



EFFICIENT FUNDING STRATEGY FOR INVESTMENT AND CONSTRUCTION PROJECTS OF MUNICIPAL ECONOMY: STUDY OF CHARACTERISTICS

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ABSTRACT

Based on the analysis of the world experience in the implementation of projects on the principles of public-private partnership, the possibilities are considered and the potential of application of this tool for funding the investment and construction projects of municipal economy in terms of the Russian Federation are analyzed. The characteristics and the most promising funding strategies for investment and construction projects of the municipal economy are determined through the expert survey.

Keywords: Public-Private Partnership, Investment and Construction Projects, Private Partner, Public Partner, Concession, Leasing.

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1. INTRODUCTION

The implementation of construction projects of the municipal economy requires adequate investment and financial support. In turn, the construction projects' funding is possible only provided that the most effective investment and financial strategy for construction is chosen and implemented, that is, which would ensure maximum return with minimum costs, while meeting the overall funding strategy of municipalities. Under such conditions, all possible financial instruments (the means first of all), experience and opportunities of the private sector, local borrowings and guarantees, etc. should be used for such funding.

Modern budgetary relations are characterized by a large gap between the need for the development of the infrastructure facilities and the capacity of the state and local budgets to finance such development.

The analysis of international experience (the experience of the USA, Germany, France, Great Britain etc.) shows that in many developed countries, the so-called public-private partnership (hereinafter – the PPP) is used for several decades to develop the infrastructure. According to the definition of the International Finance Corporation, the PPP is the relationship by which the private sector provides the society with the infrastructure assets and services that are traditionally provided by the state [1].

According to the definition, adopted by UNECE (United Nations Economic Commission for Europe), the PPP is the innovative contractual agreement between the public and private sectors for the provision of public services and infrastructure development. It combines the best of these sectors: the resources, the skills of the private sector, on the one hand, and technology and the potential for economic regulation and protection of the public interest of the public sector, on the other hand [2].

According to Stephen Osborn, professor at the University of Edinburgh, the experience of the PPP projects in the United States and Great Britain shows that the central and local authorities often have different interests in such partnership, sometimes even contradicting each other. For example, for the implementation of certain national projects (construction of highways, nuclear power plants, stadiums, etc.), it is required to use the land plots owned by the local governments that may have a vision different from the central authorities for the optimal use of the relevant plots, taking into account the interests of the residents of the territory. In this case, at the initiation stage of the project, implemented in the form of the PPP, the local governments and the central executive authorities should be involved in the negotiation process as the separate entities, each of which defends its interests and has various risks in implementing the future project [3].

The source of private sector profit in the PPP terms is the payments from the state (local) budget, or the cash flows from the operation or management of the infrastructure object in exchange for the investment in this facility [4, 5, 6]. That is, the obligations of the public partner (hereinafter – the PP) under the PPP can be financial (payment of certain amounts in

favor of a private partner (hereinafter – the PrP) for a certain time) or nonfinancial (product distribution, lease, concession, management, provision exclusive right to use related objects and the like).

The involvement of the private sector is advisable for the public sector when the volume of investment exceeds the amount that can be allocated from the budget during the year, or when the cash flows, which can be used for the settlements for this object, begin to be generated from the operation of the new facility.

2. METHODS

The purpose of the article is to study the characteristics of investment and financial support for the construction of municipal economy.

The main research method is the survey of the experts in the field of funding of the investment and construction projects of the municipal economy (expert evaluation), followed by mathematical processing of the results in order to rank the PPP strategies presented for discussion.

The ranking of the PPP strategies lies in their location by each of the experts in the form of a sequence according to the decrease in their preference. At the same time, each of the PPP strategies is evaluated by means of the rank (number) under which it is located in the given sequence. The final rank of the PPP strategy is the arithmetic average of all expert ranks for a sample of the experts.

With an allowable expert evaluation error of 5%, the required number of experts ($N = 0.5 \cdot (3 / b + 5)$, where b is the allowable expert evaluation error (in percent / 100)) is 33 people.

Forty experts took part in the evaluation, of whom 15 were the employees of the administration of the municipal (city) economy; 15 were the representatives of the financial institutions investing in construction; 10 were the employees of construction companies. In our opinion, the selection of the experts, representing various aspects of the construction projects' funding will make it possible to consider most widely the characteristics of funding strategies for the investment and construction projects of municipal economy.

The PPP strategies most frequently used in the international practice of investment in the municipal projects are the basis of the expert discussion [7]:

- Construction / Operation / Transfer (COT)
- Construction / Transfer/ Operation (CTO)
- Construction / Proprietorship / Operation (CPO)
- Leasing / Purchase (Financial Leasing)
- Sale / Reverse leasing
- Leasing / Modernization / Operation (AMO)
- Purchase / Modernization / Operation (PMO)
- Construction / Transfer (turnkey)

3. RESULTS

The results of the expert discussion of the PPP strategies presented, applied in the international practice when investing in the municipal projects, and their subsequent ranking according to the expert survey data are presented in Table. 1.

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Table 1 The PPP strategies applied in the international practice when investing in municipal projects

No.	Strategy	Implementation	Ownership	Rank
1	COT	The PrP builds an object; operates the constructed object within a certain period with the aim of returning the investments and making a profit; transfers the object to the authority after a certain period	public	2
2	CTO	The PrP builds an object; operates the constructed object within a certain period with the aim of returning the investments and making a profit; transfers the object to the authority after completion of construction	public	1
3	CPO	The PrP builds and operates the facility without transferring the property rights, and the PP has no obligations to purchase the property or acquire the ownership of it	private	6
4	Leasing / Purchase (Financial Leasing)	Provides for a purchase and sale contract with a deferred payment. The PrP funds the construction of a new facility, then leases it out in financial leasing to the authority	public	4
5	Sale / Reverse leasing	Is a financial contract according to which the owner of the object sells it to another person, and then the object is transferred back into leasing from the new owner. The PP, which sold the object, gets it back into leasing and continues its operation	private	5
6	AMO	The PrP leases an existing facility from the authority, invests its own capital in upgrading, modernization and / or expansion of the facility, and then exploits it in accordance with the contract concluded with the authority	public	8
7	PMO	The PrP buys an existing object from the authority, invests its own capital in updating, modernization and / or expansion of the facility, and then exploits it in accordance with the contract concluded with the authority	private	7
8	Construction / Transfer (turnkey)	The PP and the PrP conclude the agreement for the design and construction of the facility in accordance with specific characteristics and indicators agreed between the PP and PrP. At the same time, the PrP undertakes to construct the facility at a fixed price and assumes the risks of matching the construction costs to this price.	public / private	3

Thus, according to experts, in terms of the Russian Federation, the most promising PPP strategies for funding and implementation of the investment and construction projects of the municipal economy are the CTO, COT and Construction / Transfer ("turnkey") strategies.

4. DISCUSSION

It has been noted by the experts that the first two strategies used in investing in the municipal projects can be applied, mainly, to create the high-value facilities, the operation of which is guaranteed to ensure a steady flow of funds (for example, when the facility is a water canal, with guaranteed payment for water consumption from the consumers). In this case, in most cases, the PrP provides part or full funding of the construction, so the contract period must be sufficient to ensure the return of the investment from the proceeds of the operation.

With the expiration of the term of the contract, the PP may assume the operation of the facility or conclude an operation agreement with the primary PrP or new PrP.

The first of the two PPP strategies ranked high and used in international practice when investing in municipal projects are the concession agreements [8, 9].

According to experts, the problems of concession projects are:

- lack of authority to provide a guarantee from the part of the authority to cover the losses of the investor in case of failure to meet the project workload of the facility (for example, the traffic on a toll road) due to the lack of interest of the local authorities in nonprofitable projects;
- long payback periods for concession projects, which make unpredictable the likelihood of timely and full reimbursement of the investments (as a rule, capital intensive projects);
- The lack of the possibility of applying other models of investment refunding, in addition to direct payment for services.

The experts believe that with the application of the concession mechanisms when the credit resources are required, the project funding strategy can be used, wherein:

- A group of private companies establishes a new project company (or specialized company) for the construction and operation of a new facility. A new specialized company is capitalized at the expense of sponsors' contributions (20-25%).
- The project (specialized) company then lends money from private commercial borrowers (75-80%). The borrowers rely on the planned future income from the project, through which all loans will be returned.
- The local government body that manages the object of municipal property rights (the municipality management where the project is implemented), does not provide full guarantees to the borrowers.
- Private sponsors provide only limited guarantees and, if necessary, additional capital.

When referring to the implementation of leasing forms of investment in the municipal construction projects, according to experts, it should be noted that modern real estate leasing (construction and subsequent operation of municipal facilities) is at its early stage of development.

The main problem of leasing projects is the fact that the Budget Code provides for the local guarantees only in relation to securing of the loan (credit) repayment obligations. This means that the lessors can reimburse their expenses for the leased asset only by withdrawing it and transferring it to another lessee [10]. Given the specificity of municipal facilities, the search for a new capable lessee can take considerable time and cause losses for the lessors.

Within the framework of the Construction / Transfer ("turnkey") investment and construction project, the municipality concludes a contract with a private investor / builder for the design and construction of the completed facility in accordance with the specific characteristics and indicators agreed between the municipality and the PrP, which undertakes to construct the facility at a fixed price and assumes the risks of matching the construction costs to the agreed price.

The funding obligations and the ownership of the object can be assigned both to the PP and to the PrP. For example, the PP can provide cofinancing, along with the related costs and risks. As an alternative, the PrP can provide the funding of the investments, mainly in exchange for a long-term contract for the operation of the construction of the facility.

The following provisions have been attributed by the experts to the advantages of the turnkey strategy:

- In the implementation of the turnkey agreements, the PrP takes the shortest possible way (for example, development and manufacture), moreover, the PrP is not connected with the regulation of procurement of the works and services characteristic of the public sector. This combination allows the PrP to complete the project in a much shorter time and at a lower cost than using traditional methods of construction used by the local authority.
- The cost of borrowing for project funding can be much less for the foreign or Russian suppliers than for the local authorities. The PrP bears the facility construction risk and is responsible for the quality.
- If the project allows the municipal enterprise to receive the additional profit or to save money, a source for the settlement on the loans appears.

The experts attribute to the turnkey strategy risks the increase in the cost of loans in the case of an increase in the base rate, if the loan servicing is carried out at a floating rate; and the construction cost, if the choice of a partner is made in the absence of a competitive environment.

5. CONCLUSION

The analysis of the characteristics of the investment and financial support for the construction of municipal facilities and the results of expert evaluation of the PPP strategies used in the international practice when investing in the municipal projects have shown that

1. In accordance with the international practice, the most promising field of investment and financial support for the construction of municipal facilities is the PPP, which is the establishment of long-term strategic relations in the implementation of socially significant projects between the private sector and the public authorities, which are personified both by the central executive authorities and by the bodies of local self-government; herewith the participation of the private sector in a project depends on the possibility to benefit financially in the long run.
2. Given Russia's circumstances, the most promising PPP strategies for funding and implementation of the investment and construction projects of the municipal economy are the concession agreements and the execution of the works with the following commissioning of a constructed or renovated facility in full operational state.

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