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**FACTORS OF THE FORMATION OF THE OILS AND FATS
SUBCOMPLEX COMPETITIVENESS**

In the paper the most common methods of evaluating investment projects that have already found their way into domestic practice are investigated. The main problems in the organization of the selection and implementation of innovative projects in engineering companies and a scheme for evaluation of innovative projects in terms of the competitiveness of the enterprise.

Keywords: *innovation, innovative project, the evaluation criteria, the competitiveness of enterprises, the approximation of development*

Problem and its relation to important scientific and practical tasks. Innovation processes in the enterprise mostly occur as a realization of some innovative projects. World practice has developed many criteria for evaluating investment projects. Some of the most common methods of project evaluation has found its application in domestic practice.

Analysis of research and publications on the issue. The study of the problem of evaluating innovative projects dealt with a significant number of leading scientists including noteworthy Malashchuk D., N. Molchanov, M. Shot, A. Jaffe and R. Lubit. However, the evaluation of innovative projects face severe difficulties. They involve, primarily, to the fact that, as will be shown below, the majority of criteria based on the changing value of money over time, in principle, are not applicable to the evaluation of innovative projects.

The main material of the research results from scientific justification. How can emphasize three major problems in the organization and selection and implementation of innovative projects in engineering companies:

1) general "underdevelopment", which manifests itself in the absence of generation and innovation both through internal research and ideas, and by including exchange system to generate innovation and fabricated research results in order to innovate with external origin with respect to the enterprise;

2) excessive focus on innovation activity on innovations that provide competitive in price competition, which, as has been shown above, are very brief and brings less effect to the enterprise;

3) low practical "way out" innovation unit, resulting in a low percentage of a new product in the overall product engineering enterprises. However, this problem is connected with the choice of research areas in the field of "generation" of innovation.

In addition, there are some significant differences between the projects being implemented in the "normal area" and projects that fall within the scope of innovation [4, 5].

The basis is that the innovative project to provide "technology" competitiveness of the enterprise at the time of the project, should enable the company to provide "a more attractive market for" compared with competitors not on price but on quality or other characteristics of products . Offered the same

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methods in the literature do not account for the fact that the evaluation of the project carried out in the current period when compared to the current proposals competing next project really allows you to provide the following suggestions. But this does not mean that in reality the future will offer companies more attractive for future proposals competitors who, no doubt, most will also work to improve competitiveness in the "technological" competition. Therefore, selection of innovative projects necessary to assess the competitiveness of enterprises proposals, including changes in future offerings of competitors. It will also be the last to realize their projects in similar areas. The first problem to be solved in the construction scheme of such an assessment - the choice of base. In our view, as this may be a "perfect model" device, mechanism or other products. For its installation must:

1 select key parameters that are important to consumers. You can use the survey consumer products marketing methods to select a few key parameters that is their choice of a particular model, brand, manufacturer, and so on. And it can be not only the parameters of the product itself, but also the cost of its operation and others. This aspect is discussed in detail in my dissertation N. Molchanov [1];

2 to determine the values that would have been desirable to consumers. This will be the options "ideal model" of the product. Note that if the complexity of the consumer survey is possible, and the use of expert assessments derived, for example, Delphi method [2] or other methods.

Then advisable to retrospective analysis suggests predecessors products, which will be in production by the implementation of an innovative project. The purpose of this analysis is to build a time series of parameters "precursors" products. The establishment of such time series will allow to apply at least a linear approximation of the dynamics of product development for key parameters, and thus determine what parameters will characterize future proposals competitors. Interval observations may be different, depending on the particular market, because for various products is characterized and different speaker options. The basis for comparison in this case is the ideal model parameters. The aim is to establish approximation "speed" approximation parameters proposals offered by different competitors to the "ideal model".

Next, you must determine which parameters of products planned to be a result of the innovation project. After that you should compare the plan options output parameters of products, which are expected in the market, and will help to assess "appeal offers" companies in comparison with their competitors through innovative projects for the future. Based on this it will be possible to assess the feasibility or unreasonableness of this project is from the standpoint of production efficiency, but from the increase in the period ahead competitiveness in the "technological" competition. At the end is an approximate evaluation of the economic viability of the project.

In summary, the procedure for evaluation of innovative projects in terms of improving the competitiveness of enterprises is shown in Figure 1, where we used the fact that at least approximate the settings for future offerings of competitors allows a reverse process - ask a technical job parameters to be achieved as a result of research scientific and technical work and so on. At the moment when it becomes clear impossibility achieve these parameters, the project should be terminated, as its implementation would still not provide enterprise "technology" competitiveness, or in parallel have implemented projects aimed at increasing the "price" of competitiveness, in order to

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compensate backlog of future proposals in the "technological" competition more attractive in price.

It should be noted that the projects with the same economic efficiency focus should be that which provides a higher attractiveness for future business in the "technological" competition.

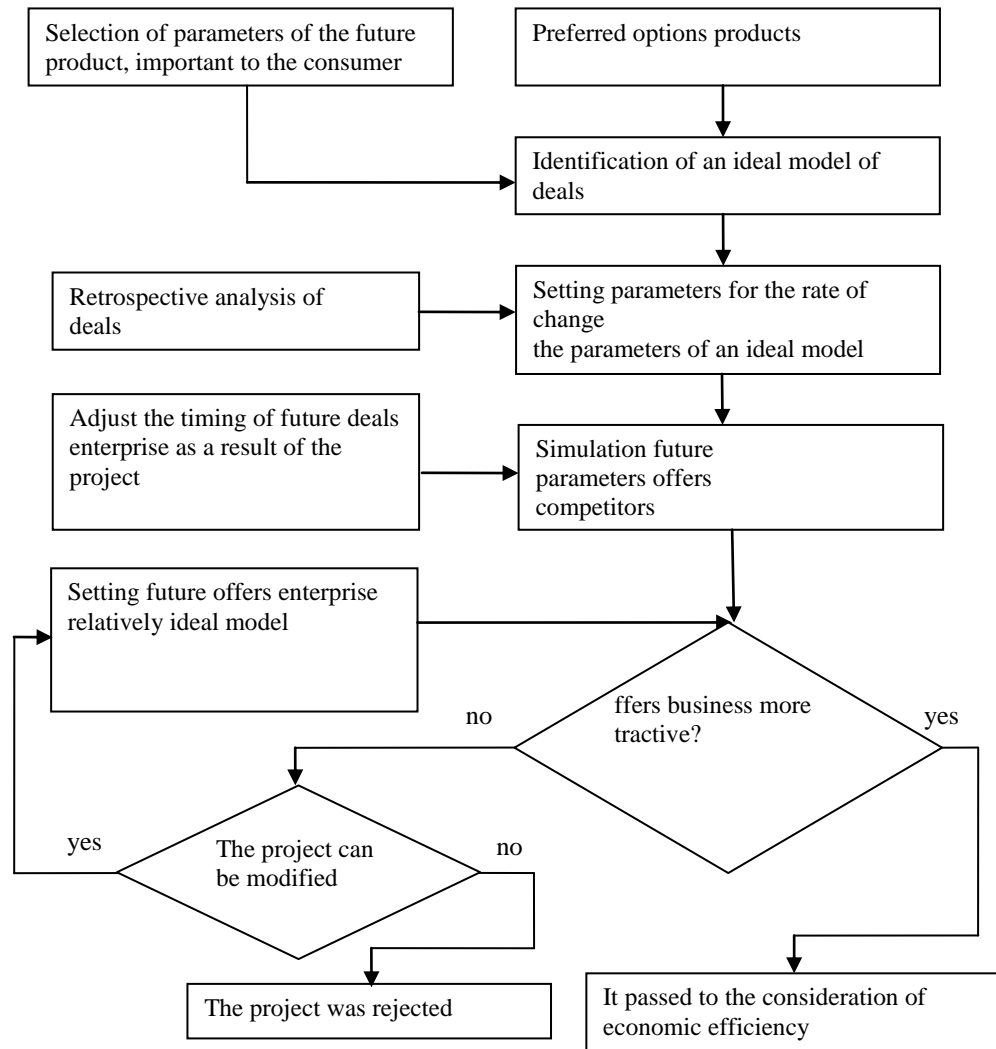


Figure 1 - The procedure for evaluating the feasibility of an innovative project from the perspective of improving the competitiveness of enterprises.

To illustrate the proposed methodology on the example of the decision to conduct research on enterprise NTAK "ALKON." Because research is planned to improve the quality of diamond dust that produces enterprise. Expert parameters set by the ideal offer as of June 2011 (Table 1).

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Table 1 - Parameters ideal supply of which in the future will be directed for Enterprise.

Options	Values ideal for deals	Notation
Resource, hour	Minimum of 5000 hours	X_1
The thickness of the section	Maximum 1 mm	X_2
Cutting speed at a thickness of 5 mm metal	A minimum of 30 cm / min	X_3

After that the retrospective analysis offers similar products. As a result of discussions with experts and research proposals found that new models of products offered no more than once a year.

Because of the dynamics parameters proposals relative estimates relatively perfect sentences that were determined for the parameters X_1 and X_3 (increasing values mean closer to the ideal settings for) as follows:

$$E_i^t = \frac{X_{\theta}^t}{X_i^{id}} \quad (1)$$

where E_i^t – relative evaluation parameter i in period t ;

X_{θ}^t – value of the i -th parameter x in period t ;

X_i^{id} – value of the i -th parameter ideal proposal.

For parameter X_2 (decreasing values mean closer to the ideal settings for) the relative score was defined as

$$E_i^t = \frac{X_i^{id}}{X_{\theta}^t} \cdot 100\% \quad (2)$$

Note that if there are at certain times of several proposals we considered proposals with parameters closest to the ideal. This is done with a view to compare future supply companies do not market average of suggestions, and the most attractive among them.

Table 2 shows the time series of relative parameter estimates.

Table 2 - Dynamic rows options market offers product assessments relative to the ideal offer, %

Year	Conditional time	Estimates of parameters		
		K_1	K_2	K_3
1995	1	60	10	40
1996	2	65	15	40
1997	3	70	15	45
1998	4	70	15	45
1999	5	70	15	45
2000	6	75	25	50

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2001	7	76	25	60
2002	8	78	30	60
2003	9	78	30	60
2004	10	78	30	70
2005	11	79	35	70
2006	12	79	40	70
2007	13	80	40	75
2008	14	80	40	80
2009	15	80	40	80
2010	16	80	50	80

According to these data in Table 2 are chosen model approximations that allow approximate time series of a certain type of dependence with sufficient accuracy. In this case, we have it done by means of Microsoft Excel by comparing the results of the basic models of approximations that can be implemented in this package. As a result the approximation parameters.

The average forecast error defined as [3]:

$$\delta_i = \sqrt{\frac{\sum_{t=1}^n (K_i^t - K_i^{ta})^2}{n}}, \quad (3)$$

where δ_i – average approximation error;

K_i^{ta} – approximated value of the i -th indicator in period t ;

n – amount of data.

The obtained values of the average error approximation: for indicator K_1 $\delta_1 = 1.09\%$ (compared to the ideal model), for parameter K_2 $\delta_2 = 1.10\%$ (compared to the ideal model), for parameter K_3 $\delta_3 = 1.50\%$ (compared to the ideal model).

So now it is possible to calculate the most attractive market supply in the next few years.

Let the project, which is offered for consideration, provides as a result of research and product development, out of the market after 2 years of relative parameters $K_1 = 82\%$, $K_2 = 55\%$, $K_3 = 90\%$ to a perfect proposal. Such future products exceed all current market counterparts, but must take into account the speed of modernization competitors. We estimate that the options will be the most attractive market offers competition in two years.

For parameter K_1 using equation approximation we obtain:

$$K_1^{kon} = 7.6078 \cdot \ln(16 + 2) + 60.291 = 82.28 \pm 1.09\% .$$

Taking the upper limit of the forecast, we obtain the most favorable offer rivals $K_1^{kon} = 82.28 + 1.09 = 83.37\%$.

For parameter K_2 , using equation approximation we obtain:

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$$K_2^{kon} = 2.4485 \cdot (16 + 2) + 7.628 = 51.7 \pm 1.10\% .$$

Taking the upper limit of the forecast, we obtain the most favorable offer rivals $K_2^{kon} = 51.7 + 1.10 = 52.8\% .$

For parameter K_3 , using equation approximation we obtain:

$$K_3^{kon} = 3.05588 \cdot (16 + 2) + 34.625 = 89.63 \pm 1.50\% .$$

Taking the upper limit of the forecast, we obtain the most favorable offer rivals $K_3^{kon} = 89.63 + 1.50 = 91.13\% .$

Conclusions. Comparing the parameters of the market supply of the plant by implementing an innovative project with expected market supply, in this case it should be noted that although the products will be certainly improved, with a significant probability that the project would not increase the competitiveness of enterprises, as only parameter K_2 for Enterprise will exceed future demand in the market. So either in parallel to implement projects aimed at strengthening price competitiveness or search segments where the greatest significance of the parameter K_2 , and promotion plan is in these segments.

So to block innovative information and innovative mechanism to be effective, it must be based not only on adequate and sufficient information both scientific and market-based, but also realized the following projects that enhance the competitiveness of enterprises.

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