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## **Determinant Analysis of Public-Private Partnership in Russia**

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#### ABSTRACT

The subject of study in this article is the phenomenon of public-private partnership (PPP). The purpose of the study is to analyze the Russian type of PPP on the basis of qualitative analytical method. The authors put forward the following hypothesis: the application of the method of determinant analysis presented in this article and the results of testing this method increase the validity of managerial decisions in the field of PPP. To achieve the goal of research, the method of determinant analysis is substantiated in this article - the identification of the factor and resulting clusters of the subject of study. On the basis of this method, the formula of the basic characteristic of a PPP is defined; the evolutionary, object-oriented concept, subjective, environmental, formal and methodological determinants are revealed. Concept analysis allowed to justify the development of the market of public services as a social and economic result of the PPP. The formation of the supply and demand in the social and transport infrastructure was fragmentarily considered. In the subjective analysis, the interests of the environment and suggested ways to improve the assessment of development of the PPP. In result of the research of the methodology determinant, it was suggested to extend the method of the public comparator to evaluate PPP projects. The results of the determinant analysis allowed to determine a comprehensive model for assessing the condition and development of the PPP. To identify the functional request of the super-system, the analysis at the macro level was carried out and the PPP model was identified as a determinant of new state administration in modern realities.

**Keywords:** Determinant Analysis, Determinant, Public-Private Partnership, Public-Private Partnership Project, Infrastructure, Market for Public Services, Evaluation of Public-Private Partnership Project, Public Comparator **JEL Classifications:** D24, G21, P26

## **1. INTRODUCTION**

Provision of analytical basis for taking sound managerial decisions is a classic task of management. Methods of the decision-making in designing, creating and managing various systems have traditionally suggested a systematic approach as a methodological basis. The scientific tools of system analysis include a variety of methods that include genetic, structural, functional, factor, morphological and other types of analysis. In fact, a certain ideal model of the system under study occurs in the area of the most effective intersection of the analytical methods used. Applying the idea of a systematic approach to the very methodology of the system analysis, it is possible to position the objectives of the study and integrate their solutions in such analytical form as determinant analysis. The essence of the analytical tool discussed in this article can be seen as the identification of the factor and resulting clusters of the Russian model of public-private partnerships (PPP), taking into account all analytical components.

## **2. METHOD OF RESEARCH**

The basic backbone element of the suggested methodological approach is such an analytic category as "determinant," the formation of which emerged from the background and prior conditions that lead to some definite results. We emphasize that this interpretation at the micro level of the study lead to the concept of the most essential element, the factor causing the phenomenon, or the result; at the macro level - to the group of the decisive factors (the results) or factor (resulting) cluster, which is the subject of further scientific analysis.

Using some experience of research in sociology and psychology, with respect to the tasks set, we distinguish the concept of a determinant as a combination of external and internal conditions that cause the activity of the subject, which reflects the administrative nature of this definition. At the present stage, the relevant methodological trend of grouping or clustering of factors can be distinguished in sociology and psychology (genetic determinant, environmental determinant, situational determinant, personal determinants, etc.), which we use in our study, because this approach does not contradict the known algebraic interpretation of determinants as a combination element.

The grouping method is used in the system analysis to varying degrees and in different meanings. For example, morphological analysis is devoted to systematization of the sorting the options of all theoretically possible solutions by combining selected elements or their attributes based on the analysis of the structure of the object. Cognitive analysis enables determination of the strength and direction of influence of the factors on the translation of the control object into the target state, taking into account the similarities and differences in influence of various factors on the control object. From the standpoint of the methodological evolution, our suggested determinant analysis develops the grouping method and may precede both morphological and cognitive analysis at the stage of clustering the factors of the studied system for further consideration of the functional circuit.

Grouping, in the first place, allows to allocate internal and external clusters of the factor space, where an external cluster is a functional request of the super-system over the considered system. In this case, operation of the system, expressed by a complex of factors, will become the integral internal determinant. The purpose of management in this perspective may be interpreted as a determination of the optimal ratio of internal and external determinants, that is, determinants serve as systemic indicators and management levers at the same time. In general, the determinant analysis reveals specific properties, connections and relationships in the considered system and its special quality; it defines factor and resulting clusters and reveals functional patterns between factor and resulting clusters.

At the basic level of the rising methodological chain "process approach," the suggested determinant analysis does not contradict the classical principles of scientific research. For example, the well-known concept of "determination" as the process of learning involves the positioning of the phenomenon or fact, or classification of the subject of study by conditional parameters, revealing classifying individual characteristic in the appropriate category. This methodological premise has a clear reflection in our suggested analytical method, which in turn corresponds to the scientific approach - determinism - the doctrine of universal causality, natural interrelation and interdependence of the processes and phenomena. In our field of research and solution of economic and administrative problems, this "general causality" is formulated with certainty, without taking into account the random nature of the system condition. Such an approach could be widely applicable at the stage of the study, when aggregation of research elements and macro structuring of the studied system are possible or even recommended.

The requirement of the logically sound, consistent development of the methodology also leads to the consideration of combination and methodological compatibility of the determinant analysis with already known methods of system analysis, each of which is close to the claimed analytical tools (descriptive, factorial, cognitive analysis, etc.) or can be "embedded" in the determinant analysis (genetic, structural, functional analysis, etc.). At the end of the methodological express justification, let's compare the suggested determinant and classical determination analysis. The latter is treated, on the one hand, as a mathematical theory of determinations, and on the other - as a practical method of analysis that allows to search and analyze the rules by processing data, which clearly coincides with the methodological vector of the suggested determinant analysis.

In the field of economics and management, the scientific works were published (Shankar and Bolton 2004; Ranjan and Agrawal 2011; Bello et al., 2013), which used elements of the determinant analysis in relation to certain markets and some areas of management. The work of Ranjan and Agrawal (2011) investigated the determinants of pricing processes, considered the categories and chain of factors that explain variations in pricing and presenting products, brands, competitors, customers of the five US markets. The work of Ranjan and Agrawal (2011), when considering the direct foreign investments in the economy of some countries, used the method of determination of market, policy, trade and infrastructure factors.

## 3. RESULTS OF THE DETERMINANT ANALYSIS OF THE RUSSIAN MODEL OF PPP

# **3.1. Evolution and Characteristics of the Condition of PPP**

This article examines the use of the determinant analysis in relation to the study of the phenomenon of PPP. PPP model is developing quite rapidly, and up to 80 new agreements are concluded each year. Potential PPP brings a significant benefit to society, however, the current condition of PPP - both on a global level and in the Russian Federation - can be characterized as critical, at which the system becomes unstable with respect to fluctuations, there is an unpredictable transition of the system into one of the different, topologically non-equivalent to the original, states. All of the above clearly emphasizes the relevance of research in the field of PPP, its condition and trends.

A comprehensive functional characterization of the condition or level of development of PPP can be identified on the basis of such a property of the system as determinancy, when the input vectors or factor clusters uniquely identify outputs or resulting clusters, as well as the behavior of the system and all its elements.

 $U_{ppp}$  - f (D<sub>1</sub> D<sub>2</sub>...D<sub>i</sub>...D<sub>n</sub>), where

 $U_{pPP}^{-}$  - State of PPP as an integrated index of the resulting cluster D<sub>i</sub> - Determinant of PPP as a factor cluster

i - Determinant number

n - Number of determinants.

Justification of the stated above relevance of the PPP study actually already used the elements of evolutionary analysis in the determinant approach. Further consideration of the life cycle of this form and, accordingly, evolutionary maturity of the PPP model allows to unambiguously prioritize the factor cluster of the regulatory framework and the factor cluster of global practices of the implemented PPP projects as evolution clusters of PPP.

Actual illustration of the global PPP practice is the best practices of PPP in the UK. Pioneering and most proven legal act in this field is the British Program Private Finance Initiative, the essence of which is to transfer functions of finance, construction, maintenance, renovation, management of the state's industrial and social infrastructure. For two decades, PPP has received intensive development, in which the share of the UK in the pan-European number of projects exceeds 50%. However, at the present stage of evolution, the UK PPP practice is characterized by a number of negative precedents, which can be summarized in a negative experience. For example, the high cost of transactions is a serious problem (Triggle, 2010; Evans, 2010), PFI is irrational price-quality ratio (Tyrie, 2011; Ogunshakin, 2012), there is a lack of transparency of individual projects (Ogunshakin, 2012). As a result, the efficiency of the PPP model based on the UK experience is doubtful, but the analysis of this practice with using benchmarking technology reveals prospects for a positive development of the PPP model of countries-followers, whose interest in PPP in the current socio-economic realities increases.

### 3.2. Object-oriented Concept Analysis of PPP

The object of PPP is property constituting a part of the infrastructure, whose activities are specified in the PPP agreement. On the basis of international and domestic experience, we detail the considered category "PPP object" in the first approximation by the degree of popularity: roads, objects of housing and communal services, health care facilities and pre-school educational institutions, airports, railway stations, sea ports, facilities for processing and disposal of solid household waste and other.

The object of PPP can be considered as the object of PPP agreement, which refers to any property necessary for the exercise of powers of subjects of the Russian Federation or municipalities in their respective fields of activity established by the legislation, which directly links the object and subject of PPP. Some experts understand the PPP concept as state and municipal property, which we refer, as stated above, to an object, like the services provided by the state, municipal authorities and public sector organizations (Varnavskiy et al., 2010). On the other hand, the concept of PPP is appropriate to be considered as relationships in the interaction of public and private sector regarding the construction, reconstruction,

modernization, operation and management of infrastructure. These relationships have a key feature that combines two types of PPP activities: investment in infrastructure and provision of services using these facilities or their operation (Public Private Partnerships Center, 2013).

The authors of this article consider it necessary to identify the last component in the foregoing as determining the final product of PPP. Thus, a category of PPP concept is understood as public services created as a result of the functioning of PPP objects, which corresponds with the basic provisions of Federal Law No. 224 FZ "About PPP, municipal-private partnership in the Russian Federation and the amendments to certain legislative acts of the Russian Federation" (July 13, 2015). Then it is logical to make an innovative conclusion in the research of PPP: a significant object-oriented concept factor cluster is definitely of marketing nature - at the micro level, it is the demand, supply, price and quality of public services, at the macro level - system formation and functioning of the market of public services.

We understand the public services as systemic actions aimed to meet the individual needs of the person or entity, characterized by public importance, organized and controlled by a public legal institution, available to any applicant on the conditions determined by statute. In today's developed countries, public services include education, health care, environmental protection, public safety, urban planning and public housing. In the process of establishing, global and domestic markets of public services are more or less defined with respect to certain areas, such as health and education (CBI, The Voice of Business, 2013). At present, the international community recognizes the need to continue the active development of markets for public services due to changes in the realities of the modern demographic and social situation and reduction of the capacity of the state in view of the experience of the market development.

The content and provision of public services in various segments of infrastructure may be considered in the area of PPP (Lukmanova and Mishlanova, 2015). The market segment of public services in the field of social infrastructure operates on the basis of objects providing normal activity of the population: housing, objects of social and cultural facilities and housing and communal services, health care and education systems, sports and health institutions and others. The share of services provided by facilities of the social infrastructure account for up to 25-30% of the total consumption of goods and services in Russia, which allows us to assess this public service market segment as an important one.

## **3.3. Formation of the Supply and Demand for Public Services**

Let's fragmentarily consider the formation of supply and demand for public services in some segments of infrastructure. For example, in the area of ensuring conditions for implementing the citizens' right to housing, we have a significant infrastructure gap - the need for housing in Russia is 280 million square meters. Here we need to refer to the above topic of the objective analysis - foreign PPP model does not include housing as an object of private property in the concept of PPP in the form in which it is treated in the West. Some Russian experts (Varnavskiy, 2009, Lukmanova and Mishlanova, 2015) believe that PPP in the real estate have prospects for development, for example, in the area of social housing, departmental housing owned by the state or municipality. However, at the moment, a similar experience is negligible - in 2014, the PPP Center noted only four projects of this kind. The problems of development of PPP in housing construction include imperfect legal framework, complexity of the project promotion and the high risk of long-term projects of this kind.

In another area - pre-school education in Russia - the infrastructure gap is the fact that about 45% of preschool children are unable to attend kindergartens ("Infrastructure and Public-Private Partnership," 2015). In the context of budget cuts in the education system, an important issue is to attract private investment and competencies not only in the construction and operation of education facilities, but also directly in the educational process. This part of the social segment of the market of public services is at the stage of active formation and aims to meet the demand, increase availability and quality of services in education. In Russia, the share of private investors attracted to pre-school education, compared with developed Western countries, remains low - 4-5%. For example, in the UK the figure is 22%, in Austria-18%, in Germany-12%, which enables to identify the untapped potential of this segment of the market of public services in Russia using the benchmarking technology ("Infrastructure and Public-private Partnership," 2015).

Along with other public segments, the transport infrastructure provides conditions for the functioning of society. However, the Russian economy annually loses about 3% of GDP due to the imperfection of transport infrastructure. The Ministry of Transport of the Russian Federation suggests that until 2020, the expected volume of investments in the development of transport infrastructure in Russia will amount to about 12.3 trillion rubles. Of this, the funds raised through various extra-budgetary financing mechanisms, such as PPP, will amount to about 5 trillion rubles ("Infrastructure and Public-private Partnership," 2015). It must be emphasized that this segment of the public services market, formed in the PPP, is the most developed and rich; according to Intesco Research Group, almost every fourth PPP project is carried out in this segment. For the purpose of the sustainable development of the transport sector, "Main Directions of Budgetary Policy for 2015 and the Target Period of 2016 and 2017" include measures for the analysis of investment projects on expanding the use of PPP mechanisms with the involvement of extra-budgetary sources, including the possibility of introducing a payment for the use of transport infrastructure facilities.

Summarizing the analysis of demand for all segments of the public services market, it is worth noting that at present the world community is experiencing a serious shortage of infrastructure facilities due to the aging of fixed assets, population growth and increasing level of urbanization. Despite the rapid growth in demand for infrastructure, supply growth is limited by a number of factors that lead to global investment shortfall of about \$1 trillion annually through 2030, according to the data from World Economic Forum, prepared in conjunction with The Boston Consulting Group

("Infrastructure and Public-private Partnership," 2015). Director of the Department of Investment Policy and PPP Development of Russia, Igor Koval, speaking at the Second Congress of the "Russian Week of Public-private Partnership" (2015), stressed that today there are huge needs for infrastructure development in all major sectors of the Russian economy.

### 3.4. Subjective Analysis of PPP

As part of the next determinant stage - subjective analysis, the PPP model is a very special configuration of the purposes and relevant powers of the partners. The state, as a party to a partnership, primarily acts as a carrier of socially significant interests, performs purposeful and control functions. And just secondly, as a member of the economic turnover, it is interested in the effectiveness of the overall results of the PPP project and in ensuring its own commercial effect. For Russia, these aspects of PPP are particularly valuable, since the domestic legal system lacks the correct separation of public law and civil-law relationship, which affects the implementation of federal target programs and investment projects, mainly in the infrastructure sector.

Subjective analysis of PPP differs by convergence of methodological objects of factor and resulting clusters due to the active specificity of stakeholders. The first subjective determinant or expected results of partnership for the state can be identified as improving the efficiency of public investment and quality of public services, effective development of objects of state property, the empowerment of public entities and reducing the financial burden on the state budget. In turn, the private partner provides the following interests or the second subjective determinant: access to new areas of the economy, ability to attract financing on favorable terms, development of experience and innovative forms of project financing, lack of exposure to changes in demand. We should mention the problems of the modern practice of the relationship between the partners to assess two-subject determinant vector: non-transparent horizontal communication between partners; non-aligned procedures for approval of their interests; lack of competence on the PPP issues both at the state and business. Furthermore, in terms of our research problem, naturally, we highlight the interests of such indirect participant of the PPP as a consumer of public services, in accordance with the basic provisions of the stakeholder theory.

### 3.5. Formal Analysis of PPP

The results of the following determinant stage - formal analysis - and the data from "Region ranking" (2014) allow to define the following basic forms of PPP in domestic practice: concession agreements - 53%, PPP agreements on the basis of regional laws - 35%, forms close to PPP - 12%. In Russia, the concession model is quite popular, enjoys great support by the Federation and the subjects of the Russian Federation in legislative provision, in formation of the institutional environment and in provision of the Investment Fund of the Russian Federation. A concession agreement is the most regulated form of implementation of the PPP in Russia. The apparent advantage of this model, from a legal point of view, is its formalization in No.115-FZ "On concession agreements" - a law, which is actively developing. On February 1, 2015 the amendments came into force that were stipulated by Federal Law dated July 21, 2014 No. 265-FZ "On amendments to

the law on concession agreements and other legal acts." According to these changes, the scope of the concession mechanism is expanding, a mechanism of private initiatives to enter into concession agreements is introduced, the possibility of holding a joint tender with respect to facilities located on the territory of several public legal entities is substantiated, a preferential right to purchase by the concessionaire of the object of the agreement after its expiry is determined, and also features of privatization of the objects of concession agreement are provided.

In the case of life cycle contract, the subject of the agreement is to provide a service throughout the life of the PPP object, which allows to reveal the following advantages of this contract form: minimization of the risks of engineering, lack of gaps in responsibility of the private partner for engineering, construction and operation, payment on the contract only in case of compliance with functional parameters at all stages, etc. Over 20 years, more than 1,400 life cycle contracts have been signed in Europe, totaling more than 260 billion euros (Baronin and Yankov, 2013). However, the undeveloped regulatory definition of the life cycle contract and potential competition between the rules of procurement law and concession legislation create legal uncertainty of this PPP form in Russia, causing additional risks for investors and reducing their interest in long-term projects of this type.

The form of PPP on the basis of regional laws reflects a variety of contractual models and is in the process of establishing. Regional laws on PPP with high potential in Russia are underutilized (PPP Center 2015) because of the risks of conflict with federal legislation. In addition, large banks consider PPP projects unfunded under regional laws ("Russian Week of Public-private Partnership" 2015).

Choice of forms of implementation of PPP projects and assessment of their effectiveness are important analytical iterations, a methodological determinant of which is the quality of the project evaluation. Relevant studies of the Chamber of Commerce and Industry of the Russian Federation have revealed a low level of competence in the management of PPP projects, in particular, the experts noted that a number of planned and implemented projects "are already doomed to default because they are not fully estimated" ("Russian Week of Public-private Partnership," 2015). Considering the state of competence in this area, Deputy Director of the Department of Investment Policy and Development of PPP of the Ministry of Economic Development, Maria Yarmalchuk, notes: "There are various estimates of investment attractiveness of the projects - from the Ministry of Regional Development of Russia, the Ministry of Economic Development of Russia, the subjects of the Russian Federation, but there is no single approach. We need to create a unified approach and test it on every project, and then we can proceed to the choice of implementation format of such a project" ("Russian Business Newspaper," 2014).

### 3.6. Methodological Support of PPP

The experience of PPP established over 20 years is the experience of the application of analysis of a combination of costs and benefits (Gabdullina, 2012; Sharipova, 2013; Rymanov, 2014; Shevchenko, 2014) to evaluate the effectiveness of PPP projects. Decisionmaking in this area involves the testing of private investment in comparison with the form of public procurement, for which a public comparator is applied (Public Sector Comparator - PSC). This method can be used at different stages of the project life cycle and allows adjustment of the transfer of risks in various forms of relationships between the partners and the adjustment of the "competitive neutrality," which takes into account the heterogeneity of the contribution of public-private partnership. However, despite the certain popularity of using PSC in the international practice of PPP (Gabdullina, 2012; Sharipova, 2013, Rymanov, 2014, Shevchenko, 2014), this method has disadvantages: it is quantitative in nature, focused on the financial costs, ignores the diverse socio-economic benefits, etc. The work by Sharipova (2013) notes that the House of Lords in the British Parliament made an overview of PPP projects and found that the lack of appropriate data and methods limit the dignity of a public comparator: PSC shows only part of the real-life picture, while the quantitative analysis must be balanced with qualitative.

The structure of the qualitative criteria of the extended public comparator should include, for example, the strategic importance of the project, characteristics of the market of public services, abilities of a private investor, expectation of positive social effects, possibilities of state support, etc. The public comparator presented in this respect meets the principles of separation by the expanded parameter set of the comparative advantage in exercising the functions of production of goods, provision of services and execution of works under the PPP agreement, which corresponds to the modern model of PPP. In addition, the authors of the article believe that in order to expand the category of "public comparator," this approach can be used in the following, additional to the accepted, aspects: Comparing the share of public participation, analyzing the dynamics of performing public obligations before and after the project implementation, choosing the organizationaleconomic mechanism (BOT, BOOT, BTO, BOO, BOMT, DBOOT, DBFO).

Determinant approach to this part of the research is reflected not only in determining the properties of the system under study, but also in the suggested areas of development of the methods for assessing PPP projects and thus optimizing a methodological determinant. In the case of the expanded approach to the category of "public comparator," it is logical to develop an integrated assessment and a balanced scorecard for PPP project. These methodological innovations imply taking into account a synergistic effect for evaluation of the project as a whole and all stakeholders, including consumers of public services. Evaluation of the effectiveness of the projects from the perspective of the state should include budget efficiency, social efficiency, taking into account performance of public obligations, cost-effectiveness, taking into account the diverse public contributions, and risk assessment. At that, in regard to the socio-economic efficiency, is to reasonable to use the existing experience in valuation of investment and construction projects (Knyazev, 2014) as the basic element of organizationaleconomic mechanism of PPP. Assessment of the effectiveness from the perspective of a commercial actor should include the investment attractiveness of the project, the cost-effectiveness of participation in the project, including public benefits (improving the image, expansion of administrative resources, opportunities to diversify, etc.). To achieve the objectives of our study, it is obligatory to pay attention to the evaluation of the effectiveness from the perspective of the consumer of the outcomes of the PPP project in the system of criteria indicators for the products or services: accessibility - quality - price.

Analyzing the content of the methodological determinants, it is worth noting another important element of the factor cluster of the evaluation of the projects of PPP and the direction of its development. The two-fold category of "price-quality" used in the world practice of assessment of PPP projects seems to us debatable, since in some cases, the concept of quality rather refers to the quality of the project itself, such as its structuring and the possibility of creating a competitive environment of PPP (Sharipova, 2013). Therefore, the approach to the PPP model as a determinant of the market of public services, suggested in this article, allows to offer direction to improve the assessment of PPP projects on the basis of price and quality of the results of the project. Focusing on the results of the projects in the development of the PPP model as a particular problem of public policy, it is necessary to note the compliance of this focus with current theory trends and practice of state regulation.

### 3.7. Environmental Analysis of PPP

The next component of the determinant analysis - environmental analysis - allows to determine such environmental determinant as the level of development of PPP in the subject of the Russian Federation. According to the methodology of the Centre for PPP development (2014), assessment of the level of development of the PPP sector in the  $R_i$  region and hence the potential for attracting private investment in PPP projects is carried out by the formula:

 $R_i = \alpha L_i + \beta E_i + \gamma I_i$ , where

- j Number of the subject of the Russian Federation
- $\alpha$ ,  $\beta$ ,  $\gamma$  Coefficient of the importance of factor determinants
- L<sub>i</sub> Development of the institutional environment in PPP sector
- E<sub>i</sub> Regional experience of PPP projects
- I Investment attractiveness of the Russian regions.

In accordance with the methodology of the Centre, the definition of the first criterion  $L_j$  - development of the institutional environment - includes assessment of elaboration and implementation in the region of the following components: a PPP law and regulations of the subject of the Russian Federation; municipal regulations; investment memorandum; program of development of the investment activity and plan of the development of PPP mechanisms; a program, implementation plan or a list of PPP projects in the subject of the Russian Federation; availability of investment fund and the fund's participation in financing of PPP projects, the presence of functional units and collegial bodies, responsible for the development of PPP; special qualification in the field of regional PPP management.

Without neglecting the macro level as an objective for assessment of the PPP and expanding the task of research and practical application of methods of assessment, we believe that the following should be further considered:

- Adoption of Federal Law No. 224-FZ "About public-private partnership, municipal-private partnership in the Russian Federation and the amendments to certain legislative acts of the Russian Federation" (July 13, 2015).
- Adoption and implementation of federal subordinate legislation in respect of PPP.
- Development and implementation of the Federal program for the development of PPP.
- Regulatory support of various PPP forms.
- Activities of the Investment Fund of the Russian Federation and the Fund's participation in financing of PPP projects.
- Development of institutions and training of specialists in the field of state PPP management.

The authors believe that at joint usage of the criteria from both lists, both for assessment of the condition of PPP and as the management levers, the scientific and practical approach to PPP will be more objective.

In accordance with the above procedure (Centre for PPP Development, 2014), the regional experience of PPP projects included in the criteria E<sub>i</sub> can be assessed based on the following indicators: status of the project, sector, and volume of private financing, implementation period and complexity of PPP projects. In our opinion, these figures relate more to the project activity itself, which improperly distributes the economic and management priorities of PPP. The authors of the article, for their part, suggest that the main criteria is not taken into account here, which was discussed above in object-subject analysis, - the determinant of the market of public services with an estimate of the final product. Then the assessment of experience of PPP projects should be carried out for marketing categories of market development, expanded taking into account the change in supply, demand, availability, price and quality of public services as a result of the implementation of PPP projects. That is, we recommend to evaluate the experience of PPP projects by the final results of their implementation.

The next environmental determinant, defined as the investment attractiveness of the subject of the Russian Federation, can be estimated on the recommendation of methodology of the Center for PPP development (2014) based on the results of the annual survey by the Rating agency "Expert RA" and "Investment Rating of Russian Regions." This approach is possible within the framework of the unified use of existing data. However, when treating property as the PPP object and an object of capital construction, it is advisable not to neglect the core investment and construction components of the environment of PPP activities in the universal indicator. The very environment can be defined not just as investment, but as a business environment with advanced features: investment attractiveness, business activity and competitiveness, which increases the objectivity of this factor determinant. The authors of the article (Mishlanova, 2015) suggested a list of indicators for expert review of the investment and construction activity environment, which corresponds to the main provisions of the rating of the World Bank "Doing Business" and is built on a synthesis of other known techniques of assessment of the business environment.

## 4. DISCUSSION OF THE BASIC DETERMINANTS OF THE PPP MODEL

Summarizing the results of the determinant analysis of PPP (Figure 1), it is possible to identify the following basic determinants: development of the institutional environment and, in particular, legal and regulatory framework; investment attraction and experience in implementing PPP projects; characteristic of PPP object and public services provided on its basis; development of the market of public services; interests of stakeholders, including consumers; quality of methodological framework, in particular, evaluation of the effectiveness of PPP projects. The International Monetary Fund conducted a similar analysis for other purposes based on data from the World Bank (2013) and identified four groups of determinants of PPP: factors that determine the condition of the state budget; factors that determine the macroeconomic situation; parameters defining the scope of the internal market; condition of market institutions. In addition, the obtained analytical findings can be compared with the results of the survey conducted by the Russian Center for PPP development (2013) among leading businesses implementing infrastructure projects, which allowed to define the next positions of influence on PPP: Policy and regulatory

framework in PPP sector, in particular, sectoral legislation; order of interaction between the private and public sector, protection of interests of the private partner; common methodological framework for the preparation and implementation of PPP projects, monitoring, evaluation of the effectiveness of funding; uniform reasonable mechanisms for selecting private partners and the level of specific competencies.

By switching to macro level in order to identify the functional query of the super-system, an analytic chain can be formed: development of PPP model - functioning of the market of public services - performance of public obligations by public - law entities - provision of social functions of the state. In todays environment of geopolitical tensions, the risks of destabilization of the Russian economy evolve, in particular, fiscal sustainability,which is an external determinant of PPP model development. "Plan of Priority Measures to Ensure the Sustainable Economic Development and Social Stability in 2015" (Approved by the Decree of the Government of the Russian Federation Dated January 27, 2015 No.98-r) assumes reduction of most categories of federal budget expenditures by 10% in 2015. In turn, the deficit of the regional budgets in 2015, according to estimations by the Ministry of Economic Development of Russia, may be up to 1.3% of GDP.

Figure 1: Conceptual model of the determinant analysis of public-private p	partnership	
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Factor	s of macro environment	PPP model	Market for public services
Functional dependence of the indicators from the internal factor clusters	$\begin{array}{c} D_1 = f(x_1^{D1}, x_2^{D1} \dots x_n^{D1}) \\ \square & \square \\ D_2 = f(x_2^{D2}, x_2^{D2} \dots x_n^{D2}) \\ \square & \square \end{array}$	Analysis of PPP practical experience (D1) Level of regulatory support (D2)	Evolutionary analysis
	$D_3=f(x_1^{D_2}, x_2^{D_2}x_n^{D_2})$	Characteristics of capital construction objects (D3)	Object-oriented concept analysis
	$D_4=f(x_1^{D_4}, x_2^{D_4}x_n^{D_4})$	Characteristics of public services (D4)	Asis (
	$\mathbf{D}_{5}=\mathbf{f}(x_{1}^{D5}, x_{2}^{D5} \dots x_{n}^{D5})$	Obligations of public-law entities (D5)	Subjective analysis
	$D_6=f(x_1^{D_6}, x_2^{D_6}x_n^{D_6})$	Interests of the private partner $(D_{\delta})$	Subjective analysis r
	$D_7=f(x_1^{D7}, x_2^{D7}x_n^{D7})$	Interests of consumer (D7)	Dee Dee
	$\mathbf{D}_{\$}=\mathbf{f}\left(x_{1}^{D\$}, x_{2}^{D\$} \dots x_{n}^{D\$}\right)$	Definition of contractual form (Dg)	n Formal analysis
	$D_9=f(x_1^{D_9}, x_2^{D_9}x_n^{D_9})$	Quality of assessment of PPP projects (D9)	Methodological analysis
	$\mathbf{D}_{10}=\mathbf{f}\left(x_{1}^{D10},x_{2}^{D10}x_{n}^{D10}\right)$	Investment attractiveness (D10)	Environmental analysis
	$D_{11}=f(x_{1}^{D11}, x_{2}^{D11}x_{n}^{D11})$	Institutional conditions (D <sub>11</sub> )	
	Comprehensive functi	onal model of the assessment of public-private partnership U <sub>ppp</sub> = f (D <sub>1</sub> , D <sub>2</sub> D <sub>i</sub> I	ps

Reduction of own incomes of regional budgets on the background of changes in macroeconomic indicators and, consequently, reduction of the potential performance of public obligations, can be an incentive to increase the practical interest in alternative financing mechanisms.

## **5. CONCLUSION**

In "Main Directions of Budgetary Policy for 2015 and the Target Period of 2016 and 2017", the implementation of the principle of efficient use of the budget involves the implementation of measures aimed at modernization of the budget process in the conditions of implementation of special-purpose methods of management, streamlining the structure of managing the financial resources of public-law entities, increasing operational efficiency of budget spending, increasing operating efficiency of executive authorities and state (municipal) institutions. It is worth highlighting the role of PPP among general prerequisites for achieving the goal and objectives of fiscal policy.

In order to improve the Russian model of PPP, the promising areas of research can include the analysis of trends in PPP model development and optimization of the ratio "availability - price - quality" in the market system of public services, reducing the risks of private partners in view of "competitive neutrality," development of the Balanced scorecard for PPP projects, identification of effective forms of PPP. Thus, the PPP model can be a determinant of the new state administration, which is, on the one hand, a fragmented market commercialization of public functions, for example, in terms of performance of public obligations, while on the other hand - preservation of the basic principles of state administration.

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