Features of public-private partnership financing as an economic and legal tool for sustainable development

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Abstract: - The economic transition from a market to a social model requires a review of the role of the state and representatives of business structures in the economic system. Various forms of their interaction are becoming increasingly important, the main of which are public-private partnerships aimed at financing, formation, and implementing socially important projects. The purpose of the study is to analyze and evaluate the parameters of interaction between the state and the private sector in terms of improving the socio-economic partnership based on the provisions of the concept of public-private partnership (PPP). To achieve the goal were used such methods: analysis and synthesis; formalization and grouping; systematization and logical abstraction. The practice of the Public-Private Partnership Center of the Republic of the Philippines shows that the rational use of social partnership financial instruments will allow the state to reduce the budget burden, ensure infrastructure development, increase employment, develop private enterprises and improve the quality of goods and services. It is noted that the level of public-private partnership use in the world differs significantly, and therefore requires further intensification of efforts to stimulate its use, including due to the wide range of significant benefits of its use for the economy and the population in particular. Public-private partnerships are becoming increasingly popular as they provide many important benefits. In particular, the opportunity to obtain additional financial resources, including through additional investments, quality projects involving professional companies, open access to innovative technologies, and priority opportunities for the state to direct funds to specific areas. Thus, the direction of further research may be to determine the details of the functioning of projects in the framework of public-private partnerships. It is also important to conduct a pre-investment analysis, check the effectiveness of financing, prepare appropriate recommendations for each project stage.

Key-Words: - Public-Private Partnership, PPP Contract, PPP Financing, PPP Advantages & Disadvantages, Republic of the Philippines’ Public-Private Partnership Center


1 Introduction

Throughout the history of the state and the private sector, there has been a search for areas of beneficial interaction between them to stimulate the development of all spheres of the country's economy and public life. One such form of interaction is the public-private partnership (PPP), which has been gaining considerable popularity since the 1980s. As part of this interaction, governments seek to reap some benefits from the private sector without a complete jump in privatization (Market Business news, 2020).

However, due to the imperfection of such interaction, as well as the disproportionate benefit of participants from its implementation, the popularity of PPP before the economic crisis of 2008 was low. In fact, the economic crisis has given impetus to the resumption of interest in the interaction of the private and public sectors both in developed countries and in those that are at the stage of their development. After a significant economic downturn, governments have increasingly turned to PPPs as a source of additional funding to bridge funding gaps and stimulate investment growth in all areas of economic and social...
As a result, new models of interaction between the participants of the partnership began to be developed. PPP projects were disseminated, and specialized bodies and institutes responsible for the organization and support of such partnerships were created. Therefore, the active development of PPP necessitates a more thorough study of this category and determines its role in ensuring the sustainable development of partnership participants, which, in turn, confirms the high relevance of this study.

The purpose of the study is to analyze and evaluate the parameters of interaction between the state and the private sector in terms of improving the socio-economic partnership based on the provisions of the concept of public-private partnership. Research tasks:
- analyze the nature of interaction between the main participants of the PPP;
- identify and outline the main types of PPP contracts and their financing;
- highlight the degree of the private sector participation in the various types of PPP contracts;
- identify external institutional and regional organizations involved in PPP supporting;
- analyze the structure and features of the PPP of the Republic of The Philippines;
- systematize projects by areas of implementation and identify the most priority at the present stage.

2 Literature Review
The study of available information on the subject of the scientific article allows us to draw conclusions about the high degree of interest in the features of public-private partnership by scientists, analysts and business representatives, public authorities, international institutions, etc.

Matignon believes that there is no single approach to defining public-private partnerships. After all, this term can cover hundreds of long-term contracts of various types with a wide range of risk allocation, financing mechanisms and a list of requirements for their transparency. The development of public-private partnerships, as concepts and practices, is the product of a new era of public administration and globalization pressure [1]. At the same time, the existence of an inefficient system of public administration, exacerbation of the economic crisis, depletion of financial resources of the state and, consequently, lower living standards, along with total corruption and distortion of democratic procedures that hinder the renewal of public administration perform their own functions, according to Akimov et. al [2]. All this in combination requires the search for new ways of full and timely implementation of the state of its functions, including ensuring sustainable development of the state. One such way is to put into practice the principles of public-private partnership. Some relevant studies can be found in [3; 4; 5].

The Strategic Partnering website treats public-private partnerships as an agreement between a public authority and a private organization to provide services at the best price. Usually, the areas of involvement of the private sector are the construction of buildings or the supply of equipment. As a result, private agencies or organizations own and operate facilities or equipment, and may engage individual government agencies to provide public services. Governments and private firms are increasingly recognizing the benefits of sharing resources for common purposes, which ultimately encourages the use of PPPs in both developed and developing countries [6].

Asghari examining the category of public-private partnership, notes that it is an agreement between a government body and an individual whose purpose is to obtain a public benefit, or an asset, or a service [7]. PPP is usually long-term and covers large private corporations. A key element of such agreements is that the private party must assume a significant part of the risk, as the reward depends on the degree of implementation of the agreements. The PPP Guide defines this category as a long-term contract between a private agent (or private economic operator) and a public agent to develop and manage a public asset or service, under which a private agent is subject to a significant level of risk and liability. The amount of remuneration is affected by the degree of performance, maintenance or demand for the use of the asset or service [8].

Kenton provides a breakdown of PPP applications, noting that this form of interaction is used to finance, build and operate projects in the field of public transport networks, parks and convention centers, because funding projects through PPP will allow you to quickly complete a project or make this is possible in the first place [9]. Sadran suggests adding social and environmental services to the list of PPP uses [10]. The ICAO website states that PPP has a positive impact on increasing the quality, efficiency and competitiveness of public services by complementing the limited capacity of the public sector and attracting additional funding in a limited budget [11]. Rodriguez notes that public-private partnerships are the future for infrastructure projects, as they offer solutions to the problem of funding, job creation and additional investment in large projects, without spending public funds [12]. A public component in PPP usually includes financial support which can vary from direct support and indirect...
(contingent) support to broader financial mechanisms that can assist the PPP program.

At the same time, many issues related to the financial, economic, legal aspects of PPP remain insufficiently studied, especially given the conditions of sustainable development.

3 Methods
Methods of analysis, synthesis, theoretical studies, systematization, abstract-logical and others are used to realize the purpose of scientific research.

Based on the analysis and comparison, the interaction between the main participants of the partnership was identified, the main and dependent bodies were identified, and two scenarios of effective interaction were formed. Using the grouping method, different types of specialized contracts and their main types were identified and features of some of them are considered in detail.

The degree of private sector participation in different types of contracts was assessed using schematic modeling, and the high and low levels of influence of different contracts were determined.

Based on the list provided on the World Bank Group website, international and regional organizations in the field of PPP support have been identified and grouped. The role of these organizations in stimulating and coordinating public-private partnerships was determined.

Methods of analysis and synthesis were used to: study the structure of public-private partnership projects approved by the Philippine Center; identify the priority phases of projects implementation; systematize projects by areas of implementation.

The study conducted a comparative analysis of statistical data and publications from websites of different organizations that characterize the public-private partnership financial and economic features, in particular:

- World Bank Group;
- Public Private Partnership Alliance;
- Public-Private Partnership Center, Republic of the Philippines;
- PwC Indonesia;
- Public Private Infrastructure Advisory Facility (PPIAF);
- Service Works Global.

4 Results
Virtually every country in the world in the process of its activities is faced with a lack of resources, including financial. This can significantly hinder the development of the economy, hinder the creation of additional jobs, improve the country's infrastructure, as well as the spread of scientific and technological progress in all spheres of its life. Therefore, it is natural for public authorities to find ways to improve the situation, one of which is the use of the principles of public-private partnership, which has been active over the past decade.

In this study, we found that most scholars interpret PPP as a long-term relationship between the state and private entities for the joint implementation of projects in the field of transport, infrastructure, construction, social and environmental services, as well as the purchase of equipment in which the private side risks. In this case, the interaction between the participants of the partnership can take place in two different scenarios, which are shown in Figure 1.

![Fig. 1. Typical structure of public-private partnership](source: author's own development based on [13])

Thus, the key participants in the PPP are the public sector body, as well as a special purpose company (depending on the direction of the joint project). At the same time, the difference in the different scenarios of the organization of public-private partnership is the possibility of involvement in the relationship of banks, with the subsequent allocation of borrowed funds that are transferred to a
special company. This may not be the case, the need for additional involvement is influenced by the amount of available capital of the specialized company, which is invested by investors on a mandatory basis. After deciding on the formation of sources of funding for the partnership, the specialized company applies either to the construction company or to the operation and maintenance company, which is determined by the specialization of the project.

At the same time, the partnership is formed using different types of specialized contracts, the types of which are shown in Figure 2.

![Types of PPP Contracts](image)

**Fig. 2. Types of PPP Contracts**

Source: author's own development based on [14; 15]

Let's take a closer look at some of them. The Build-Operate-Transfer (BOT) contract is one of the simplest forms of interaction and is mainly used in road construction. At the same time, private companies are given more freedom of action, and the key risk is borne by the state.

Under the Build-Own-Operate (BOO) contract, the objects obtained as a result of project implementation remain in the possession of a private company, in contrast to the Build-Own-Operate-Transfer (BOOT) contracts, after which the object is transferred into possession, state. At the same time, SBI contracts are used mainly for water treatment or power plant construction, with a large gap in infrastructure financing, as equity and commercial risk remain with the private company for the duration of the contract.

The next block of contracts is Design-Build contracts. They are contracted with private partners to design and build a facility or piece of infrastructure. This type of partnership reduces construction time, saves money, and provides higher guarantees. A characteristic feature of Design-Build-Finance contracts is that the private sector is obliged to finance capital expenditures only during the construction period.

Like the BOOT contracts, the Design-Build-Finance-Operate (DBFO) contracts in their various variations are used to design, finance, build and operate new buildings by the private sector over a long-term lease (25-30 years) with subsequent transfer to the government. At the same time, the long-term risk of the public sector is reduced, and the availability of regular payments by the state makes these contracts attractive to the private sector.

Design-Construct-Maintain-Finance (DCMF) contracts involve the creation of a facility by a private company according to the specification of a government body and its subsequent lease.

Under the latest type of Operation & Maintenance contracts, a private sector representative executes and maintains the asset for the government partner to an agreed level in accordance with defined obligations. This often involves providing work to subcontractors who specialize in maintenance.

Schematically, the responsibility and degree of participation of a private company in different types of contracts is shown in Figure 3.

Public-private partnership is beneficial for all its participants. A striking example of this is the creation at the interstate level of specialized bodies responsible for coordinating activities related to partnership as a means of developing this form of cooperation in the world.
Taking into consideration the importance of curbing corruption within modern conditions, it is impossible to address pressing issues of corruption prevention without the community involvement and without taking into account the interests of the population [18].

International and regional organizations operate in the world in the field of PPP support (See Fig. 4).

Specialized PPP international and regional organizations were founded for facilitating and managing infrastructure investments and existing for years in countries like the UK, the Netherlands, the Czech Republic, Greece, Ireland, and Italy. In 2003, the PPP Alliance, sponsored by the UN Economic Council for Europe, issued good governance guidelines for institutional arrangements established in support of PPPs, including the use of such units. Other high-income countries (such as Australia and Canada) also have established government institutions that support PPP development. These organizations are responsible for coordinating the activities of governments towards the use of public-private partnerships, stimulating the exchange of knowledge and experience, including experts from the public and private sectors, the formation of information materials related to project evaluation, research and use of innovative tools in PPP, etc. Government agencies, agencies and public-private partnership centers operate in the regions under the leadership of relevant organizations.

One of the clearest examples of stimulating and coordinating public-private partnerships is the practice of the Public-Private Partnership Center of the Republic of the Philippines. Thus, according to the annual report for 2019 published by the Public-Private Partnership Center, 29 new Pipeline projects were added to the country, three public-private partnership projects were completed, including a diving island, a golf club and a supply project of drinking water, since 2010, within the framework of 15 PPP projects, about 60,000 jobs have been created, 38 projects have been supported, etc. The Project Development and Monitoring Facility (PDFM), which has been an integral part of the Philippine PPP Center since 2011, has funded $53.6 million, of which about $1.034 million in 2019. In general, as of the end of 2019, the structure of public-private partnership projects approved by the Philippine Center is as follows (See Fig. 5).
Fig. 5. Structure of projects approved by the Public-Private Partnership Center of the Republic of the Philippines

Source: author's own development based on [20; 21].

Thus, analyzing the structure of projects, we can conclude that 67 projects are in the process of implementation, which is 46% of their total number. At the same time, 13 of them are under construction (9%), and 18 are in preparation for it (12% of the total number of projects). At the same time, as of the end of the previous year, 10 projects were suspended, which is 7% of their total, 37 projects were completed - or 26%. Thus, we can conclude that the level of use of public-private partnership in the Republic of the Philippines is quite high, as a large number of projects implemented on the basis of such a partnership are in the process of implementation, and only a small part of them was unfinished. According to the annual report for 2019, the total cost of all projects amounted to 2.16 trillion peso.

For the completeness of the study, we consider it necessary to reflect the distribution of projects by areas of implementation (See Fig. 6).

Fig. 6. Structure of projects funded by PDFM as of the end of 2019

Source: author's own development based on [20; 21].

It is important to note that the funding of these projects took place under the auspices of the Project Development and Monitoring Facility, which is one of the key structural elements of the Public-Private Partnership Center of the Republic of the Philippines. The largest number of projects using public-private partnerships is implemented in the field of transport - 71.80%. Significantly less (7.4% and 7.8%) - in the field of water resources and IT-technologies, respectively. The next largest projects are in the field of energy and healthcare, 5.3% and 3.5% respectively. At the same time, the smallest number of projects implemented using PPP was in the field of justice (2.0%) and agriculture (0.7%). The biggest investment in the transportation sector is the popular practice and tendency of PPT projects in the different countries, where this type of infrastructure has seen the greatest number of projects delivered through PPPs.

5 Discussion

According to the results of the study, it is established that in order to stimulate sustainable and stable economic growth and development, states need to find additional sources of funding. One such source is the use of public-private partnership principles. At the same time, PPP projects are mainly implemented in such areas as transport, infrastructure, construction, social and environmental services, as well as the purchase of equipment. This form of partnership is usually long-term and involves a high level of risk, mainly for the private party.

Scholars and researchers emphasize the various benefits of public-private partnerships, in particular: access to additional financial resources through the use of private capital for project implementation [6]; access to technology, staff and skills for the state, and for the private sector – the opportunity to increase innovation [22]; transfer of risk [7]. According to the results of research it is expedient to note that the basis of all PPP agreements is: for the state – to achieve a balance between costs and risk, for the private sector – to achieve a balance between risk and the amount of remuneration. The public authority avoids any risk associated with ownership of assets, as it is fully transferred to a private company. An important advantage is a full risk assessment at the project planning stage to determine its feasibility. The private company in this case acts as a kind of test against the unrealistic promises of the government [23].

The important advantage is the emergence of additional investment opportunities because when private companies participate in the PPP, their monetary rewards are high and long-term. At the
same time, the return on investment from public-private partnerships is higher than the return on projects with exclusively public or private funding [22]. Business development is made possible by the partnership of private companies with the public sector, in terms of cooperation with courts, prisons, schools or environmental services. At the same time, if projects are successfully implemented, such cooperation can become long-term [6].

Smet believes that each participant does what he does best, as the projects involve specialized specialists. This affects the speed of project completion, and hence revenue growth. A highly effective public-private partnership reduces public budgets and budget deficits. In addition, PPP, which potentially reduces costs, can lead to lower taxes [22]. Also, high-quality standards are maintained throughout the PPP project life cycle [23].

In contrast to positive aspects of the public-private partnership, there are a number of shortcomings. The costs of preparation, bidding and running costs under PPP projects may be higher than during traditional public procurement, so the government needs to conduct a thorough assessment of the feasibility of the projects through partnership. Private companies will be cautious about taking risks that they do not control, including currency risks, but if they accept such risks, it will affect the cost of the PPP project [24]. A private company will perform only what it has been paid for, no more, which is why incentives and performance requirements must be clearly stated in the contract. Particular attention should be paid to performance-based performance requirements that are relatively easy to control [7]. The long-term nature of the projects provokes their complexity, as it is difficult to identify and take into account all possible emergencies and events during its implementation at the stage of concluding the contract. At the same time, there is a high probability that the parties will have to further resolve issues that have arisen separately. In addition, there may be situations where some projects may fail or be terminated for a number of reasons, including a change in government policy, a default by one party, or other force majeure. Therefore, it becomes obvious that some problems will have to be solved directly during the project implementation, which may cause dissatisfaction among the parties [23].

A limited number of private organizations that have the opportunity to implement the project, affects the restriction of competitiveness, which is objectively necessary to create a cost-effective partnership [24]. In cases where a private company has much more experience in a partnership, the government is at a disadvantage because it is unable to objectively assess the proposed costs [7]. In addition, the degree of responsibility, the amount of remuneration and risk largely depend on the type of contract on the basis of which the partnership is executed. Among the options, there are contracts under which the objects are transferred to the management of the state immediately after execution, remain in the management of a private company, as well as transferred to the state for use. The level of remuneration depends on the speed and quality of the order, and the level of risk from the previously discussed conditions. At the same time, the specifics of the implementation of public-private partnership projects affect the possibility of force majeure, which can often not be covered under the contract, and which are decided separately.

The government may decide to provide direct financial support for the PPP project through subsidies/grants, equity investment, or debt. These financial mechanisms are especially useful when the project does not in its own merit achieve profitability, financial viability or is subject to certain risks that the private investors or lenders can’t manage. In developing countries, the source of private financing is most needed, PPP projects may necessitate more government financial support than in developed countries [25].

Despite a number of shortcomings, public-private partnerships are becoming increasingly popular in the world. A striking example of the active use of public-private partnerships is the experience of the Philippine PPP Center, under the leadership of which about 67 projects are being implemented, 37 as of the end of 2019 have been completed. Our results about the structure of PPT projects in the Republic of the Philippines, where the biggest investment was in the transportation sector, is correlated with the research of the PPT projects results in the different countries [15; 17; 22]. At the same time, given the benefits of using PPPs at the interstate and regional levels, there are specialized organizations whose activities are designed to stimulate and coordinate the activities of states on a partnership basis, which is extremely important as its level of implementation in some countries remains extremely low.

6 Conclusion

The research conducted within the framework of this scientific article allows us to conclude that public-private partnership is becoming increasingly popular due to a number of significant advantages it provides: access to additional financial resources, including through additional investment; high quality of project implementation, as their involvement involves
specialized companies, opening access to innovative technologies, the opportunity for the state to direct funds to more priority areas, etc.

At the same time, the parties to the public-private partnership are the state and a specialized company, as well as, if necessary, it is possible to involve banks in these relations by obtaining borrowed capital and investors.

In addition, the research found that the relationship between the participants of the partnership is formalized through one of the types of agreements from the proposed list. Their main difference is in determining the party to whom the right to own and use the construction site or equipment after the end of the contract is transferred, the areas of risk allocation and the amount of financial participation of the participants.

It has been found that the use of public-private partnerships has a number of disadvantages, mainly related to the difficulty of finding and selecting a company for the contract, the difficulty of forecasting risks and high monopolization of certain market sectors, which affects the high cost of services by private companies.

Given the complexity of formalizing public-private partnerships, special institutions have been established at the level of international and regional organizations to coordinate the activities of national agencies and centers for the organization of PPPs. The results of their successful cooperation are the results of the Philippine Public-Private Partnership Center, the number of completed projects is growing every year, which in turn has a positive impact on the country's infrastructure, water management, innovative technologies, energy and health.

References:


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