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OPTIMIZATION METHODS OF RESOURCES FORMATION OF ENTERPRISE INDUSTRIAL ACTIVITY

Introduction. One of the most important tasks of improving production-economic systems is to increase the efficiency of the functioning of economic objects and achieve high, final results of the activity on the basis of the rational use of resources of the industrial activity of the enterprise. The main purpose of resource management for enterprises is to optimize them. It is important to determine the optimal need for resources and to ensure the structure of the sources of its formation and use for the effective functioning of an individual enterprise.

Purpose. The purpose of this work is the analysis of the formation and using of enterprise resources problem, finding the ways to improve management efficiency, maximizing company income by minimizing the purchasing materials costs from different suppliers and by optimizing the volume of orders that may be accepted by the company in the planned period.

Results. Resource potential optimization of enterprise involves determining the necessary volumes of available resources and their rational correlation in the process of economic activity for obtaining the maximum result in the form of income. Enterprise plans its activity for a certain period. It receives a certain set of offers from potential customers and decides which of them perform in order to get the highest financial result under available production capacity. Applying economic and mathematical models of production activity optimization of enterprise, we see that it is expedient to introduce a constraint that would ensure that the difference between the price of the order and its cost for the firm was not less than a certain limit value. If this difference is less than a certain threshold, the company is willing to refuse to execute such an order. One model is a linear problem of mathematical programming, which is intended to facilitate the organization of the acquisition of productive material resources from different suppliers with the least possible cost. This takes into account the provision of the necessary for the enterprise at present, the number of different types of materials and the available volume of each type of material from different suppliers.

Conclusions. With the help of economic and mathematical methods, we get deeper knowledge of the quantitative and qualitative aspects of the functioning of an economic object. Strategic decisions that affect the future enterprise profits should be taken in accordance with mathematical calculations and statistical analysis. Mathematical methods are often used in economic research.

***Keywords**: enterprise, production activity, resources, economic-mathematical modeling, optimization.*

References:

1. Habor, V. S. (2011), "Features and problems of using agricultural resource potential", Innovatsijna ekonomika, vol. 1, pp. 232-235.

2. Kapinos, H. I. Babij, I. V. and Hrabovs'ka, I. V. (2009), Orhanizatsiia ta planuvannia vyrobnytstva [Organization and production planning metod], KhNU, Khmel'nyts'kyj, Ukraine.

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3.   Mammon, K. A. (2009), *Konspekt lektsij z dystsypliny "Ekonomiko-matematychne modeliuvannia"* [Summary of lectures on discipline "Economics and Mathematical Modeling"], KHNAMG, Kharkiv, Ukraine.

4.   Novyts'ka, S. S. (2012), "Financial resources as necessary tools for improving the efficiency of the enterprise", «Dni nauky - 2012», Publishing House, Prague, s.o., p. 72-73.

5.   "Optimization methods and models" (2012), available at: http://qps.ru/DldPp (Accessed 3 April 2018).