

# EVALUATING THE EFFECTIVENESS OF SOCIALLY-ORIENTED NON-PROFIT ORGANIZATIONS' SOCIAL PROJECTS: APPROACHES AND METHODS

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## Abstract

Most Russian socially-oriented non-profit organizations (SO NPO) operates on a project basis. Social engineering is one of the main ways to implement their activities, raising funds from grantmakers. The state is the main grantmaker, which announces project competitions as part of government programs. The competition's subject is evaluation of social projects.

Expert survey of project developers and grantmakers identified a contradiction between the existing institutional social planning practice, interests of the participants in the inter-sectoral collaboration and social projects evaluating tools. There is a mismatch between the demand for high quality social projects and the low level of design culture of project developers; the need to consider the interests of stakeholders and a violation of the polysubject principle of project's evaluation; implementation of the equal opportunities principle and imbalances in project evaluation and organizational design criteria.

The lack of evidence-based assessment technology of social projects causes deformation of two fundamental competition characteristics: the procedure transparency and monitoring the effectiveness at the implementation phase of winning projects.

The main authors' objective - development of an integrated model and methodology for social projects' efficiency assessing. Formation of evaluation tool based on the methodology of the systematic, process, situational and qualimetric approaches, modern methods of IT-modeling.

**Key words:** socially-oriented non-profit organization, social project, the criteria for evaluating the effectiveness.

**JEL Code:** Model Construction and Estimation (C51), Project Evaluation (H43), Public Administration; Public Sector Accounting and Audits (H83).

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## Introduction

Today in Russia more than 100 competitive mechanisms with appropriate rating scales, procedures and criteria are used for evaluation of social projects and initiatives by NPOs. Most

regions have a model law for granting subsidies to socially-oriented non-profit organizations, including the standard list of indicators to measure as non-profit organizations (organizational criteria) and their submitted projects (design criteria). Analysis of regional legal documents found a number of significant shortcomings in the existing methods for evaluating social SO projects NPOs. These include substantial incompleteness (unsystematic) of each group of criteria; polysubject violation of the estimation principle; imbalance of organizational and design criteria; lack of project monitoring technology, a unified system of scaling parameters. Survey findings of grant providers and representatives from NPOs support the conclusions of researchers. Most of the experts noted that the design approach improves the efficiency of SO NPOs. However, the level of experts' satisfaction with the existing system assessment of social projects is different (Tab.1).

**Tab.1 Level of satisfaction with the existing system of projects assessment (%)**

Parameters	SO NPO	Grantmakers
Yes, fully	3	15
More likely yes than no	19	70
Difficult to answer	42	8
More likely no than yes	32	7
Absolutely not satisfied	4	0
Total	100	100

On the part of grant providers the number of respondents who were satisfied with the current method of social projects' assessment is 85%. Level of experts' satisfaction from the NPOs four times weaker - the number of positive responses is only 22%.

Regardless of the modality of these assessments, the experts articulate the same problems that for ones create certain difficulties in the evaluation process, for others - cause difficulties in the development of evaluated projects. Grantors note the opacity of the assessment methodology, the lack of a unified scoring system, incompleteness design criteria. For NPO representatives the main difficulty is the lack of a clear system of social projects' assessment. Active use of design technologies in the activities of NPOs, a positive assessment of their effectiveness, accompanied in evaluation of a non-profit sector representatives by some doubts about their own design education and the projection of the designing difficulties for the imperfect system of social projects' evaluation.

The whole package of expert advice related to strengthening the role of of design technologies. According to grant providers and representatives of NPOs, improving the

evaluation system can be connected with the constitution of quality, project evaluation criteria, involvement of independent experts to evaluate projects and the development of guidelines for social projects as for SO NPOs and grant providers.

Results of the study were the basis for the development of assessment methodology of SO NPOs social projects. Evaluating the effectiveness of the projects is a traditional section in the theory and practice of project management. However, developed under the project-management assessment models and technologies relate mainly to commercial projects focused on the criteria of economic efficiency and expediency. Specificity of social projects is reflected in the few to date applied scientific publications on the theory and practice of social engineering (Carman, 2009; Henry, Smith, Kershaw, Zulli, 2014; Lenkov, 2013; Lukow, 2007; Wing, 2004; Miccoli, Finucci, Murro, 2014), the main disadvantage is the methodological incompleteness of those sections that are devoted to conceptual and methodological aspects of the social projects' assessment.

## **1. Theoretical and methodological backgrounds**

The Theoretical and methodological bases of development methodology served systemic, organizational and administrative, project, process and qualimetric approaches. From a systems perspective evaluation of social projects is a complex, integrated system of components interaction in the assessment of multiple connections and relations presented in the form of structures and patterns and related with the formalization processes. Organizational and managerial approaches related with the functional nature of the assessment and with environmental characteristics of the project. For social projects such by environmental characteristics are the organizational conditions of a particular non-profit organization, under which the project is implemented. The quality of the project largely depends on the quality of the institutional environment. It is obvious that such indicators NPOs as its organizational stability, economic and social efficiency can act as environmental conditions and, accordingly, the evaluation criteria of social projects. The use of the project approach caused by the very object of evaluation, which acts as a social project in our study. Out of this it follows that the main direction of assessment should be related with the assessment of the structural positions of the project, and the process of evaluation, based on qualitative assessment methods should involve a comparative assessment of conformity of the text shown for examination of the project, methodology and technology of project activities. As criteria of assessment may act available description of the problem situation, the relevance and validity of the project problem formulation, the logic of the project target structure, the optimal presentation of resources,

control of the project, its feasibility, economic feasibility, sustainability of the project, its consequences (Boronina and Senuk, 2011).

The process approach is the basis for the monitoring principle implementation of evaluating the social projects' effectiveness and initiatives that highlight the three types of assessment procedures - preliminary examination of the project, the current assessment and final examination. Situational approach provides variation of subjects and objects of evaluation. The first possible module - the ratio of basic and changeable blocks of social projects evaluation criteria. For example, in the final examination of the project such criteria as indicators of achievement of regional NPOs support programs may vary in areas of social programs. The second module must be allocated a number of objects and their variables at different levels of interaction with various estimation stakeholders. Evaluation of the project should take into account the interests of customers (stakeholders) and meet the needs of consumers.

The application of qualimetric approach provides a selection of criteria and indicators for measurement, scaling, data acquisition, processing of the data and its interpretation. A set of approaches provides a transition from the conceptual level to the development of applied models for evaluating SO NPOs social projects.

Modeling as a tool for learning and reproduction an object, usually used in the study and design of complex systems. To a lesser extent simulation methods used in evaluation. However, the possibility, heuristic and applied potential of modern theory and practice of simulation can be used in the evaluation activities, taking into account its conceptual and methodological bases.

The modeling process of the assessment system can be regarded as an ascent from the abstract to the concrete. Each step of the ascent corresponds to question the answer to which allows you to take a new step in the right direction. There are several pairs of questions, each of which operationalize the subject area of assessment "reason-why" (corresponding to goal setting and justification of the research logic); "who-what" (identifies the subjects of assessment and a set of evaluation objects); "where-when" (defines the system of assessment in statics and dynamics - its place and time); "how-how much" (focuses the assessment system on the instrumentality and effectiveness) (Bolshakov, 2008). In the context of evaluation activity modeling performs three functions - research, expertise and constructive. To solve the problems of research and expertise tasks can be applied descriptive models, for constructive solutions - regulations.

Necessity of uniting models of different levels and types carried out using synergetic modeling techniques (Kosyakina, 2009). Synergetic methodology, overcoming methodological

limitations and incompleteness of each model and the corresponding modeling method provides an opportunity to share the results of modeling at different stages of its application (Kuznetsov, 2005). The idea of a synergistic (synthetic) methodology is consistent in application of methodological approaches and corresponding models based on reengineering situation (Kuznetsov, 2005). The key concept of the reengineering is the concept of scenarios using the model as a interaction session of the study subject with the system, in which as a result the subject receives a product that has value for him. The methodology is based on two principles - the principle of inheritance and polymorphism principle. Inheritance - the definition of a new class of object or its attributes based on an existing class (Kosyakina, 2009). There is a new class called a subclass that inherits all the attributes and characteristics of the parent class. In the case of single inheritance subclass may be determined on the basis of a class, in a situation of multiple inheritance classes can be set. A set of classes forms a tree hierarchy or decomposition entities. The principle of polymorphism is based on the possibility to override properties and attributes of subclass inheritance (Kosyakina, 2009). Application of the late setting method forms interpretative mode of model operation of recognition entities and attributes of the object (Kuznetsov, 2005). Using the principles of synthetic methods, the traditional scope of which is the area of the design of complex information systems and software, enabled the authors of the research project to develop an integrated assessment model of NPOs social projects.

## **2. Modelling technology of social projects assessment**

The first stage of simulation technology assessment of social projects has been associated with the methodology of systematic campaign and construction of structural models of assessment, reflecting and supporting research logic. In the structural model identified the key areas of project evaluation: estimation of NPOs activity; evaluation of the social projects' quality. Isolation of the first direction based on the fact that the assessment of social projects is often conducted on the basis of representations of past activities of nonprofit organizations, its authority and existing image. Thus, at the stage of consideration of applications from NPOs, organizations experience is taken into account as a factor that enhances the assessment of the competence of NPOs in the project area. The assessment should also be made from the perspective of minimizing the risk of the project default and, as a consequence, inefficient use of public funds.

Overcoming the "narrow" places in existing organizational criterion of NPOs, among which experience of the authorized activity is the defining, initially causes a situation of unequal starting opportunities for subsidy, predetermined complex character of evaluation criteria

formation for NPOs activities. These include - organizational sustainability, social efficiency, and economic efficiency. From a systems perspective and organizational theory organizational stability is defined as an organization's ability to resist the external and internal influences, function and develop over a long period of time (Atkisson, 2012). As indicators were used proven practice assessment of NPOs social projects experience of statutory activities and publication activity. Social efficiency interpreted as that the objectives and results of NPOs activity and social needs of society. The indicators of social efficiency were considered: the experience of implementing social projects; their scale (number of municipalities on whose territory the projects have been implemented); the number of projects completed on time; the number of volunteers involved. As indicators of NPOs economic efficiency, defined as the ratio of achieved results and expended resources (primarily financial), considered the number of funded projects; share of NPOs funds in the financing of social projects; number of projects for which funding has been returned; the number of problem, "closed" projects. Taken together, these indicators assess the effectiveness of the organization as a whole, and the success of its social project activities.

The second stage of modeling has been focused on the design of subject-oriented model for social projects evaluating. Subject-oriented model is a set of criteria for evaluating the project on the basis of the interests of the social project stakeholders. According to the principle of inheritance, this group forms a subclass of indicated in the structural model of criterion called "the consequences of the project" or social effect. In this model were identified potential subjects of evaluation and their interests. NPO - improving organizational sustainability, economic and social efficiency of the organization. Consumers - the different characteristics (service parameters), identified as innovation, accessibility, quality of service, quality of service. Grantors - competition in the NPOs field, the intended use of the provided resources, the achievement of the project expected results, compliance with project performance and indicators of regional support programs for NPOs. The local community - the growth of social activity and volunteerism, the impact of the project on the regional economy, public interest lobbying. The business community - the intended use of funds and increase the social responsibility of business. Volunteers - a social need for the project, solving urgent social problems, satisfaction with employment in socially useful activities. State - protection of interests and rights of citizens, social development, fiscal NPOs discipline, project compliance with regulatory requirements, the possibility of replicating best project experience to other organizations and regions.

The third stage of a comprehensive model development was aimed at designing a functional model. As the implementation of the process approach, functional model reflects interrelation of functions (actions) on transformation of evaluation objects in the life cycle process of assessment. This model includes three types of criteria for the evaluation procedure - preliminary examination of the project, mid-term evaluation, the final examination. Formed on the principle of inheritance, functional model bears the signs of polymorphism, which overrides features and properties of subclasses of structural and subject-oriented model in accordance with the life cycle monitoring and adds new criteria group for the middle and the final assessment of the project.

Functional model described in terms of appraisers action, supplemented and concretized object-oriented model developed at the fourth stage of modeling. Specificity of the object-oriented model is that it synthesizes the structural and functional model. Retaining the status of the application model, object-oriented model, integrates the structural and behavioral aspects of evaluation. In the object-oriented model allocated two levels: lower (structural) and upper (behavioral or functional). At each level of modeling were used scenarios as a step by step description of estimation object classes presented in the format "function (direction evaluation) - criterion - indicators" (Tab.2).

**Tab. 2. Fragment of object-oriented model "Integrity and coherence of the project"**

1.2.2. Integrity and coherence of the project	1.2.2.1. The presence of major institutional subsystem of the project
	1.2.2.2. The logic of the target structure of of the project
	1.2.2.3. Source of project
	1.2.2.4. Availability of basic project documents and its compliance with design standards

The last stage of the modeling has been associated with the development of a parametric model. Being a normative parametric model allowed to establish a quantitative relationship between functional and object criteria. In fact - it is a matrix scoring, which is an expert working tool, because it contains numerical score for each indicator on the selected criteria and indicators (Tab.3).

**Tab. 3 Fragment of a parametric model "integrity and coherence of the project"**

1.2.2. Integrity and coherence of the project	1.2.2.2. The logic of the project's target structure	Target decomposition in the project is missing - 1 point Target decomposition is present, but the purpose and objectives of the project does not comply with the declared theme - 2 points Target decomposition is present, but broken logical connection between being solved social problem and goal and objectives in the project - 3 points Target decomposition is present, but the event does not correspond to the goals and objectives - 4 points Target decomposition built correctly - 5 points
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### 3. Mathematical methods of assessment

The logic of the project parametric model is reflected in the quantitative evaluation of projects - obtain weighted assessment in two directions of assessment - evaluation of NPOs activity and social assessment of the project quality. Unequal distribution of specific weights directions assessment (assessment of NPO - 0.4; evaluation of the quality of the social project - 0.6), according to the authors' technique, allows to balance the chances of the long-standing NPO and recently established, without any positive history, *ceteris paribus* implementation of the projects.

At the lowest level of assessment - evaluation of indicator - for the convenience of experts, is applied the usual five-point rating scale. In the the concept of assessment laid equal values of each of the criteria and parameters, primarily due to the impossibility of any reasonable manner to provide a differentiated approach to the determination of the each parameter proportion. For this reason, all parameters are assigned the same value. The sum of all the parameters thus assumed to be equal to unity. Accordingly, the share of each parameter is assumed equal to the quotient of the unit on the number of indicators in the matrix. Then set matching the content of the indicator to numerical value of score. Based on these simple calculations is computed average score for each evaluation direction, that can be clearly seen in the proposed calculation formula. Overall assessment of the project in percentage consists of the sum of assessments in all areas of assessment  $\Theta_i$  (%):

$$\xi = \sum_i \theta_i (\%)$$

Assessment of this direction  $\Theta_i$  (%) is calculated from the sum of estimates for each indicator and their number  $n_i$  in this direction, as well as assessment's weight of this area  $\rho_i$  ( $\theta_i$ ):



$$\theta_i = \sum_j \frac{X_j}{5} \cdot \frac{\rho_{\theta i}}{n_i} \cdot 100\%$$

where  $X_j$  - the assessment of an expert in points for this indicator,  $X_j \in [1,5]$

$\rho_{\theta}(\theta_i)$  - weight of the direction assessment. It is a dimensionless quantity assigned to developers so that the sum of the weights of the unit, indicating the importance of the direction of evaluation. ie .:

$$\sum_i \rho_{\theta i} = 1$$

$n_i$  - the number of indicators in this area of evaluation.

All estimation indicators are equivalent, in the amount of assessments in this direction is automatically incorporated the number of indicators in this direction. In the extreme case, when all the estimates put of five points, evaluation in this area  $\Theta_i$  will be equal to the product of weight of 100%:

$$\theta_i = \sum_j \frac{5 \cdot n_i}{5} \cdot \frac{\rho_{\theta i}}{n_i} \cdot 100\% = \rho_{\theta i} \cdot 100\%$$

Thus, the final formula is as follows:

$$\xi = \sum_i \left[ \sum_j \frac{X_j}{5} \right]_i \cdot \frac{\rho_{\theta i}}{n_i} \cdot 100\%$$

## Results

Overall evaluation of the project computed as the arithmetic mean of all expert evaluations, which in turn ensures the comparability of results of the weighted average of integrative project assessment. This mathematical model of the project evaluation allows to build a ranking of submitted projects as a percentage of the relevant normative model, which assumes the maximum amount of the completion percentage - 100. The developed mathematical model of project evaluation provided developers with the methodologies and ability to create an electronic form of the scoring matrix in the software package Excel.

## Conclusion

Using the methodology of the systematic, process, situational and qualimetric approaches, and the application of synergetic modeling techniques based on the principles of inheritance and polymorphism, allowed the authors to build a science-based criterion model and methodology for assessing the efficiency of SO NPOs social projects.

The methodology and practical recommendations on the effectiveness of social projects have been approved by the Ministry of Social Policy of the Sverdlovsk region (Boronina and others. 2014).

Research materials may be used in the formation of regional programs and policies in support of socially oriented NPOs, the practical assessment of the social projects effectiveness of non-profit organizations, submitted to the contest.

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