

THE MODEL FOR ASSESSING THE COMPETITIVENESS OF HIGH-TECH ENTERPRISES ON THE BASIS OF THE FORMATION OF KEY COMPETENCES

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The article proposes a model for assessing the competitiveness of high-tech, innovative and active enterprises in the space industry, taking into account competitive advantages based on the formation of key production competencies. The specifics of the application of dynamic models for the analysis of the competitiveness of innovatively active enterprises were specified: the parameters of the necessary dynamic models that take into account the diffusion of competitiveness indicators based a linear differential system. The article proposes a model for evaluating the dependence of competitive advantages on competencies: the dynamic model is based on equations with a lagging element that reflect the non-linear and time-lag nature of the impact of competencies on innovative technologies that directly affect competitiveness, and allows taking into account different variants of dependence with a time lag. An algorithm for multi-criteria rating evaluation of the effectiveness of using the innovative potential of a high-tech enterprise as a source of organizational and production competencies was developed. The article developed a multi-level hierarchical structure of competitiveness indicators: the application of the method of forming criteria weights based on the production rules of aggregating object evaluations and the method of approximation of the matrix of pairwise comparisons of objects of the multiplicative matrix for estimating the error of the decision obtained by the analytical hierarchy method is substantiated.

The formation of innovative potential indicates the presence of appropriate organizational competencies for its management. The multifactorial nature of the proposed model for evaluating innovation potential allows to assess the contribution of influencing factors to the overall results, while a comparison of factors for different enterprises allows to identify the leader. Thus, the model allows to solve several tasks in the field of competence management: to assess the overall level of development of innovation potential as an integral criterion of competence in the field of innovation and knowledge management; to identify the strengths of the enterprise and the risks associated with the management of innovative potential. The factors included in the model can be used as resources to ensure the achievement of high results, which corresponds to the «resource theory» of enterprise activity. In addition, the proposed model allows to compare objective quantitative indicators of competitors and identify key competencies and their carriers, whose impact on competitiveness is the most critical and important. The result of this stage is the local and global coefficients of the importance of the criteria at each level of the hierarchy. It was proposed to evaluate objects in the original (qualitative, quantitative) scales according to private indicators, their normalization and aggregation of evaluations according to the global criterion is performed by several aggregation mechanisms depending on the initial data, and an integrated approach to the aggregation of evaluations of innovative competencies of high-tech enterprises.

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