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Modelling of increase in intellectualization level of employees labour

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Abstract:

The introduction and development of technologies into the production of information and communication lead to accelerating the processes of intellectualization of labour in Ukraine. Increased disparities in innovative development, downswing in production and capital investment, decline in real wages are accompanied by an increase of salary level of computerization jobs and increasing use of Internet technologies in administrative activity in Ukraine. In this connection there is a need to investigate the methods, models and tools for improving the intellectualization of the labour in the conditions of such imbalances.

The purpose of the article is to develop the scientific and methodological approach to modelling the increase in intellectualization level of employees labour in accordance with the modern trends of the economic development in Ukraine. It is shown in the article that for the achievement of the efficiency of industrial enterprises in a wide spread of information and communication technologies, as well as constant updating of software products it is essential not only the presence of employees with certain knowledge, skills and experience but also their constant self-education and development.

The need to process large volumes of data using universal and specific software systems and applications requires constant development of the sphere of competence of specialists or improvement of intellectualization of the labour. Increasing the intellectualization of the labour reduces the complexity of certain operations by speeding up their implementation simultaneously reducing the labour costs. Acceleration of the basic production processes by increasing intellectualization of the labour must fully compensate for downtime during trainings. The effective system of motivational payments provides such compensation.

Specific traditional businesses material incentives do not account for the transformation of the content and nature of work, which takes place in the process of intellectualization. Consequently, the stimulating effect of motivational payments is not enough to improve the efficiency of labour. Decision-making and ensuring their effectiveness in the process of management of the labour intellectualization

requires such a distribution of the number of employees in terms of intellectualization, which would ensure the maximum return on the accepted motivation at the enterprise. Achieving this is possible by formulating and solving mathematical programming problems choosing the optimal number of employees distribution by intellectualization categories, which would ensure the maximization of the number of operations performed for a fixed wage fund or minimize payroll for a given volume of transactions. Statistical evaluation indicators have been received during the timing of work and performance of employees of various categories of labour intellectualization. In the article the model of optimal (mathematical) programming of employees distribution according to the level of labour intellectualization at enterprises has been justified and implemented.

Keywords: intellectualization of labour, modelling of increase in intellectualization of labour at enterprises, intellectualization level of labour, model of employees distribution according to level of labour intellectualization. JEL: J24, D290.

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