

Health-saving culture as a factor of human capital reproduction at the enterprise

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Abstract. Health as an element of the human capital structure is considered in the issue, which is, in turn, is the basis for the formation processes of the intellectual and creative resources in the country. Factors and conditions of health protection services are analyzed. Factors of individual health-saving behavior are determined, and the necessity of health saving mental model formation in Perm region is proved. An attempt to identify functions and responsibilities for the preservation of the population health of all three subjects in the economic system: the state, firms, households is made.

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Introduction

The level of competitiveness of an innovative economy is currently defined, first of all, by the quality of the professional staff, the productive capacity of the labour force, expressed not only in the level of education, accumulated production experience, but in a state of health, psychological and physical qualities. In this regard the orientation of state policy for the preservation and strengthening of health of the working population on the basis of formation of a healthy way of life and improvement of working conditions is logically proved. Comprehensive programs for the protection and promotion of workers' health, implemented, in particular, at enterprises and in organizations play an important role in achieving the objectives mentioned above [1].

The phenomenon of health is multifaceted, it covers a complex of economical, philosophical, psychological, pedagogical, medical-biological and socio-cultural knowledge [2]. The creation of safe and healthy working conditions has a significant impact and is an important element of the quality of working life of the employees, as the human potential cannot be fully realized if the physical and chemical factors of the technological process at the enterprise are *unfavourable* and the worker feels fear and concern for his health and security [3]. The scope of health is definitely more than the scope of culture, which is a kind of "second nature" of the people. However, health without culture and without a specific philosophy, unlike nature, transforms into human provocative of the health ideas, it turns into savagery or barbarism against the dominant life value [4].

Body of the article

Human capital is a complex category of social reproduction, which has a system of structural-functional organization [5]. Human capital of the enterprise shall be determined by such factors as its movement within the enterprise, the causes of displacement, the level of employment of workers, the degree of use of the equipment, the availability of free, newly established and liquidated working places. Human capital at the enterprise level, i.e. at the micro-level in relation to the national economy, is an integral indicator that combines the aggregate characteristics of the quantitative parameters of the employees at the enterprise with the level of qualification and directions of specialization of individual employees. In addition to these components of human capital of the enterprise in the recent time, a psychophysiological status of the employee is of growing importance [6]. The fullest possible implementation of the individual's abilities, skills, their capacity is largely determined by the condition of his health. In connection with this, the health of workers is considered to be an integral and one of the important characteristics of the human capital of the enterprise. Health is not only valuable in itself, but also affects the period of accumulation and use of other kinds of human capital including education and experience [7].

Today considerable resources - both the state and the employers and the employees themselves - are directly or indirectly invested in the development of human capital of the region in general and businesses in particular. The results of the studies, which were carried out in 2008-2010 at a number of industrial enterprises of Perm region are presented in Table 1.

The results show that the maximum share of expenditure on human capital accounted for workers'

education (training), annually enterprises spend on average in this direction 0.08% of gross income. The rate for the period from 2008 to 2010 year increased from 0,059% to 0.08%. The next items of expense in accordance with the rate of their importance for the reproduction of the human capital are the costs of purchase of vouchers for health improvement (0,078% and workers' medical care (0.06% in 2010).

Table 1. The actual expenditures of industrial enterprises of Perm region on the development of human capital, percent of revenue

The name of items	2008, %	2009, %	2010, %
1. Labour protection (personal protection)	0,034	0,03	0,03
2. Labour protection (fat nutrients: milk, yogurt, juice)	0,004	0,003	0,004
3. Health care of workers	0,043	0,06	0,06
4. Preventive inspection	0,014	0,019	0,02
5. Expenses on social sphere incl.	0,236	0,233	0,261
5.1 Purchase of vouchers for health improvement	0,059	0,074	0,078
5.2 Certification of workplaces and labour conditions	0,014	0,015	0,016
5.3 Payments of medical certificate	0,075	0,053	0,052
5.4 Services on the meal organization	0,001	0,001	0,001
5.5 Cultural and sports events	0,002	0,003	0,003
5.6 Financial assistance	0,025	0,023	0,019
5.7 Training	0,059	0,062	0,08
TOTAL	0,298	0,316	0,377

Steady growth of expenses on reproduction of the human capital can be called a positive tendency in the dynamics of expenditure on human capital, however, the share of expenditure remains at a rather low level. This testifies to the fact that expenditures on education and health maintenance of the industrial enterprises in Perm region are shifted to a greater extent to the workers, as the state or the employer is not always able and willing to pay these costs in full [8]. As it has already been noted, the health status of the employees at the enterprise is also a factor affecting the accumulation of human capital, and investing in the health of workers is an important part of the investment in the human capital of the enterprise [9].

As can be seen from the Table 2, the number of working-age population in Perm region with the passage of time is reduced, and the share of persons older than the working age, on the contrary, increases. This can be described as negative trend for the development of the regional economy, because the labour potential of the region is declining, while the number of pensioners, which shall be ensured by the state is growing. Investing in people in this case will be more profitable, if it will be made in perspective part of the population, who will do the return on investments over time. This age ratio is connected with low birth rate, as well as with insufficiently level of the health system quality.

Such an integral part of human capital as health has the property to deteriorate, each year a person loses a part of its stocks of "health capital". Taking into account high proportion of people of the

senior age, special attention to maintaining the health of the nation needs to be paid, to help people to carry out their productive activities as long as possible.

Table 2. Dynamics of expenses on the maintenance of health

Health	2008	2009	2010	Abs. change 2008-2010	Percentage change 2008-2010
working-age population (thousand people)	1671,57	1649,17	1606,4	-65,17	-3,90
population older than working age (thousand people)	561,8	563,2	570,9	9,10	1,62
Expenses on medical services (per cent of the total structure of expenses)	1,0	1,2	1,5	0,50	-
Expenditure on health care services (per cent of the total structure of expenses)	0,4	0,4	0,5	0,10	-

As it can be seen from the Table 2 spending of population on medical services is constantly increasing, which suggests that the quality of the population health is decreasing and people more and more need medical assistance. At the same time expenditure on health improvement and sanatorium services are rising constantly, however with at a slower rate. Partly it can be explained by the high cost of these services, not every employee is able to afford them, and the state and the enterprise pay only limited number of these services, as a rule. Consequently, maintaining the health of working population in Perm region is a great problem. Much money is spent on treatment, but insufficient attention is given to prevention of health. This situation negatively affects the accumulation of human capital and even leads to its loss.

In modern conditions the health of the worker becomes one of the dominant factors for achievement of high economic results. According to the results of the poll, conducted by the American Institute of Public Opinion, only 25% of employees are working at full capacity. About 55% are working at half capacity. The remaining 20% «actively oppose» operation. The loss resulted from their presence at work is estimated in trillions of dollars [10]. This is the result of constant stress of workers, malaise, poor health at the workplace. In 1987 in Japan the Council of the protection of "karosi" victims was organized (the Japanese term «karosi» translates as «the death of the abundance at the workplace»). According to statistics ten thousand people in this country die yearly from karosi. According to the results of studies the reasons for this are:

- excessive length of the working day and the lack of facilities for recreation and rehabilitation;
- night-time work;
- work without holidays and breaks;
- work under high pressure without interruption;
- physical labor intensity and work in conditions of permanent stress [11].

After the analysis of expenses for the reproduction of human capital from positions of preservation of health is advisable to explore the impact of such investments to human capital. In this work the increase of gross regional product per worker engaged in industrial production will be considered as return on investment in human capital (Table 3), after that we can compare the dynamics of GRP growth with investments in human capital.

Table 3. Dynamics of GRP of the Perm region and investment in human capital

Indicator	2008	2009	2010	Abs. change 2008-2010	Percentage change 2008-2010
Gross regional product, mln rubles	607362,7	544541,3	630755,5	23392,80	3,85
GRP per capita, thousand	223,46	201,09	234,92	11,46	5,13
GRP per 1 employee, thous. rubles	458,77	418,07	478,42	19,66	4,28
Investments in education, thous. rubles	2,7	2,6	3,8	1,1	41,4
Investments in preservation of health (occupational health and safety, medical care, etc.), thous. rubles	2,1	2,6	3,0	0,9	42,0

Thus from the table we can see the disproportionate growth of the investments in the human capital of the enterprises and the gross regional product. With the growth of GRP per 1 employee by 5.13 % in the period from 2008 to 2010, investment in education increased by 41.4 %, amounting to 3.8 thousand rubles on the person in the middle, and investments in preservation of health increased by 42%, and in 2010 it amounted to 3 thousand rubles per person, which determines the necessity of finding the internal reserves for increase of the human capital at the enterprise without involving direct investments of the enterprises in the growth of educational level of the employees and to the preservation of their health.

Conclusions

Health protection culture can be considered as an alternative to the health threats from all possible sources in one way or another connected with the labour process. Criterion of health-protection qualities of the labour process in providing protection from pathogenic factors is the presence or absence of a deterioration of workers' health, which is in apparent connection with the impact of such factors. If you restrict the work of the enterprise in the sphere of health protection only with the minimum task - the protection of the worker against the harmful effects – in this case only a small part of the labor potential of the enterprise will be involved in the interests of the health of workers. This approach in our opinion does not meet the strategic principles of health protection and does not lead to the achievement of the objectives of the system. Efforts in this area should not only be limited by filtering impacts directly

associated with the labour process. In accordance with this conclusion the understanding of health-protection culture appears to us to be the “task of optimum”, including solution of the “minimum task” as well as formation of physical, mental, moral health, education of culture health, effective motivation for maintaining a healthy lifestyle of workers. In this case the definition of health-saving technologies as a set of technologies created not only to protect the health of employees from the adverse negative impacts of factors of the industrial sphere, but also to promote the education of workers of culture of health seems more correct.

Summary

The country's economic development is impossible without rational management of public health as a key economic resource in the innovative economy, the economy based on knowledge. Health management can be realized both through investments in it, and through the formation of the appropriate level of health culture at the level of the individual and at the level of the enterprise or the state. From the point of view of the modern economy, we can conclude that in the short term to a greater degree, the responsibility must rest with the enterprise, forming the basis for the implementation of health policy in the framework of the new mental model, in which health-supporting culture should become one of the elements of economic culture, and health-saving will be one of the dominant values of the modern Russian society.

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