PUBLIC-PRIVATE PARTNERSHIP FORMATION IN KAZAKHSTAN

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ABSTRACT

The development of the economy of any state is always accompanied by great financial costs. In any country, a social block including public facilities belongs to the non-profitable spheres of the economy. To create decent living conditions for the population, the state calls on business entities to invest private capital in the implementation of investment projects based on public-private partnership. At the turn of the last two centuries, the public-private partnership market began to develop dynamically in developing countries. This article gives a review and analysis of the development and formation of public-private partnership in the Republic of Kazakhstan. The study presents the stages of its implementation, a legislative base analysis, statistics, the aspects of the implementation of public-private partnership projects, a risk analysis, as well as an analysis of the technical and economic indicators and the economic efficiency of public-private partnership projects.

Keywords: Public-Private Partnerships, Public-Private Partnership Projects, Cost Recovery, Business, Project Financing, Project Efficiency, Risks, Infrastructure, Economic Sectors.

INTRODUCTION

The category of public-private partnership (PPP) in the current geo-economic space covers the legal relationship between business and the state, between private and public organizations in the development and operation of infrastructure facilities and services (Belitskaya, 2011; Martynova & Tsymbal, 2014; Martynova, 2014). The initial tools for the formation of PPPs during the transformation of economies were the privatization of fixed assets or objects. Later, concessionary and leasing forms of combining private and public capital began to be used. Currently, South-East Asian countries are widely using PPPs to develop the individual sectors of their economies. In Western Europe, as in past centuries, the PPP mechanism is most often used in the transport sector, as well as in the infrastructure sectors of the economy (Keers & van Fenema, 2018).

In the CIS countries, PPP elements were mainly used in the fast-paying and highly profitable sectors of the economy, such as the extraction of mineral resources, the processing of hydrocarbons, services, tourism. But, since 2005, PPPs have been implemented in the transport and energy sectors, in housing and communal services. In recent years, the PPP market has also covered education, public health, physical culture and sports.

In this context, the purpose of the article is to review and analyze the development and formation of the PPP market in the Republic of Kazakhstan. The objectives of the present study are as follows: 1) to present the stages of PPP market implementation; 2) to analyze a legislative base for its implementation; 3) to draw on statistics and aspects of the implementation of PPP projects; 4) to provide risk analysis; 5) to analyze the economic efficiency of PPP projects in Kazakhstan and consider their technical and economic indicators.

LITERATURE REVIEW

In the modern world, individual PPP tools have been actively used since the end of the past century (Sazonov, 2013). The problem of PPPs was considered by such scholars as Zhang (2015); Ahmad et al. (2018); Sadeghi et al. (2016); Iossa & Martimort (2012); Luo et al. (2018).

Ahmad et al. (2018) report on PPP projects in the health and education sectors of Malaysia. Particular attention is paid to risk management. Sadeghi et al. (2016) also make the healthcare niche the object of their attention considering PPPs, but the geographical context of their investigation is Iran. Zhang (2015) discusses the PPP situation in Iossa & Martimort (2012) make conclusion that relying on private financing enhances the benefits of bundling PPPs only if lenders have enough expertise to assess project risks. Luo et al. (2018) study applying PPP models to the shale gas development project and conclude that they help to solve difficult problems that exist in shale gas projects.

MATERIALS AND METHODS

Legal Basis for PPP Formation in Kazakhstan

Public-private partnership is implemented on the basis of the laws *"On Public-Private Partnership"* (2017), *"On Amendments to Certain Legislative Acts of the Republic of Kazakhstan on PPP Issues*" (2017) and *"On Concessions"* (2018). Within the framework of the above-mentioned laws of the Republic of Kazakhstan, from 2008 to the present, more than 15 different Presidential Decrees and orders of line ministries have been issued. Thus, Kazakhstan currently has a broad legal basis for the full formation of the public-private partnership market.

The Law of the Republic of Kazakhstan *"On Concessions"* is the most complex. The objects of development based on PPPs were limited to social infrastructure and livelihood of the population. The contract was to be only bilateral; there are also limitations in the cost of PPP projects. The object is the mandatory creation or reconstruction of the concession object.

The Law of the Republic of Kazakhstan *"On Public-Private Partnership"* adopted in 2015 allows the creation and conduct of joint business based on private and state capital in virtually all sectors of the national economy, the presence of several investors, the establishment of joint ventures, as well as the implementation of projects in the spheres of management and service delivery without the need to construct or reconstruct PPP facilities. At the same time, independent decision-making and signing of contracts were granted to the regions.

The peculiarity of PPP projects is the long-term functioning, since they cover both construction (reconstruction, creation) and the operational period (creation of commodity products, provision of services). Due to the long period of implementing a PPP project in Kazakhstan, additional executors (new investors) may participate in the process.

Applied Methods

In order to explore closely the peculiarities of PPP market formation in Kazakhstan, the following methods were applied: study of the legal basis and possibilities of the participants of

PPP projects, demand and supply for PPP market in Kazakhstan and other developing countries; analysis and synthesis; control and monitoring for multiple PPP aspects; study of the methodology of implementing PPP projects and detecting the indexes of their efficiency on different stages of establishment; selection of the principle directions of PPPs and attention to state guarantees; study of the risks of PPP project implementation.

RESULTS AND DISCUSSION

The Main Aspects of PPP Projects Implementation in Kazakhstan: Selection of PPP Projects

The selection of PPP projects involves three forms: one-stage, two-stage (complex) and simplified (Table 1).

Table 1
PROCEDURES FOR SELECTING A PPP PROJECT IN KAZAKHSTAN

No.	One-stage project selection (regional projects)	Two-stage project selection (projects of state significance)	Simplified project selection (small business)
1	Development of the project concept at the state level	Development of the project concept at the state level	Development of the concept at the local level
2	Negotiation of the project concept with the authorized bodies	Negotiation of the project concept with the authorized bodies	Project expert evaluation
3	Expert evaluation of the project concept by the PPP Center	Expert evaluation of the project concept by the PPP Center	Notification of the project
4	Development of the tender documentation	Development of the technical task, announcement of the tender offer (1st stage)	Tendering process
5	Negotiation of the tender documentation with the authorized bodies	Forwarding the technical task to the tender participants	Conclusion of the contract
6	Expert evaluation of the tender documentation by the PPP Center	Preparation and submission of technical proposals by the tender participants	-
7	Official announcement of the tender offer	Study of technical proposals	-
8	Submission of applications by the tender participants	Negotiation of the tender documentation with the authorized bodies	-
9	Selection of an effective project among several proposals by the tender commission	Expert evaluation of the tender documentation by the PPP Center	-
10	Conclusion of the contract	Official announcement of the second stage of the tendering process	-
11	-	Selection of an effective project by the tender commission	-
12	-	Expert evaluation of the draft contract	-
13	-	Negotiation of the draft contract	-
15	-	Expert evaluation of the draft contract by the PPP Center	-
15	-	Conclusion of the PPP contract	-

Source: Law of the Republic of Kazakhstan: On Public-Private Partnership, 2017

Risks of PPP Project Implementation

When drawing up a contract for the implementation of a PPP project, an indispensable condition is to define risks (Table 2).

Table 2
RISKS OF IMPLEMENTING A PPP PROJECT

Internal risks (construction)	External risks
Design risks	Currency risks-changes in national and foreign exchange rates
Technological risks	Environmental risks
Untimely material and technical supply	Political risks
Non-compliance of the land plot	Legal risks
Environmental risks	Consumer insolvency risk
Untimely commissioning of the facility	Emergence of a competitive product (service) in the industry markets

The consideration of unforeseen circumstances during the construction and implementation of a PPP project and the allocation of risks between private partners and the state should be justified in tender bids. It is necessary to distribute guarantees, duties, and future incomes between the state and the investor at the stage of contract conclusion (Warsen, et al., 2018; Koppenjan, 2005). When taking into account risks, private partners are interested in obtaining a permanent income with minimal entrepreneurial risks. State risks can consist in making mistakes at the stage of tender selection. Risk management should be implemented throughout the period of implementing PPP projects.

Review of PPP Projects in Kazakhstan

Since 2006, 140 PPP projects have been implemented in the Republic of Kazakhstan. Currently, there are 76 projects under construction, and contracts have been concluded for over 220 PPP projects (Ministry of National Economy of the Republic of Kazakhstan-Database of PPP projects, 2018). In 2018, 8 major PPP projects have been put into operation.

Table 3
CHARACTERISTICS OF THE IMPLEMENTED PPP PROJECTS IN KAZAKHSTAN

Indicators	LEP (electric transmission line)-500 km, Northern Kazakhstan-Aktobe region	Construction and operation of the railway station *"Shar-Ust-Kamenogorsk"*	Construction and operation of the passenger terminal of the Aktau International Airport
Area	Energetics	Transport	Transport
Project power	Length of the transmission line-498 km, power -500kW	Length of the road-151 km	450 passengers per hour, total area-13.4 thousand sq. m.
Cost, USD mln	190.0	97.92	30.0
Implementation period	2005-2022	2005-2028	2007-2037
Company-concessionaire	Batys-Transit JSC, Kazakhstan	Doszhan Temir Zholy JSC, Kazakhstan	ATM Grup Uluslararasi Havalimani Yapim Yatirimve Isletme Ltd. Sti.
Purpose	Construction of transmission lines to cover electricity shortages in the Aktobe region	Creation of a new railway to accelerate the delivery of goods by 12-14 hours	Development of transport infrastructure in the Mangistau region

Source: Ministry of Investment and Development of the Republic of Kazakhstan, 2018; Kazakhstan Center for Public-Private Partnerships, 2018; Practical recommendations for local executive authorities on the implementation of PPP projects, 2018.

Table 3 presents the characteristics of PPP facilities of national importance in the energy and transport sector, implemented on the basis of a concession agreement.

Analysis of the Economic Evaluation of PPP Projects

PPPs are financed by own or borrowed funds from representatives of business structures and the public sector of the economy (state budget sources). In this regard, the economic evaluation of PPP projects should consider not only commercial and budgetary parties, but also their socio-economic efficiency (Makarov, 2014; Akimova, et al., 2016). The methodology for evaluating a PPP investment project is based on the analysis of the final effect (benefit, profitability, payback period), discounted income (NPV) and internal rate of return (IRR), which are traditionally calculated for the budgetary and socio-economic efficiency of PPP projects (Lisitskaya & Puy, 2016).

The economic efficiency of PPP investment projects is calculated in the process of analysis of technical and economic indicators. Table 4 shows the main primary indicators of PPP projects of national importance, which are at the initial stage of implementation. To carry out a comparative analysis of economic efficiency, two projects in the transport sphere and two projects in the social sphere of PPP in Kazakhstan were adopted. Their economic efficiency is presented in Table 4.

Table 4
INDICATORS OF THE ECONOMIC EFFICIENCY OF THE SELECTED PPP PROJECTS

Indicators	Light rail transport in Almaty	The Mangyshlak-Bautino railroad. Construction and operation	The general hospital in Aktau. Construction and operation	The general hospital in Ust-Kamenogorsk. Construction and operation
Payback time	11 years	26 years (operational period)	27 years (operational period)	15.5 years (operational period)
Discounted income- NPV (USD mln)	102.9	7.7	9.6	5.6
Internal rate of return - IRR	9%	5.1%	11.8%	13%

Source: Ministry of Investment and Development of the Republic of Kazakhstan, 2018; Kazakhstan Center for Public-Private Partnerships, 2018; Practical recommendations for local executive authorities on the implementation of PPP projects, 2018.

Table 5
TECHNICAL AND ECONOMIC INDICATORS OF INDIVIDUAL PPP PROJECTS IN KAZAKHSTAN

Indicators	Light rail transport in Almaty. Construction and operation	The Mangyshlak-Bautino railroad. Construction and operation	The general hospital in Aktau. Construction and operation	The general hospital in Ust-Kamenogorsk. Construction and operation
Area	Transport	Transport	Healthcare	Healthcare
Purpose	Construction of the light rail transport line	International relations with	Provision of affordable and quality medical	Provision of affordable and quality medical

		Iran. Interregional freight traffic	services to the population of the entire region	services to the population of the entire region
Implementation period	2018-2020	2017-2018	2017-2020	2017-2019
Cost, USD mln	285.0	265.0	39.7	32.4
Project power	2018 – 63,000 passengers per day, 2027 – 110,000 passengers, 2037 – 128,000 passengers	Freight traffic volume – 2.5-2.8 million tons	Hospital – for 300 beds. Outpatient department – for 500 visits per shift. Day patient facility – for 20 beds	Hospital – for 300 beds. Outpatient department, day patient facility
Social significance	Modernization of urban transport infrastructure in Almaty. Creation of new jobs. Environmental protection	Expansion of the country's export potential. Creation of 478 jobs	Improvement of quality and affordable medical care provided to the population of the region. Creation of 661 jobs	Improvement of quality and affordable medical care provided to the population of the region
State guarantees	Allocation of a land plot. Availability payment.	Allocation of a land plot. Compensation of investment costs	Allocation of a land plot for free use. Engineering communication. Compensation of investment costs	Allocation of a land plot for free use. Engineering communication. Compensation of investment costs
Sources of future income	Paid services. Compensation of commercial risks	Paid services	Paid medical and non-medical services	Paid medical and non-medical services

Source: Ministry of Investment and Development of the Republic of Kazakhstan, 2018; Kazakhstan Center for Public-Private Partnerships, 2018; Practical recommendations for local executive authorities on the implementation of PPP projects, 2018.

The efficiency indicators of the selected PPP projects (Table 5) show that the most profitable is the development of the transport sector, in particular, the modernization of the urban passenger infrastructure sector, since it has the highest discounted income (NPV-102.9 million US dollars). Therefore, the state guarantees the compensation of investment costs in the least profitable projects (Law of the Republic of Kazakhstan: On Public-Private Partnership, 2017). Also other quite large PPP projects are being implemented in Kazakhstan:

1. *"Construction and operation of the highway line bypassing Almaty"* (cost-65.0 million US dollars; construction period: 2018-2022; operational period: 19 years; state guarantee-payment of compensation costs). The project's social significance is part of the route *"Silk Road - Kazakhstan"*.
2. *"Creation of the infrastructure of the automobile checkpoint Nur Zholy on the Almaty-Khorgos road section"* (construction period: 2017-2018, operational period: 7 years, state guarantee-payment of compensation costs). The project's social significance is part of the route Western Europe-Western China.
3. *"Construction and operation of high-speed highways in the South-Kazakhstan region"* (construction period: 2017-2018, operational period: 10 years, state guarantee-payment of compensation costs). The project's social significance is the road section of Shymkent-Tashkent.

In order to gasify Nur-Sultan, and the North regions, a decision was made in March 2018 to implement the PPP *"Construction and operation of the Saryarka gas pipeline"*. The construction of the gas pipeline is scheduled for July 2018. The 1st stage along the route Kyzylorda-

Zhezkazgan-Karaganda-Temirtau-Nur-Sultan should be introduced in December 2019. The preliminary cost of the 1st stage is slightly over 320 million USD (Bozumbayev, 2018).

Problems in the PPP Market

In Kazakhstan there are issues that require improvement, i.e. unaddressed issues of land allocation, methodology for the economic evaluation of investment projects, inefficient approaches to determining the institutional scheme for implementing PPP projects, lack of a scientifically grounded methodology for marketing research in the PPP market, demand forecasting on PPP goods and services, unjustified and inaccurate economic and mathematical calculations of determining future income for reimbursement of costs, excess of state financial guarantees, inaccuracy in risk distribution, lack of well-founded schemes for contract termination.

CONCLUSIONS

The analysis of the latest PPP projects shows intensification on the part of private business while initially the initiative was mainly taken by state structures. Sometimes business companies showed the initiative, provided they receive state guarantees in the future. However, the then legislative base did not allow full implementation of the interests of private structures. The adoption of the new Law of the Republic of Kazakhstan: On Public-Private Partnership (2017) in 2015 promotes the dynamic development of the PPP market in Kazakhstan (for example, if a kindergarten is established by PPP, then the state can later buy this object on a legislative basis).

REFERENCES

Ahmad, U., Ibrahim, Y.B., & Bakar, A.B.A. (2018). Malaysian public private partnership. *Academy of Accounting and Financial Studies Journal, 22*, 1-6.

Belitskaya, A.V. (2012). *Legal regulation of public-private partnerships*. Moscow: Statute.

Akimova, Y.A., Kochetkova, S.A., Kovalenko, E.G., & Zinina, L.I. (2016). Public-Private Partnership in Agribusiness. *International Review of Management and Marketing*, *6*(4), 814-822.

Iossa, E., & Martimort, D. (2012). Risk allocation and the costs and benefits of public--private partnerships. *The RAND Journal of Economics*, *43*(3), 442-474.

Keers, B.B., & van Fenema, P.C. (2018). Managing risks in public-private partnership formation projects. *International Journal of Project Management*, *36*(6), 861-875.

Koppenjan, J.J.F. (2005). The formation of public-private partnerships: lessons from nine transport infrastructure projects in the Netherlands. *Public Administration*, *83*(1), 135-157.

Law of the Republic of Kazakhstan: On concessions (2018). Retrieved September 8, 2018, from http://www.gratanet.com/up_files/[GRATA]%20Concessions%20Law%20English%20Translation%20(As%20of%204%20July%202018).pdf

Law of the Republic of Kazakhstan: On Public-Private Partnerships (2017). Retrieved September 8, 2018, from http://www.gratanet.com/up_files/PPP_Law_Kazakhstan.pdf

Luo, Z., Yang, K., Cen, K., Pan, H., He, J., & Han, T. (2018). A study on the application of public-private partnership mode in shale gas development industry in China. *Journal of Renewable and Sustainable Energy*, *10*(4), 045902.

Lisitskaya, T.S. & Puy, O.E. (2016). Implementation efficiencies of public-private partnership: Regional aspect. *Naukovedenie Internet journal, 8*(6), 109.

Makarov, I.N. (2014). Methodology for evaluating the efficiency of public-private partnership projects in the regional infrastructure. *Public-Private Partnership, 1*(1), 41-56.

Martynova, S.E., & Tsymbal, L.G. (2014). Social background of the development of the public service model in Russia. *Ecology, Environment and Conservation*, *20*(4), 492-500.

Martynova, S.E. (2014). Service municipal administration: the main components of model and its development in Russia. *Review of European Studies*, *6*(4), 223.

Official website of Kazakhstan Public-Private Partnership Centre. PPP projects (2018). Retrieved September 8, 2018, from https://kzppp.kz/projects

Official website of the Ministry of Industry and Infrastructural Development of the Republic of Kazakhstan. Roads Committee. Information of PPP projects (2018). Retrieved September 18, 2018, from http://roads.miid.gov.kz/en/pages/information-ppp-projects

Official website of the Ministry of National Economy of the Republic of Kazakhstan. PPP Projects Database (2018). Retrieved September 8, 2018, from http://economy.gov.kz/en/kategorii/gosudarstvenno-chastnoe-partnerstvo

Sadeghi, A., Barati, O., Bastani, P., Daneshjafari, D., & Etemadian, M. (2016). Strategies to develop and promote public-private partnerships (PPPs) in the provision of hospital services in Iran: a qualitative study. *Electronic Physician*, *8*(4), 2208.

Sazonov, V.E. (2013). History of public-private partnership. *Business, Management and Law, 1*(27), 104-109.

Zhang, Y. (2015). The formation of public-private partnerships in China: an institutional perspective. *Journal of Public Policy*, *35*(2), 329-354.