УДК 352.075.1:342.553 (571.13)

REORGANIZATION OF AUTHORITY WITH APPLICATION OF THE AUTOMATED SYSTEM FOR SUPPORT OF DECISION MAKING

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At the present time in practice of municipal management there isn't the whole concept of acceptance of the decisions about socio-economic development of municipal formation (MF). In connection with this point the problems of acceptance of the valid administrative decisions about socio-economic development of territory have the important economic meaning. So it's possible to offer to change the organizational structures of authority. This changing will consist in application of new structural division – department of strategic development. In a basis of experts' activity in this department will lay: 1) use a complex of heuristic models, which will promote systematization of analysis process of the factors in external and internal MF's environment; and this analysis can significantly affect the accepted decision; 2) formation of priority directions of territories' development with an allowance the opinions of all interested subjects; 3) achievement control of a target strategic condition of MF's development.

The complex of heuristic models consists of:

1) Estimation model of the socio-economic territory's development on the basis of a method of the pairwise comparison allowing to estimate a level of territory's development on parameters, which not having of universal measuring properties. Thus as against existing practice simple objects' ranking, the degrees of membership alternative to an estimated level of development are calculated;

2) Estimation model of the socio-economic territory's development with use the statistics allowing to formalize subjective estimations of the living standard, needs and expectations from the position of population. Thus the data processing of sociological interrogations is supplemented by modeling of smooth change of accessory the concrete meanings of a parameter to an estimated level;

3) Estimation model of the socio-economic territory's development with use the experts' estimations the parameters of standard functions allowing to formalize qualitative experts' judgements about quantitative parameters of socio-economic territorial development. As against the accepted practice the designation of threshold meanings, the experts' confidence in real, expected or preferred meaning of a parameter is taken into account;

4) Integrated estimation model of strategic territory's development allowing to receive a complex estimation of progress the territory to target reference point of development. This model enables to see the change of a socio-economic situation, to compare the integrated estimations of territories' development and also to carry out monitoring efficiency in realization the strategy of settlements' development;

5) Model of the strategic analysis raising quality and validity of administrative decisions in conditions of informational insufficiency and incompleteness, uncertainty of the factors in external and internal environment. They allow to bring systematization to process of decisions making, to increase opportunities of the person accepting decisions, to perception complex multifactor information. In contrast to typical methodology realization of SWOT-analysis, the heuristic models enable to make comparison of the importance factors the external, internal

environment and their combinations on the basis of heuristic experts' judgements and estimations.

The application of an above named complex of heuristic models will enable to forecast, what negative consequences can arise at realization of this or that decision. These models allow adequately to characterize the factors of socio-economic MF's development of a various orientation (industrial, financial, cultural, social etc.). But it's necessary to take into account that fact, that at their practical use there are problems: the models are enough difficult for understanding of their essence by the users; the process of decisions making about socio-economic territorial development demands the information collection and processing of large volume of the statistical and expert information. Moreover, the methods and models of the theory indistinct multitude demand also realization of difficult calculations.

In view of difficulty of use the complex of heuristic models and dimensions of necessary calculations, the introduction and maintenance each expert in the department of strategic development by the automated system ensuring support of decisions making on socio-economic territorial development is expedient. The main task of creation this system is the elaboration of a universal remedies realizing a complete collection of offered models decisions making and allowing to automate functions of the expert at stages of the collection and processing of the quantitative data, formalization of qualitative experts' estimations, realization of calculations.

Structure of system includes three main components: a subsystem of the data, subsystem of models and subsystem of the software. A subsystem of the data – complex current or historical data organized for easy access to areas of application. A subsystem of models – complex of the mathematical and analytical models, which can be made come-at-able for the user. The subsystem of the software provides simple interaction between the users of system, database and reference variant. She manages of the creation, storage and restoration of models in an exemplary basis and integrates them with the data in a database.

The developed system consists of four blocks: the block of mathematical models and methods of decisions making, block of the entrance data (database), program block, block of exit data (results of calculations). The structure of interrelation the system's blocks regarding the support of decisions making about socio-economic MF's development is submitted on a figure 1. She represents interaction between components of system.

The interaction of models and program modules is defined depending on tasks and stage of strategic management of socio-economic development of MF. So, for example, module «Monitoring of parameters of development» warrant for formation of experts' judgements about dynamics and tendencies of development. The module «Formation of an experts' commission» allows to solve the problem of selection the most competent experts, to calculate the importance of the experts, to estimate a coordination of group estimations. The results of job in this module are used in all other modules. The module «Indistinct experts' estimations of socio-economic development» allows to realize the calculation of membership functions of indistinct multitude, using models of pairwise comparisons, statistics and standard functions. The results of job in this module have independent value (because the received functions of membership reflect a desirable condition of the factors of socio-economic settlements' development). Also they are the entrance data for modules of the SWOT-analysis of MF and integrated estimation of development. The module «SWOT-analysis» uses the data of the module «Indistinct experts' estimations of development» for description of opportunities, threats, strengths and weaknesses of MF. Besides, on the basis of indistinct linguistic models and method of an indistinct deductive logic conclusion

it realizes the calculation the meaning of opportunities (threats). The results of job of this module are used at a stage of the strategic analysis. The module «Integrated estimation of territorial development» allows to expect integrated estimations, which can be used as the tool of the control of performance of the strategic decisions on settlements' development.

Let's consider, what contribution will bring the automated system ensuring support of decisions making on socio-economic development of MF to activity of legislative authority. According to a figure 1 in system there is an analytical database, which provides accumulation and storage of the data on parameters of socio-economic development of MF and major companies. The information with monthly, quarter and annual periodicity is structured in a database according to the list of socio-economic parameters, which averages about 1800 positions. The database has the following properties: an opportunity of integration the data from different sources; an opportunity of transformation the parameters units; an opportunity of a storage the settlement parameters for acceleration of their representation to the users; the task of various periodicity of the facts (month, quarter, year).

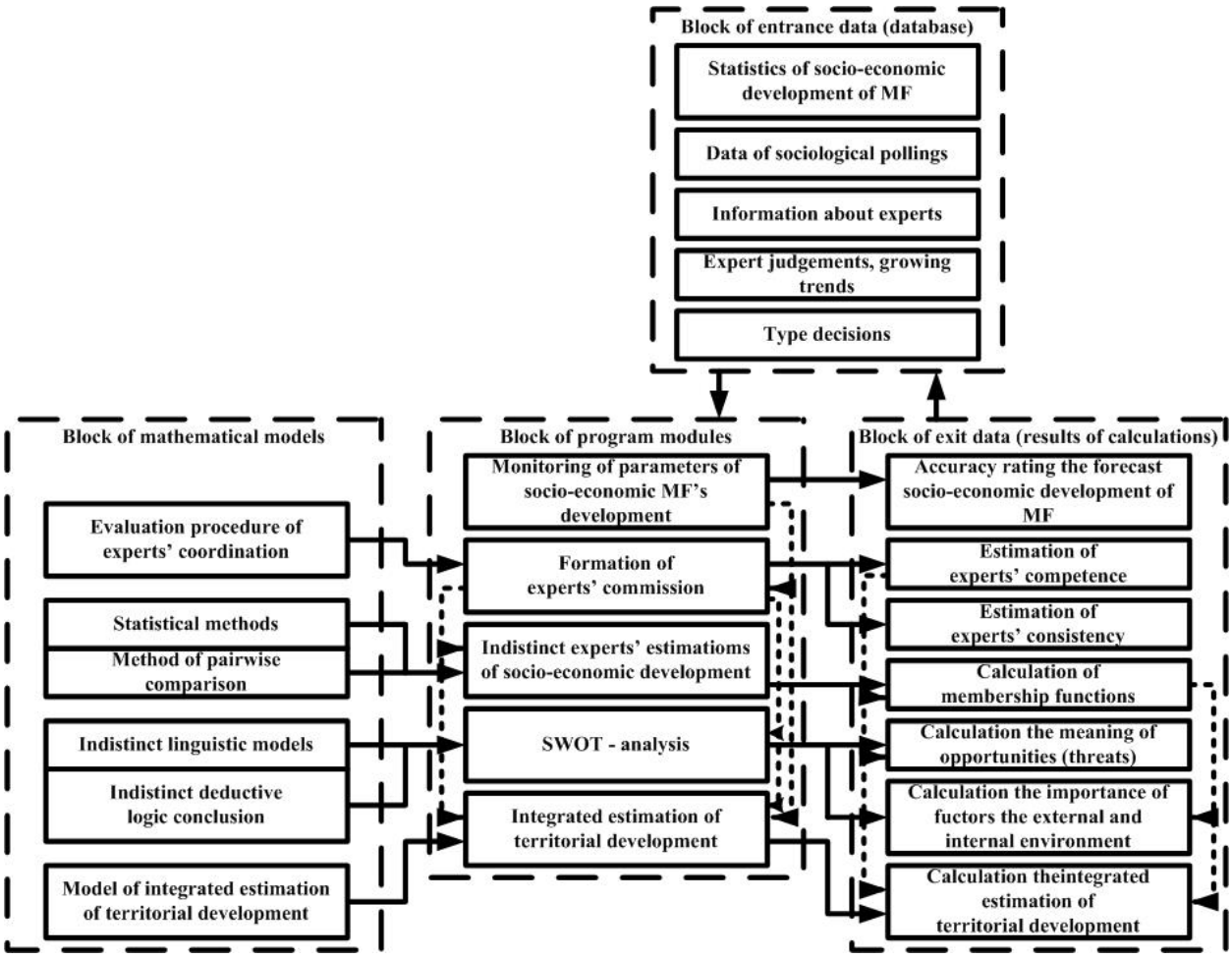

Figure 1. Structure of interrelation of system's components of support decisions making about socio-economic development of municipal formation

The kernel of the automated system is formed by subsystems focused on receiving the final results. There are following functional subsystems:

1. The subsystem of monitoring provides the control and monitoring of the basic directions of the current socio-economic situation in MF (monthly, quarter, annual dynamics).

2. The analytical subsystem is intended for the analysis and estimation of the data on socio-economic and financial parameters of a settlement, construction of summary integrated estimations of MF's development in comparison with other settlements of the country, ranking.

3. The subsystem of forecasting provides automation of multialternative calculations the short-term and medium-term forecasts of socio-economic territorial development on the scene and target basis, and also monthly monitoring of performance the prediction parameters. The model has an opportunity of performance multialternative scene and target calculations («What will be, if …?» and «What is necessary, that …?»); also it allows to find different variants of financial strategy, to compare among themselves potential results of their realization, range variants by any economic criteria.

4. The software in a subsystem of administration provides mechanisms of protection data from the unauthorized access. The access rights of each user are determined by a participation in working process and are nominated by the system manager. The system supports a «magazine of events». This magazine allows to restore chains of the events which have resulted in this or that deviation.

Also it's necessary to pay attention that by means of the specialized unit of information portal (within the bounds of support system of decisions making) the remote access to the centralized data warehouse and functional subsystems with use of networks Internet is realized.

The basic result of introduction of support system of decisions making in connection with territorial development could become formation of the centralized information resource of socio-economic parameters; on the basis of which it'll possible to realize the complex analysis and forecasting of results from realization authority's decisions.

In case of use this system the experts in the department of strategic development could receive the following effects:

1. Increase the access of authority to the information on all key socio-economic parameters of settlements' development at the expense of support the centralized data-analytical resource for maintenance the complex analysis of socio-economic MF's development.

2. Increase the response rate by the authority's representatives on problems, strengthening the control for changes of socio-economic situalions in a settlement.

3. Significant increase the efficiency of process decisions making.

4. Maintenance of protection, confidentiality and integrity of collective information resources of system.

On the basis of these results and positive effects it's possible to make a conclusion, that inclusion the department of strategic development in organizational structure and the introduction of the automated support system of decisions making about socio-economic development of municipal education would improve job of authority; but it's common knowledge that authority's activity influences on territorial development and population's standard of living.