

Review Paper

# Public-Private Partnership in the Field of Urban Development: Experience of Countries for the Period of 2010-2020

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## ABSTRACT

To carry out a detailed analysis of the presented topic, the goals of the work are to reveal the mechanism of public-private partnership, to determine its features in the field of transport infrastructure in the experience of different countries and Ukraine, as well as to determine its further prospects. Among the main methodological approaches, it is worth noting the theoretical methodological approach, the method of statistical analysis, the functional methodological approach, the dogmatic methodological approach, the synthesis method, and others. During the research, the public-private partnership was analysed, and its characteristic features and principles of implementation were determined, which helped to consider this mechanism in more detail. The role and possibilities of using public-private partnership in the field of infrastructure projects, especially in the segment of motor transport infrastructure, were revealed and disclosed. It is important to analyse the functioning of the public-private partnership mechanism in different countries in the context of financing transport infrastructure sectors. Also, the current legal framework was analysed, which regulates public-private partnership in the field of transport infrastructure and transport in Ukraine; recommendations were proposed that would contribute to a more effective mechanism of regulation of this sector. It was established that the attraction of private funds will require a proportional increase in state funding, and a new approach to the risk management system, taking into account the peculiarities of the political and economic sectors.

## HIGHLIGHTS

- The article aims to conduct a comprehensive analysis of public-private partnerships in the field of transport infrastructure, examining their mechanism, features, and prospects, utilizing various methodological approaches, and providing insights into their role and possibilities, legal framework, and recommendations for enhancing regulation and funding, including risk management considerations.

**Keywords:** Business Partners, Infrastructure Project, Interaction Model, Investment Mechanisms, Public Sector

Implementation of unhindered exchange of goods with close cooperation of logistics, industrial, and transport organizations in the information and transport space is implemented under the condition of the normal functioning of national transport. Its

work is determined by numerous factors, among

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which the availability and condition of the transport infrastructure should be noted first. Large projects are accompanied by investment activities in the construction and reconstruction of buildings, which creates demand for the products of related sectors. The analysis of the data of the Ministry of Economy of Ukraine shows that for the development and reconstruction of the infrastructure of Ukraine, a minimum of 8 billion US dollars (USD) is necessary annually. In order to stop the process of infrastructure degradation, and start restoration and reconstruction, it is necessary to attract 20 billion USD of external investments (Status of PPP..., 2022). G.Y. Zubko (2020) notes that the cost of infrastructure, which is created as part of the implementation of public-private partnership (PPP), grows quite strongly in the future. According to I. Khomenko *et al.* (2021), even in the conditions of the world crisis, the most reliable investment option is investing in infrastructure, since when trying to save on forms of consumption, payment for the use of infrastructure facilities is guaranteed.

As N. Carbonara and R. Pellegrino (2018) write in research, the development of a new form of relations between the private sector of the economy and the state should be interpreted as a desire to reduce expenses for the management of state property for one party, as well as a desire to reduce expenses at the expense of long-term relations for the other. As it was noted by O.B. Piriashvili (2018) that public-private partnership is one of the modern mechanisms for attracting financial resources to the state budget, which is implemented through the partnership of state authorities and one or more private enterprises. This interaction is based on a cooperation agreement between a private enterprise and state authorities, under which the resources of both parties are combined with the division of responsibility and compensation for long-term cooperation on favourable terms between them.

In modern conditions of state formation, transport infrastructure plays a major role in the development of the national economy. How to isolate K.M. Mazher *et al.* (2018) about its condition, it has a significant impact on social relations, socio-economic development, industrial activity, etc. In Ukraine, considerable attention is paid to the issue of transport infrastructure, however, analysing its

current state, it should be recognized that it is quite underdeveloped.

The goals of the work are to reveal the mechanism of public-private partnership, to determine its features in the field of transport infrastructure in the experience of different countries and Ukraine, as well as to determine its further prospects.

## MATERIALS AND METHODS

Conducting scientific research in the field of studying public-private partnership in the field of urban development was carried out using methodological approaches that reveal the theoretical and practical content of the research object. Applying a theoretical methodological approach, the concept of “public-private partnership” was revealed, and its characteristic features and principles of implementation of this mechanism were identified. The method of logical analysis helped to distinguish the features of public-private partnership in the field of urban development, namely in the segment of motor transport infrastructure. A dogmatic methodological approach helped in the analysis of the legal framework of Ukraine, which regulates the activities of public-private partnerships in the field of transport and transport infrastructure. With the help of a statistical methodological approach, statistical data on the implementation of public-private partnerships in the field of motor transport infrastructure for the period from 2010 to 2020 were analysed, thanks to which the process of the efficiency of the development of this sector was determined.

Using a functional methodological approach, the role, and essence of public-private partnership, its advantages and disadvantages. The formal-legal methodological approach helped to reveal the peculiarities of the functioning of public-private partnerships in the field of motor transport infrastructure in different countries and to reveal their advantages and disadvantages in the implementation of this mechanism. Thanks to the method of legal hermeneutics, an analysis of the peculiarities of the regulatory framework of public-private partnerships in the field of transport and transport infrastructure in Ukraine was carried out, as well as recommendations for improving the regulatory framework of public-

private partnerships in the country. The structural-functional methodological approach helped in the analysis of trends, factors, and models of public-private partnership. The method of deduction helped in revealing the concept of “public-private partnership” through the prism of highlighting its characteristic features in order to provide a full-fledged analysis of this mechanism. Applying the synthesis method, the obtained results of a theoretical and practical nature were summarized in order to identify recommendations that will contribute to increasing the efficiency of the specified segment.

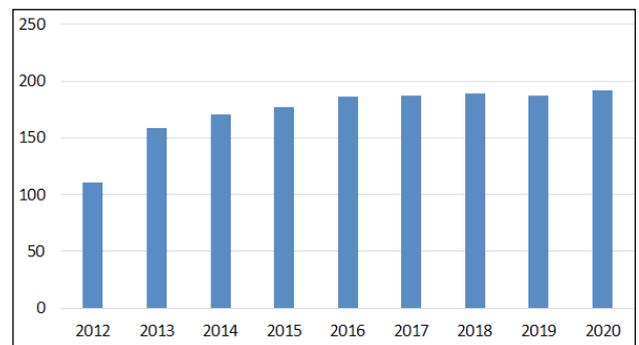
Thus, this research was carried out in several stages. The first stage consisted in revealing the theoretical aspect of the work, namely in defining the concept of “public-private partnership”, and conducting an analysis of its characteristic features and principles of implementation of this mechanism; in particular, in the field of motor transport infrastructure. The basis of the second stage was the study of international experience in the functioning of public-private partnerships in the field of motor vehicle infrastructure and the analysis of the activity of this segment in the field of motor vehicle infrastructure in Ukraine. The third stage, based on the revealed results of theoretical and practical content, provided an opportunity to identify the problems of the public-private partnership mechanism in the field of motor transport infrastructure.

## RESULTS AND DISCUSSION

The public-private partnership should be defined as a modern mechanism for attracting investments to the state budget, which operates through the partnership of state authorities and one or several enterprises. The interaction of these parties is based on a cooperation agreement between private enterprises and state bodies, under which their resources will be combined with the distribution of compensation and responsibility for long-term work on favourable terms between them.

Law of Ukraine No. 2404-VI “On Public-Private Partnership” (2010) considers this concept as cooperation between the state of Ukraine, the Autonomous Republic of Crimea, and territorial communities represented by relevant state bodies, which in accordance with the Law of Ukraine

No. 185-V “On Managing Objects that are in State Ownership” (2006) implement the procedure for managing state-owned objects, by local self-government bodies, the National Academy of Sciences of Ukraine, national sectoral academies of sciences and legal entities, in addition to communal and state enterprises, institutions, organizations, which is carried out on the basis of a contract and corresponds to the characteristics of public-private partnership. In general, the interaction of local self-government bodies and state authorities, residents of the administrative-territorial formation, and business has certain differences from a public-private partnership. It is worth considering the statistical data on the dynamics of the number of concluded agreements (Fig. 1).



Source: Status of PPP implementation in Ukraine (2022).

**Fig. 1:** The number of concluded public-private partnership agreements in Ukraine in the period 2012-2020, units

According to E. Engel *et al.* (2020), the role of partnership is to ensure the implementation of synergy from the interaction of the state and public institutions with the private sector to solve socially significant and recognized tasks. The implementation of the public-private partnership process is beneficial for both parties, as it provides an opportunity for the participants to receive certain advantages in achieving the result, namely, to provide quality services to the population and to make a profit for the entrepreneur. Among the main advantages for the country, it is worth highlighting the shortening of construction periods, the reduction of expenditures from the state budget, access to modern technologies, the attraction of many investment resources through the mediation of business structures, the use of management expertise of the private sector in large projects (Cui *et al.* 2018).

This partnership must be implemented on certain principles; these include the principle of transparency, accountability, competition, legality, predictability, comprehensibility, flexibility, equality, consideration of financial and economic stability, and social involvement. In most cases, the state lacks its own resources to implement certain projects and fully perform the functions assigned to it, and the lack of competition in the monopoly market has a negative impact on the quality, cost, and timeliness of service delivery; as a result, there is a need to find innovative methods to overcome these limitations. In general, there are three main approaches, thanks to which the public-private partnership mechanism is fully implemented. The first should include the transfer by the state of the performance of certain functions to enterprises thanks to the holding of a tender; it allows solving the problem of the budget deficit due to the attraction of funds from a private entrepreneur, increasing the efficiency and quality of service provision due to the use of management approaches used in the private sector (Rybnicek *et al.* 2020).

When choosing a certain type of implementation of the public-private partnership mechanism, special attention should be paid to the type of infrastructure object. An effective mechanism for the implementation of a public-private partnership is possible taking into account all the peculiarities of the legal regime of certain types of activities and objects established by the current legislation. The current legislation of Ukraine determines the development of public-private partnership in many sectors of the economy, among which it is worth highlighting the transport infrastructure. Analysing the provisions of Article 4 Law of Ukraine No. 2404-VI "On Public-Private Partnership" (2010), it should be noted that the operation and construction of roads, railways, highways, bridges, overpasses, sea and river ports, their infrastructure, tunnels, subways.

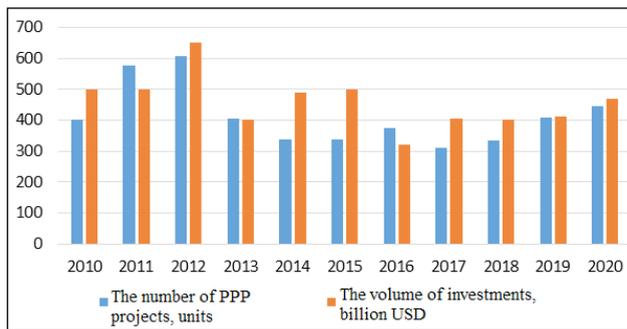
The most successful mechanism for the implementation of public-private partnership in motor transport infrastructure is concessions, as they are most often provided to attract extra-budgetary funds. This is due to the fact that the participants have the opportunity to plan long-term partnership relations of their activities, which is due to the fact of concluding a certain agreement; according to this

agreement, the private partner is given the right to own and use the state-owned object, the state has factors of influence on the private partner in the event that he violates the agreement. In general, for the implementation of public-private partnership in the field of motor transport infrastructure in Ukraine, there is currently a progressive legislative framework that regulates this range of issues.

The experience of the operation of this segment of the economy of the Zaporizhzhia region made a significant contribution to the development of the transport infrastructure of Ukraine. Thanks to the operation of this mechanism in the territory of the Zaporizhzhia region, the strategically important highways, namely Zaporizhzhia-Mariupol, Zaporizhzhia-Berdyansk, Zaporizhzhia-Dnipro, Zaporizhzhia-Berdyansk, Zaporizhzhia-Melitopol, Melitopol-Kyrylivka (Konokh *et al.* 2021). One of the significant problems in the development of transport infrastructure is the reconstruction of existing and the construction of new bridges across the Dnipro River. Thus, the construction of a new bridge crossing in Zaporizhzhia has been ongoing since 2004 and has repeatedly been stopped due to financing problems; it was last renewed in 2016, when an agreement was reached on joint financing from state and local budgets (Diachkina, 2021).

Hungary's experience in the field of public-private partnership in the automotive infrastructure indicates that the total amount of investments amounted to 200 million euros, of which more than 80% were provided by banks on special terms; this is due to the fact that the planned traffic flow turned out to be significantly lower, so the state financed part of the costs for several years (Casady *et al.* 2020). Great Britain is one of the world leaders in the use of public-private partnership in today's conditions. At the initial stage of the formation of this mechanism, the majority of agreements were concluded specifically in the field of motor transport infrastructure. In particular, this is evidenced by the implementation of a number of projects, namely the expansion of the M25 motorway in England (Whiteside, 2020). The peculiarity of the public-private partnership mechanism in Great Britain is that it is characterized by dynamic development. Most of the public-private partnership projects are carried out by local authorities, while the Great Britain Government acts as a control and

supervisory body (Petersen, 2019). Germany's experience is noteworthy. In order to implement public-private partnership in the field of motor transport infrastructure, two models are used: A-model and F-model. The concessionaire has permission to collect fees from cars and trucks for the purpose of reimbursing investments; formally, this fee is a fee regulated by a public decree (Guevara *et al.* 2022). Spain also has extensive experience in the development of motor transport infrastructure through the use of the public-private partnership mechanism. Thus, in 2006, the merger of two companies, Abertis and Atuostrade, which are state operators of Spain and Italy, respectively, was announced (Anago, 2022). It is worth considering the statistical data that will allow assessing the dynamics of the implementation of public-private partnership infrastructure projects in the period from 2010 to 2020 (Fig. 2).

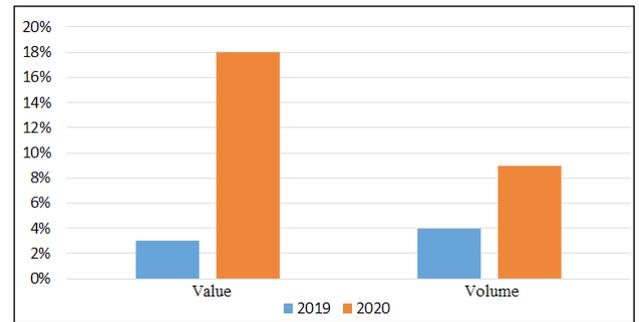


Source: O.L. Malin (2020).

**Fig. 2:** Dynamics of public-private partnership infrastructure projects for the period 2010-2020

The specified dynamics allows evaluating the effectiveness of this mechanism for the implementation of numerous infrastructure projects. Thus, based on the analysed experience of the countries, it is worth determining the key conditions for the success of public-private partnership implementation. In accordance with the above, it is worth highlighting recommendations for improving the efficiency of the public-private partnership sector in Ukraine. Firstly, it is the expansion of the opportunities of the private sector in carrying out its activities in accordance with the considered European practice. Secondly, in order to improve the management of public-private partnership facilities and increase the efficiency of the provision of public services, it is important to acquire production experience and apply the opportunity

to attract new technologies. In 2018, in Ukraine, the State Target Program for the Development of Public Highways of State Importance for 2018-2022 was approved. Financing of this state strategy and its implementation was based on a mixed basis. It is worth noting that thanks to the implementation of these programs, the value, and volume of public-private partnerships in transport infrastructure increased in the period from 2019 to 2020 (Figure 3).



Source: Status of PPP implementation in Ukraine (2022).

**Fig. 3:** Public-private partnerships in transport infrastructure in 2019-2020

The given statistical data indicate that as a result of the implementation of many various programs, the indicators tend to increase and have a positive impact on the socio-economic sectors of social and political life. On the other hand, among the factors inhibiting the development of public-private partnership is the corruption of the economic system, which scares away international investors. Thus, on the basis of the conducted research, it can be argued that the development of public-private partnerships in the automotive infrastructure is of primary importance, which requires a strategic view of state investment priorities, the consolidation of legal regulations for the management of public-private partnerships and investments.

## CONCLUSION

Having conducted research, the field of study of which was a public-private partnership, it was determined that in today's conditions it plays an important role in the development of the national economy, has a significant impact on social relations, socio-economic development, and production activity. In order to further improve the functioning of this mechanism in Ukraine, the experience of advanced countries was considered,

which allows us to single out certain features that can be involved in the Ukrainian system. It was found that the characteristic features that make it possible to effectively implement the mechanism of public-private partnership are the balance between the interests of partners, the development of fiscal direction tools aimed at stimulating the participation of private sector entities in projects, favourable conditions for conducting business activities, dissemination of experience gained during the implementation of this mechanism. In view of this, there is a special need to improve the current mechanism of public-private partnership in motor transport infrastructure. According to the results of the analysis of the organization, formation, and development of public-private partnership of advanced European countries, a number of recommendations are proposed, which provide an opportunity to increase the efficiency of its functioning in the future and contribute to its further development. Attention should be paid to the possibility of accelerating modernization on the basis of infrastructure facilities by applying technical solutions of European countries and new technologies, to expand the possibility of business entities in public-private partnerships in accordance with the practice of European countries, and also to use the possible expansion of modern financing models projects. This provides an opportunity to grow the public-private partnership market of Ukraine under the condition of creating an effective functioning of the financial and economic component.

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