Long-Term Assessment of Engineering Enterprise Product Technological Competitiveness

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Abstract

This article is devoted to the development of a method of long-term assessment of technological competitiveness of enterprises taking into account the indicators of the absolute and specific technological value of mechanical engineering products by areas of manifestation and using a scenario approach. The technological competition that exists at the macro, meso, and micro levels of the economic system improves the solution of economic and organizational development problems and strengthens the market position of machine-building enterprises. Economic-mathematical modeling is carried out by combining asynchronous elements of situational modelling and features of Seidel's method as the most effective way of modelling technological competitiveness of products, companies and clusters in the national system of competitiveness as a complex system. The outlined combination makes it possible to obtain combinational equations at all stages of the iteration, as well as to form alternative calculations that describe the state of the finite elements of the state in cases of statistical and other disruptions and changes during the implementation of a particular scenario. This allows us to identify critical elements of the effect of increasing technological competitiveness. The results of the research will allow machine-building enterprises to assess the prospects of technological competitiveness of products based on absolute technological cost and specific technological cost in the areas of its manifestation.