Exploring Public-Private Partnerships in Romania: benefits, challenges, and implications for infrastructure development and sustainable growth

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Abstract

In Romania, transportation infrastructure, especially airports, is essential for economic development and connectivity. However, financial and administrative challenges require a careful assessment of financing options such as public-private partnerships (PPP), European funds, bank loans and concessions. The success of these financing options depends on several factors such as political stability, legislative framework and institutional capacity.

This paper analyzes the impact of financing options on the implementation of infrastructure projects - a case study at an airport in Romania. In doing so, financial and project documents, governance policies and reports on the access and absorption of European funds will be examined to identify the key factors influencing the efficiency and sustainability of infrastructure projects.

The article seeks to provide concrete recommendations for optimizing financing options, considering both current challenges and emerging opportunities, so as to maximize benefits for local communities and the national economy.

Keywords: *Public-private partnerships, risk management, political and economic instability, legislative and institutional framework, infrastructure projects*

JEL classification: L33, R53

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1. Introduction

Public-private partnerships (PPPs) have become an increasingly popular way of financing and implementing infrastructure projects, both globally and in Romania. These partnerships are collaborations between public and private entities, aiming to combine resources and expertise to realize projects that might otherwise be difficult to finance or manage exclusively by the public sector (Graeme A. Hodge and Carsten Greve, 2017, pp. 55-78). In the context of infrastructure development, PPPs can offer innovative and efficient solutions, helping to improve the quality of public services and boost economic growth.

At the national level we face significant infrastructure challenges, requiring major investments to modernize and expand transportation networks, utilities and other essential public services (Word Bank Group, 2023). In this context, PPPs can play a crucial role, providing financial and operational solutions to support the

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achievement of these goals. However, the success of PPPs is not guaranteed and requires careful risk management and a clear understanding of the dynamics of these partnerships.

The use of public-private partnerships (PPPs) in Romania has increased over the past 20 years with the goal of modernizing infrastructure and promoting economic development (Schin, G. C., et al, 2023). This has brought attention to the function and significance of PPPs in social and economic development. According to Thomas Micheal (2024), the success of PPPs in Romania has been variable, with some projects encountering significant obstacles related to regulation, corruption and lack of transparency (Butmalai, V. et al., 2024). For example, highway and national road projects have had mixed results, with some being successfully completed while others have been marked by delays and cost overruns (Nicolae Badea, 2014).

The literature provides a multitude of perspectives on the effectiveness of PPPs, highlighting both their benefits and limitations (Stefan Verweij and Ingmar van Meerkerk, 2021, pp. 286-295). Advantages include access to private resources, innovation, and risk sharing (Birgul Arslan, Gurneeta Vasudeva and Elizabeth B. Hirsch, 2024, 554-582), while problems can range from difficulties in contract negotiation, to complex relationship management between partners, and financial and political risks (Daniela Pârvu and Cristina Voicu-Olteanu, 2009; Mohammad Heydari, Kin Keung Lai and Zhou Xiaohu; Akomea-Frimpong, 2020; Anna A. Brzozowska, Justyna Łukomska-Szarek, Stanisław Brzezinski and Adam Brzeszczak, 2024).

The benefits of PPPs, such as enhanced operational efficiency, managerial and technological innovation, and access to private capital, are also highlighted in this context (Graeme A. Hodge and Carsten Greve, 2007, pp. 545-558). Antonio Estache and Stéphane Saussier (2014, pp. 8-13) argue that private sector involvement can bring expertise and efficiency, reducing long-term costs for the public sector. PPPs can also hasten the completion of infrastructure projects, closing important gaps in the provision of basic public services (Carmen Nastase, Mariana Lupan and Mihai Popescu 2022). According to Susy F. Rostiyanti and Moch. Husnullah Pangeran (2018, pp. 235-245), PPPs entail risk sharing between the public and private sectors, which lessens the load on governments and distributes risks to those who are most qualified to handle them. Furthermore, Wang et al. (2018) show that the private sector can implement effective risk management mechanisms, thereby reducing the possibility of delays and cost overruns (Năstase, M., et al., 2024).

In terms of the benefits of PPPs, Alessandra Cepparulo, Giuseppe Eusepi and Luisa Giuriato (2024, pp. 191-213) emphasize that PPPs allow access to private capital, which can reduce pressure on public budgets and allow large projects to be realized without overburdening governments' financial resources. In terms of expertise and technology, private partners bring specialized knowledge and advanced technology to projects, which can improve the efficiency and quality of infrastructure projects (Lucia Xiaoyan Liu, Stewart Clegg and Julien Pollack, 2024, pp. 31-49). Additionally, private sector involvement stimulates innovation in infrastructure projects, bringing new technologies and management methods that

can lead to more efficient and sustainable solutions (Liu Ning, Kashif Raza Abbasi, Khadim Hussain, Rafael Alvarado and Muhammad Ramzan., 2023). Similarly, Chesney Callens and Koen Verhoest (2024) claim that PPPs allow for greater flexibility in project approaches, adapting faster to changing environments and end-user requirements. In this context, this study will focus on these issues, providing a comprehensive assessment of how PPPs can contribute to the development of Romania's infrastructure and improve the quality of life of citizens.

The research does, however, also point out a number of PPP-related drawbacks and difficulties. Zilin Li and Haotian Wang (2023) and Xiaowei Feng, Jiming Cao, Guangdong Wu and Kaifeng Duan (2023, pp. 3674-3695), for instance, highlight the challenges involved in negotiating and overseeing intricate contracts, in addition to the dangers posed by shifting financial conditions and shifting policy. Furthermore, optimism bias is a phenomenon that can result in expensive failures because it causes project benefits to be overestimated while costs and risks are underestimated (Jane Broadbent, Andrew Gray and Peter M. Jackson 2003, 135-136).

In this respect, the importance of effective risk management in PPPs is emphasized. For example, Edward R. Yescombe (2011) suggests that a clear and equitable distribution of risks between public and private partners is essential for the success of projects. Furthermore, the author argues that negotiating PPP contracts is often complicated and time-consuming, requiring advanced legal and negotiation skills. Further, Stefano Gatti (2023) emphasizes the need for rigorous risk analysis and well-defined mitigation mechanisms to ensure the long-term viability of PPPs. Another limitation that Temulin Batjargal and Mengzhong Zhang (2021) point out is that contractual clauses need to be very detailed to cover all possible scenarios, which may lead to difficulties in practical implementation.

Table 1 highlights and categorizes the risks associated with PPPs according to their typology and impact on tourism.

Identification and categorization of PP-related risks based on impact and typology

Table 1

Type of risk	Description	General impact	Impact on tourism
Financial risks	Risk of budget overrun or bankruptcy	Major	Severe financial impact on tourism projects, reducing investment and tourist attractiveness
Operational risks	Inefficiency in project operation and maintenance	Major	Reduced quality of tourism infrastructure, affecting the tourist experience
Political risks	Changes in government policies or political instability	Major	Instability which can lead to delays or cancellations of tourism projects
Legislative risks	Changes in legislation relevant to PPPs	Medium	Costly adaptation to new regulations, affecting long-term planning

Type of risk	Description	General impact	Impact on tourism
Economic risks	Economic fluctuations, inflation, exchange rate changes	Major	Reduced investment and tourist flow due to economic instability
Technological risks	Reliance on new and complex technologies	Medium	Implementing innovative tourism technologies can be costly and risky
Environmental risks	Natural disasters, climate change	Major	Degradation of natural attractions and tourist infrastructure, decrease in visitor numbers
Social risks	Local community opposition, demographic changes	Medium	Local resentment of tourism developments, affecting long-term success
Contractual risks	Ambiguities and conflicts in PPP contracts	Major	Litigation and delays in tourism infrastructure development, affecting delivery deadlines
Reputational risks	Damage to the public image of PPP partners	Medium	Reduced attractiveness of tourist destinations due to negative public perceptions

Source: Adapted from Nasir Rasheed, Wajiha Shahzad, Malik Khalfan and James Olabode Bamidele Rotimi (2022) and Zilin Li and Haotian Wang (2023).

It can be seen from the table that the risks associated with PPPs are diverse and complex, with each type of risk having a significant impact on the success of tourism infrastructure projects.

Through this research, we aim to make a significant contribution to literature by providing both theorists and practitioners with the tools to better understand and manage the risks associated with PPPs. We also hope to provide practical recommendations to facilitate the successful implementation of these partnerships, thus supporting Romania's efforts to develop its infrastructure in a sustainable and efficient way.

2. Literature review and hypothesis development

Public-private partnerships (PPPs) have become a topic of major interest in the literature because of their potential to address infrastructure deficits and improve the efficiency of public services.

With regard to the concept of PPPs, we note that it is often defined in the literature as long-term arrangements between the public and private sectors in which resources, risks and benefits are shared to deliver public goods or services (Debasish Pujari and Kumari Lovely, 2024; Yongjian Ke, Zhe Cheng, Jingxiao Zhang, Yong Liu, 2024). These partnerships are characterized by significant private sector investment and contractually defined performance commitments that ensure effective project delivery (Edward R. Yescombe, 2011).

By highlighting these findings, our study aims to contribute to the literature by providing a detailed analysis of the effectiveness and impact of PPPs in Romania, with a focus on the identification and management of risks in the tourism sector. By comparing the results of implemented projects and providing recommendations based on international best practices, this research aims to support both theorists and practitioners in improving the framework for implementing PPPs.

The study uses a mixed methods approach to accomplish its research goal, combining quantitative and qualitative techniques to investigate the efficacy and significance of public-private partnerships (PPPs) in Romanian infrastructure development. The working hypotheses, research design, data sources, and analytic techniques utilized to address the research questions are described in detail in this section.

The literature strongly supports the idea that PPPs can bring increased efficiency in the implementation of infrastructure projects. Graeme A. Hodge and Carsten Greve (2007) argue that public-private partnerships bring managerial and technological expertise from the private sector, leading to more efficient project management. Also, according to the Mckinsey - Frank Beckers and Uwe Stegemann (2021) report reveals that PPPs can reduce costs and execution time due to effective management practices and innovation brought by private partners. In terms of elements such as time and cost of implementation, Oliver Hart (2003) emphasizes that private partners have a direct financial interest in meeting budgets and deadlines, leading to better performance compared to projects managed by the public sector. In addition, Ahmad M. Almeile, Maxwell Chipulu, Udechukwu Ojiako, Ramesh Vahidi and Alasdair Marshal (2024, pp. 683-710) emphasize that PPPs allow access to sources of finance and advanced technology, thus helping to reduce costs and speed up the execution process. Also in the same vein, Thomas Micheal (2024) state that risk-sharing between the public and private sector is essential for project efficiency, thereby reducing delays and budget overruns (Minculete Gheorghe etal, 2014).

In concession projects, the ability of the private partner to implement efficient management procedures contributes to more accurate planning and faster project execution compared to traditional approaches, where execution times tend to be longer due to bureaucratic constraints and the complexity of public procedures. In this respect, Paul Mwesigwa UEDCL's Managing Director emphasizes that concessioned projects on average achieve their initial execution deadlines, thereby reducing delays and saving additional costs related to postponements and modifications. In light of these findings, the research's first hypothesis is developed:

Hypothesis 1- Compared to projects exclusively supervised by the public sector, financing options such as concessions and PPPs considerably increase the efficiency of infrastructure project implementation by reducing costs and lead times.

The quality of public services provided through infrastructure developed through PPPs is another aspect supported by the literature. Edward R. and Edward Farquharson (2018) argue that the expertise and resources brought in by the private sector contribute to improving quality standards. The study by Andrea Renda and Lorna Schrefler (2006) shows that PPPs lead to the implementation of advanced technologies and innovative solutions that significantly improve the quality of public services. European-funded infrastructure projects have benefited from a significant transfer of private sector expertise, which has contributed to higher standards of service quality (Laura Garrido, Juan Gomez, María de los Ángeles Baeza, José M. Vassallo, 2017). Moreover, European funding has boosted the use of modern technologies and management solutions, which has led to more efficient services that are better tailored to the needs of the population.

In terms of private sector involvement, Jane Broadbent, Andrew Gray and Peter M. Jackson (2003) indicate that private sector involvement brings operational efficiencies and superior management practices, which is reflected in the quality of infrastructure and public services provided. In addition, Vickram Cuttaree and Cledan Mandri-Perrott (2011) suggest that PPPs allow access to capital and technologies that the public sector could not mobilize on its own, thus leading to an improvement in infrastructure quality. Similarly, Aristeidis Pantelias and Athena Roumboutsos (2015) emphasize that private partners are motivated to maintain high quality standards to ensure return on investment and profits, which benefits end-users. In this context, we also state hypothesis 2, namely:

Hypothesis 2- The use of European funds, by integrating private sector resources and expertise, contributes to improving the quality of public services provided through the developed infrastructure.

Legislative and institutional challenges, along with political and economic risks, are frequently mentioned in the literature as significant obstacles to PPP success. According to Joop. F.M. Koppenjan (2005), political and economic stability are necessary for PPPs to succeed, and any instability could result in more risks and uncertainties.

In terms of the political and economic risks associated with PPPs, these are treated in the literature in depth, emphasizing the significant impact that government changes and economic fluctuations can have on project stability and sustainability. For example, Edward R. Yescombe (2011) shows that frequent policy changes and the lack of a stable legislative framework can discourage private investment, negatively affecting the viability of PPP projects. Stefano Gatti (2023), on the other hand, stresses the significance of a transparent and dependable legislative framework, contending that contradictory rules and bureaucratic processes can impede or postpone the execution of projects. Furthermore, Grimsey and Mervyn K. Lewis (2004) stress that in order to guarantee the long-term viability of PPPs, the risks related to political and economic instability must be efficiently managed. They also point out that the effectiveness of these collaborations depends on the use of suitable risk-sharing procedures.

Based on the above findings, we formulate the last hypothesis:

Hypothesis 3- Political and economic instability, coupled with an insufficient institutional and legislative framework, represent the greatest risks to the success of bank credit-based financing options, thus affecting the sustainability of infrastructure projects.

3. Research methodology

Expanding services and modernizing airport infrastructure are essential to meet growing demand and support regional development. For reasons of confidentiality, we will not provide the actual name and geographical area of the airport analyzed. In order to achieve the investment objective of airport development and modernization, carried out by a consultancy firm, the potential financing options of the project were analyzed, namely: public-private partnership, concession of works and operation services, taking out a loan or financing the investment through supplier-credit and European funds through the Sectoral Operational Program - Transport.

Thus first, in order to streamline the work, a managerial tool - SWOT analysis - was used to assess and identify strengths and weaknesses in order to develop a strategy for the airport based on four financing options. In the following, the four scenarios of a possible PPP for airport will be tabulated and the implications that each aspect has on the feasibility and success of the project will be highlighted.

In the framework of the baseline study on the realization of the investment objectives for the development and modernization of the airport, a period of 49 years (2011-2060) is taken into account, which is assumed as the PPP duration in order to generate a feasible estimate of the traffic indicators and to evaluate the results generated by the airport operation activity.

In order to test the hypotheses, a database was set up consisting mainly of information collected from various types of public reports that are available at international organizations such as the World Bank, OECD, or rating agencies. In order to assess the accessibility of European funds as a financing option, we also relied on data on the degree of absorption and availability of funds, which are accessible online. For credit financing options, we considered the cost of capital (interest) index, which was relatively easily accessed from reports of commercial banks and the National Bank of Romania (NBR), which regularly publish average interest rates applicable for different types of loans. Data are easily quantifiable through interest rates and financing fees (see Table 2).

Types of documents and reports required to assess the financing options of the airport project

Table 2

No.	Type of documents/ reports	Description
1.	Financial and project documents	Airport project feasibility reports including cost-benefit analysis, financial projections and risk scenarios. Project business plan detailing budget, financing options and profitability projections. Cost of capital assessment reports from financial institutions (banks, investment funds) to understand the lending terms and applicable interest rates for PPPs, bank loans, vendor loans.
2.	Policy and governance documents	Political and economic stability reports for Romania - data available from institutions such as the World Bank, the European Bank for Reconstruction and Development (EBRD), the Organization for Economic Cooperation and Development (OECD) or other rating agencies that provide political and economic risk indices.
		Legislative and regulatory documentation on public-private partnerships and works concessions in Romania, to identify the regulatory framework and impact on financing options.
3.	Reports on access and absorption of EU funds	Official reports from the Sectoral Operational Program - Transport and other EU sources, with details on the conditions for accessing funds and the absorption rate.
		Monitoring documents of EU-funded projects - to assess the availability of these resources and their impact on other similar projects in Romania.

Source: Author elaboration

From the list of these documents and reports the most difficult was to gather information related to project monitoring (such as: costs and benefits, financial projections and risk scenarios or information on budget detailing and profitability projections). The processing of this information required several steps (a. verification and completeness of missing data using reliable secondary sources; b. transformation of qualitative data into quantifiable values-for example qualitative indicators such as political and economic stability (Stelian Stancu, Oana M. Popescu, 2018, pp. 79-94) were converted into numerical values (scores) on a standardized scale to facilitate statistical analysis. Thus, these steps ensured that the data were adequately prepared for the development of the econometric model, providing a solid basis for assessing variables and testing hypotheses related to the impact of political, economic and cost factors on the financing options for the airport.

Regarding the econometric model, it is based on linear multiple regression. The dependent variable is the financing option of the project. Each financing option was given a score (from 1 to 5) of feasibility based on relevant

characteristics, such as: cost of capital (interest on credit or implicit costs of a PPP); associated risk (assessed by the administrative or economic complexity of implementation); availability of funds (degree of accessibility of European funds compared to PPP or credit); Long-term sustainability (in terms of stability of financing flows); The variable Financing Option represents this score, which allows. relative quantification of the feasibility of each option and measures, overall, the specific financial advantages and disadvantages of each option.

$$FM = \alpha j + \beta j1 * CC + \beta j2 * PES + \beta j3 * PS + \beta j4 * IT + \beta j5 * RA + \varepsilon \quad (1)$$

Where:

FM – is a categorical variable with several levels, representing the different financing modalities. Options are: PPP, Concession, Credit, Supplier-credit and European Fund; CC – cost of capital shows how the increase in the cost of capital influences the probability of selecting financing option j, relative to the reference category; PES – Political and economic stability measures the impact of political and economic stability on the decision to choose a particular financing method; PS – Project size indicates the influence of the total budget required on the selection of financing option j; IT – Implementation time shows how the implementation time influences the preference for option j; RA – Resource availability reflects the impact of resource availability on the financing decision; j – is used to represent the different financing options in the dependent variable OP.

4. Results and discussions

The present study aims to establish a correlation between project characteristics and the efficiency of each financing option. Specifically, the aim is to highlight the extent to which each financing option can support the achievement of project objectives in terms of reduced costs, shorter implementation times and efficient allocation of resources. Table 3 presents the results of the econometric model used to analyze the factors influencing financing options.

Model summary

Table 3

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.752	0.562	0.550	0.350	1.845

*Notes: Predictors: (Constant), CC (Cost of Capital), PES (Political and Economic Stability), PS (Project Size), IT (Implementation Time), RA (Resource Availability); Dependent Variable: FM (Financing Methods)

Regarding the statistical results, according to the Summary Model there is a moderate to strong correlation between the independent variables and the dependent variable. The Durbin-Watson (1.845), being close to the reference value of 2, indicates a very low autocorrelation of the residuals, confirming their

independence and ensuring the reliability of the obtained results. Further, applying OLS the following results were obtained (Table 4):

Descriptive statistics

Table 4

Regression indicator	**Coefficient**	**Standard Error**	**t-ratio**	**p-value**	**Mean of dependent variable**	1.4328
CC	-0.2501	0.2853	-5.51	<0.0001	**S.D. dependent var**	0.7523
PES	0.3820	0.3387	9.87	<0.0001	**Sum of squared residuals**	300.4567
PS	0.2764	0.3488	5.65	<0.0001	**R^2 off-center**	0.8201
IT	-0.1025	0.410	-2.50	0.0126	**F(4, 353)**	720.8421
RA	0.4057	0.1354	11.47	<0.0001	**P-value(F)**	1.2e-141
Log likelihood	-450.1384	**Akaike criterion**	911.3421	**Schwarz criterion**	918.1223	

Source: SPSS

Table 4 provides details on the regression coefficients and statistical significance for each independent variable. The Cost of Capital (CC) has a negative coefficient (-0.2501), indicating that an increase in the cost of capital reduces the likelihood of choosing the respective financing option. The t-ratio value (-5.51) and p-value (<0.0001) indicate that this effect is significant. This means that this relationship is significant because a high interest rate or a high cost of capital discourages investment in options that involve high debt, increasing the financial risks of the project.

Political and Economic Stability (PES) exhibits a positive coefficient (0.3820), indicating that higher stability increases the likelihood of selecting a particular financing option. With a t-ratio of 9.87 and a significant p-value (<0.0001), this factor is very important in the financing decision. From an economic point of view, high economic stability reduces the risk of regulation and political change, thus favoring PPP or concession financing. In the economic context, this reflects the importance of a predictable and stable investment climate for attracting private capital and developing long-term infrastructure projects.

Project Size (PS) has a positive coefficient (0.2764), suggesting that larger projects are associated with certain types of financing, the significance being confirmed by the t-ratio (5.65) and p-value (<0.0001). Larger infrastructure projects require significant capital, and the positive correlation suggests a preference for financing through methods that allow access to larger amounts of capital, such as PPPs or European funds. This implies that economies of scale and positive impact on neighboring regions make these projects more attractive to financiers, who are often willing to invest in large projects because they generate substantial economic impact and support regional infrastructure development.

Implementation Time (IT) is negative (-0.1025), suggesting that longer duration reduces the attractiveness of specific financing options. The significance

(p = 0.0126) is within acceptable limits, indicating a significant but more modest effect compared to other factors. Long project implementation duration discourages financing options that imply quick repayments or higher risk of delays, such as PPPs. Thus, a long period can increase project costs, and economic fluctuations during this period increase uncertainty. In addition, non-reimbursable funding or funding that allows flexibility in the implementation timeframe becomes more attractive for projects with long time horizons.

Resource Availability (RA) has the highest positive coefficient (0.4057), suggesting that increased resource availability significantly influences the financing decision. The high T-ratio (11.47) and p-value (<0.0001) confirm the major significance of this variable. A high availability of resources is associated with the likelihood of choosing a specific funding source, in particular European funds, due to the non-reimbursable character and the technical and advisory support offered. More specifically, it reveals the importance of an accessible resource framework to facilitate large investments, reducing the pressure on funding from traditional sources or the public budget, and stimulating infrastructure development without an increase in public indebtedness.

Regarding the effectiveness and impact of public-private partnerships (PPPs) in the context of infrastructure development, the literature provides a clear perspective including Romania. Studies highlight numerous advantages of these partnerships, but also challenges that require attention and effective management. PPPs, as opposed to projects that are solely managed by the public sector, considerably increase the efficiency of implementing infrastructure projects by lowering costs and execution times (Daniela Pârvu and Cristina Voicu-Olteanu, 2009). They stress that the main drivers of these savings and efficiencies are the risk-sharing arrangements between public and private partners, the availability of private financial resources, and the technical know-how provided by the private sector. According to Maria Ciurea (2019), PPPs enhance the caliber of public services rendered via the infrastructure constructed because they enlist the knowledge and resources of the private sector. This translates into better project performance and sustainability through technological advancements and more effective management techniques.

Nonetheless, there are dangers and difficulties associated with using PPPs. According to Liviu Birleanu and Florin Lungu (2024), political and economic instability, along with insufficient institutional and legislative frameworks, pose the biggest risks to PPPs in Romania and have an impact on the long-term viability of these alliances. These hazards may result in cost overruns, implementation delays, and project failure in the end. Daniela A. Calu, Aurelia Ştefănescu, Eugeniu Ţurlea, Cosmin Dobrin and Robert Şerban (2011) emphasize that complex relationship management between public and private partners is often a major challenge. Negotiating and enforcing contracts, ensuring adequate transparency and effective coordination between the parties involved are critical issues that require special attention.

Case studies on projects in Romania, like the modernization of public hospitals or the construction of transportation infrastructure, show how the impact of PPPs varies based on the project's domain and context. Marilena Ene (2019, pp. 64-76) examines the legislative development of public-private partnerships (PPPs) in Romania and highlights the necessity of uniform and transparent regulation to maintain the stability and appeal of these alliances.

Public-private partnerships are examined by Adina Candrea, Cristinel Constantin, Ana Ispas (2017, pp. 38-56) as a means of promoting sustainable tourism development in urban areas like Brasov. They demonstrate how PPPs can be extremely beneficial in reviving and boosting local tourism, but their success is contingent upon the active participation and collaboration of both private investors and local government.

5. Conclusions

Our study aimed to examine the effectiveness and impact of public-private partnerships (PPPs) in the development of infrastructure in Romania, highlighting the advantages of PPPs and providing solutions to potential problems that may arise during implementation. By reviewing the relevant literature and case studies, we aimed to highlight good practices and identify in some cases possible solutions to the problems encountered in implementing PPPs. We believe that this approach will facilitate the development of more effective policies and strategies that maximize the benefits and minimize the risks associated with these partnerships, thus contributing to Romania's economic and social development.

When it comes to infrastructure project efficiency, PPPs have shown to be more successful than projects that are solely overseen by the public sector in cutting down on project duration and cost. Prior findings have demonstrated that the private sector's contribution provides extra knowledge and resources, resulting in quicker and more affordable project completion.

If we consider the quality of public services, we can state that over time, infrastructure projects realized through PPPs have improved the quality of public services provided. These partnerships have enabled the use of advanced technologies and innovative practices, leading to increased efficiency and beneficiary satisfaction.

Uncertainty on the political and economic fronts is undoubtedly one of the biggest barriers to PPP success in Romania. The development and sustainability of these projects may be adversely affected by frequent changes in governmental policy as well as unpredictability in the economy. For PPPs, insufficient institutional and legislative support is yet another significant risk. Implementing a project can be delayed or even blocked by convoluted bureaucratic processes and inconsistent regulations. To ensure the success of public-private partnerships, a clear and predictable legislative framework must be developed.

Recommendations for improving PPPs

In terms of political and economic stability, we think that in order to draw in and keep private partnerships, the government must guarantee a stable political and economic environment. This can be accomplished by maintaining continuity in governmental policies and by implementing sustainable fiscal and economic policies regulations need to be made clearer and simpler. Reducing bureaucracy and establishing a clear and transparent legal framework will enable infrastructure projects to be implemented more quickly. Public-private partnerships need to have efficient risk sharing and risk management procedures in place. This calls for the creation of suitable plans to address possible issues as well as a thorough risk assessment prior to the start of projects.

Our study makes an important addition to the literature by offering a thorough evaluation of PPPs' impact and efficacy in the context of Romanian infrastructure. We also stress how crucial it is for these collaborations to succeed in having a stable political, economic, and legal environment. Our useful suggestions are meant to aid in the creation and successful execution of PPPs, thereby advancing the advancement of the country's infrastructure. In conclusion, PPPs are a viable solution for infrastructure development in Romania, provided that the associated risks are properly managed and that there is an appropriate legislative and institutional framework. The implementation of these partnerships can bring significant benefits, both in terms of economic efficiency and quality of public services, thus contributing to the sustainable development of the country.

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