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FEATURES OF THE USE OF PUBLIC-PRIVATE PARTNERSHIPS IN THE PRACTICE OF ROAD TRANSPORT SERVICES

D. LAPONOH¹

¹ *Kharkiv National Automobile and Highway University, Kharkiv, Ukraine*

Background and objectives. Public-private partnership (PPP) is one of the most popular forms of cooperation between the state and business in the world. For Ukraine, PPP is one of the most promising ways to attract investment in the existing state and municipal infrastructure. The Law of Ukraine "On Public-Private Partnership" (2010) allows the implementation of projects in the format of the classic PPP. Most projects involved the development of infrastructure facilities and mining, which is typical for this kind of cooperation between the state and business

Methods. The study used: expert, statistical, comparative, scenario analysis; analysis of empirical data using methods of grouping, generalization, classification methods.

Findings. The components of PPP relations are defined, the criteria for the classification of its forms, the essence and economic content of the category "public-private partnership", the features of public-private partnership in the market of road transport services in Ukraine are substantiated. The qualitative analysis of 111 concession projects has allowed to

reveal the regularity and to present the variant of possible combination of experts' indications at certain parameters. Mean values and standard deviations of the expert testimonies were determined and distributions of the obtained data array of 111 concession PPP projects were constructed. The definition of the "quality" of expert assessments and evaluation of the effectiveness of 111 PPP projects for the provision of road transport services is formed

Conclusion. The components for public-private partnership in the market of road transport services have been defined: PPP implies a contractual form (agreements, contracts, etc.), in which the rights and obligations of each party are clearly defined; implementation of projects in the market of road transport services implies mutual economic benefit for all project participants through the best interaction, focused on better results for lower cost; public-private partnership is characterized by increased.

Keywords: public partner; public-private partnership; service market; road transport.

NUMBER OF REFERENCES 20	NUMBER OF FIGURES 0	NUMBER OF TABLES 1
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**ОСОБЛИВОСТІ ВИКОРИСТАННЯ
ДЕРЖАВНО-ПРИВАТНОГО ПАРТНЕРСТВА В
ПРАКТИЦІ НАДАННЯ ПОСЛУГ
АВТОМОБІЛЬНИМ ТРАНСПОРТОМ**

Д. ЛАПОНОГ¹

¹ Харківський національний автомобільно-дорожній
університет, Україна

Постановка проблеми та завдання.

Державно-приватне партнерство (ДПП) – одна з найбільш популярних в світі форм співпраці між державою та бізнесом. Для України ДПП – один з найбільш перспективних способів залучення інвестицій в існуючу державну і комунальну інфраструктуру. Закон України «Про державно-приватне партнерство» (2010) дозволяє реалізовувати проекти в форматі класичного ДПП. Більшість проектів стосувалося розвитку інфраструктурних об'єктів і видобутку корисних копалин, що характерно для подібного роду співпраці між державою та бізнесом.

Методи. У дослідженні були використані: експертний, статистичний, порівняльний, сценарний аналіз; аналіз емпіричних даних за допомогою методів групування, узагальнення, методи класифікації.

Результати. Визначено складові відносин ДПП, обґрунтовано критерії класифікації його форм, сутність і економічний зміст категорії «державно-приватне партнерство», особливості державно-приватного партнерства на ринку автотранспортних послуг в Україні. Проведений якісний аналіз 111 концесійних проектів дозволив виявити закономірність і представити

варіант можливого поєднання показань експертів при певних параметрах. Визначено середні значення, середньо квадратичні відхилення за показниками експертів, побудовані розподілу одержуваного масиву даних 111 концесійних проектів ДПП. Сформовано визначення «якості» оцінок експертів і оцінка ефективності 111 ДПП проектів надання послуг автомобільного транспорту.

Висновки. Визначено складові для державно-приватного партнерства на ринку послуг автомобільного транспорту: ДПП має на увазі під собою договірну форму (угоди, контракти тощо), в якій чітко фіксуються права і обов'язки кожної зі сторін; реалізація проектів на ринку послуг автомобільного транспорту має на увазі під собою обопільну економічну вигоду для всіх учасників проекту шляхом найкращого взаємодії, орієнтованого на кращі результати за нижчу вартість; державно-приватне партнерство характеризується підвищеними ризиками, з чого випливає необхідність чіткого поділу основних ризиків і витрат між його учасниками.

Ключові слова: державний партнер; державно-приватне партнерство; ринок послуг; автомобільний транспорт.

Introduction. Interaction of institutions of the state, business and civil society is carried out by application of various forms and methods (Aguillón, 2020), in particular by means of public-private management, which is widespread in the world practice and is considered to be more effective than purely state management (Yashchenko, 2018). The state must have the power to determine the goals and tasks of development (Sanchez *et al.*, 2016), grant permission for activities within its competence to representatives of the private sector (Baporikar, 2020), adopt the necessary regulations and the like (Cheung *et al.*, 2011). Private management is characterized by flexibility, mobility, speed of decision-making, ability to innovate (Chou *et al.*, 2016). Most developed countries have combined the best features of public and private management (Chou *et al.*, 2015), applying the mechanism of public-private partnership (Yasheva, 2012). Although the authorities have identified public-private partnership (PPP) as one of the key mechanisms of implementation of the policy of modernization of the economy of Ukraine (Bondar, 2010), in the initial stage of solving important socio-economic problems, implementation of partnership relations of institutions of the state, business and civil society in our country. This necessitates a scientific justification of PPP (Castelblanco *et al.*, 2020), the definition of the main characteristics and principles of its application, especially in certain areas of public administration (Wang *et al.*, 2020).

In the conditions of limited budget funding for the implementation of various types of large-scale projects, public authorities at various levels have to intensify their efforts to find new alternative mechanisms to attract financial resources. One of the alternatives in this case can be a form of financing of socially important projects successfully tested in many countries around the world on the basis of the use of public-private partnership. In the most general form such partnership envisages cooperation of public authorities and the private sector in the implementation of joint activities, distribution of work and risks between partners in the implementation of specific projects. Public-private partnership agreements are actively used in many countries of Europe and the world, in particular in the UK, Spain, France, Germany, Poland, Portugal (Damoah *et al.*, 2020). At the same time, in Ukraine this type of partnership has not yet received the proper level of development, which necessitates its activation in terms of development of investment and innovation activities (Li *et al.*, 2020).

However, the problem is the ambiguity and diversity in understanding the essence of the concept of public-private partnership, given the existence of a number of different approaches to the interpretation of its content (Song *et al.*, 2020). Also requires further development of the justification of the importance of intensifying this type of partnership in the market of road transport services (Viana *et al.*, 2020).

The purpose of the article is to define the essence and characteristics of public-private partnerships and the peculiarities of their use in the practice of road transport services.

Materials and methods.

Data description. The source data for the study were 111 concession contracts: 108 contracts with village councils for the collection, transportation of solid waste; 2 contracts for the operation of the road Lviv-Krakivets, the highway Lviv-Brody, 1 contract for the operation of the bus station of Druzhneane village council.

Method description. The article applies a system analysis to determine the components of PPP relations, justified the criteria for the classification of its forms. Synergetic approach became the basis for the analysis and determination of the essence and economic content of the category "public-private partnership", the features of public-private partnership in the market of road transport services in Ukraine.

Qualitative analysis of 111 concession projects was carried out by the method of expert evaluations. The method of expert interviews made it possible to identify a pattern and present a variant of a possible combination of expert indications under certain parameters.

In order to assess PPP factors, the mean values and mean square deviations of expert testimony were determined, and distributions of the resulting data set were constructed, both by coefficient of variation and the harmonic mean of the coefficient of variation. Based on the results of the calculations, a definition of the "quality" of the experts' evaluations has been formed and the final result of the data consistency analysis has been presented for each factor table. After the correction carried out in accordance with the analysis, the final results of the generalization of the expert survey are shown. Evaluation of the effectiveness of PPP projects for the provision of road transport services is given.

Results and discussion. The following forms of PPP from the world practice can be used for the market of automobile services:

– Institutional forms (special economic zones (SEZ), development institutions, state companies, joint ventures), But they are not widely used in practice in the field of transport infrastructure.

– contractual forms of PPP, which include various types of agreements, are predominant in the development of transport infrastructure on the basis of PPP in the world and Ukrainian practice. For the application of this form it is proposed to use the following criteria:

- source of funding: at the expense of the budget (compensation by the state during the life cycle of the object), or at the expense of extra budgetary sources (expenses are compensated by the users of the object). It is also possible to

finance from both sources, for example, if the object does not provide a sufficient level of income;

- a stage of the life cycle of the object of PPP, in which the partnership is carried out: "D" (design), "B" (build), "R" (rehabilitate), "O" (operate);

- ownership of the object: PPP implies the state's ownership of the object or its transfer to the state upon completion of the contract ("T" – transfer). If the object is privately owned or it is supposed to be privatized, this type of relationship is outside the PPP framework.

The classification of PPP models based on these criteria is presented below in accordance with Table 1.

Table 1

Classification of PPP models by criteria of life cycle stage, source of funding and ownership of the object

Life Cycle Stages / Source of Funding	Design and construction	Design and reconstruction	Design, construction and maintenance	Design, reconstruction and maintenance	Construction and maintenance	Reconstruction and maintenance
State ownership of the facility						
<i>Budget financing</i>	DB	DR	DBO*	DRO*	BO*	RO*
<i>Extra budgetary funding**</i>	x	x	DBFO	DRFO	BFO	RFO
Transfer of ownership of the facility after the contract is completed***						
<i>Budget financing</i>	x	x	DBOT	DROT	BOT	ROT
<i>Extra budgetary funding</i>	x	x	DBFOT	DRFOT	BFOT	RFOT

* these models can be referred to life cycle contracts (LCC).

** these models can be implemented in Ukraine within the framework of the concession legislation or, with regard to roads within the framework of civil-law contracts. The implementation of these models assumes the stage of operation, at which the return of investments of the private partner is carried out, in this regard, the classification does not assume the models of "design – construction – financing" (DBF) and "design – reconstruction – financing" (DRF).

*** taking into account the budget legislation, the implementation of these models in Ukraine is possible only with the involvement of extra budgetary funding.

The main models of public-private partnerships used in the implementation of infrastructure projects in the European Union are most appropriate for the conditions of the road transport services market. Such models include the following ones: "Service Contract" – an agreement between a public body and a private company for the transfer of simple, short-term operational public needs. This is the simplest and most limited in the degree of private sector involvement of the PPP model. In this model, the private company provides the operation of public assets (infrastructure facilities) for a short period of time. Management

and liabilities remain with the state, which retains financial risks, risks of residual value of fixed assets, etc. In return, the state receives highly qualified private sector services for the operation of the transport facility, thereby providing some budgetary savings in operating costs compared to the operation of this facility by the state structure. In addition, the state has the function of quality control of services provided by the private sector in the operation of the infrastructure facility.

The O&M model – "Operation and Management Contract" – is an agreement between a public body and a private company under which the responsibility for the management and operation of an infrastructure facility is transferred to the private sector. Remuneration to the private sector is paid on a fixed or differentiated basis, with bonuses linked to the achievement of specific targets.

"Leasing" is a transaction in which a private company receives the revenues generated by a public asset, an infrastructure facility, in exchange for fixed lease payments and the obligation to operate the facility, keeping it in serviceable condition (operational readiness). Since the private party assumes the demand risks in this case, it is certainly interested in achieving maximum operational efficiency. However, this agreement can become profitable for the private company only if the services it provides in the operation of the infrastructure object will meet the requirements of the users of these services. This PPP model is the most successful for the provision of public transport services.

Conclusion. Public-private partnership as a form of economic interaction between the public and private sectors of the economy, in contrast to traditional relations, creates its own basic models of property relations, financing and management methods at different levels of the economy, in different sectors and spheres of life. The development of PPP is influenced by many factors, just causes a variety of forms and models of PPP. In terms of classifying PPP models in the market of road transport services, four key elements of different schemes for the formation of public-private partnership relations are identified: the definition of operations to service the project, the establishment of a special commercial enterprise, the definition of funding sources, the definition of forms of ownership (on the constructed object) after the end of the project.

The models of public-private partnerships change from short-term simple contracts (with or without investment requirements) to a long-term and very complex form called BOT (Build, Operate, Transfer). Most projects with private participation can be attributed to one of the existing and reviewed groups of PPP models. However, the boundaries between these groups and, accordingly, PPP models are not always clearly delineated and some projects may be assigned to

more than one PPP model. In this case, the project is considered to belong to the model that better reflects the risks of the private sector.

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Abbreviations:

<i>BO</i>	Construction and maintenance
<i>BOT</i>	Build, Operate, Transfer
<i>DB</i>	Design and construction
<i>DBF</i>	Design – construction – financing
<i>DBO</i>	Design, construction and maintenance
<i>DR</i>	Design and reconstruction
<i>DRF</i>	Design – reconstruction – financing
<i>DRO</i>	Design, reconstruction and maintenance
<i>LCC</i>	Life cycle contracts
<i>O&M model</i>	Operation and Management Contract
<i>PPP</i>	Public-private partnership
<i>RO</i>	Reconstruction and maintenance
<i>SEZ</i>	Special economic zones

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AUTHOR (S) BIOSKETCHES



Laponoh Danyil, Postgraduate student, Kharkiv National Automobile and Highway University, Ukraine.

<https://orcid.org/0000-0003-0786-0110>

E-mail: ldv140696@gmail.com

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