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**THE PROJECT ENVIRONMENT COMPONENTS IN PROJECT**  
**ACTIVITIES IN THE PUBLIC SECTOR**

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*Abstract*

This article is devoted to the identification and updating of key components of the project environment in the process of implementing project activities in the public sector. Here it is presented the impact assessment of the mentioned components on the effectiveness of the implementation and use of the project approach in public administration in modern conditions. The effectiveness of project activities in the public sector is defined by the authors as the degree of achievement of the project goal. The article presents the results of a study on assessing the degree of preparedness of civil servants for project management in the example of the Novgorod region. The authors of the article, based on the analysis, identify success factors and factors that impede the implementation of the project approach in the state executive bodies of the region, and also consider possible options for activating the position of civil servants in the introduction and implementation of project management in the public sector. The analysis carried out in the article makes it possible to assess the significance of the factors influencing the effectiveness of the project management approaches use in state authorities of the Novgorod region and to formulate the main directions for improving the practice of implementing the project approach in the public administration system.

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**Keywords:** Project environment, project management, public administration, readiness for project management, state program.



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## 1. Introduction

At the present stage, the practice of implementing the principles of project management in the activities of state authorities in the state programs realization is becoming increasingly important. Using the project approach will solve a number of problems existing today in the program management in the public sphere.

In order to improve the effectiveness of the organization of the public authority activities in the Russian Federation on October 15, 2016, the Government of the Russian Federation adopted Decree No. 1050 “On Organization of Project Activities in the Government of the Russian Federation”. In the Address of the President of the Russian Federation to the Federal Assembly of December 3, 2015, the need to create a mechanism for implementing the most important projects in the public sector was noted (Message of the President of the Russian Federation to the Federal Assembly, 2015). In the Main Directions of the Budget Policy for 2017 and for the Planning Period 2018 and 2019, it is planned to continue work on creating a project structure of federal budget expenditures with implementing project management procedures. In addition, it is planned to implement the activities of state programs using project management approaches (The main directions of the budgetary policy for 2017 and for the planning period 2018 and 2019, 2016).

Thus, the use of the project approach in modern conditions becomes one of the conditions for the quality of the implementation of tasks in public administration. At the same time, the project approach to management differs significantly from the traditional state approach of process-oriented management (Borshhevskiy, 2017, 2018; Kalinin, 2017; Smorgunov, 2018; Yuzhakov, 2016). The project environment includes a large number of components that have a significant impact on the results of the project activity. Each component consists of a combination of internal and external factors that contribute to or impede the achievement of the project target. Among the key components are the social and economic aspects of the development of the territory, as well as the organizational and management component associated with the construction of a project management system in the public sphere. However, for all the diversity of components that affect the various processes under the conditions of project management, the organizational and management component ultimately determines the effectiveness of all activities (Kalgin, Dvinskikh, & Parfenteva, 2017). Within the organizational and management component it is possible to single out a professional factor related to the ownership of various competences in the field of project management.

## 2. Problem Statement

In modern conditions, an important problem in the implementation of the project approach in the practice of government agencies is the lack of experience and necessary competencies in project management for civil servants. Therefore, it is possible to identify the main obstacles that affect the effectiveness of the project activity:

- inadequate number of specialists among civil servants who have the necessary competencies to carry out project activities in government;

- resistance to changes due to the introduction of “new rules of the game”, psychological unpreparedness of staff, unavailability of management to increased responsibility for management decisions;
- high degree of inertia of existing organizational structures in public administration;
- the presence of administrative conflicts (“double subordination”) with the parallel use of two different approaches to management (process and project approaches).

### **3. Research Questions**

- 3.1. What components of the project environment can be attributed to the key when using the project approach in the public sector?
- 3.2. What factors have the most significant impact on the effectiveness of project activities in government?
- 3.3. What qualitative influence these factors have on the result of the project activity?
- 3.4. What is the degree of influence of certain factors of key components on the quality and the result of the implementation of project management in the public sector?

### **4. Purpose of the Study**

Identify the key components of the project environment in the organization of project management in the public sector.

Analyze the nature and determine the degree of influence of these components and individual factors that affect the effectiveness of the implementation of project activities in public administration at the regional level.

To determine the directions of actualization and development of the competencies of civil servants in the aspect of increasing the effectiveness of the project activity in the public sector.

### **5. Research Methods**

The survey – allowed to obtain a set of representative information from the respondents needed for the research.

Selective nonrepetition-based observation – the use of this method made it possible to generate fairly accurate results of the study with minimal labor and material costs.

The use of non-parametric methods of data processing made it possible to assess the degree of correlation of the qualitative characteristics, factors of success and effectiveness of project management.

### **6. Findings**

To realize the above mentioned goal the authors identified the key components of the project environment. A selective, repetition-free observation was conducted through the organization of a survey (questionnaire) of civil servants in the Novgorod Region, to identify factors that contribute to and impede the introduction of project management in the executive authorities of the region. According to the results

of the survey it was assessed the influence of certain factors of key components on the quality and result of the implementation of project management in the public sector.

The civil servants were asked to complete two questionnaires (Table 01 and Table 02), where they should assess the significance of each factor for the following conditions:

– in the first case, it was suggested to evaluate the success factors of the project management implementation in the Novgorod region authorities (from 1 to 9, the most significant 9 and so on in descending order, the least significant 1, the estimated value should not be repeated, for example, two factors cannot be rated 9).

**Table 01.** Questionnaire 1 “Evaluation of success factors of the project management implementation in the region state authorities” with the final evaluation results

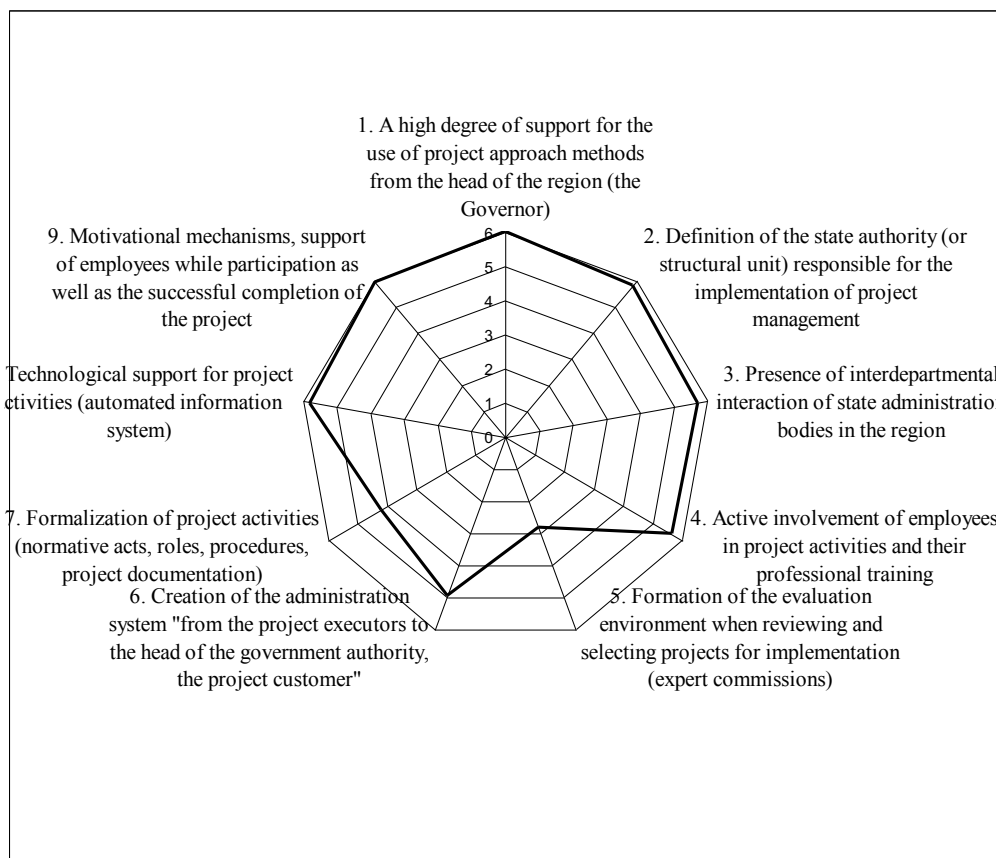
<b>Success factors of the project management implementation in the region state authorities</b>	<b>Final score</b>
1. A high degree of support for the use of project approach methods from the head of the region (the Governor)	6,0
2. Definition of the state authority (or structural unit) responsible for the implementation of project management	5,8
3. Presence of interdepartmental interaction of state administration bodies in the region	5,7
4. Active involvement of employees in project activities and their professional training	5,6
5. Formation of the evaluation environment when reviewing and selecting projects for implementation (expert commissions)	2,8
6. Creation of the administration system "from the project executors to the head of the government authority, the project customer"	4,9
7. Formalization of project activities (normative acts, roles, procedures, project documentation)	4,2
8. Technological support for project activities (automated information system)	5,8
9. Motivational mechanisms, support of employees while participation as well as the successful completion of the project	5,9

– in the second case, it was necessary to assess the set of factors that prevent the implementation of the project approach in the state authorities of the Novgorod region (from 1 to 7, the most significant 7 and so on in descending order, the least significant 1, the estimated value should not be repeated, for example, 7).

**Table 02.** Questionnaire 2 “Evaluation of factors hampering the implementation of project management in the region state authorities” with the final evaluation results

<b>Factors hampering the implementation of project management in the state authorities of the region</b>	<b>Final score</b>
1. Insufficient level of development of the regulatory framework and methodological support from federal authorities	4,3
2. Low activity, weak initiative and motivation of state authorities during the process of implementation of the project approach principles	3,1
3. Lack of necessary competences for project management (knowledge and skills) for civil servants	4,8
4. Weak level of technical and technological support of project activities	4,6
5. The conflict in the combination of functional and project approaches to management (double subordination)	4,2
6. The formal principle to the application of new approaches and methods of work (resistance to change)	2,5
7. Lack of interagency coordination of government bodies	4,5

For the final evaluation of the collected information, the average characteristics for each factor listed in the table were calculated. This allowed to obtain the final average values of the evaluation, which are presented in the columns “final score” in Tables 1 and 2. The conducted survey on the first assessment sheet made it possible to conclude that civil servants note as key factors in the success of the project management implementation in the Novgorod region executive branch: a high degree of support for the use of project approach methods by the head of the region (Governor) (6.0); motivational mechanisms aimed at the participation of workers in projects (5.9); the definition of the public authority (or structural unit) responsible for implementing the project management (5.8); implementation of technological support for project activities (5.8) and the existence of interagency interaction of government in the region (5.7) – Figure 01. It should be noted that the emphasis on motivation is a traditionally important factor.

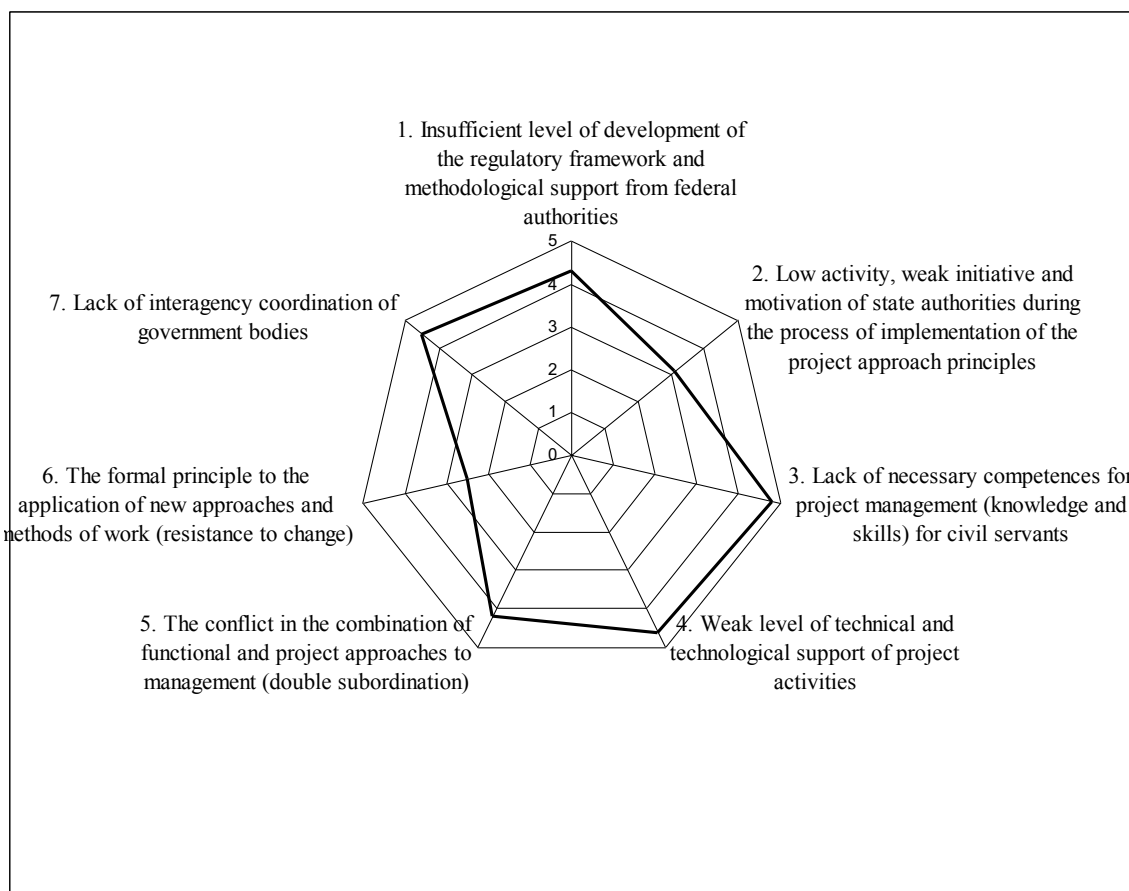


**Figure 01.** Success factors for the implementation of project management in the Novgorod regional government

The enlargement of the success factors for the introduction of project management in the regional authorities in Table 1 allows us to identify the directions for activating the position of civil servants in the management of projects in the public sector. Thus, the definition of a public authority (or structural unit) responsible for the implementation of project management, forming an evaluation environment and selecting projects for implementation, creation of the administration system “from the project executors to the head of the government, the project customer” can be decided through the organization of the Project Office, which will allow to obtain a synergetic effect in the future. Strengthening of interdepartmental

interaction of state administration bodies in the region, as well as technological support of the project activity, can be achieved on the platform of blockchain technology. Active involvement of employees in the project activities and their professional training, formalization of the project management are solved through the providing of training courses for civil servants.

The questioning of civil servants in the Novgorod region in order to identify factors that impede the use of project management in public authorities has made it possible to identify the main problems: the lack of the necessary competencies in project management (knowledge and skills) for civil servants (4.8); a weak level of technical and technological support (4.6) and lack of inter-agency coordination of government (4.5) – Figure 02.



**Figure 02.** Factors impeding the implementation of project management in the Novgorod regional government

To solve these problems is possible on the basis of the previously proposed approaches and technologies. In particular, the first problem can be solved by organizing training courses for civil servants. A variant of solving the second and third problems can be state information systems, the introduction of blockchain technology.

The obtained results allowed to select the most significant factors within the key components of the project environment, which have a significant impact on the quality and the result of the project activity in the public sector at the regional level – table 03.

**Table 03.** Key success factors and factors hampering the implementation of project management in public authorities in the Novgorod region

<b>Key success factors for the implementation of project management in the state authorities of the region</b>	<b>Final score</b>	<b>Key factors hampering the implementation of project management in the state authorities of the region</b>	<b>Final score</b>
A high degree of support for the use of project management approaches from the head of the region (Governor)	6.0	Lack of necessary competencies in project management (knowledge and skills) for civil servants	4.8
Motivational mechanisms for supporting of employees in participation as well as the successful completion of the project	5.9	Weak level of technical and technological support for project activities	4.6

The information presented in Table 03 makes it possible to conclude that the civil servants of the Novgorod Region have given the greatest importance to those characteristics (the success and failure of project management) that relate to the organizational and management component.

Let us consider the relationship between the result of the final activity of the project management – the achievement of the project objective and the factors of the organizational and management component of the project environment (the factors are determined by the civil servants of the Novgorod region).

Under conditions when each qualitative characteristic is represented by several gradations the Pearson-Chuprov correlation coefficient can be used to determine the factors correlation (Fester & Renz 1983).

, where

**Table 04.** Baseline data for assessment of the factors correlation degree of the project environment organizational and management component and the project activity effectiveness

<b>Factors of the organizational and management component of the project environment</b>		<b>Effectiveness of project management</b>		<b>Total</b>
		<b>Project target is achieved</b>	<b>Project target is not achieved/partially achieved</b>	
Success factors	A high degree of support for the use of project management approaches from the head of the region (Governor)	17	9	26
	Motivational mechanisms for supporting of employees in participation as well as the successful completion of the project	22	5	27
Obstructive factors	Lack of necessary competencies in project management (knowledge and skills) for civil servants	10	23	33
	Weak level of technical and technological support for project activities	3	17	20
Total		52	54	

We calculate the necessary values for determining the Pearson-Chuprov correlation coefficient:

$$1 + \varphi^2 = \frac{17^2}{52} + \frac{9^2}{54} + \frac{22^2}{52} + \frac{5^2}{54} + \frac{10^2}{52} + \frac{23^2}{54} + \frac{3^2}{52} + \frac{17^2}{54} = 1,265$$

$$Kn = \sqrt{\frac{0,265}{1,265}} = 0,458$$

The obtained value of the Pearson-Chuprov coefficient of reciprocity of 0.458 characterizes the presence of a moderate relationship between the traits under study.

Thus, the factors of the organizational and management component of the project environment and the effectiveness of project management in the state sector of the Novgorod region are in dependence which can be characterized as moderate. In addition, the following connection can be traced: the achievement of project targets is largely determined by the success factor of motivational mechanisms for supporting of employees in participation as well as the successful completion of the project and the greatest negative impact on the effectiveness of project activities in the state sector of the Novgorod region goes from the lack of necessary competencies in project management (knowledge and skills) for civil servants.

## 7. Conclusion

Thus, in the course of the study, key components of the project environment were identified and on the basis of a survey of civil servants in the Novgorod region the factors that had the greatest impact on the effectiveness of the project activity of government bodies were selected.

The expert evaluation of civil servants made it possible to identify two key factors contributing to the effectiveness of the project activity and two factors hindering the achievement of the objectives of the project activity. The identified key factors relate to the organizational and management component.

Based on the results of the impact assessment of the project environment components on the effectiveness of the project activity it was established that there is a moderate relationship between the investigated factors. The directions of actualization of the effectiveness of the project activity are determined through the improvement of the motivational mechanism and the development of project competencies of civil servants in the Novgorod region.

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