

Public-private partnership: its relationship with regional competitiveness

Asociación público-privada: su relación con la competitividad regional

MERZLOV, Igor Y. ¹

Abstract

We have attempted a conceptual understanding of PPPs in conjunction with its impact on regional competitiveness. The study uses the literature analysis and in-depth interviews with 30 stakeholders of PPP projects implemented in Perm Region (Russian Federation). The findings indicate that PPPs should be considered as an additional competitive countries' and regions' advantage in the context of Michael Porter's competitiveness theory (1990). Our PPP conception systematizes theoretical base of PPPs and creates preconditions for improvement of PPPs methodological approaches and legal regulation.

key words: Public-private partnerships (PPPs), Regional competitiveness, Infrastructure, stakeholders.

Resumen

Hemos intentado una comprensión conceptual de las asociaciones público-privadas junto a su impacto en la competitividad regional. El estudio utiliza el análisis de la literatura y entrevistas en profundidad con 30 grupos de interés en proyectos de asociaciones público-privadas implementados en la región de Perm (Federación de Rusia). Los resultados indican que las asociaciones público-privadas deben considerarse como una ventaja adicional de países y regiones competitivos en el contexto de la teoría de la competitividad de Michael Porter (1990).

Palabras clave: Asociaciones público-privadas, competitividad regional, infraestructura, grupos de interés.

¹ Doctor of Economic Sciences, Head of Management Department, Perm State National Research University; Perm; Russian Federation, E-mail: imerzlov@ya.ru

1. Introduction

Nowadays, a lot of research is devoted to the nature of such phenomenon as public-private partnership (PPP). At the same time, all the variety of approaches to its understanding can be divided into three groups:

1. PPP researches are considered to be a mechanism or tool for the implementation of local investment projects

These projects are usually aimed at infrastructure facilities creation or reconstruction (e.g., roads, railways, schools, hospitals, etc.). This approach to PPPs deals with choosing an optimal PPPs implementation model (e.g., «Build-Operate-Transfer», «Build-Transfer-Operate», «Design-Build-Finance-Operate», etc.), the indicator “Value for Money” (VFM) calculation, the risks between private and public partners distribution. We propose to call this approach as “standalone” or “microeconomic”.

Delmon (2010) notes that PPP is an agreement between the private and public partners. The subject of agreement is an infrastructure facility creation or reconstruction through private investments in order to provide quality services.

Grimsey and Lewis (2004) are also based on the same approach of PPP understanding and it is closely related to the Private Finance Initiative (PFI) programme (1992).

Parker and Hartley (2003) note that any PPP project is based on the theory of transaction costs. At the same time, PPPs contribute to a better distribution of risks between the public and private partners.

A number of researchers focuses on approaches to structuring PPP projects, including highlights issues of application spheres, risk allocation, financing, optimal PPP models selection, the PPPs experience in various countries (Akintoye and Beck, 2003; Alfen, et al., 2009; Hodge, Greve and Boardman, 2012).

For the purposes of further research, it is important to note that in the above-mentioned studies and documents nothing was said about the correlation between the reason to implement PPP projects and the regions strategic development goals.

2. PPPs are studied in relation to the national/regional socio-economic policy

However, this approach is usually limited to the analysis of the PPPs impact on certain infrastructure sectors. There is no attempt to link the impact of PPP with the overall level of the national/regional economy and its competitiveness. Let's call this approach to understanding PPP as an “Industry-specific” or “Infrastructural”.

Boardman and Vining (2010) analyze approaches to the evaluation of PPP projects and conclude that the VFM indicator is insufficient and should be supplemented by the social effects measurement (2010).

Savas (2000) considers PPP as an instrument of state regulation and as a direct alternative to privatization.

The United Nations (UN) considers PPPs as one of the tools to achieve the Sustainable Development Goals (SDGs) (UN General Assembly, 2015). However, this document, like other studies, does not provide a detailed and clear understanding of how PPPs can contribute to the achievement of the SDG.

3. Researches of PPP that attempt to link the first two approaches

According to it, PPP is a specific phenomenon with both micro- and macroeconomic levels.

Hodge and Greve (2013) review “the PPP phenomenon as having meaning across five different levels: (1) a specific infrastructure project; (2) an organizational form or project delivery approach; (3) a policy, brand, statement or symbol as to the role of the private sector in a mixed economy; (4) a tool in the modern governance task; (5) a phenomenon within the context of broader historical and cultural assumptions.

We have to note that currently there are no studies substantiating the relationship between PPP and the regions competitiveness. In this context the main aim of the article is to theoretically substantiate and develop the third approach in correlation with Michael Porter's competitiveness theory (1990).

2. Methodology

The methodology of the study is based on a desk review, grounded on substantive analysis and synthesis of PPP issues. Besides, we have conducted the series of in-depth interviews with representatives of significant target audiences: (1) public partner, (2) private partner, (3) regional PPP center (“Investment Development Agency of Perm Region”), (4) end-users of the infrastructure facility.

The purpose of the interviews was to confirm the main theoretical provisions of the PPP conception by PPP experts.

All reviewed projects are implemented in the Perm region (Russian Federation). The experience of thirty PPP projects at the fully operational stage was analyzed. 80 interviews were conducted (Annex 1):

- 27 interviews with representatives of public partners,
- 25 interviews with representatives of private partners,
- 1 interview with representative (General Director) of regional PPP center,
- 27 interviews with representatives of infrastructure facility end-users (including 13 legal entities and 14 individuals).

During the interviews the respondents were asked 5 standardized questions. Content analysis of the interviews results was conducted. Processing and interpretation of the received data allowed us to generalize them into semantic groups. For the purposes of this study, we have used the semantic groups of answers containing more than 50% of respondents in each significant target audience (Annex 2).

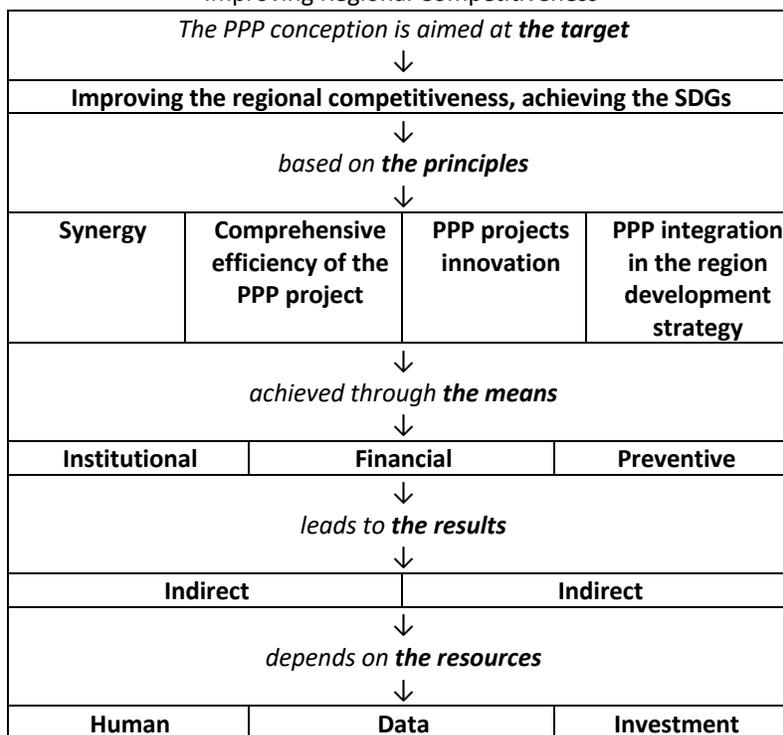
The data aggregation allowed to identify the main patterns of the target audiences concerning PPP and to clarify the theoretical provisions of the PPP conception.

3. Results

We propose to look at PPP as a tool to improve the regional competitiveness. This approach is reflected in the conception we have developed.

The content of the PPP conception as a tool for improving regional competitiveness can be presented like a word graph (figure 1).

Figure 1
The PPP Conception as a Tool for
Improving Regional Competitiveness



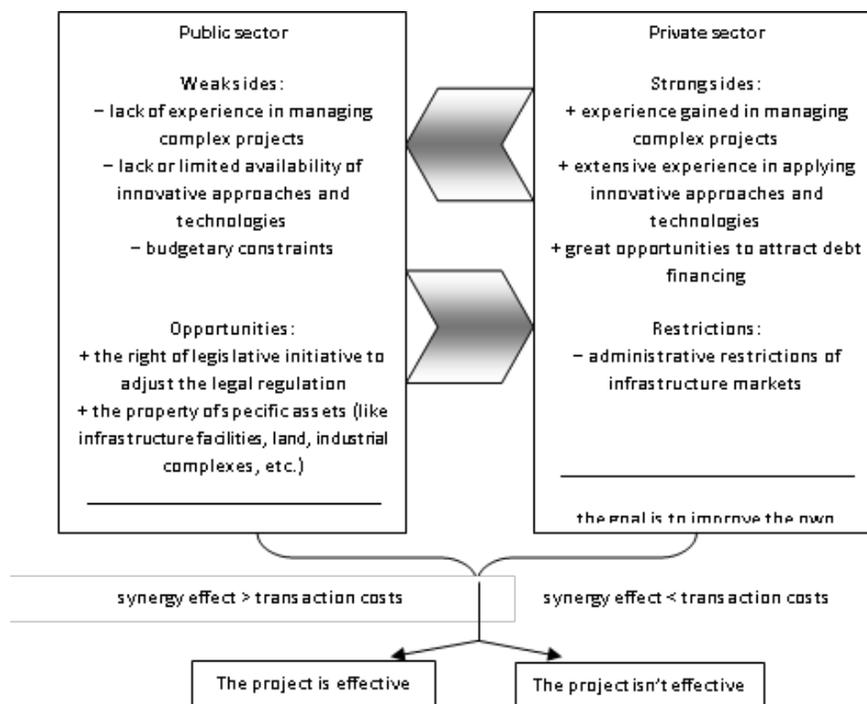
Source: developed by the author

The synergy effect of PPPs is achieved in the case the private partner’s strong sides compensate the public partner’s weaknesses and at the same time private sector has legal and political (political will) opportunities for participation in PPPs in the respective country (figure 2).

The following studies confirm the main theoretical elements of the formulated PPPs synergy principle:

- It is noted that PPP contributes to the achievement of "sustainable synergy", but in practice it is prevented by the inflexibility of procurement. In some cases it can limits the interests of the private partner (Lenferink, Tillema and Arts, 2013).
- Trust and confidence are the main criteria for the PPPs partners effective interactions (Smyth and Edkins, 2007).
- Zou et al. (2014) analyze crucial success factors of PPPs and consider relationship management as the basis of PPPs. The main success factors of PPPs are in the area of the senior executive’s responsibility, defining the project objectives, integrating different divisions and creating a multidisciplinary team for the project.
- Warsen et al. (2018) conclude that the success of the PPP project is influenced by both trust and management correlate. Moreover, trust is associated with a good cooperation process.

Figure 2
The Synergy Effect of PPPs



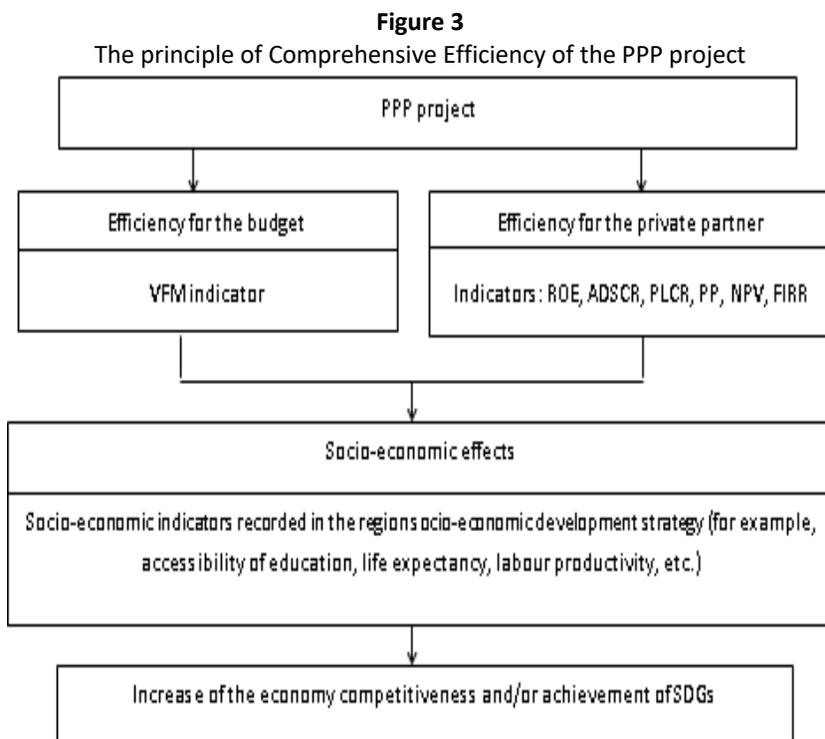
Source: developed by the author

The results of in-depth interviews also have confirmed the validity of the partners' strengths and weaknesses (have been highlighted in figure 2). The only exception is "application of innovative approaches and technologies". This motive of participation in PPPs is not prevailing (it is specified only at 17% of respondents) neither among the public, nor among the private partners. Also, respondents (in 93% of cases) have noted that the use of innovations is limited by the Russian Federal Law of concession agreements (No. 115-FZ) and the national legislation of the housing sector (27 of the 30 studied PPP projects are implemented in the housing sector).

The answers to the interview question №2 (Annex 2) confirmed the fact that public and private partners reach a certain balance of interests, indicating the emergence of a partnership: the public partner receives a new investment funds and experience from the private partner and in "exchange" partially assumes the demand risk, as well as lower risk profile of public entity "gives greater (in comparison with private business) confidence to the private partner in the contract performance".

The principle of comprehensive efficiency of the PPP project

The essence of this principle is as follows: increasing the competitiveness of regional economy can be achieved only if two necessary conditions are met simultaneously (efficiency for the budget, which is determined by the calculation of the Value for money indicator (VFM), and efficiency for the private partner and one sufficient condition (obtaining a socio-economic effect, which is based on the achievement of socio-economic indicators defined in the region socio-economic development strategy) (figure 3).



Source: developed by the author

The VFM indicator is widely used by the authorities to decide whether to implement an infrastructure project under PPP scheme or traditional public procurement (World Bank, 2013; Burger and Hawkesworth, 2011).

Efficiency for private partner can be measured by common indicators such as Return on Equity (ROE), Annual Debt Service Coverage Ratio (ADSCR), Project Life Coverage Ratio (PLCR), Payback Period (PP), Net Present Value (NPV), Financial Internal Rate of Return (FIRR) (Behrens and Hawranek, 1991).

The above-mentioned studies take into account only the economic interests of the public and private sectors (necessary conditions for the proposed principle of comprehensive efficiency of the PPP project) and do not deal with social goals of the region development (sufficient condition of the proposed principle).

The answers to the interview questions №1, 3 (Annex 2) allow us to draw the following conclusion: *all major stakeholders understand that despite the desires of each side to solve their own local goals and objectives, the successful project implementation has a positive socio-economic effect for the development of the territory as a whole.*

United Nations Economic Commission for Europe (2008) notes that PPP should be considered as a tool to improve the quality of life, not a financial scheme that allows to optimize budget expenditures. Consequently, the understanding of socio-economic effects can be updated to the level of the SDGs (UNECE Guiding Principles, 2019).

The principle of PPP projects innovation

A public partner should encourage private business to seek innovative solutions within the framework of on-going infrastructure projects.

PPPs encourage the innovative technologies use significantly more often in comparison with pure public investments. At procurement stage a public sector focuses on a clear description of the services quality that will be provided by the infrastructure facility. At the same time public sector does not limit potential private partner in the selection of technological solutions that ensure the achievement of the established quality.

Innovations in PPPs are primarily associated with the search for new design options, construction methods and materials for it. These innovations primarily contribute to reduce the project costs and risks. At the same time more "revolutionary" innovations (which associated with rethinking the approach to the appropriate infrastructure services providing) are not typical for PPPs (Himmel, Siemiatycki, 2017).

Another side of the PPP innovation projects principle is that PPPs change the nature of interaction between the public partner and society as the end-user of infrastructure facility. A distinctive PPPs feature (as opposed to public procurement) is that when there are any critical comments from society, the private partner (not public partner) takes the responsibility for correcting these comments (European Commission, 2003; Hartley, 2013).

The interviews don't confirm the applicability of this principle to the reviewed PPPs. At the same time, we are confident that in modern Russia the innovative component of PPPs will be developed due to the further improving of regulatory framework.

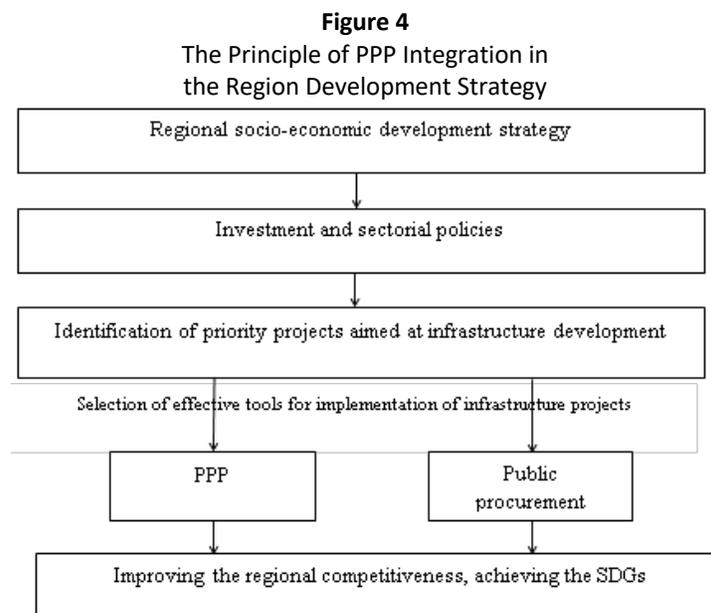
The principle of PPP integration in the region development strategy

The infrastructure projects under PPP scheme should be clearly linked with the approved region socio-economic development strategy objectives.

PPP is only one of many alternative tools for the regional socio-economic development strategy implementation. An important point is that the investment in infrastructure should not be considered as a tool for solving current microeconomic problems. They should be implemented in a clear relationship with the approved socio-economic development strategy objectives (figure 4).

Our research shows that only six of all analyzed projects (20%) were initiated because they were fixed in the socio-economic development strategy. The initiation of another twelve projects (80%) doesn't connect with the strategy. As a result, the regional budget lacks funds to implement other projects envisaged by the strategy.

In this regard, it should be clearly understood that PPPs are always a combination of objective (the need for optimal solution of a specific socio-economic problem) and subjective (the presence of political will and appropriate competence, professionalism of civil servants who manage PPPs at all stages).



Source: developed by the author

The opposite is also possible: well-formulated strategy for the PPP development can influence the transformation of the public sector. In particular, we note the following points:

- Increasing transparency and efficiency of budget spending.
- Increasing the quality of competitive procedures. PPPs require from the public sector much more skills related to both the planning and organization of procurement and project management.
- Focusing on strategic management. Within the framework of PPPs, all operational activities related to the infrastructure object are transferred to the private partner. Accordingly, the public partner has the opportunity to focus on strategic planning and measuring the effectiveness of the project.
- Establishing benchmarks. Practical examples are very important for the decision makers of public sector. That's why public sector must have success stories of PPPs.

This understanding is confirmed by the results of the interviews – 100% of the representatives of the public partners said that they initiated their first PPP project only when they had received positive PPP experience from other territories.

The PPP conception is achieved through the following means

Institutional means. They consist of institutional frameworks for PPPs. It ensures the formation of an appropriate legal PPPs regulation and relevant PPP market functioning.

We understand PPP as organizational and economic relations concerning beneficial participation in PPPs between the following entities: federal, regional and municipal authorities, the PPP centers, representatives of private sector, banking and insurance organizations.

There are three submarkets of PPP market: the market of PPP agreements, the market of financial intermediaries and the market of infrastructure services for infrastructure facilities end-users (table 1).

Table 1
Main Features of PPP Submarkets.
Source: developed by the author

The submarket feature	The market of PPP agreements	The market of financial intermediaries	The market of infrastructure services for infrastructure facilities end-users
Demand side stakeholder	Private business representatives (potential private partners)	Private partners	End-users of infrastructure facility (individuals and business entities)
Supply side stakeholder	Public organization that conducts the PPP procurement	Commercial banks, investment banks, mutual funds, pension funds and insurers	Private partners
Price and methods of its determination	The price of PPP agreement (as a result of procurement)	The cost of equity and debt financing, insurance premium rate	Price for providing the infrastructure services

- *Financial means.* They consist of tools that ensure the attraction of investments in PPPs. In most cases PPPs involve a third party – an institutional investor (for example, bank for development, commercial banks, mutual funds, hedge funds, pension funds, etc). At the same time, the choice of the optimal tools of debt and equity becomes essential (Organization for Economic Co-operation and Development, 2014).
- *Preventive means.* They should provide an acceptable level of risks in PPPs by risks allocation between the partners and tools to reduce the project risks. Risk management is one of the main features that distinguishes PPPs from other types of investment projects.

The results of the interviews confirmed that the public sector always tries to transfer the maximum amount of risks to the private partner. However, such approach may lead to the lack of private business interest to participate in PPPs. At the same time, it is necessary to attract debt financing to the project and in most cases it is not enough for creditors that the credit risk is borne only by the private partner. Respectively, financing can be provided when credit risk is allocated between the public and private partners. Therefore, PPPs can be effective only in the case of achieving risk allocation balance between the stakeholders. It should be noted that the public sector has completely refused to take credit risk in 100% of the studied PPPs.

The literature notes that most of the PPPs failures are due to the lack of special agreements on the risk allocation and to the desire of each stakeholder to shift responsibility to another side. Confirmation of this understanding is presented in several studies (Arndt, 2000; Bal, Heafey and King, 2003; Hodge, 2004).

There are two groups of PPPs results

- *Direct results.* The creation of high-quality infrastructure directly reduces the operating costs of the newly founded infrastructure facility itself as well as of its end-users. The latter provides a reduction in the production cost.
- *Indirect results.* The fact that the availability of quality infrastructure increases the investment attractiveness of the region for potential investors planning to open new businesses. In addition, the growth of the tax base is ensured both through the PPPs itself and through the creation of new businesses (including small and medium-sized businesses) (for example, the construction of a new road, as a rule, gets the impetus for the development of roadside infrastructure (petrol station, catering places, hotels, etc.).

Therefore, PPPs can have a multiplier effect on the regional economy. This thesis can be confirmed by two studies:

1. The paper statistically confirms the existence of a multiplier effect affecting the region economy, due to the PPPs implementation in the construction of toll roads (Trynov, 2016).
2. The study concludes that there is a multiplier effect of PPPs in the Ukraine's regions (Ivanov and Tyshchenko, 2015).

The results of the interviews (question №4, Annex 2) also indicates the possibility of multiplier effect of PPPs in the territory development. It should be noted that the PPP projects considered in this study were initiated 3-4 years ago and reached the stage of operation and maintenance 2-3 years ago. In this regard, currently there is not enough statistical data to confirm this thesis mathematically.

The implementation of the PPP conception depends on **three groups of resources**:

1. *The human talent* consists in the objective need to provide the public sector with qualified personnel in the field of PPP, and also depends on the level of the public sector activity (the presence of political will) to initiate new PPPs.
2. *Information resource* depends on the information and methodological support for PPP implementation.
3. *The investment resource* is determined by the level of the region's investment opportunities, including the best practice framework for PPP implementation.

Answers to question № 5 (Annex 2) confirm the importance of the above mentioned resources for the successful PPPs implementation.

4. Conclusions

The presented conception forms the comprehensive vision and understanding of PPP in relation to the objectives for regional competitiveness. In this connection, it is necessary to reveal the question of: how this conception is linked to the generally accepted theories of competitiveness?

One of the fundamental studies that laid the basic approaches to understanding the competitiveness of countries and regions is the work of Michael Porter (1990). He formulated four attributes of the country's competitive advantage, which he designated by the term "Diamond of National Advantage".

Porter also notes that the government should be considered as a factor capable of influencing the "National Diamond".

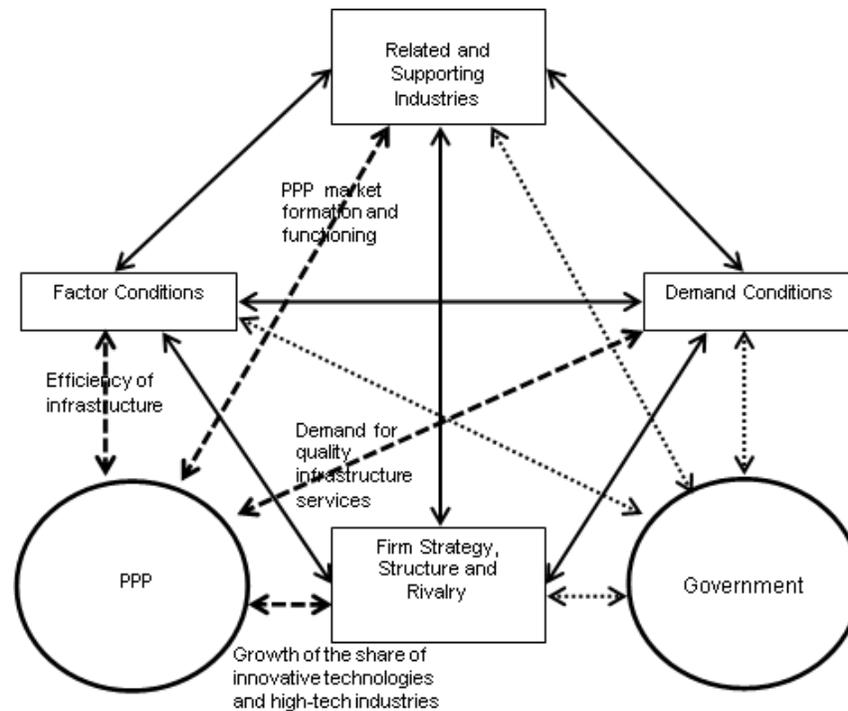
In our opinion, PPP should be defined as another significant factor (along with the government) that can have an impact on the "National Diamond" (figure 5).

In the context of the PPP conception, we consider the essence of PPP impact on the "National Diamond" and in this regard, we highlight four aspects of PPP:

1. PPP as a special regional socio-economic system, which includes such elements as PPP development institutions, authorities, private business, the population, financing organizations and the presence of certain interactions between them. In this aspect, PPP leads to the formation of a special market – the PPP market, which in turn has an impact on the attribute "Firm Strategy, Structure and Rivalry".
2. PPP as a historically determined specific form of organization under the conditions of increasing the share of knowledge-intensive products and services. In this connection PPP has an impact on "Related and supporting industries" by stimulating the growth of the share of innovative technologies and high-tech industries.
3. PPP as a tool to ensure the implementation of the socio-economic development strategy. In this connection PPP improves the infrastructure sphere efficiency and impacts on the "Factor Conditions".
4. PPP as a project based on the joint efforts of the public and private sector. In this connection PPP is directly able to stimulate demand for the quality infrastructure services (i.e. impacts on the "Factor Conditions").

Thus, PPP should be considered as a complex socio-economic phenomenon that can act as a link between the determinants of Porter's "National Diamond". The PPP conception systematizes theoretical base of PPPs and creates preconditions for improvement of methodological approaches and normative regulation in PPPs.

Figure 5
PPP in the Diamond of National Advantage



Source: developed by the author
(based on Michael Porter's competitiveness theory (1990))

Bibliographic references

- Akintoye, A., Beck, M. and Hardcastle, C. (2003). Public-Private Partnerships: Management Risks and Opportunities. Retrieved from <http://onlinelibrary.wiley.com/book/10.1002/9780470690703>
- Alfen, H.W., Kalidindi, S.N., Ogunlana, S. (2009). Public-Private Partnership in Infrastructure Development: Case Studies from Asia and Europe. Retrieved from http://www.b-capitalpartners.com/media/dwl/PPP_in_Infrastructure_Development.pdf
- Arndt, R.H. (2000). Getting A Fair Deal: Efficient Risk Allocation in the Private Provision of Infrastructure. *PhD thesis*. Retrieved from https://minerva-access.unimelb.edu.au/bitstream/handle/11343/35330/253946_Arndt_complete.pdf?sequence=1&isAllowed=y.
- Bal, I. R., Heafey, M. and King, D. (2003). Risk Transfer and Value for Money in PFI Projects. *Public Management Review*, 5 (2), 279-290.
- Behrens, W. and Hawranek, P.M. (1991). Manual for the Preparation of Industrial Feasibility Studies. Newly revised and expanded edition. United Nations Industrial Development Organization. Vienna, 34-37.
- Boardman, A. and Vining, A. (2010). Assessing the Economic Worth of Public-Private Partnerships. Edward Elgar Publishing Limited, 27-39.

- Burger, P. and Hawkesworth, I. (2011). How to Attain Value for Money: Comparing PPP and Traditional Infrastructure Public Procurement. Retrieved from <http://www.oecd.org/gov/budgeting/49070709.pdf>
- Delmon, J. (2010). Private Sector Investment in Infrastructure: Project Finance, PPP Projects and Risk. The World Bank and Kluwer Law International, 25-31, 325-329.
- European Commission (2003). Guidelines for Successful Public–Private Partnerships. Retrieved from http://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf
- Grimsey, D. and Lewis, M.K. (2004). Public-Private Partnerships: The Worldwide Revolution in Infrastructure Provision and Project Finance. Cheltenham, UK; Northampton, MA: Edward Elgar, 2004.
- Hartley, J. (2013). Public and Private Features of Innovation. Handbook of Innovation in Public Services, Cheltenham, UK: Edward Elgar, 44–59.
- Himmel, M., and Siemiatycki, M. (2017). Infrastructure Public–Private Partnerships as Drivers of Innovation? Lessons from Ontario, Canada. *Environment and Planning C: Politics and Space*, 35 (5), 746-764.
- Hodge, G.A. (2004). The Risky Business of Public-Private Partnerships. *Australian Journal of Public Administration*, 63 (4), 37-49.
- Hodge, G.A., and Greve C. (2013). Contemporary Public–Private Partnership: Towards a Global Research Agenda. Retrieved from <http://Wileyonlinelibrary.com/journal/faam>. pp. 5-6.
- Hodge, G.A., Greve, C. and Boardman A.E. (2012). International Handbook in Public-Private Partnerships. UK: Edward Elgar.
- Ivanov, Y. and Tyshchenko V. (2015). Public-Private Partnership Potential in Knowledge Economy: Regional Aspect. *Economic Annals-XXI*, 3-4 (1), 28-31.
- Lenferink, S., Tillema, T. and Arts, J. (2013). Towards Sustainable Infrastructure Development through Integrated Contracts: Experiences with Inclusiveness in Dutch Infrastructure Projects. *International Journal of Project Management*, 31(4), 615-627.
- Organization for Economic Co-operation and Development (2014). Private Financing and Government Support to Promote Long-term Investments in Infrastructure. Retrieved from <https://www.oecd.org/daf/fin/private-pensions/Private-financing-and-government-support-to-promote-LTI-in-infrastructure.pdf>
- Parker, D. and Hartley, K. (2003). Transaction Costs, Relational Contracting and Public Private Partnerships: A Case Study of UK. *Journal of Purchasing & Supply Management*, 9, 97-108.
- Porter, M. (1990). The Competitive Advantage of Nations. Harvard Business Review, 91.
- Savas, E. (2000). Privatization and Public Private Partnerships. N.Y.: Chatham House Publishers, 78-83.
- Smyth, H. and Edkins, A. (2007). Relationship Management in the Management of PFI/PPP Projects in the UK. *International Journal of Project Management*, 25 (3), 232.
- The Health Foundation (1992). The Private Finance Initiative (PFI) was Introduced. Retrieved from <https://navigator.health.org.uk/content/private-finance-initiative-pfi-was-introduced>.
- Trynov, A.V. (2016). Public-Private Investment Partnerships: Efficiency Estimation Methods. *Economy of Region*, 2, 602-612.

- United Nations Economic Commission for Europe (2008). Guidebook on Promoting Good Governance in Public-Private Partnerships. Retrieved from <https://www.unece.org/fileadmin/DAM/ceci/publications/ppp.pdf>
- United Nations Economic Commission for Europe (2019). Introduction to People-First Public-Private Partnerships in support of the United Nations Sustainable Development Goals. Retrieved from http://www.unece.org/fileadmin/DAM/ceci/documents/2019/CICPPP/Official_documents/ECE_CECI_2019_06-en.pdf
- United Nations General Assembly (2015). Transforming our world: the 2030 Agenda for Sustainable Development. Retrieved from <https://www.refworld.org/docid/57b6e3e44.html>
- Warsen, R., Nederhand, J., Klijn, E.H., Grotenbreg, S., and Koppenjan, J. (2018). What Makes Public-Private Partnerships Work? Survey Research into the Outcomes and the Quality of Cooperation in PPPs. *Public Management Review*, 20(8), 1165-1185.
- World Bank (Public-Private Infrastructure Advisory Facility) (2013). Value-for-Money Analysis. Practices and Challenges: How Governments Choose When to Use PPP to Deliver Public Infrastructure and Services. Retrieved from <https://openknowledge.worldbank.org/handle/10986/17622>
- Zou, W., Kumaraswamy, M., Chung, J.K.H. and Wong, J. (2014). Identifying the Critical Success Factors for Relationship Management in PPP Projects. *International Journal of Project Management*, 32, 265–274.

Annex 1

List of PPPs and stakeholders' interviews

No	The object of the PPP agreement	The legal model of the project	Public partner	The position of the public partner representative	Private partner	The position of the private partner representative
1	Gas distribution	Concession agreement	Administration of Usolsky municipal district	Deputy head of administration	LLC "Gorgaz service"	Director
2	Heat supply	Concession agreement	Administration of Usolsky municipal district	Deputy head of administration	LLC "Energoresurs"	Deputy director for economics
3	Water supply and sanitation	Concession agreement	Administration of Usolsky municipal district	Deputy head of administration	LLC "Energoresurs"	Deputy director for economics
4	Heat supply	Concession agreement	Administration of Kungur city	Head of property relations department	JSC "IDGC of Urals"	Chief engineer
5	Heat supply, Water supply and sanitation, municipal solid waste disposal	Concession agreement	Administration of Kalinin rural settlement of Chusovsky district	Deputy head of administration	LLC "Scalninskoe housing service"	Development director
6	Water supply and sanitation	Concession agreement	Administration of May rural settlement of Krasnokamsky district	Deputy head of administration	LLC "Severalothers"	Director
7	Heat supply	Concession agreement	Administration of Bekberdinov rural settlement of kuyedinsky district	Head of administration	LLC "Stroyinvest"	Director
8	Water supply and sanitation	Concession agreement	Administration of Chermozskoe district	Head administration of	LLC "Chermoz-Mikrotek"	General director
9	Municipal solid waste disposal and recovery	Concession agreement	Administration of Krasnokamsk municipal district	Deputy head of administration	LLC "Bumatica"	Deputy director for general affairs
10	Heat supply	Concession agreement	Administration of the Shagirtskoe rural settlement of Kuyedinsky district	Head administration of	LLC "Stroyinvest"	Director
11	Heat supply	Concession agreement	Municipal state agency «Management of property and land relations of Perm region»	Deputy director for economics and finance	LLC "Promgaz"	Deputy director for economics and finance
12	Heat supply	Concession agreement	The administration of Perm district	Deputy head of administration	LLC "Stroytechservice"	Director
13	Gas distribution	Concession agreement	Administration of Solikamsk municipal district	Deputy head of administration	LLC "Gorgas service"	General director
14	Heat supply	Concession agreement	Administration of Ocher urban settlement	Deputy head of administration	LLC "Aspect"	Director
15	Heat supply	Concession agreement	The administration of Sivinsky district	Head administration of	LLC "Stroyinvest"	Development director
16	Water supply and sanitation	Concession agreement	Administration Karagaisky rural settlement	Deputy head of administration	LLC "Vodokanal"	Director

No	The object of the PPP agreement	The legal model of the project	Public partner	The position of the public partner representative	Private partner	The position of the private partner representative
17	Water supply and sanitation	Concession agreement	The administration of Lysva municipal district	Deputy head of administration	LLC "Technoresource"	Deputy director for economics and finance
18	Heat supply	Concession agreement	Administration of Tchaikovsky city settlement	Deputy head of administration	LLC "Investlesprom"	General director
19	Water supply and sanitation	Concession agreement	Administration of Berezovsky rural settlement	Head administration	LLC "Puzhkkh"	Director
20	Water supply and sanitation	Concession agreement	Administration of Olkhovskoye rural settlement	Head administration	LLC "EKOSTROY"	Deputy director for economics and finance
21	Municipal solid waste disposal and recovery	Concession agreement	Administration of Nytvenskiy municipal district	Deputy head of administration	LLC "IVF"	General director
22	Water supply and sanitation	Concession agreement	Administration of Nikolsky rural settlement	Head administration	OOO "Vodokanal"	General director
23	Water supply and sanitation	Concession agreement	Administration of Rozhdestvenskogo rural settlement	Head administration	OOO "Yar"	Development director
24	Preschool education	Concession agreement	Perm administration city	Head of property relations department	Kama modern socially-humanitarian college	Director
25	Preschool education	Concession agreement	Perm administration city	Head of property relations department	"Golden key" college	Director
26	Healthcare	Concession agreement	Administration of Ocher municipal area	Deputy head of administration	OOO "Alphabet"	General director
27	Heat supply	Concession agreement	Administration of Nyrob rural settlement	Head administration	OOO "Permenergoservice"	Deputy director for general affairs
28	Heat supply	Concession agreement	The administration of Frolovskoe rural settlement	Head administration	OOO "Flow on"	Director
29	Heat supply	Concession agreement	Administration of Ohansk municipal district	Head administration	OOO "G-prom Engineering"	Development director
30	Water supply and sanitation	Concession agreement	Administration of Uinsk municipal district	Head administration	OOO "Dawn"	General director

Annex 2

Results of In-depth Interviews with PPPs Stakeholders

Question	Stakeholder	Stakeholder's answer, % respondent
1. What are the main reasons for the participation in PPPs?	Public partner	To improve the efficiency of budgetary funds spending – 100% To meet social expectations – 100% To diversify sources of financing for development programs – 67% To improve the efficiency of infrastructure management – 53%
	Private partner	To increase the business capitalization – 100% To enter new markets – 78% To reduce business risks – 64% To get the expected rate of return for a long period 100%
	Regional PPP center	To gain PPP experience and to develop PPP methodology To increase the PPP market value
	End-user of the infrastructure facility	To improve the quality of public services
2. Specify the reasons why the PPP project is a really "partnership" (only for public and private partners)	Public partner	Investments are made by the private partner (budget funds are not diverted) – 100% There are not enough own expertise in project management – 77%
	Private partner	The risk of demand is partly borne by the public partner – 64% The public contract is more reliable in comparison with the private business contract – 77%
3. Specify the PPP project objectives, that can/should help to develop the region and improve its competitiveness	Public partner	To solve a social problem – 93% To improve the quality of life – 67% Lack of private business's interest to invest in infrastructure on the terms of the traditional contract (public procurement) – 100%
	Private partner	To solve a social problem and to improve the quality of services – 100%
	Regional PPP center	The growth of the territory competitiveness The creation of new jobs To solve a social problem
	End-user of the infrastructure facility	To improve the quality of public services and to keep constant prices for it – 100%
4. What actual results of PPPs implementation did your organization get?	Public partner	The infrastructure facility is functioning and the end-user receives the necessary service – 100% The end-user is satisfied with the provided infrastructure service – 57% Private partner creates new jobs – 77% Tax revenues from the private partner are increased – 53%
	Private partner	There is a long-term contract that provides a stable cash flow – 100% The growth of business profitability – 57%
	Regional PPP center	The investment attractiveness of the territories is increasing, as the PPPs become benchmarks for the government's decision making in future
	End-user of the infrastructure facility	The service has become better – 57% It leads to an increase in tariffs – 78%
5. What resources should the organization have to participate in the PPP project?	Public partner	Experience of own employees in tender documentation, legal and financial PPP modeling – 100% Availability of detailed PPP legislation – 100% Experience in implementation of similar projects (industry, scale of the project, legal model) in other territories (municipalities) – 73
	Private partner	Willingness of the public partner to take part of the risks (first of all, the risk of demand and credit risk) – 100% Willingness of banks to lend to private partner – 87%

Question	Stakeholder	Stakeholder's answer, % respondent
	Regional PPP center	Experience of own employees in management of PPPs General understanding of PPP methodology of both own employees and employees of public and private partners Readiness of the public partner to take into account the opinion of private business to create a competitive field during procurement procedures

