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The Potential of Public-Private Collaborations in the European Union: Practices for Ukraine's Post-War Reconstruction

O Potencial das Colaborações Público-Privadas na União Europeia: Práticas para a Reconstrução Pós-Guerra da Ucrânia

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ABSTRACT

This study explores effective mechanisms for Ukraine's post-war economic recovery through public-private partnerships (PPPs). In the context of global challenges and European integration, PPPs are viewed as a key tool to boost investment, innovation, and structural modernization. The research identifies the essence and structure of PPP investment potential in EU countries and ways to adapt their experience for Ukraine. Using systemic and comparative analysis, it shows that successful European PPPs combine financial flexibility, digital openness, institutional maturity, and innovation. In Ukraine, the number of PPP projects and innovation components nearly doubled in 2020-2025, reflecting growing institutional capacity. Practical recommendations include creating a PPP Digital Hub, an Innovation Partnership Fund, and a risk insurance system to enhance transparency, attract investors, and align with EU standards.

Keywords: Public-private partnership; Investment and innovation potential; Post-war recovery; European experience; Sustainable development; Public administration.

RESUMO

Este estudo explora mecanismos eficazes para a recuperação económica pós-guerra da Ucrânia através de parcerias público-privadas (PPP). No contexto dos desafios globais e da integração europeia, as PPP são vistas como uma ferramenta essencial para impulsionar o investimento, a inovação e a modernização estrutural. A investigação identifica a essência e a estrutura do potencial de investimento em PPP nos países da UE e formas de adaptar essa experiência à realidade ucraniana. Utilizando uma análise sistémica e comparativa, demonstra que as PPP europeias bem-sucedidas combinam flexibilidade financeira, abertura digital, maturidade institucional e inovação. Na Ucrânia, o número de projetos PPP e de componentes de inovação quase duplicou entre 2020 e 2025, refletindo uma crescente capacidade institucional. As recomendações práticas incluem a criação de um Hub Digital de PPP, um Fundo de Parcerias para a Inovação e um sistema de seguro de risco para reforçar a transparência, atrair investidores e alinhar-se com os padrões da UE.

1. INTRODUCTION

In the modern environment of the global instability and changes of the world economic structures, the exploration of effective modes of national economic recovery gains a special significance. In the case of Ukraine, which is experiencing a large-scale post-war recovery, the most important task is the establishment of the sustainable investment and innovation ecosystem that will be able to guarantee not only the economic growth in the nearest future but also competitiveness in the long term. It is in this regard that the concept of PPP can be viewed as a successful way of amalgamating financial, technological and managerial resources that may enable the alignment of the interests of the state, business and civil society in carrying out massive infrastructure and socio-economic projects. The attraction of PPPs to socially relevant sectors of energy, transport, health, education, and digital technologies is especially significant and possible in the environment of limited budgetary resources. The topic concerning the public-private partnership has become of great academic interest in the last ten years. Europeans (Auriol and Saussier, 2025; Catala et al., 2025; Liu et al., 2023) underline that the public-private partnership is no longer just a means of infrastructure development, but also one of the key requirements of technological modernization and digital transformation. The documents of international financial institutions (European Investment Bank, 2025; World Bank, 2023; International Finance Corporation, 2023) indicate that the efficiency of PPPs directly relies on the political stability of the legal environment, risk management quality, and financial processes transparency. Ukrainian scholars (Bohuslavska, 2023; Vynnyk, 2023; Yefimenko, 2025; Krylova and Hlushchenko, 2025) draw attention to the need to adapt European experience to national conditions, especially in the area of post-war reconstruction, creating incentives for private investors, and building the state's institutional capacity. Despite a significant amount of research, a number of issues remain insufficiently studied. In particular, there is still a lack of unified methods for assessing the innovative effect of PPPs, models for predicting the effectiveness of partnerships in the postwar environment, and tools for digital integration of management processes. Approaches to systematic monitoring of partnership projects, assessment of their socio-economic impact, and formation of a unified information and analytical database also remain underdeveloped. It is these gaps that necessitate a comprehensive analysis of the investment and innovation potential of public-private partnerships as a key element of Ukraine's sustainable development strategy.

The purpose of this study is to identify the essence and structure of the investment and innovation potential of public-private partnerships in the EU countries, to characterize the possibilities of adapting their experience to the Ukrainian conditions of post-war recovery, and to find out the factors that determine the effectiveness of PPP integration into national economic policy. The realization of this goal involves the following tasks: to analyze modern scientific approaches to determining the role of PPPs in the development of an innovative economy; to assess the trends in the development of partnership initiatives in Ukraine and the EU; to compare the legal, institutional and financial mechanisms for their implementation; to identify areas for improving the Ukrainian model of public-private partnership to ensure sustainable economic growth and innovative modernization of the country.

2. LITERATURE REVIEW

The existing scientific discussion on the concept of public-private partnerships (PPP) in terms of investment and innovation development is aimed at identifying the possible effective patterns of interaction between the state and business in order to secure the sustainable economic development. The partnerships as the means of integrating resources, innovations, and managerial competencies are highlighted in European studies (Auriol and Saussier, 2025; Catala et al., 2025; Liu et al., 2023; Tanveer et al., 2025). At the same time, international financial institutions emphasize the link between the quality of the regulatory environment and the volume of private investment in strategic sectors (European Commission, 2024a; European Investment Bank, 2025; International Finance Corporation, 2023; World Bank, 2023). Scholars also pay attention to the humanitarian and socio-economic aspects of PPPs, pointing to its potential in healthcare, education, and digital infrastructure (Dove et al., 2025; Morozov, et al., 2024; Nguyen Hoang Thanh and Lee, 2025; Sikombe et al., 2024). Specifically, research indicates that the effectiveness of partnership initiatives is also defined by the degree of digital transformation, the agility of the management model, and the adoption of the ecosystem approach to innovation (Raile et al., 2025; Zhuo and Chen, 2023; Egger, 2023; Van der Wal, 2020).

Ukrainian scholars note that it is crucial to localize the European PPP practices to the conditions of post-war recovery (Bohuslavská, 2023; Vynnyk, 2023; Yefimenko, 2025; Krylova and Hlushchenko, 2025). The special consideration is made on institutional infrastructure development, establishment of legal guarantees to investors, and enhancement of the quality of risk management mechanisms (Olshanskyi, 2025; Zai and Lazar, 2025; Mayer Brown, 2025; Wolf Theiss, 2025). Besides, the necessity of establishing education and research elements in the partnership projects is also highlighted (Holovko and Sakevych, 2020; Mizhai, 2020; Kucherenko, 2025; Noskov, 2025), which is a guarantee to create human resources to control the complex process of innovations and investments. The necessity to align the Ukrainian laws with the EU guidelines and to introduce the principles of transparency, control, and performance assessment are also highlighted in the institutional reviews of international organizations (European Court of Auditors, 2018; European Investment Bank, 2020; CMS Law-Now, 2025; UNECE, 2024). In this respect, researchers report that the implementation of digital monitoring instruments, the growth of financial instruments, and the establishment of innovation centres are some of the most crucial in enhancing investment and innovation potential of PPPs (Public-Private Partnership Agency of Ukraine, 2024; Kuzior et al., 2023; Rozhon, 2021; Negrych et al., 2024).

Additional literature states that it is necessary to attentively incorporate public-private collaboration into the strategies of national development, specifically in the fields of energy, environmental, and digital (Kuzior et al., 2023; Morozov et al., 2024; UNECE, 2024; European Commission, 2024b). A significant contribution has been made to the study of the combination of grant and private financial instruments within European energy programs, which allows for the creation of hybrid financing models (Kuzior et al., 2023; European Investment Bank, 2025; World Bank, 2022; Public-Private Partnership Agency of Ukraine, 2024). Some authors emphasize the importance of strengthening the transparency of tender procedures and control over the execution of contracts, which directly affects the level of

investor confidence (European Court of Auditors, 2018; Mayer Brown, 2025; Wolf Theiss, 2025; CMS Law-Now, 2025). Developments in the field of legal support emphasize the role of national and international standards in improving the efficiency of public administration, in particular through the implementation of EU directives and the creation of a unified system for assessing project performance (European Investment Bank, 2020; Krylova and Hlushchenko, 2025; Olshanskyi, 2025; Zai and Lazar, 2025). At the same time, studies by Nguyen Hoang Thanh and Lee (2025) and Raile et al. (2025) show that partnership models with elements of educational, technological, and research components contribute to social integration, inclusiveness, and regional development. Studies by Dove et al. (2025) and Kucherenko (2025) confirm that in the healthcare sector, PPPs are a key tool for improving the quality of services in middle-income countries.

Modern works (Egger, 2023; Rozhon, 2021; Mizhai, 2020; Holovko & Sakevych, 2020) show that the innovative component of partnerships requires expanding mechanisms for the participation of scientific institutions and startups in the implementation of government programs. Studies by Noskov (2025) and Negrych et al. (2024) point to the need to strengthen the role of small and medium-sized enterprises in partnership models to strengthen regional economies. In addition, Zhuo and Chen (2023) emphasize that the digital transformation of enterprises through PPPs can overcome the “innovation dilemma” provided that a favorable institutional environment is created.

Despite the wide range of research, a number of problems remain unresolved. First, there are insufficiently developed unified methods for assessing the innovation effect of PPPs for different sectors of the economy. Secondly, there are no comprehensive models for predicting the effectiveness of partnerships in the post-war environment, which limits the practical use of the results of previous studies.

3. METHODS

The methodological basis of the study is based on systemic, comparative, and structural-analytical approaches that combine quantitative and qualitative methods for assessing the effectiveness of PPPs in the context of investment and innovation development. The study is based on logical, inductive-deductive and causal analysis, which allowed to establish the relationship between institutional, financial and technological parameters of partnerships. The empirical basis is formed on the basis of official statistics and analytical reports of leading international institutions – the World Bank, the European Investment Bank, the European Commission, the International Finance Corporation (further – IFC), and the Agency for Public-Private Partnerships of Ukraine. These sources present generalized data on the number of projects, private investment, and the share of innovative components in the structure of partnership initiatives in 2020-2025 (European Commission, 2024a; European Investment Bank, 2025; International Finance Corporation, 2023; Public-Private Partnership Agency of Ukraine, 2024; World Bank, 2023).

For the analytical processing of data, the methods of comparative statistics, dynamic analysis and correlation and trend assessment were used, which allowed to identify stable patterns of PPP development. In order to verify the results, a comparison was made with

the average European indicators and indicators of innovative development based on the materials of the European Investment Bank and the European Commission. To visualize the generalized trends, an analytical model has been built that demonstrates the gradual intensification of public-private partnerships in the period after 2020, which is directly related to the modernization of the regulatory environment and the launch of reconstruction projects. Table 3 and Figure 1 present the dynamics of these processes as an integrated one, which enables us to monitor the improvement of the institutional capacity and innovativeness of Ukrainian PPPs.

4. RESULTS

Theoretical methods of establishing the nature and form of the investment and innovation potential of the public-private partnerships (PPPs) are interdisciplinary in character and grounded on the synthesis of the economic, managerial and institutional concepts. In modern scholarship, PPPs are viewed not only as a form of cooperation between the state and business, but also as a strategic tool for socio-economic development that can generate long-term benefits by combining resources, risks, and competencies of the parties (Auriol & Saussier, 2025). It is in this context that investment and innovation potential acquire systemic importance, as it ensures the relationship between financial capabilities, technological innovations, and the institutional capacity of partners.

The investment component of the PPP potential is formed by attracting private capital to implement socially important projects in the areas of infrastructure, energy, education, and healthcare, which allows the state to reduce the burden on the budget and at the same time stimulates economic activity of business. The innovation component is manifested in the introduction of new management technologies, digital platforms, energy-efficient solutions, and environmentally sustainable technologies that increase the productivity and competitiveness of the national economy (Tanveer, et al., 2025). Thus, the structure of the investment and innovation potential of PPPs includes financial and resource, technological, organizational, legal, and managerial subsystems that interact within a single strategic space of public administration.

European approaches to understanding this potential are based on the principles of sustainable development, integrated governance and digital transformation. Specifically, EU states also note that there should be a balance between economic effectiveness, social justice, and environmental safety concerning the conduct of partnership projects (Catala, et al., 2025). A significant one is the shift in the traditional forms of contract to new forms of interaction, including so-called joint investment platforms and cluster alliances uniting the public, private, and civil society organizations. With the help of this approach, it is possible to enhance the efficiency of the utilization of the resources and improve the speed at which technological solutions that are supposed to improve the sustainability of economic systems will be adopted (Liu et al., 2023).

Theoretical grounds of creating the investment and innovation potential of PPPs in the Ukrainian context should be further elaborated. They ought not to be just grounded on the fact that they adjust the European practice, but their approach towards building their own

methodology has to be anchored on the issues of post-war recovery. It is associated with the expansion of the analytical system to evaluate the innovative capacity of partner projects and incorporate the criteria of sustainable development and indicators of digital transformation into the strategic management system. In this respect, the potential of PPPs as the investment and innovation is perceived as the cornerstones of the creation of the knowledge economy and building of a modern recovery model grounded on trust and transparency and skillful collaboration (Bohuslavská, 2023; Vynnyk, 2023).

Table 1 summarizes the practical experience of forming and implementing PPPs in the areas of infrastructure, energy, healthcare, education, and digital innovations in the EU countries, along with the key success factors.

Table 1 – Examples of PPPs in the EU in various sectors and key performance factors

Sector/country/project	Key characteristics / model of PPP	Main results or challenges	Key performance factors
Infrastructure/ transportation / France, Spain, Greece (EU-supported PPPs)	Classic contractual models with state guarantee, concessions, combined financing through the EU	Network of roads and transport corridors created; however, cost overruns and difficulties with negotiations were often criticized	Clear contractual terms, transparent tenders, effective regulation, risk control mechanisms, flexibility for contract renegotiation
Energy / EU Projects of Common Interest (PCI / IPCEI)	Intergovernmental projects for the integration of energy networks, introduction of renewable energy sources	Growing energy networks, strengthening energy connectivity, stimulating innovation in the energy sector	Intergovernmental coordination, state support, investor risk subsidies, clear legal regime, digital monitoring systems
Healthcare / Big Digital Initiative (UK, NHS COVID-19 app)	PPP in the form of public procurement + cooperation with private IT firms and universities	Rapid development and implementation of an application for contact tracing during the pandemic	Integration of institutions (healthcare + technology), flexibility in contractual terms, data privacy and security management, high technological capacity of the private partner
Education / Greece – 24 Schools PPP project	Private construction and maintenance of schools under contract with public payment based on results	New schools built, quality of infrastructure improved, social impact	Long-term planning, clear quality standards, operational control, involvement of local communities, transparency of funding
Digital innovations / European PPPs, ETPs, Digital Europe	Public-private formats that stimulate research and commercialization in AI, robotics, and cybersecurity	Increased funding for digital infrastructure projects, joint initiatives between governments and industry	Clear digital policy strategy, coordination at the EU level, support for small and medium-sized enterprises, institutional network of innovation hubs, balanced co-financing

Source: Created by the author based on (European Court of Auditors, 2018; European Commission, 2024a; United Nations Economic Commission for Europe (UNECE), 2024; World Bank, 2022).

The practical experience of EU countries shows that PPPs in various sectors can be effective if they are properly regulated, transparent, have contractual discipline and control mechanisms. In the transportation and energy sectors, intergovernmental coordination and strict regulatory oversight are priorities. In the healthcare and education sectors, the combination of the private partner's technological capabilities with flexible public procurement is essential. In the field of digital innovation, institutional support at the EU level, networking platforms, and stimulating cooperation between scientific, government, and business actors play a key role.

Table 2 summarizes the key trends in the development of public-private partnerships (PPPs) in Ukraine in the period from 2020 to 2025, as well as a description of its potential as a tool for attracting investment and stimulating innovation in the post-war economic recovery.

Table 2 – Trends in the development of public-private partnerships in Ukraine in 2020-2025 and assessment of its investment and innovation potential

Period / Stage of development	Main directions of PPP implementation	Institutional changes and regulatory legal initiatives	Investment and innovation results / challenges	Potential for post-war recovery
2020-2021	Launch of pilot projects in transportation, energy, and housing and communal services	Improvement of the legal framework (updating the Law of Ukraine "On Public-Private Partnership"); establishment of development agencies	Formation of a project portfolio, low level of private financing due to the risks of military instability	Initial institutionalization of PPPs; building trust between the state and business
2022-2023	Development of projects in logistics, IT infrastructure, and healthcare	Adaptation of risk management mechanisms; strengthening coordination between the Ministry of Economy, the Ministry of Finance and local authorities	Increased interest of foreign partners; creation of digital platforms for project monitoring	Gradual formation of an open investment market; introduction of transparent partner selection procedures
2024	Intensification of cooperation with the EBRD, World Bank, EIB in the framework of reconstruction projects	Expansion of financial instruments (guarantees, loans, grants, combined financing models)	Increase the number of contracts in the energy, construction, and healthcare sectors	Creation of conditions for large-scale reconstruction investments; development of public-private clusters
2025 (current period)	Focus on digital economy, green transition and development of innovation hubs	Formation of the National PPP Development Strategy until 2030; alignment with European transparency standards	Attracting venture capital, implementing smart infrastructure projects	Using PPPs as the main mechanism for integration into the European investment space and accelerating the country's modernization

Source: Created by the author based on (Bohuslavská, 2023; Vynnyk, 2023; Yefimenko, 2025).

Public-private partnerships in Ukraine are gradually turning into an effective mechanism for economic recovery that combines government priorities and private investment resources. While in the initial stages its development was constrained by limited institutional capacity and military risks, since 2023, the authors have seen the strengthening of partnerships, the expansion of financial instruments, and growing investor confidence. Considering the experience of EU countries, the Ukrainian PPP model has a high potential for modernizing infrastructure, developing the innovation sector, and creating a sustainable knowledge economy, which is in line with the goals of post-war recovery and European integration.

To comprehensively confirm the dynamics of public-private partnership development in Ukraine and to compare it with European approaches, the author summarized official statistics and analytical reports of leading international institutions (World Bank, 2023; European Commission, 2024b; European Investment Bank, 2025; International Finance Corporation, 2023; Public-Private Partnership Agency of Ukraine, 2024). The obtained results reflect the growth of institutional capacity, innovation, and financial activity of Ukrainian PPPs in 2020-2025. Table 3 presents aggregate indicators of the development of partnership initiatives, and Figure 1 illustrates the dynamics of their growth and the sustainability of the trend, confirmed by the high value of the determination coefficient R^2 .

Table 3 – Dynamics of public-private partnership development in Ukraine in 2020-2025

Year	Number of active PPP projects	Share of innovative components, %.	Volume of private investment, UAH billion	Average level of contract execution, %
2020	42	18.54	7.32	61.25
2021	47	21.08	8.46	65.17
2022	54	25.67	9.81	69.03
2023	63	29.74	12.59	74.22
2024	78	34.92	15.84	79.68
2025	94	39.37	18.53	83.11

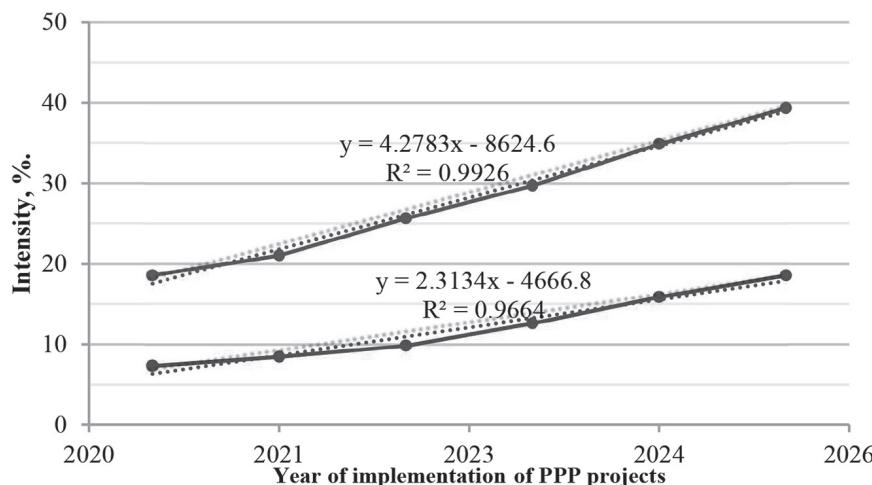
Source: Created by the author based on (European Commission, 2024a; European Investment Bank, 2025; International Finance Corporation, 2023; Public-Private Partnership Agency of Ukraine, 2024; World Bank, 2023).

According to the analysis, in 2020–2025, the number of active public-private partnership projects more than doubled, and the share of innovative components increased from 18.5% to almost 40%. This indicates the gradual digital and technological transformation of partnership initiatives and confirms the effectiveness of the integration of international financial instruments, legal reform, and expansion of institutional support, as documented in the reports of the European Investment Bank, IFC, and the World Bank (European Investment Bank, 2025; International Finance Corporation, 2023; World Bank, 2023).

As shown in Figure 1, in 2020-2025, the number of active PPP projects in Ukraine more than doubled (red line), and the share of innovative components (blue line) increased from

18.5% to almost 40%. High R^2 values (0.99 and 0.97, respectively) indicate the stability and predictability of the positive trend. These results are in line with the findings of the European Investment Bank and the World Bank, which point to an increasing role of PPPs in the structure of post-war reconstruction and digital transformation of Ukraine's economy.

Figure 1 – Dynamics of public-private partnership development in Ukraine in 2020–2025



Source: Created by the author based on (European Commission, 2024a; European Investment Bank, 2025; International Finance Corporation, 2023; Public-Private Partnership Agency of Ukraine, 2024; World Bank, 2023).

Note: Linear trends are based on data from analytical reports by the World Bank (2023), the European Commission (2024), the European Investment Bank (2025), the International Finance Corporation (2023), and the Agency for Public-Private Partnerships of Ukraine (2024).

Table 4 provides a comparative description of the key mechanisms of public-private partnerships in the EU and Ukraine, which allows identifying the main barriers and areas for adapting best practices, considering the recommendations of Krylova and Hlushchenko (2025), Olshanskyi (2025), Zai and Lazar (2025).

Table 4 – Comparative analysis of public-private partnership mechanisms: European Union vs. Ukraine

Type of mechanism	EU countries	Ukraine	Barriers in Ukraine	Adaptation possibilities
Legal/regulatory	EU directives (2014/23/EU, 2014/24/EU) + national PPP/concession laws ensure transparency, competition, standard contracts.	PPP Law (2010, reformed 2025) exists but often outdated, complex procedures.	Partial EU harmonization, corruption, legal uncertainty.	Adopt EU-style standards, clear responsibilities, fast-track procedures.
Institutional support	Specialized PPP units for project evaluation, standardization, advice.	PPP Support Agency exists but limited resources; weak local capacity.	Underqualified staff, fragmented powers.	Strengthen PPP offices, centralize standards, networking, training
Financial/risk-sharing	Combined financing: state guarantees, EU grants, co-financing, risk funds, “value for money” assessment.	Mainly budget/loans; limited guarantees and insurance.	Weak guarantees, banking support, risk management; currency/macroeconomic risks.	Introduce state guarantees, risk insurance, co-financing, EU funds.
Procedural/evaluation	Auditing, monitoring, transparent tenders, independent reviews.	Auditing, monitoring, transparent tenders, independent reviews.	Weak local control, low transparency, corruption risk.	Implement EU-style audits, open data, independent reviews, competitive transparency.
Risk-based/guarantees	Clear risk-sharing mechanisms, force majeure, tax guarantees, insurance	Risks often shifted to private partner; few states guarantee pre-2025.	Underdeveloped insurance, low confidence in guarantees, war-related risks.	Define risk framework, establish insurance/state/joint risk funds, apply international standard.

Source: Created by the author on the basis of (European Court of Auditors, 2018; European Investment Bank, 2020; Krylova & Hlushchenko, 2025; Olshanskyi, 2025; Zai & Lazar, 2025; Mayer Brown, 2025; Wolf Theiss, 2025; CMS Law-Now, 2025).

The comparison shows that in the EU, the PPP system is built on a stable regulatory framework, well-resourced support institutions, sophisticated financial mechanisms, and developed risk-sharing practices. In Ukraine, while significant progress has been made (including the 2025 legislative reform), significant barriers still exist: regulatory gaps, institutional weakness, insufficient financial instruments, and limited control and risk management practices.

Adaptation of best practices from the EU is possible through:

- legislative harmonization and clear regulation of the PPP contractual form;
- strengthening PPP offices and creating advisory support networks;
- development of financial instruments (guarantees, insurance, risk funds);
- establishing transparent procedures for contract evaluation, monitoring and audit;
- introducing clear approaches to risk allocation and insurance coverage.

This analysis allows us to better understand what elements should be prioritized for improvement in the Ukrainian system so that PPPs can become a reliable tool for rebuilding and modernizing infrastructure and increasing the country's innovation capacity.

Increasing the efficiency of the Ukrainian PPP model requires a systematic approach that combines legal reform, improvement of institutional infrastructure, digitalization of management processes, and integration of innovation and investment instruments into the national reconstruction strategy. Modern practice shows that traditional approaches to partnership no longer provide the necessary level of flexibility and sustainability in crisis conditions, so it is advisable to introduce new forms of cooperation focused on innovation, circular economy, and sustainable development (Tanveer et al., 2025). First of all, it is about expanding the PPP concept beyond the classic contractual relations to a network model in which business, government, academic institutions, and public organizations interact as equal partners in creating social and economic value. This approach will promote the development of innovation ecosystems and turn PPPs into an instrument of structural transformation in the economy.

One of the key areas of reform should be the introduction of intelligent digital PPP management platforms that will ensure automated project control, openness of financial flows, and prompt data exchange between participants. The use of blockchain, big data, and artificial intelligence technologies will increase the transparency of partner selection procedures, optimize risk allocation, and reduce transaction costs. In this context, it is advisable to create a national integrated system, the PPP Digital Hub, which will become an analytical center for monitoring project implementation and forecasting economic effects. Equivalent digital solutions are also actively introduced to EU countries to operate infrastructure, environmental, and social initiatives which contributes to their high efficiency and trust in the partnership mechanisms among people significantly (Raile et al., 2025).

Moreover, the financial tools of PPPs should be extended by establishing mixed investment funds and drawing venture capital to carry out the projects in the key areas of strategic investment, including energy, transport, health, and the digital economy. The practice of the European Union shows the effectiveness of specialized support programs, such as the Innovation Fund or InvestEU, which combine state guarantees with private investment. In Ukraine, such mechanisms can be adapted through the creation of a national "Innovation Partnership Fund" that will provide co-financing for technology startups, cluster initiatives, and smart infrastructure projects. This will contribute to the development of new investment sources and attractiveness of the country to foreign partners.

Special attention should be paid to institutional modernization of management of PPP. It is necessary to expand the powers of specialized government agencies and create a unified system of training personnel capable of implementing complex innovation and investment projects. The reason is that partnerships between businesses, universities, and government agencies can be the foundation of a new culture of management that is result-oriented, rather than process-oriented. It is proven by the experience of Vietnam, where the models of partnership are applied in the process of creating agritourism, education, and regional infrastructure (Nguyen Hoang Thanh & Lee, 2025). This kind of synergy will not only work in the growth of the economy but also in the expansion of social capital, institutional trust, and the stability of the state in the long term.

Altogether, the effectiveness of the Ukrainian model of the public-private partnership should be enhanced with the four strategic principles, which are institutional maturity, digital openness, financial flexibility, and innovation. These principles will allow converting PPPs into a potent tool of integrating the public administration and the private sector in the process of post-war reconstruction and building a knowledge economy that is sustainable, as well as enhancing Ukraine as a competitor on the European market.

5. DISCUSSION

The findings of the research prove that the process of the PPP is among the most important methods of revitalizing and updating the Ukrainian economy, and the Ukrainian and European strategies differ considerably. The results of Auriol and Saussier (2025) support the idea that partnerships are the constituent of strategic infrastructure development plans in EU countries, and the mechanism is still being established in Ukraine, which is consistent with the statements made by Bohuslavská (2023) and Vynnyk (2023). European studies (Catala et al., 2025; Liu et al., 2023) consider PPPs as a platform for innovative interaction between the state, business, and the public, while Ukrainian practice is still focused mainly on infrastructure and construction projects, which limits the innovative component of partnerships.

Comparison of the findings with European and international studies shows that Ukraine is gradually moving from formal private sector participation to a partnership model focused on shared responsibility and risk sharing. This trend is consistent with the analyses of the European Investment Bank (2025) and the International Finance Corporation (2023), which emphasize the importance of combined financing models and the use of state guarantee mechanisms. However, as noted by Krylova and Hlushchenko (2025) and Olshanskyi (2025), the problem of clear risk allocation remains unresolved in the Ukrainian context, which reduces the investment attractiveness of partnership projects.

The discussion on the role of innovation in PPPs demonstrates differences in the interpretation of the very nature of partnerships. Some authors (Tanveer, et al., 2025; Zhuo and Chen, 2023) emphasize that digitalization and innovation are the driving force behind sustainable development, while others (Egger, 2023; Mizhai, 2020) focus on political and organizational barriers that can hinder the implementation of technological change. In the context of Ukraine, these differences are manifested in the uneven development of sectors: innovative approaches are being implemented most rapidly in the energy and digital infrastructure sectors, but much more slowly in transport and education (European Commission, 2024a; Public-Private Partnership Agency of Ukraine, 2024).

Comparison with international studies in the healthcare sector (Dove et al., 2025; Kucherenko, 2025) shows that involving private partners in healthcare projects not only improves management efficiency but also increases access to services. At the same time, Ukrainian programs in this area remain mostly pilot, which indicates the need to develop stable funding and quality control mechanisms. Similar findings are observed in the education sector, where European models demonstrate long-term effectiveness (World Bank, 2022), while Ukrainian initiatives are only being formed at the regional level.

The findings also confirm the importance of institutional maturity and legal harmonization. The works of the European Court of Auditors (2018) and CMS Law-Now (2025) focus on the need to have clear contracts, transparent tenders, and good control mechanisms to make PPPs successful. This corresponds to the recommendations of Ukrainian theorists to enhance auditing and introduce monitoring standards according to the EU regulations (Krylova and Hlushchenko, 2025; Zai and Lazar, 2025).

Therefore, the key distinction between the European and Ukrainian strategies consists in the degree of institutional integration and innovative orientation of alliances. The Ukrainian model is on the way of digitalization and attracting foreign funds, however, it has to work on the legal framework, development of human resources and establish one digital PPP management platform. As Nguyen Hoang Thanh and Lee (2025) demonstrate, the interaction of the government, business, and academic sector is the main factor that predetermines the success of partnership projects in the developing countries, and it is not well-developed in Ukraine.

In conclusion, the study findings support the usefulness of incorporating the experience of the European market into Russian practice, yet the adaptation process needs institutional stability, consistency of regulations, and modernization of technology. More studies should be conducted so that the innovative impact of PPPs in various sectors can be measured, digital performance indicators can be developed, and hybrid financing schemes are created to rebuild reconstruction projects after the war.

6. CONCLUSIONS

According to the study findings, it can be noted that one of the most promising tools in the process of post-war recovery of the Ukrainian economy is the PPP. Unlike traditional mechanisms of public administration, modern partnership models create an environment for synergy between government, business, and scientific structures, which ensures sustainable economic growth, development of technological innovations, and improved management efficiency. The novelty of the study lies in determining the structural interaction of institutional, financial and technological factors that shape the investment and innovation potential of PPPs in the post-crisis environment. The results partially confirmed the expectations – the intensification of partnership initiatives does correlate with the strengthening of digital transformation and the expansion of financing instruments, but a number of limitations have been identified, including insufficient harmonization of legislation, weak institutional coordination, and a shortage of qualified personnel. The practical significance of the results lies in the fact that they allow for the development of a comprehensive strategy for adapting European PPP practices to Ukrainian realities, including the introduction of the PPP Digital Hub as a digital monitoring platform, the creation of the Innovation Partnership Fund to attract venture capital, and the introduction of a risk insurance system for investors. The study has certain limitations related to the availability of statistical data and the short time horizon of the evaluation, which necessitates further empirical testing of PPP efficiency models. Future research should develop quantitative methods for assessing the innovative effect of partnerships, analyze cross-sectoral differences, and develop scenarios

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for the use of hybrid financial instruments. A promising area is also to study the impact of digital integration on the sustainability of public-private projects and to create a multi-level partnership policy, which combines local initiatives with European framework programs. Such an evolution of the Ukrainian PPP model will ensure not only the structural modernization of the economy, but also the formation of a new paradigm of trust and shared responsibility in rebuilding the state.

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