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Effective models of public-private partnership in municipal facilities

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ABSTRACT

Russian housing facilities services are in critical condition. Modernization requires over 9 trillion rubles. Currently the state has no such funds, and according to plan from all sources during the period 2010-2020 it is planned more than 4 trillion rubles. Thus, the government needs to find other sources of funding reforms. The obvious solution is to engage the public-private partnership. However, the municipal facilities are unattractive for business for a number of reasons, described in this article. Therefore, the aim of the article is to search and analyse effective models of public-private partnerships for use in the Russian municipal facilities sector. Actuality of work is conditioned by the fact that the problem is recognized at the state level. The article studies such a financial model for attracting private investment in construction and reconstruction of infrastructure municipal facilities. The results of effective models for use in the construction and reconstruction of municipal facilities is BOLT [construction, ownership, lease, transfer] (not valid for important facilities: nuclear power plants, hydroelectric, etc.) and BOT [building, operation, transfer].

Content

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1. Introduction

The President of the Russian Federation said that "the main task is the modernisation of the industry" at the meeting of the State Council concerning municipal facilities on May 31, 2013.

The global problems of municipal facilities are:

- That is inefficient sector of the economy, because of high deterioration of municipal sector. According to official data of Ministry of economic development deterioration was at the level of 60% in 2012, the trend was not improved in 2013. Primary recovery of funds require over $ 9 trillion rubles;
- The reform of municipal facilities is required to spend more than 4 trillion rubles, the state currently does not have such funds.

Obvious solution is the search for private investment. The state acts only as an supervisor in this case, and the investor as effective manager of municipal facilities provides growth of market in the competitive environment and conditions of economic motivation. Growth of the market of municipal facilities is over 4.2 trillion rubles per year (in the beginning of 2013).

Foreign experience shows that the private investor is able to earn profit in this market, and the state is able to develop the industry [2]. Thus, the model of public-private partnership (PPP) is a solution to the problem of searching funds to municipal facilities. That was also noted by the Government of the Russian Federation.

However, municipal facilities have not investment appeal because of long payback period and high risks (including industry risk). Government recognized this problem. The solution requires a more developed regulatory framework, mechanisms to reduce risks and increasing the attractiveness of the industry.

Consequently, we faced with the problem of lack of effective mechanisms for implementation of PPP in the current legislative framework. Moreover, the proposed mechanisms (a simple form of concession agreements, management contracts, etc.) are poorly establish themselves in municipal facilities. It makes the task of modernizing the industry more complicated.

Thus, the aim of this work is to search and analyze effective models of public-private partnerships for use in Russian's municipal facilities.

Under this goal the following tasks were solved:

- Common in the world practices of PPP model were analyzed;
- Deficiencies in the domestic sector were analyzed as an object for private investment;
- Effective PPP models for using in the domestic sector were defined.

The problem was recognized by the Russian's government so this study is highly relevant.

The problems of implementation of PPP rise also in the articles of russian's authors [1-16] and foreign authors [17-27]. However, relatively few works devoted to problems of implementation of PPP in municipal facilities. Laktyushina O. [11] considers a PPP as an effective method of providing municipal facilities, but it does not lead most efficient forms of implementation in the industry. Beljuchenok A.V. [12] analyzed public-private partnerships in municipal facilities as an opportunity to modernize the industry, but also does not leaded possible ways of implementation of PPP in the industry. A. A. Zykov [13] describes the conceptual approaches for the application of PPP in municipal facilities, but he does not described road map for the implementation in the industry.

Thus, the works did not reveals of using of various PPP models in municipal facilities. This article solved this problem.

2. Methods and Results

Forms and models of PPP are diverse. This section describe the most popular and well-proven ones in various industries.

It is possible to allocate characteristic features for all forms of partnerships:

- Long term (5 to 20 years or more);
- Competition from participants in PPP projects;
- The specific model of delegation of responsibility between the state and the private partner. The objectives of the project usually determined by the State according to the functions, including its financial performance. The private partner operates in different project phases – design, funding

(part of the task may take over the state), the construction (or reconstruction) and operation, management, etc.;
- Separation between the subjects of PPP risks on the basis of the contract.

The success of the project depends on each partner. A private company provides effective management, financial resources, ability to implement effective and innovative methods of work (to reduce costs) and professional experience. For its part, the state gives rights of ownership to them with tax benefits and political guarantees. The government implements his core functions (providing and protection of interests of citizens) through PPP. Government tries to shift the focus from issues of construction of the control function. This risks are moving away to private partner. PPP opens up the possibility of entry of foreign investment, as the government is a guarantor.

Table 1. PPP models.

New projects in municipal facilities					
Design & Building (DB)	Building & Transfer & Operation (BTO)	Design & Building & Transfer (BOT)	Design & Ownership & Management (BOM)	Building & own–operation & transfer (BOOT)	Building & Ownership & Operating (BOO)
Government responsibilities			Private company responsibilities		
Nationalization	Service contracts	Management contracts	Rent	Concession	Privatization
Existing facilities and services					

The degree of business involvement in public-private projects is depending on the chosen model of partnerships and the number of transferred rights from the government. The boundary conditions are full privatization or nationalization. All models of PPP is between these borders with differing pin functions on the business. This thesis is presented in table 1, which shows only the most frequently encountered in the practice model.

2.1 Basic model of the implementation of concession agreements

The concession agreement is carried out in different models on world practice. The most common models are:

BOT (building, operation, transfer). A private investor invests in the construction of a new municipal facilities or upgrading the old one, operates it for a period of time sufficient for a refund (within the period of validity of the contract) and transfers to the government. Most often this mechanism is used in concession agreements, where investors has the right to use the object of the agreement, but has no right of ownership. Schematic diagram of the implementation of this model is presented in figure 1.

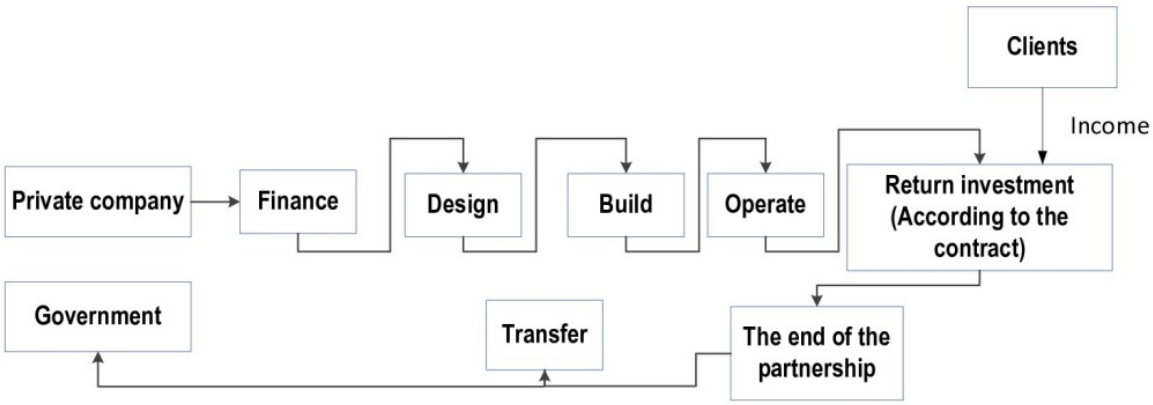

Figure 1. Model BOT.

BTO (Build, transfer, management). The private company reports an object to the government after the completion of the capital construction, then private company operates (on loan) with the purpose of gaining profit

in accordance with the contract. The object is to use a private partner, but without transfer of ownership. Schematic diagram of the implementation of this model is presented in figure 2.

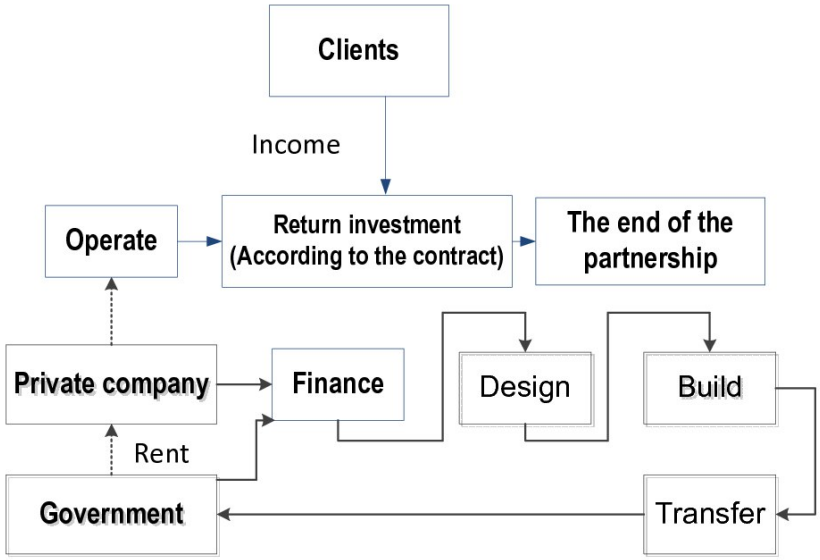

Figure 2. Model BTO.

BOOT (building, ownership, management, transfer). The private partner has the right to own the object during the term of the contract, but he obliges to return the object to state property when partnership will end. BOOT is reversed in some countries, where the government undertakes the construction and financing of the object, and then transmits to operate a private company which has the right to redeem the property upon expiration of the contract. Schematic diagram of the implementation of model BOOT is presented in figure 3.

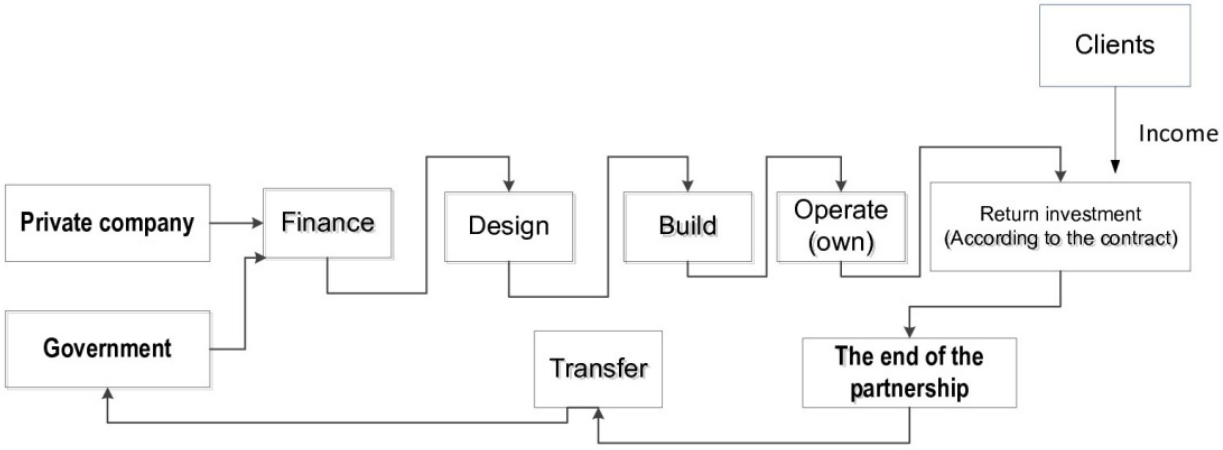

Figure 3. Model BOOT.

BOMT (construction, operate, manage, transfer) is a modification of the BOT model with an emphasis on the responsibility of the private partner for maintenance and repair of the facility.

BOLT (construction, ownership, lease, transfer). The construction object built by a private company for its own capital and secured him in the property, then the object is leased by the government with a gradual transfer of ownership to the government (after full reimbursement of investment costs in favour of a private company). The scheme of realization of the BOLT is shown in figure 4.

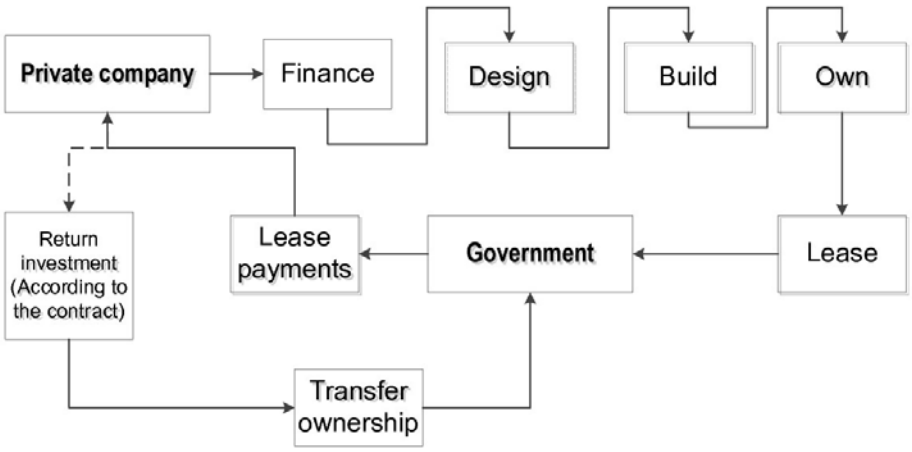

Figure 4. Model BOLT.

3. Discussion

The specifics of municipal utilities for the investor in Russia:

- Investing for a long period. PPP projects have a long payback period (15-30 years) in municipal facilities. The investor do not make such risk investments, because economic situation is volatile on this moment.
- A lot of risks (financial, political, administrative, legal and so on);
- Lack of a developed legislative base does not allow to see clear rules of interaction with the state. Accordingly, there is not possibility to predict consequences of rules violations or termination of the contract;
- High delay in the payment of utility bills, minimizes the possibility to predict the profit of the project, which leads to unpredictability of the financial model.

It is obvious that the government should reduce risks and provide assurances. In this case the guarantee of the investor can be achieved through the adoption of part risks by the state. Model BOOT is not acceptable in the current concession legislation of Russia. Therefore, effective models, taking into account the specifics of the market are BOT (no administrative risks) and BOLT (lack tariff and operational risks).

Model BOLT effective for use in the municipal facilities, for the following reasons:

- Investor have not risks of tariff regulation (a refund of investment costs at the expense of budget funds in the form of fixed lease payments);
- Investor have not operational risks and commercial risks in the provision of services with the use of the object (the investor carries out the operation of the object);
- More flexible regulations (in the case of a lease), provided by the civil code;
- The ability to transfer created objects to pledge as security obligations of the private partner to banks, creditors (the emergence of private property rights of the investor on the newly constructed facilities for the period of project implementation allows you to pass objects as collateral).

The most logical approach to implementation BOLT model (taking into account world practice) is the creation of municipal formations of economic society (special purpose vehicle or project company). Before the tender for the right to conclude PPP agreements it is entitled to rent the necessary necessary municipal facilities for the purposes of the project in accordance with the current legislation of the Russian Federation.

Government while implementing this model without being a part to a PPP agreement is member of the project on the side of the project company and ensures the implementation of the project as a whole and its financial support through subsidies to municipal formations and giving the government guarantees to the private partner.

However, BOLT is unacceptable to apply for the strategically important objects (nuclear power plants, hydroelectric, etc.), because there are high risks of monopolization of the market, and as a result, unjustified increase of tariffs and the pressure on clients. In this case, BOT is a effective model. The difference of the BOT model from BOLT is that a private investor implements an object throughout the life cycle of the building, but he has no rights of ownership. It is obvious that we reduce the guarantee to the investor, as enhanced administrative and political risks, but for the above reasons, it is the best option. Moreover, the BOT model has been successfully implemented in other industries of the Russian Federation: reconstruction of the airport "Pulkovo" and building of "Western high-speed diameter".

Thus, the BOT model is an effective model for the application of PPP in the municipal sector, where ownership rights of the state are mandatory, due to the inadmissibility of the control over the strategically important objects by individuals , because:

- Russia has more developed legislative basis for this model (law on concessions);
- The government performs a Supervisory role, thereby giving the partner the freedom of action;
- Advantages for private partner: the market capacity of municipal facilities a large and there is low competition in the Russian Federation, at the moment, which means a guaranteed profit in the medium and long term;
- Advantages for the State: budget cuts; funding of projects without increasing the budget deficit and public debt; improving the efficiency of reducing the cost of the project; the use of more efficient technologies, including in the field of management.

4. Conclusions

Thus, when all forms of PPP was analyzed, we can make conclusions:

- The advantage of PPP for government is that the private partner tends to work more efficient, reduces costs in the construction and operation of object of capital construction. Private company is looking for methods to improve efficiency through the application of innovative solutions. This allows the state to move away from the accomplishments of unusual functions;
- Forms of PPP based on the form of rent, leasing, service contracts and life cycle contracts need to be developed legislative regulation;
- PPP model BOLT is reduction of risks for the investor because the investor is guaranteed to recoup their investment in the Russian municipal facilities. The effectiveness of state regulation is achieved through the involvement of regional and municipal authorities. However, BOLT is unacceptable to apply for the strategically important objects (nuclear power plants, hydroelectric, etc.);
- The BOT model of PPP is an effective model for the application of PPP in the municipal facilities, where ownership rights to objects must be the government (due to the inadmissibility of the control of individuals over the strategically important objects).

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Эффективные модели государственно-частного партнерства в жилищно-коммунальном хозяйстве

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КЛЮЧЕВЫЕ СЛОВА

Конструкции;
Гражданское строительство;
Здания;
Жилищно-коммунальное хозяйство;
Менеджмент;
Инфраструктура;
Эффективные модели;

АННОТАЦИЯ

На поддержку реформы жилищно-коммунального хозяйства (далее ЖКХ) требуется свыше 9 триллионов рублей. Поэтому на поддержание ЖКХ в рабочем состоянии и на ее дальнейшую модернизацию требуется значительные финансовые средства. Но отрасль остается одним из малоэффективных секторов экономики страны. Так как физический износ основных фондов ЖКХ на 2012 год находится на уровне 60% по официальным данным Минэкономразвития. Данная тенденция также не улучшилась в 2013 году. Поэтому отрасль требует дальнейшего реформирования. В настоящее время у государства нет таких средств», а по плану из всех источников в период с 2010-2020 гг. планируется больше 4 трлн руб. Таким образом государство требуется найти другие источники финансирования реформы. Очевидный выход – это привлечения государственно-частное партнерство. Однако отечественных ЖКХ является малопривлекательной отраслью для бизнеса по ряду причин, описанных в данной статье. Поэтому целью статья является поиск и анализ эффективных моделей государственно-частных партнерства для применения в российском ЖКХ. Актуальность работы, обуславливается тем, что проблема признана на государственном уровне.

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