

of knowledge-based economy. The government has this model at present; it is subjected to constant transformations, but doesn't meet the requirements of human capital market.

So an optimal model is necessitated for social and economic control over competition in terms of knowledge-based economy. A number of revolutionary changes are to be made in this area of country's economy. Legislative and financial systems of the country are to be changed to form an optimal level of governmental control.

Legislative basis can be changed as follows to form governmental support:

- 1) The government considers and creates new terms and laws in the sphere of human resources development;
- 2) The government has to influence on financial basis to support competition.

If the mentioned above conditions are met the government will have a definite level of control over the level of competition, it will guarantee a correct regulation of human resources demand and supply, these recourses form the main capital of the country needed for economy development.

Then, communication with businesses is to be considered, that is relations to the skilled personal.

This stage involves possibility of creating additional interest of workers in the development of their enterprise. The government must not develop this model by budgetary means to encourage labor force, it has to motivate and demonstrate the necessity to implement this model for business development in the country.

The government has to pay much attention to deterioration; businesses must rely on the government and its support. We have already mentioned that the government has to appreciate the necessity and value of this support in spite of determining a common threshold for all businesses.

The governmental support aims at development of social economic and judicial conditions for increase in economic growing power of small and medium-sized businesses. In addition, we can say that governmental support is to include encouragement of businesses to train skilled personal through seminars and workshops, as well as through additional training at plants and in branches, which employees are interested in.

In any country businesses influence on its economy, and the level of the development of the country depends on that of businesses. This fact is of a primary importance for development of human capital competition, because the majority of employees work for these businesses.

To train new skilled personal the government has to take some measures for reforming the system of education in the country, adopting useful experience of other countries.

Moreover, the government has to encourage businesses for R&D. An employee starts suggesting his conditions for further work of the business provided that R&D is paid attention to at this enterprise. An employee will also get benefits of other businesses, which were supported by the government, so in this case the government has an indirect influence. The separation of an employee from the business can provide rather more possibilities. For instance, a separate sub-division, an employee is more independent, therefore, more valuable.

Considering social support of human resources in terms of their links with businesses we have to emphasize:

- Employers have had quite new attitude to motivation of employees to their work, it has been determined that personal is the main factor effecting on business success. Material encouragement of employee along with moral incentives is very important at present;
- The government has to promote the development of human potential at the enterprise.

Studying human resources in this context it is necessary to take into consideration abilities of a person (as an employee) for a particular business, for particular sphere.

Finally quality of human capital and its constituents are to be considered which influence on competition development. We start this consideration with the system of education of the country. The system shown in Figure 3 is applied at present.

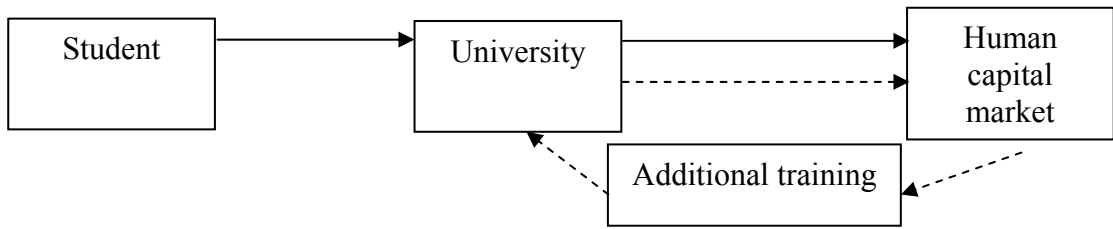


Figure 3. A wide-spread model of education

In this model a special attention isn't paid to the number of factors influencing on the educational process, although they are very important for the development of the system of education in the country.

We use additional factors in the model of the educational system of the country (Figure 4).

First, we have to keep in mind, who needs training: a student with no experience or a specialist with higher education, obtaining additional training. We also have to respect their wishes.

Second, a staff of the institution of higher education is to be focused on, as well as forms of student support. It is included in the process of education obtaining. A student can't be interested in obtaining of education anymore, he/she needs motivating.

Third, we have a specialist having particular knowledge, skills and practices, he/she can either have work experience or not.

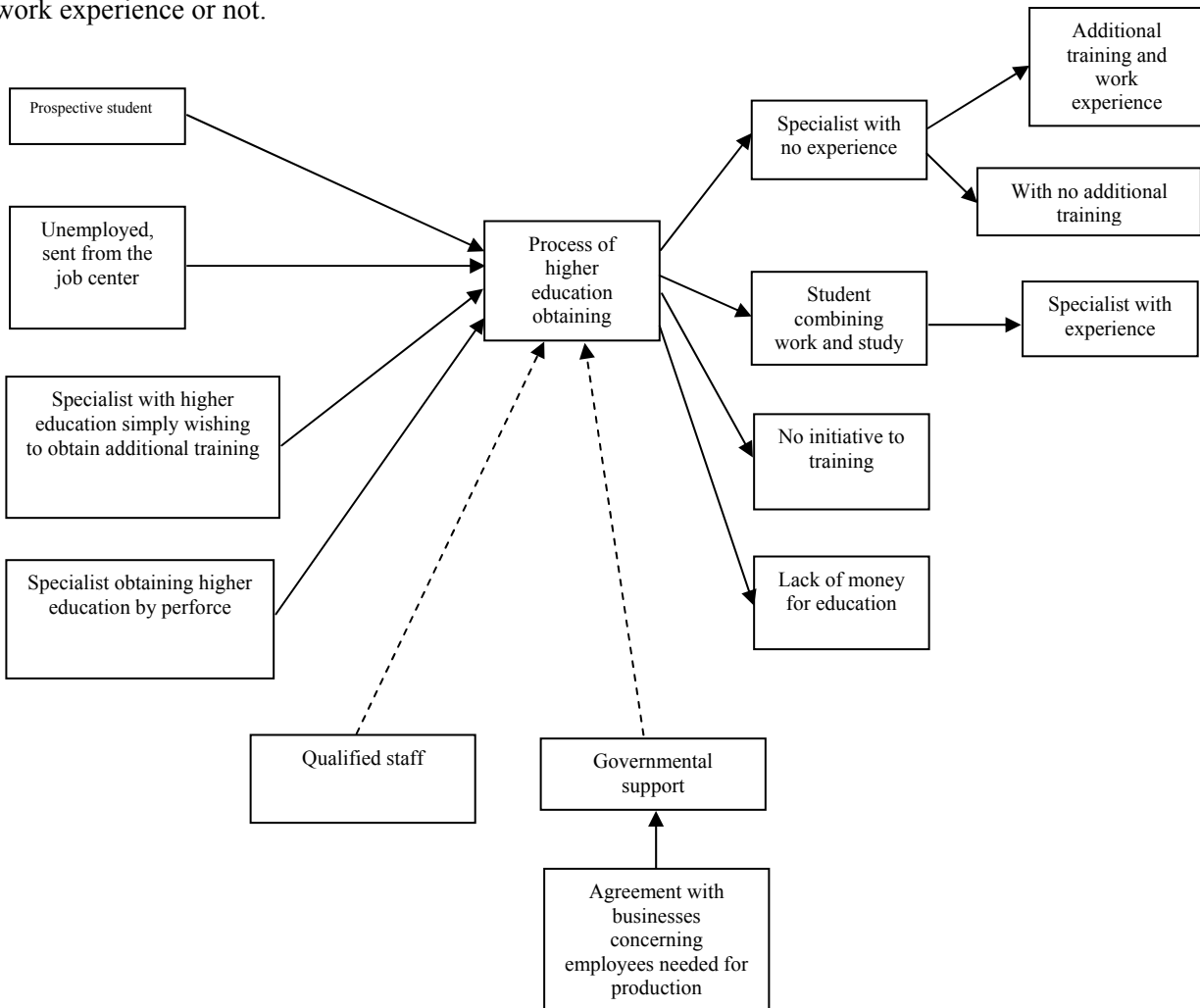


Figure 4. Model of education obtaining in details

Government support is a main component of this model; it is to focus on accessibility of higher education for everybody who wants to get it. However, we should give attention to the work of the government with businesses aimed at obtaining timely information on specialists needed for development of businesses.

It's also to say that a specialist with higher education but with no work experience isn't as required as a specialist with the same education and work experience. An exception is an age of the specialist. The older the specialist is, the harder is to save a place of work, because a business will get a new specialist who masters the specifics of work quicker and promotes the development of the business through providing it with innovations.

Additional training of a specialist is other factor of human capital.

The government and businesses have to encourage a specialist for obtaining additional training. We have to realize that a high level of knowledge and work experience an employee has is relevant for the development of our country's economy.

If a necessary level of additional training and work experience is provided, trained personal will influence on other employees. At this point competition of knowledge-based economy goes beyond the businesses.

The government has to promote development of research institutions, where research is carried out, new technologies are developed; it will be useful for industry and improve the level of specialist training in a particular branch.

In addition, the government has to give an employee wider opportunities and let him/her compete at the labor market. An employee can also be sent to more successful regions of the country.

However, self-development and self-improvement are the most important factors. As an employee wants to get new and productive knowledge he can obtain the sufficient qualifications in his sphere (self-development, improvement of own competitive ability in order to minimize risks of being unemployed or for making a carrier).

Self-development and self-improvement are the most complex factors of qualified human capital formation, an employee has to admit it and focus on self-development in his area. The businesses are to promote specialists and give him a possibility for self-development. The government, in its turn, is to provide conditions, opportunities for human resources development, obtaining self-education, carrying our research activities.

In conclusion, we can say that complete and comprehensive modernization of human resources market by the government doesn't cause changes at this market now, but in future. Difficulties resulted from modernization of the market of human resources arise in machinebuilding, because machinebuilding tends to use a traditional model of raw materials utilization and doesn't meet quickly the economic challenges of the country.

Nevertheless, competition is necessary for all market agents. A person investing in his/her self-development gets an advantage at this market and a business improves its competitive ability employing well-qualified specialists in their branches.

Conclusions

Quality competition at human resources market is a complex multi-component mechanism, the efficiency of its work depends on the governmental support. In machinebuilding industry improving of competitive ability is associated with scientific and technical progress, the importance of human resources isn't taken into consideration of general strategy of business development though.

This paper demonstrates the strategy of social and economic competition model of knowledge-based economy; its implementation will have a positive effect on the situation at human resources market. Therefore, positions of machinebuilding enterprises that apply it will be strong.

References

- [1] Volume and structure of revenues [Electronic resource]. – Accessed at: http://www.gks.ru/bgd/regl/b13_13/IssWWW.exe/Stg/d1/06-06.htm

- [2] Shvedova M.F. Structure of governmental support of small business: theoretical aspect of system approach: Fundamental research. 2012. № 9-1. pp. 135-139
- [3] Barbarskaya M.N., Rybalkina S.M. Development of the system for human potential management in an organization // Human resources: issues of innovative development and utilization: collected works / edited by I.P. Povarich. – Issue 2; Kemerovo State University. – Kemerovo, 2013. – pp. 25-31
- [4] Various statistical information on the budget of Russia in 2013 [Electronic resources] – Accessed at: <http://inance.ru/2014/02/budzet2013/>
- [5] Structure and dynamics of outcomes [Electronic resource] – Accessed at: <http://info.minfin.ru/fbrash.php>
- [6] Institutional transformations in economy. Big and medium-sized businesses and enterprises [Electronic resource] – Accessed at: <http://www.gks.ru/dbscripts/cbsd/dbinet.cgi>
- [7] Institutional transformations in economy [Electronic resource] – Accessed at: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/enterprise/reform/#
- [8] Specialists trained by state and municipal educational institutions in specialties and training programs in 2005 – 2012 [Electronic resource] – Accessed at: http://www.gks.ru/bgd/regl/b13_13/IssWWW.exe/Stg/d1/07-50.htm
- [9] Education in Russia [Electronic resource] – Accessed at: https://ru.wikipedia.org/wiki/%D0%9E%D0%B1%D1%80%D0%B0%D0%B7%D0%BE%D0%B2%D0%B0%D0%BD%D0%B8%D0%B5_%D0%B2_%D0%A0%D0%BE%D1%81%D1%81%D0%B8%D0%B8