

## THE MODEL OF SELECTING VENTURE INNOVATIVE PROJECTS BASED ON INTEGRATED INDICATOR

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In this article the author considers the process of selecting an innovation project by a venture capitalist. Various criteria are classified according to the purpose of the research. By way of formalizing the criteria and applying proper formulas the model of integrated indicator is selected. This model allows estimating the appeal of innovation projects for the venture capitalist using a uniform scheme.

Venture capital financing is one of modern instruments of investors' idle funds allocation in order to get profit.

For the further formalization we suggest to classify the criteria as the ones concerning the internal characteristics of the project, the branch and the geography of a prospective place of realization. We will also select three base criteria in each of these groups.

The group of indicators of an estimation of internal characteristics of the project has two main components in its structure - formalized and non-formalized. After the formalization we were able to identify the following criteria:

- ◆ net present value (NPV);
- ◆ modified internal rate of return (MIRR);
- ◆ group of indicators of the current financial condition
- ◆ methods of estimation of project's cost (the method of "ice hockey stick" or the conditional method).

As the basic informal criteria applied in the given model, we offer the following set of project characteristics:

- ◆ level of project management;
- ◆ quality and reliability of the presented resume (business plan);
- ◆ prototype potential, its security from the point of view the law on intellectual property;
- ◆ conformity of the estimated project growth per the term of participation in it to the requirements of the investor.

The block of branch estimation of the project consists of the following criteria:

- ◆ the operating and perspective volume of the market, taking into account the innovative production of the project;

- ◆ the structure of demand characterizing the groups of consumers from the point of view of their requirements and solvency;

- ◆ competition level within the branch and the specialized sphere to which the goods will belong;

- ◆ the branch risks connected with the life-cycle features in the given direction, resource and consumer aspects;

- ◆ estimating the prototype potential as one of the goods in the market, its ability to occupy a niche, meeting requirements of the venture investor.

The regional component of the model analyzes the appeal of the venture innovative project according to the following indicators:

- ◆ the level of economic well-being of the region, the positive investment climate and a special tax mode;

- ◆ political stability, absence of frequent changes of the imperious elite leading to the instability in the economic policy;

- ◆ the support of technology commercialization by the regional authorities, the possibility of attracting budgetary funds;

- ◆ territorial affinity of suppliers and consumers, their presence in the region of project implementation;

- ◆ ecological influence of the project on the region of implementation.

In case of great volume of data the solution to the problem is the formalization of the data in the form of numerical values of each criteria and the generalization within the integrated indicator that has certain margin values.

Such way of formalization is based on the subjective factor. However, it is impossible to completely exclude subjectivity.

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In the estimation of informal criteria on the basis of the expert estimates, we suggest to apply a rating scale from 0 to 1, where:

- 0 - minimum conformity to the criterion;
- 1 - maximum conformity to the criterion.

It is obvious that for a functional model the indicators should have similar orientation (positive correlation), i.e. higher value of an indicator corresponds with the more positive project characteristic. We suggest the following literal notations for the model of an integrated indicator:

- $n$  - number of criteria;
- $m$  - number of experts;
- $\alpha$  - factor of the importance of a criterion;
- $q$  - size of a quantitative estimation of a criterion

$S_0$ , the general experts' estimate of each criterion is expressed as:

$$S_n = \alpha_n = \sum_1^m q_n.$$

Then the value of a total estimate on each of the directions of model classification is expressed as:

$$S_x = \sum_1^n S_n.$$

The total value of the project characteristic according to the set of estimations  $S_0$  will be expressed by an indicator calculated as the sum total of all the estimates  $S_x$ . We can also apply own factors of the importance to the estimate

$S_x$  that allows giving a priority, for example, to a branch component with smaller value of the region of location. In this case the formula looks as follows:

$$S_0 = \sum_a^c \alpha_x S_x.$$

Value  $S_0$  is an expression of a complex unified opinion of the experts on formal and informal indicators of an individual project. It is a basis for comparison of project potential with other, similar innovative projects.

Thus, the presented model of an integrated indicator has the greatest efficiency at the stage of primary elimination of the resumes and business plans when great volume of the received demands for investment is connected with low quality of their preparation, which is characteristic for today's Russia.

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