PERSPECTIVES FOR DECISION SUPPORT SYSTEM USE IN MANAGEMENT OF URBAN AREA DEVELOPMENT

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One of the factors, which influence on the increase of construction operation efficiency, is the involvement of up-to-date scientifically proved methods and automated facilities for decision making. The given article is devoted to the consideration of the perspectives for decision support system use in management of urban area development.

The most important part of automating for the design of organizational and technological preparation of construction operation is a constant necessity to take non-formal decisions, i.e. a choice of a certain alternative from several possible options. In this case a person, who is to make a decision, has to rely on his own construction industry experience (an heuristic approach), or has to formalize the choice principle, solving the optimization problem by means of some simplification methods (in general case multi-criteria).

However, the described approaches to the solution of a choice problem have significant disadvantages. Actually, the heuristic approach, which is performed by means of PC, results in the problem of artificial intelligence system development. At present this approach cannot cover all the specter of situations, which can occur while performing construction design. That happens due to lack of experience, difficulties while identifying the given situation and limited resources of computer engineering.

The opportunity to forecast and model the situation (the so-called "situation centers"), as well as functions for automated data collection and data processing exists a bit more that at 15% of urban construction departments. Nevertheless, in the conditions of further increase of information amount and cheapening of final decisions, it is possible to foresee market explosion concerning the DSS (decision support system).

Strange as it may seem, exactly in crysis conditions it is much more easier to persuade the authoroties of urban consstructions departments to allocate funds for introduction of the decision making support systems. The system is likely to be introducted when one has to think about the management efficiency improvement due to advancing the process of managerial decision making; cost saving; projects quality impovement (because the changed market conditions require it).

In the market of decision making support system along with powerful servers with multidimensional databases and OLAP-servers there are clients OLAP- servers which are manly aimed for work with local data amount. The similar systems were named desktop or DOLAP-servers. The following companies are working in this field: Business Objects (Business Objects 5.0), Andyne (CubeCreator, PaBLO), Cognos, Brio Technology. Cognos is still considered as a leader, which supplies the PowerPlay, Impromptu and Scenario products.

At the same time it is important to note that sometimes not every subject of federation can afford the introduction of such expensive developments. In some remote areas there is a danger that such investments would not be paid off in a proper time. In such cases it is quite possible to use decision making support systems on the basis of Web-technologies or by means of reengineering business processes regarding managerial activities with introduction of systems on the basis of Microsoft Excel books.

As it was mentioned above, nowadays, we see considerable changes at the market of decision making support systems. The systems become more transparent and adaptive. Besides, the most perfected tools for resource management are developed there. Similar approaches are also implemented in DSS, which are used in the construction sphere. Nowadays, the majority of companies offer software decisions of problems regarding urban construction activi-

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ties, such as Business Objects, Power Play, Course, Forecast and some others.

Summarizing all the facts mentioned above, one can mention that today the decision making support systems are the most efficient and perspective tools of management automation. The decision making support systems are computer systems, which are almost always interactive and which have been developed to help the executive person in managerial decision making by means of unification of data, complex analytical models and user friendly software into integrated powerful system, which is able to support semi-structured and non-structured decision making.

As for the tools, the decision making support systems help to solve such problems as management of decentralized structures, knowledge management, forecasting the ways of development, solving the problems of cooperation and communication. While developing such systems for the enterprises of the construction sector of the region it is necessary to take into account a large number of tasks, beginning with coordination control of the ordered project at the initial stage and ending with carrying out the analysis of performed work and phrasing of the conclusions, which can possibly influence on the following activities of construction organizations.

The implementation of the decision making support system in management of urban construction in the given territory can be carried out in a different way: it can be DSS on the basis of Web-technologies and MS Excel, or it can be rather sophisticated software complexes, such as PowerPlay, Forecast, and COURSE. The worldwide experience in the field of construction industry has shown that implementation and further improvement of decision support systems is efficient. Besides, in the conditions of the expert approach it can perform a significant economical effect.

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