Intellectual System Of Management Of Innovation Ideas

„Geo Ideametrik“

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On the basis of the study, presented in the paper, intellectual system of management of innovation ideas, based on web-technology, was developed, which represents convenient instrument for the evaluator to select and assess the best ideas on the initial stage of innovation idea generation

For the purpose of optimization of the initial stage of open innovation process (idea generation stage), the tasks of screening (selection) of ideas and their further ranging are set.

Multi-criteria expert methods, based on the principles of the theory of fuzzy sets are used for solution of the set tasks. Multiple criteria imply the existence of qualitative and quantitative indicators, and simultaneous use of such indicators is possible with consideration of the properties of fuzzy numbers.

For the purpose of solution of the set tasks, all stages of expert method are realized, in particular: qualitative indicators of assessment are formed; in the case of existence of quantitative indicators, special approach is used; fuzzy scale of assessment is determined; the level of experts' agreement - concordance coefficient is calculated, weights of indicators are calculated, as well as integral fuzzy assessment of each idea based on them; using Chang method, fuzzy indicators are adjusted to distinct (natural) numbers, and further ranging of the selected ideas us\\is performed.

The above-described approach towards solution of the set tasks conditions: selection of ideas, oriented towards effective goal and strategies, their arrangement according to importance and then – realization of priority ideas.

For the purpose of formation of efficient portfolio, other mechanism of assessment, ranging and selection of innovation ideas is proposed in the paper, in particular, multi-criteria method of analysis according to the proximity with optimal – **TOPSIS** (Technique for Order of Preference by Similarity to Ideal Solution), which is also based on the theory of fuzzy sets and hierarchic representation of assessment indicators. The procedures of formation and use of fuzzy scale are developed, and the peculiarities of determination of trapezoid, fuzzy numbers, corresponding to linguistic variables are determined. Relative coefficients of importance of the relevant characteristics, corresponding to the indicators and weights, denoting experts' competence are used for obtaining of integral assessment of each idea. Specific procedures of their calculation are given.

Kay words: Geo Ideametrik, TOPSIS, Intellectual System, Management Of Innovation Ideas, Idea management technology.