NOVE METODE LAKOG RACUNANJA U REGIONALNOJ STRATEGIJI RAZVOJA

NEW METHODS OF SOFT COMPUTING IN REGIONAL DEVELOPMENT STRATEGY FORMATION

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Summary

An urgent necessity in the socio-economic regional development strategy specification is grounded for the purpose of reconstructing and adjusting the TEA (Types of Economic Activity) structure, which is able to speed up the development of GRP (Gross Regional Product), GS (Gross Surplus) per capita and steadily grade current inter regional differentiation and asymmetry. To reach the target a special Soft Computing algorithm has been created.

The issues of asymmetry and unequal regional development, striking differentiation are under consideration in numerous publications on the subject. New approaches to the development of reproducing different structural types in the framework of the intensive growth and inter regional leveling of added value creation per capita are not founded, a driving force algorithm, which might be oriented to fulfilling the task as a stable way practice, haven't been proposed yet. In general the terms of the task lie in the following: to formulate the algorithm of defining envisaging the constituents and dynamics of tempo and proportions meeting the demands of the relevant regional conditions of various forms of economic activities which provide a necessary scale of the market actors' participation in the reproduction process, to increase the output of the added value per capita. It can also be proved that the deviation of the predicted values on the analogous values elaborated by the classical trend models can be an important criterion of the regional development efficiency evaluation which had been already calculated for the regional development strategy by the classical trend models. It is suggested to consider the referred issues and make calculations on the data of Chernivtsy region of Ukraine. A new method of modeling a regional strategic management based on the SoftComputing is constructed in the investigation. Unlike classical approaches, which mainly use an expert analysis, it allows maximizing the economic impact and conducting a quantitative analysis of the proposed strategy. On the example of the selected region it was proved that the present economic system was not self-organized and it required an efficient public management. If the regional management strategy is not optimally chosen then in the system some uncontrolled fluctuations can be observed, that may lead to the economic crisis and the "collapse" of the economy system. There are mathematical models of optimizing strategies building. Three types have been constructed and their effectiveness has been quantitatively researched. It is proved, that the dynamic management strategy with the maximizing of the objective function at the end of the period under investigation, turned out to be

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the   most
effective. It is established that public administration which is based on a scientifically grounded quantitative approach, using advanced mathematical models of Soft Computing, allows building a strong economic foundation, which will be the basis for a further rapid growth of the regional economy. Unlike the current practice it is proposed to complete the expert approach to prioritizing strategies in the socio-economic development of regions with some objective quantitative methods.

Keywords: Socio-economic development, public administration, quantitative approach