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STATISTICAL ANALYSIS OF THE PREMISES, FACTORS, AND BARRIERS OF DEVELOPMENT OF PUBLIC-PRIVATE PARTNERSHIP IN THE REPUBLIC OF BULGARIA

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***Abstract:** Public-private partnerships (PPP) are an important element of contemporary national and international business processes. Experience to date and the modest accumulation of theory moved a joint team of researchers from the International Economic Relations and Statistics Department¹ of Sofia's University of the National and World Economies to address the issue. The paper presents sample survey results and their theoretical context amid the latest studies by EU authors. Basic conclusions refer to the: correct understanding of the PPP essence, determination of the real mechanisms for effective PPP, practical realization of the today's principals of PPP in our country, crucial points guarantying the PPP success in different activities, main railings for future development of the PPP, main financial tools for real mutually beneficial PPP etc. The whole empiric information is treated with SPSS. The results are correct analyzed by appropriate statistical methods.*

***Keywords:** public-private partnership (PPP), sample survey, probability proportion, standardized questioner, statistical methods for analyzing empirical data, basic conclusions about Bulgarian experience in the field of PPP.*

The development of Public-private partnerships (PPP) has accompanied a renewal of the public sector by the adoption of a new management culture. It places the client centre-stage and presupposes accountability as to outcomes, researching a great many diverse alternative mechanisms for service provision and for competition between public and private undertakings in delivering services, while recouping costs and

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attaining the best quality for the price. Moreover, the image of government as the direct supplier of services is transformed into one in which government is an empowering body which coordinates the actions of other suppliers. A number of countries which are updating their public administrations have adopted the ideas and principles marketing of services.

1. Nature and premises for establishing public-private partnerships

A substantial increase in partnership between public and private sectors has been observed in recent years. Within EU members, this has come into effect as a result from public service privatization. Emergence of large multinational operators of public services and public expenditure revision in accordance with Maastricht criteria require financial sources diversification.

Public-private partnership PPP is defined as long-term cooperative activity between the public and private sector for project accomplishment or service provision, traditionally supplied by the public sector and/or public interest, in which case the expenditures, values and risks are distributed to the mutual advantage of both sides.

The main target of PPP is to structure cooperative connections between separate parties in such way that the risks to be taken by those who would be able to control them in the most appropriate way. Within PPP environment, entrepreneurs from the private sector transform from assets' bearers into service suppliers for a long period of time. Parallel with that they carry the responsibility of designing, construction, exploitation and possible financing, in order to provide the service necessary in the public sector. As a result the central and local governmental agencies gradually adopt regulatory function and focus resources upon service planning, execution, monitoring and contract management, instead of performing direct management and serving.

In cases PPP has been developed in an appropriate manner, it can generate substantial benefits for the customers and taxpayers:

- Taking much of the risks (including price risk and time risk) and better service provision renders PPP projects cheaper compared to the traditional public procurement both for the government and the tax payers.
- The predominant part of the project risks are transferred to the private sector as the party that is able to manage them better.
- Private sector provides better service to public service consumers;

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- World practice and project assessments, materialized through PPP schedules display considerable improvement in quality and public infrastructure condition.

Cooperation together with the private sector in PPP projects offers a number of advantages. These are based on the following principles: accelerated provision of infrastructure; fast accomplishment; lowering total project cost, better risk distribution; technical performance stimulus; service quality improvement; additional income generation; improved public management; higher effectiveness at resource deployment; generating commercial value from public sector assets.

The form PPP usually obtains depends to a large extent upon the specificity of the particular project. Main forms are: public procurement; leasing; service agreements with private sector companies; exploitation and management agreements (including Build-Operate-Transfer approach); concessions, etc.

Membership of Bulgaria in the European Union stimulates new opportunities, though new requirements as well in front of PPP. In this way it emerges as an operating mechanism for acquiring funds from the Cohesion and structural EU funds. The principle of partnership and European financing gradually establishes itself. The national strategy of regional development of Bulgaria for the period 2005-2015 defines PPP as a basic instrument for regional development projects accomplishment.

2. Objectives and characteristics of the sample survey

In view of the actuality of problems, in process of development is the project “Public-private partnership in terms of integration of Republic of Bulgaria into the European Union”, one objective of which was the conduct of a special inquiry study. The experts from the research unit estimated that the main respondents are: the public administration, Bulgarian financial institutions, international financial institutions, Bulgarian companies, foreign companies, non-governmental organizations, and the academic community. In essence, these are the seven types of statistical research units, upon which the detached sample quota is based.

Due to the fact that only partners with real experience in PPP represent specific interest, they were divided into three main groups: with one to five years experience; with one to ten year practice, and third segment – of already realized the benefits and acting through PPP respondents with significant experience of more than ten years. The latter category, though minor, is of special interest to this analysis, due to the fact that it was

supposed to contain predominantly international financial institutions and foreign companies, which could transfer their positive experience in our country.

After repeated discussions, including experts from the Ministry of Finance, Ministry of Regional Development and Public Works, and representatives of private sector, a relatively short questionnaire was made up. The objective was for the latter to serve as means to estimate the overall awareness of potential partners regarding the essence, necessity, mechanisms, principles, state policy, critical points, and financial instruments of the European Union, increase of competitiveness and key success factors of PPP within the present conditions in Bulgaria. Due to the specific wording of the objectives of the study and the fact that PPP in our country is not entirely recognized as practice, the assignors preferred to grant the respondents the possibility to mark more than one correct answer of the separate questions. This was a reasonable approach due to the fact that the majority of potential opportunities are still at research level both on the part of the state, ministries and municipalities, and also on the part of the representatives of the partners – Bulgarian companies and those with international participation, Bulgarian and international financial institutions, nongovernmental organizations, and academic community representatives.

The inquiry survey prepared was relatively short in order not to burden respondents and not to predispose them of length of the answer reduction. It contains fifteen questions only in close form. The maximum number of answers to one of the questions only is ten, of which the respondents can point up to five correct. Based on the developed project for group tables, the average number of cells is of range 16-21 and only in solitary cases can reach up to 63. Naturally the model, volume, and method of survey formation depend upon other objective parameters and most of all from the level of scattering of the seven unit types surveyed within the studied indications (questions). Unfortunately, we did not have at our disposal data from similar preliminary research within this scope. Due to the above-mentioned, it is deemed logical to set the hypothesis that the level of scattering would be different not only for the seven potential types of partner, but also according to their PPP experience. Due to the lack of supporting point, related to the volume of investment, size of partnering organizations, auction procedure requirements etc., we headed for pilot survey.

The limited financial and time resource were the reasons for us to unify upon research of about 130 units. 200 survey cards were printed, which were distributed for filling in May 2007. 129 of the survey cards were

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returned (about 65%). The highest level of responsiveness was registered among respondents from the state administrative and academic community. The highest level of non-filled in survey cards are from Bulgarian and international financial institutions. In Table 1 the absolute number and the percentage of the respondents is presented according to their belonging.

Table 1 Distribution of the interviewed persons according to their belonging

Representative of	Absolute number	Percentage (%)
State administration	42	32,6
Bulgarian financial institution	4	3,1
International financial institutions	3	2,3
Bulgarian company	24	18,6
International company	4	3,1
Non-governmental sector	22	17,1
Academic community	30	23,3
Total	129	100,0

The prevailing part of the surveyed (69,1%) have experience in the field of PPP from one to five years, and 10,9% have experience for more than 10 years. The profile described so far gives sufficient grounds for in depth analysis of the conditions and problems in PPP in our country and against the background of our accession to the European Union.

Following survey research held regarding PPP, the survey card data were entered through electronic means into the application statistical software SPSS. Primary logical and statistical control was executed upon the data, after which final result was formed, containing primary data.

Situational statistical analysis was held, including one-dimensional distribution from respondents upon each and every one of questions asked and calculation of appropriate summarizing statistical characteristics of every one-dimensional distribution. The summarized results from formations and distributions are represented in table form and in graphic display. A basis for evaluation of PPP was created, as well as of opinions of representatives of Bulgarian state administration, business, non-governmental sector and academic community regarding the essence, aims, possibilities for application in the country, advantages of PPP and efficiency of realizing such partnership. The statistical analysis performed grants the opportunity also for hindrances to be cleared as of PPP accomplishment that can be of various natures – administrative, legal, and other.

Parallel with one-dimensional distributions, in order studying the status and basic regularities of PPP accomplishment, suitable two-dimensional distributions are performed (i.e. cross-tables). They provide us with the chance for more in depth analysis regarding the prerequisites and conditions of developing PPP in our country, for revealing sources of the hindrances in performing this activity, for the areas, where better chances exist, or PPP is not accepted well etc. with the aim of better visualization, part of the results of this multi-dimensional analysis are represented in graphic display.

Based on various two-dimensional distributions with the help of χ^2 -analysis and other statistical methods, statistical analysis can be performed, for establishing and proving important connections and dependences in the field of PPP.

3. Factors for contemporary development in PPP

One of the accents in the survey held was establishing the factors that guarantee PPP success. The survey question consists of ten variances of answers, of which up to five true can be pointed. The prevailing opinions are that sound and clear state politics (74,17% from answers) is the most important prerequisite for PPP development (see fig. 1). Following are 69,17% of answers in favor of the legislation and 59,17% - for necessity of state policy succession regarding PPP. In essence, all three of the answers gravitate around the necessity of clear and consecutive state policy in the above-mentioned field, to be held by the state and the judicial system.

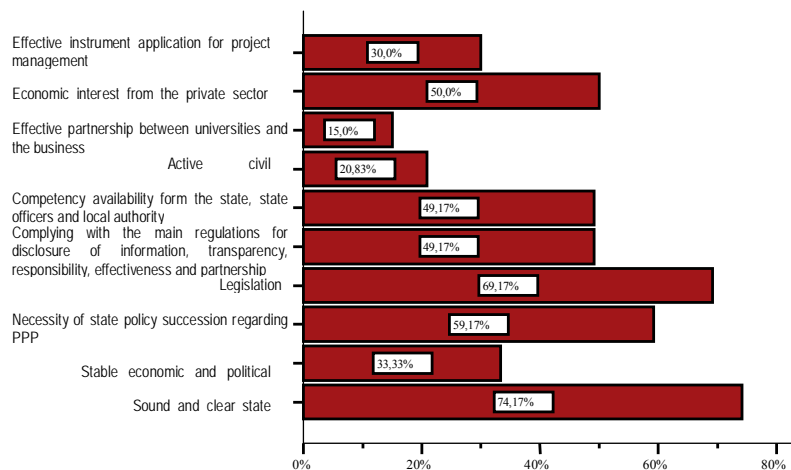


Fig. 1 Factors that guarantee PPP success.

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Very similar in intensity are the following answers: “economic interest from the private sector”, “complying with the main regulations for disclosure of information, transparency, responsibility, effectiveness and partnership” and “competency availability form the state, state officers and local authority”. Success factors that have received least votaries are: “effective partnership between universities and the business” and “active civil society”.

Analysis of PPP success factors can be deepened basis of the experience, the surveyed possess in the field. It is distributed in intervals with width of five years. Results received are presented in Table 2.

Table 2 Success factors and experience in the field of PPP (%)

Success factors	Experience in the field of PPP		
	1 to 5 years	5 to 10 years	more than 10 years
Sound and clear state politics	71,2	78,6	63,6
Stable economic and political environment	32,9	28,6	45,5
Necessity of state policy succession regarding PPP	57,5	42,9	72,7
Legislation	69,9	78,6	81,8
Complying with the main regulations for disclosure of information, transparency, responsibility, effectiveness and partnership	47,9	64,3	36,4
Competency availability form the state, state officers and local authority	49,3	64,3	54,5
Active civil society	23,3	28,6	9,1
Effective partnership between universities and the business	16,4	14,3	18,2
Economic interest from the private sector	49,3	64,3	63,6
Effective instrument application for project management	37,0	7,1	18,2

For the companies with least experience in the PPP field the leading factors are: “sound and clear state policy” and “presence of legal regulations”. The least important factors for them are: “effective partnership between universities and the business” and “active civil society”. The surveyed that have experience within five to ten years again place the dominant preference upon the two factors presented. The least important factors for them are “effective application of instruments for project