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PPP Model Opportunities, Limitations and Risks in Croatian Public Project Financing

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Abstract

In recent years, the need for development of infrastructure and public facilities, as a significant factor of economic growth has equally increased in developing and developed countries. Government budgetary allowances are mostly insufficient in keeping pace with these needs. One of the options in finding new ways to finance the facilities of public interest are private investments through a network of contract agreements, widely known under the term public-private partnership (PPP). A public-private partnership represents a contract agreement between a properly authorized local, regional or state authority and a private partner with a clear share of responsibilities and risks with the purpose of fulfilling a given public need. Further, the opinion of the responsible Croatian authorities related to the possibilities of implementing the PPP models in regard with the implementation of public facility project is presented.

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Key words: public-private partnership; public projects; public administration; risks; public facilities

1. Introduction

Private capital investment in the public sector is a model with which some countries are trying to solve a wide spectrum of financially demanding public needs. This partnership is commonly referred to as a public-private

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partnership and is executed through a number of different models. Croatia has by means of legal regulations attempted to simplify the investment of the private capital in the public sector.

2. Defining the problem

Taking into account the character of the PPP, which can have a number of advantages over the traditional procurement model, primarily taking into consideration the financial risk acceptance as well as the implementation, maintenance and finalization by the private investor, the public sector authority especially has to be cautious of the risk which can occur in a particular manner at specific stages of service life. This paper primarily deals with the potential risks in the public infrastructure sector facilities such as hospitals, health institutions, legislative facilities, etc. Establishment and adoption of adequate procedures, methods and measures which enable the public sector authority to face the risks are considered to be an obligatory condition in rational management of public funds. Experience of investing public funds for meeting public needs, so far, has at times, shown inadequate knowledge and even insufficient effort to rationally and conscientiously manage public funds. Problems which sometimes occur in traditional investment models can have serious negative financial long-term effects in PPP. Both public sector authorities and government bodies responsible for supervising public fund expenditure have to be aware of these possible problems.

3. Research methodology

Scientific methodology of analysis, synthesis, classification, concretization, description, compilation and cyclical approach in defining risks in PPP has been applied in defining risk model structuring and response measures.

4. Legal and other documents

The first agreements on public-private partnership in Republic of Croatia were contracted in 2006 and 2007 when the law had not been drawn. At the time there were only Guidelines for Contracted Model Application from 2006 and then Regulation on Issuing Prior Consent for Drawing a PPP Agreement according to the PFI model from 2007. PFI stands for Private Financial Initiative which can be considered as a synonym for the public-private partnership. The first Law was drawn in 2008 and was followed by a series of Regulations from 2009 and Regulations on PPP Project Organization and Management. The valid Law on Public-Private Partnership was drawn in from 2012 as well as Regulations on PPP Project Implementation (Law on Public-Private Partnership, 2012; Regulations on Public-Private Partnership Implementation, 2012). By their coming into effect the Regulations from 2009 ceased to apply. The new Regulations on Organization and Management of PPP Agreement Records whose bringing was announced by the Law of 2012 have not yet been enacted so that the Regulations from 2010 are in force.

The legislative frame also includes the Law on Public Procurement and the Law on Concession; the Law on Public Procurement because the selection of the private partner is subject to the provisions of this Law (Law on Public Procurement, 2011) while the Law on Concession is applied if a private partner is given concession for JPP project implementation (Law on Concession, 2012).

The accompanying documents are also of significance – manuals from 2012 published by the Agency for Public-Private Partnership which, each of them in their own segment, offer significant help to public clients and private partners because they deal with crucial matters such as PPP project preparation, contracting and implementation (discounting, creation of a financial model, creation of public sector cost comparatives, agreement structure, selection of the private partner, recommendations for risk allocation and identification and other) (Manuals on Public-Private Partnership Model Preparation and Implementation 1-9, 2012).

Law on Spatial Planning and Construction is also of importance, especially in the part which determines crucial requirements related to the structure and the role of particular construction participants (Law on Spatial Planning and Construction, 2007-12). It must be pointed out that the draft of the new Law on Construction introduces an important novelty, which is removal of the paragraph 3, article 179 which says: "The design engineer cannot be employee of the party who is the contractor on the structure in question". This opens a possibility of applying the "constructability" procurement model which can add a new quality dimension in delivering public structures whose base is a possible positive synergy effect of encompassing designer and contractor knowledge and experience in structure design process (Construction Law Proposal, 2013).

5. Comment on institutional frame

The role of the ministries and authorized bodies of local and regional self-management units is to create project implementation development strategies and investment programs.

The Ministry of Economy has the role of leading and coordinating the political frame of the public-private partnership.

The Ministry of Finance has the role of leading and coordinating the political frame of concessions pursuant to the Law on PPP inspection of PPP project fiscal sustainability.

The Agency for Public-Private Partnership (APPP), which was founded in 2009, is the central national body in charge of:

- PPP project assessment, approval and implementation
- keeping Records on PPP agreements
- applying the best international practice
- establishing the advisement system for the PPP field (Juričić, 2011, 2013).

The Centre for monitoring energy sector and investment operations (CEI) was founded in 2012 pursuant to the Law on Centre for Monitoring Energy Sector and Investment Operations and also includes the Sector for public-private partnership (Law on Centre for Monitoring Energy Sector and Investment Operations, 2012). The Centre is in charge of identifying, creating and implementing projects pursuant to PPP contracted form and providing technical expertise to public institutions in regard of preparing and implementing PPP projects. Its strategy role is to improve quality preparation and implementation of public investments and to reduce costs of preparing and implementing investments for the public sector. Moreover, its professional role is to provide technical expertise to public institutions in preparing and implementing the PPP projects (Juričić, Kušljić, Marenjak et al. 2013).

6. Opportunities and limitations of applying PPP model in Croatia

Besides the usual opportunities but also the problems which are usually encountered when applying the public-private partnership models, several characteristics must be pointed out when talking about Croatia, which are essential for applying and implementing the model under Croatian circumstances.

The application of these models can undoubtedly result in new investments into public projects, that is, an investment growth, which, in turn, causes meeting the public infrastructure requirements. By starting such an investment cycle, a considerable contribution to the aimed GNP growth could be made.

Since the subject is the private capital investment which is by its nature very sensitive to problems, risk and uncertainties, the problems which may occur are significant ones and have to be anticipated, the best solution for which is knowledge and good preparation. On the other hand, since the subject is a long-term relationship between the public and the private partner, significant financial amounts and numerous risks, it is an imperative to have mutual relations well defined in the agreement because by doing so potential misunderstandings and even potential future disputes during the structure utilization can be avoided.

The Government of the Republic of Croatia has recognized the opportunities a public-private partnership offers and has therefore issued a document in 2012 under the title "Framework Program of Public Structure Construction, Extension and Reconstruction According to the Public-Private Partnership Contracted Form (hereinafter: Framework Program) and expressed the intent to "carry out the needs for structure construction, extension and reconstruction in the field of science, education, studies, health care, justice, culture, social welfare, defense and other (hereinafter: public structures) through a contracted public-private partnership model because large needs at the state level for investing into this infrastructure have been recognized. The contracted public-private partnership model has been recognized as a model which enables a significantly quicker implementation of such a demanding and large program as well as a model which enables creation of necessary requirements for a quality program implementation from the field of science, education, studies, health care, justice, culture, social welfare and defense in both a short and a long-term period in Republic of Croatia. This especially, if one bears in mind that the present public structure investment models have resulted in uneven standards, uneven quality and construction price. Moreover, the present investment models in these fields are not satisfactory, neither by their investment implementation dynamics, nor by quality and project costs which has resulted in cost overrun and discrepancies in public structure implementation. Project management has been assessed as extremely unsatisfactory in all sectors as well as constructed public structure maintenance and management. (Document Issued by the Government of the Republic of Croatia - Framework Program of Public Structure Construction, Extension and Reconstruction according to the Public-Private Partnership Contracted Form, 2012).

Several quotes from the Framework program which point out not only expectations but also limitations and risks which can occur should be mentioned:

- There is a need for "the constructed structures to meet the required standards and quality for several utilization decades and that the later generations of structure users have the same conditions which were present during the first years after the structures have been constructed". It is also stated that the present public structure financing models have resulted in uneven standards and uneven quality.
- The PPP model application is expected to enable respecting of the deadline and the project costs.
- Since project management and maintenance and management of new structures have been assessed as extremely unsatisfying in the present financing model, these issues are expected to be solved by applying the PPP model.
- The new public structure solutions must be such as to enable a quality and rational energy consumption management.
- To make the investment cycle activation according to a PPP model possible, a systematic approach is required; the one which would include identification, analysis of the project financial admissibility, risk analysis and project classification according to strategy priorities, project implementation monitoring and supervision. There has not been such a wholesome approach so far.
- In the described structure program the capital investment includes structure design, construction, extension and reconstruction. The annual installment amount includes the planned prevention maintenance, reactive maintenance and substitution of warn-out materials and equipment. The private partner accepts the undertaking of the design or its largest part (The design draft includes only a part of design documentation, the one mostly required for a project to be defined by the public investor).
- The quality and the standard of new structures must be such as to enable maximum exploitation of
 employee work hours for performing the basic tasks and obligations, which means, maximum availability
 of the structure in full function.

The highlighted quotes from the Framework program point out the opportunities, limitations and risks in implementing the PPP model under real circumstances in Croatia (Document Issued by the Government of the

Republic of Croatia – Framework Program of Public Structure Construction, Extension and Reconstruction according to the Public-Private Partnership Contracted Form, 2012).

7. PPP project risk analysis and risk management measures

Within the context of comprehending and analyzing risks which can occur in the process of preparing and implementing the PPP projects according to the public-private partnership models, the processes which occur within the existing legislative and institutional frame must be analyzed in detail while the most significant risks must be recognized and analyzed (Juričić, 2011, Štimac 2013).

Due to the model specificity, particular risks which occur in traditional models of investing into the public sector take here another form, are sometimes hidden and can occur later during structure utilization when an intervention is significantly less possible or impossible. However, some other new risks occur, the possibility of which the public partner must be aware of from the very beginning. When talking about risk management, the focal point is undoubtedly a rational and adequate utilization, investment and distribution of public money as well as an adequate level of meeting the user public requirements.

The proposition of risk classification in public infrastructure PPP models follows.

Main project risk groups in applying the PPP models are:

- A/ project preparation risks
- B/ structure construction risks
- C/ structure utilization risks
- D/ risks of changing the approved PPP model.

7.1. A/ Project preparation risks

Project preparation consists of the following basic steps:

- public developer initiative for starting a PPP project PPP project draft submission to the Agency for PPP (APPP),
- issuing the approval to the PPP project proposition by the APPP after having received the consent of the Ministry of Finance
- selection of the private partner pursuant to the adequate legislative regulations
- drawing a PPP agreement.

Risks:

- a1/ omissions in the PPP project draft
- a2/ absence of adequate measures towards the opinion of the Ministry of Finance regarding the direct and indirect fiscal effects and risks (paragraph 4, article 11 of Law on Public-Private Partnership).
- a3/ omissions in selecting the private partner
- a4/ omissions in drawing the agreement.

Comment:

The regulations provide all the stated preparation steps. It is not about meeting the statutory requirements, but about the substantial "hidden" risks which result from the public developer relationship which implies the attempt of meeting the statutory procedures only formally.

The omissions in project draft relate primarily to the technical and functional parameters of defining the project, which the proposed project solution is to meet.

7.2. B/ Structure construction risks

The risks of this group are probably the most requiring challenge because some of them are hidden and their consequences will have to be dealt with only during the structure utilization stage.

All these risks are also present in the traditional finance model but have an additional aggravating element in PPP which is the belief and opinion of the public developer that he is exonerated from planning and monitoring the activities of the project implementation stage once the PPP agreement has been drawn. Such approach is reactive, wrong and troublesome and will probably generate new risks during the project service life. The convenience of allocating the risks on the private partner should not be used in the way that the public partner completely delegates all the care about project implementation to the private partner because such behavior will most probably backfire during the utilization period and possibly result in altering the project or to judicial procedures.

The risks of this group are:

- b1/ design risks
- b2/ construction risks
- b3/ project management risks
- b4/ construction supervision risks
- b5/ time and cost overrun risks
- b6/ risks of meeting the required standards and structure quality requirements
- b7/ risks of meeting energy-effective structure requirements.

Comment:

From all the stated risks, the design risks must be paid special attention for several reasons:

- the design defined technical solution defines the structure for its service life and it cannot later be changed,
- some design engineers tend to propose solutions which are often not the optimal ones in regard to finding a satisfying combination of aesthetics, functionality and rationalization but emphasize the aesthetic component,
- application of modern materials which are not a rational option in regard to the structure utilization,
- unwillingness of the design engineers to be limited in selecting the design solution by another party, the developer included,
- inadequate design solution can also have negative effect on the construction process and cause time and cost overrun,
- in synergy with poor construction, an inadequate design solution can endanger implementation of adequate standards and structure quality,
- inadequate selection of design solutions and material selection, combined with faults in construction can result in unnecessary energy consumption.

Moreover, the selection of the most favorable partner does not guarantee the best solution the public partner could get. An error in project defining or in project task can, namely, cause negative consequences for the design development and financial effects.

7.3. C/ Structure utilization risks

- c1/ structure availability risks
- c2/ full functionality and service quality risks
- c3/ structure management and maintenance risks

Comment:

One must not believe that all the stated risks will be depreciated by selecting the most favorable private partner, that is, the lowest structure utilization monthly fee. The problems which occur during the utilization will influence the structure utilization and service standard quality level even if accompanied with a well organized system of failure report and reparation. The problems must be prevented by selecting the less risky design solutions and quality construction. Withholding the fee to the private partner due to structure unavailability is undoubtedly welcome but will not help the user solve the problems in structure utilization and service delivery.

7.4 D/ Risks of changing the approved PPP model

- d1/ risk of having to start the new PPP project draft procedure in case of significant changes
- d2/ risk of proposed change rejection by APPP

Figure 1. shows the risk structure in public infrastructure PPP projects.

8. Required measures

The stated risks can be properly depreciated by rational behavior of the public developer which includes a timely education, full participation and responsibility during the preparation stage and a proactive approach during the preparation process, that is, foremost, an orientation towards the real and not the formal meeting of design requirements.

- a clear and precise design task with stated relevant technical and functional standardized design parameters,
- standardization of technical solutions, energy indicators, materials and functional parameters for structure groups,
- monitoring and control assurance in all design stages imposed by the public developer and introduction of an independent consultant, if required.

9. Conclusion

Public infrastructure financing according to the public-private partnership model definitely offers a possibility of meeting the public needs but also brings along risks every public developer must be aware of. Regardless of allocating numerous risks on the private partner, there is still a series of "hidden" risks which, if not timely detected and dealt with, can backfire as consequences. The public developer or the structure user will have to deal with such risk consequences in form of utilization, functionality reduction, cost rise (e.g. energy) and other utilization issues. The right solution is to do everything possible, primarily in the preparation stage by clearly defining the design task, the technical, functional and energy parameters of the structure, and then in the construction stage by active monitoring in order to avoid problem occurrence because its consequences, regardless of the risk allocation, will definitely be suffered by the public developer, that is, the structure user.

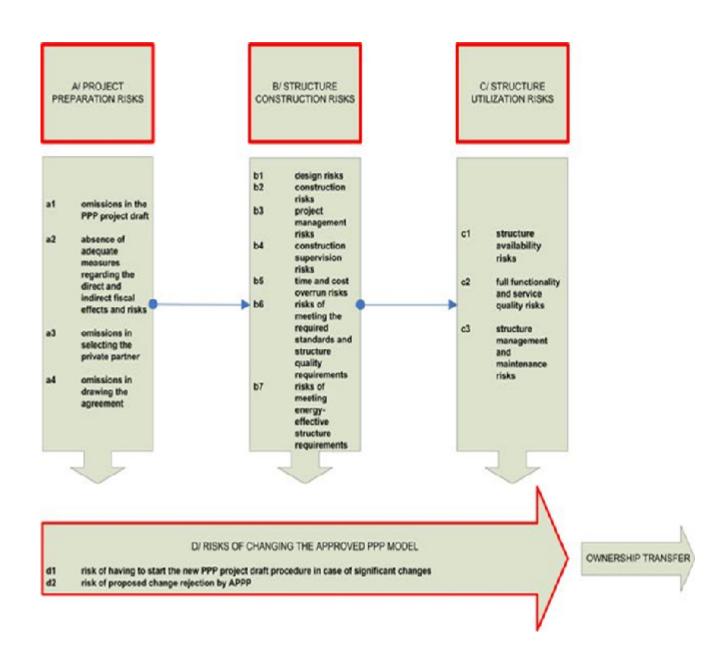


Fig. 1. the risk structure in public infrastructure PPP project

References

Law on Public-Private Partnership (2012). Zagreb: Official Gazette 78.

Regulations on Public-Private Partnership Implementation (2012). Zagreb: Official Gazette 88.

Law on Public Procurement (2011). Zagreb: Official Gazette 90.

Law on Concession (2012). Zagreb: Official Gazette 143.

Manuals on Public-Private Partnership Model Preparation and Implementation 1-9, (2012). Zagreb: Agency for Public-Private Partnership.

Law on Spatial Planning and Construction (2007-12). http://www.zakon.hr/z/153/Zakon-o-prostornom-ure%C4%91enju-i-gradnji

Construction Law Proposal (2013). http://www.hkig.hr/fdsak3jnFsk1Kfa/novosti/Zakon_o_gradnji.pdf

Law on Centre for Monitoring Energy Sector and Investment Operations, (2012). Zagreb: Official Gazette 25, 12.

Juričić, D. (2011). Essentials of Public-Private Partnership and Project Financing, Zagreb: RRIF-plus

Document Issued by the Government of the Republic of Croatia – Framework Program of Public Structure Construction, Extension and Reconstruction according to the Public-Private Partnership Contracted Form (2012), http://www.ajpp.hr/media/28537/okvirni%20program%20jpp.pdf

Juričić, D., Kušljić, D., Marenjak, S. et al. (2013). Efficient Market Organization and PPP Project Implementation, International conference on PPP. Opatija, Croatia, exhibits.

Štimac, I. (2013), Analysis of Project Financing and Stakeholder Influence on Project Modeling – Example: Project "Istarski Ipsilon", graduation thesis, Rijeka: Faculty of Civil Engineering.