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COGNITIVE MODELING OF REGIONAL DEVELOPMENT
BASED ON BRAND-ORIENTED PUBLIC MANAGEMENT

The article deals with cognitive modelling approach to regional development providing. Theoretically it is based on the objectives of brand-oriented public management in terms of market-oriented relationships building.

Purpose of the paper is to explore the theoretical basis of regional development cognitive modelling as an effective instrument of public administration, which is oriented on the support and promotion of regional brands.

The cognitive approach to regional development modelling and managing is aimed at formal models and methods forming. Such models are widely used during the intellectual process of problem solving. The cognitive ability (perception, representation, cognition, understanding, explanation) of management subjects into management problems solving process.

It is determined that cognitive modelling allows investigating the region by building reliable forecasting scenarios. Cognitive modelling methodology helps local managers to solve the problems of regional development and determine predictive value of indicators for each sphere of regional development without any intervention of administrative bodies.

Cognitive models are composed by expert or expert group in a given subject area. They are based on theoretical, statistical, expert and other information about the object of study. It is considered that the adequacy of the model is determined by completeness of initial and gathered knowledge base. The model can refined during the process of study and application acting by itself as the source of structured knowledge.

Thus, the cognitive model is a generalized structure of knowledge, a formalized graphical representation of links between the concepts (conceptions, factors, indicators) of regional development.
Overall the article presents an approach to cognitive modelling of regional development in the context of their competitiveness increasing through brand-oriented management providing. It is formalized process of the regional development strategy developing on the basis of brand-oriented public administration in order to transfer situation in the field of regional benefits formation from the current circumstances in targeted conditions in terms of uncertainty. Cognitive modelling allows local authorities to investigate the regional system by certain forecasting.

From this position, cognitive modelling of regional development involves a number of analytical and computing operations, according to the algorithm which includes several stages of research, each of which ends with obtaining results that are presented in a certain form of reporting.

The article accordingly describes the main stages of the regional development simulation or modelling. These are:

1. Cognitive-targeted and structured knowledge base about the tested object (regional system) and the external environment using advanced PEST- and SWOT-analysis.
2. Building a complex cognitive model of the regional system as an object (formalization of knowledge gained during cognitive structuring).
3. Scenario researching of development trends.
4. Working out strategies of situation around the object of managing.
5. Modelling and simulation of a conditions and figures for regional system future development.
6. Correction of model during brainstorm and collective discussion.
7. Finding and grounding of strategies for achieving the targets in unstable situations or situations which are changing.
8. Formation of the program for the development strategy of regional system implementing through simulation modelling.

The form of results presenting at the each stage of the regional development simulation is described.
An article also presents a schematic approach to regional development cognitive maps building. The basis for the scheme is structuring of cognitive-targeted knowledge about the object, the local and internal environment. The purpose of this structuring is to identify the most essential (basic) factors – concepts, which characterize the interaction between object and environment and identify qualitative causality between them, namely the mutual influences between the concepts in the process of their nature changes.

As a result of such summarized schematization, due to considering the approach to selection of target concepts, the common cognitive map is compiled. This cognitive map of regional development shows the variants and vectors of influence of concepts’ set on a target concept. In the context of this research chosen target concept is competitiveness of the region through advancement of its brand.

The scenarios for guided and controlled development of the region are compiled through the use of cognitive maps by local authorities.

It is proved in the article that the use of communicational and cognitive technologies at the studying of regional systems is an alternative to traditional research instruments. But their using is complicated when it comes to complex, unpredictable semistructured objects. And the region can be attributed to that.

**Key words:** public management, cognitive modeling, regional brand, competitiveness, regional development, concept.