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Industrial integrated structures as robinson crusoe economies
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Abstract: A model, formulated by the Lausanne school of economics in the 30s of the XX century and known as the economy of Robinson Crusoe, forms a compulsory course in microeconomics at various universities of the world. Though it basically corresponds to the pattern of vertically-integrated system, it was undervalued by the industrialists. Keeping in mind that when the economy of Robinson Crusoe is in a state of equilibrium, a graph of the consumer indifference curve touches a graph of the manufacturer's production function in the point, which reflects the maximum of company profit, the analysis of operating efficiency of the system on the whole can be carried out by studying the operating mode of the producer of good only. To adapt the classical model of Robinson Crusoe economy to the modern conditions of company operation it was offered to use a single-factor production function with an argument in the form of multi-resource equivalent (MRE), which is a hypothetic resource, combining the inputs of labour, electrical energy, fuel, materials, etc. and having the entire cost, which is equal to the entire company expenses. Based on the analysis of profit fluctuations of coal mining enterprises (coal mines), which have various production characteristics and operate in various market conditions, a conclusion is drawn that the worse the operating conditions of the coal mine are the more intensive its production load should be to make it more cost-effective. At the same time, coal mines, working in favourable operating conditions, need to limit their production load. It is worth to use the developed methodology to analyze and substantiate the methods of improving the operation of vertically-integrated systems in the sphere of coal washing, coke chemistry, metallurgy, power engineering and other branches of industry. At the same time, its introduction into practice requires further study of company production functions.

Keywords: Robinson Crusoe economy, integrated structures, industry, model, the Lausanne school.

JEL code: D5.

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