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VERIFICATION OF THE PRODUCTION STRUCTURE EVOLUTION MODEL OF INDUSTRIAL ENTERPRISES USING CLUSTER ANALYSIS

Abstract:

The article is focused on identifying patterns of organizational development of industrial enterprises on the example of the Czech Republic and verifying the applicability of the developed theoretical model of the evolution of the production (operational) structure of organizations in the real sector of the economy. The proposed production (operational) structure evolution model (PSEM) is based on the hypothesis about the existence of two basic types of production (operational) structures – sequential and parallel. In the process of growth and development of organizations, these structures dialectically replace each other, moving to a qualitatively new level of development. Within the framework of this article, the objects of the study are enterprises of the metallurgical industry (NACE codes 24.1, 24.2, 24.4 and 24.5) located on the territory of the Czech Republic. Cluster analysis was used as the main research method. The results of the study generally confirmed the hypothesis put forward about two basic types of organizational production (operational) structures and the theoretical model of PSEM. A comparative analysis was also carried out with the previously obtained results of a study to verify the model of the evolution of the production (operational) structure of enterprises producing equipment for vehicles of the Czech Republic. The comparative analysis has shown that, firstly, the proposed theoretical model of PSEM for the selected industries is the same. Secondly, a comparison of the set of indicators used in the model of PSEM of organizations in the real sector of the economy for two different industries showed their significant coincidence.

Keywords:

Industrial enterprises, Metallurgical industry, Organizational development, Cluster analysis

JEL Classification: C10, C38, C52