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Contributions of Public-Private Partnerships in the Development of Sustainable Infrastructure in Selected Local Government Areas in Imo State

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ABSTRACT

This study examines the contributions of PPPs to sustainable infrastructure development in selected Local Government Areas and tertiary institutions in Imo State, focusing on funding models, regulatory adherence, public and private roles, and socio-economic impacts. A descriptive survey design was adopted. Purposive sampling was used to select relevant ministries and tertiary institutions. Two structured questionnaires were administered to ministry officials and tertiary institution heads monitoring PPP projects. Data were analyzed using descriptive statistics with R. The study identified PPPs in housing (shopping complex), oil (modular refinery), and energy (virtual-pipeline CNG), as well as tertiary institution projects in FedPoNek and IMSU. Funding was found to be mainly private (loans/equity), with lease and concession models common in institutional projects. Regulatory adherence was uneven; public agencies provided key non-financial enablers such as land and permits; private partners contributed technical and financial capacity though some projects faced technical delays. Socio-economic benefits included job creation, revenue generation, and improved services. PPPs in Imo State show promise for sustainable infrastructure delivery, but long-term viability depends on harmonized regulation, stronger institutional capacity, clearer risk allocation, and transparency in financing.

Keywords: Public-Private Partnership (PPP), Sustainable Infrastructure, Funding Mechanisms, Imo State, Socio-Economic Impact

INTRODUCTION

Nigeria faces persistent challenges in providing sustainable infrastructure due to inadequate government resources, poor management, and rapid urbanization. Nigeria has one of Africa's largest infrastructure deficits, leaving key sectors such as energy, oil, and housing underdeveloped. Public-Private Partnerships (PPPs) have become a vital strategy for bridging these gaps by combining public oversight with private financing, technical expertise, and efficiency.

Globally, countries like India, Brazil, and South Africa have successfully used PPPs to deliver sustainable infrastructure. In Nigeria, although PPP adoption is growing, issues such as weak regulation, poor local financing, and limited community participation persist. Many PPP projects prioritize short-term gains over long-term sustainability goals such as environmental protection and social equity (Babatunde et al., 2020).

In Imo State, rising infrastructure demands have increased reliance on PPPs in sectors such as oil, energy, and housing. However, project outcomes differ across local contexts, governance structures, and stakeholder involvement. This study therefore examines how PPPs contribute to sustainable infrastructure development in Imo State, emphasizing their integration of environmental, economic, and social sustainability principles.

Statement of the Problem

Despite the adoption of PPPs, many infrastructure projects in Nigeria still face significant delays, cost overruns, and operational inefficiencies. Inadequate regulatory frameworks, political

instability, and corruption have further complicated the implementation of sustainable infrastructure projects. This research seeks to explore how these challenges can be mitigated through effective partnerships and better governance.

Aim and Objectives of the Study

This study is aimed at determining the contributions of Public-Private Partnerships (PPPs) in promoting sustainable infrastructure development in Imo State.
The specific objectives of this study are to:

- Determine existing PPPs projects in selected L.G.As & Tertiary institutions in Imo State.
- Identify the nature of funding mechanism in the public private partnership projects in selected L.G.As & tertiary institutions in Imo State.
- Identify the level of adherence to the regulatory framework governing PPP projects.
- Ascertain the role of public sector involvement in driving sustainable infrasture outcomes in public-private partnership.
- Find out the performance of private sector expertise in executing the PPP projects.
- Ascertain the impact of PPP projects on socio-economic wellbeing of the communities.

Significance of the Study

This research provides actionable insights for policymakers, government agencies and private sector actors in Imo State and across Nigeria. By understanding the critical factors that contribute to the success or failure of Public-Private Partnership (PPP) projects, stakeholders can develop more effective strategies for implementing future infrastructure initiatives that not only meet immediate needs but also align with long-term sustainability goals. Additionally, the study aims to enhance decision-making processes, improve project design, and foster better risk management practices among stakeholders. Furthermore, this research will contribute to the academic literature on PPPs, offering new perspectives on their role in sustainable development and addressing existing knowledge gaps in the context of Nigeria's unique challenges. Ultimately, the findings will support Nigeria's broader development goals, promoting inclusive economic growth and sustainable infrastructure practices.

LITERATURE REVIEW

PPPs in Nigeria evolved from the fiscal crises of the 1980s–1990s when development was state-driven. The Infrastructure Concession Regulatory Commission (ICRC) Act (2005) and National Policy on PPP (2009) established the legal framework for private participation (Essia & Yusuf, 2013; ICRC, 2018). Despite progress, subnational adoption remains inconsistent due to weak capacity and political instability (Okhade, 2021). Lessons from South Africa and India highlight the importance of strong regulation (Ramanna et al., 2025). PPPs are contractual collaborations combining private sector resources with public oversight through models such as Build-Operate-Transfer (BOT), Design-Build-Finance-Operate (DBFO), and Build-Own-Operate (BOO) (Akintoye et al., 2003). While successful in sectors like telecommunications (Oyeyemi, 2021), implementation challenges persist in transport and housing (Obadan, 2015). Sustainable development balances economic, social, and environmental goals (Brundtland Commission, 1987), and integrating these principles into PPPs is vital for Nigeria’s growth (Akinwale, 2012). Globally, PPPs support sustainability through renewable and green infrastructure, as shown in South Africa’s energy PPPs (Omisore, 2021). Success depends on transparent risk allocation, institutional capacity, and stakeholder engagement (Babatunde et al., 2012), while weak governance and inconsistent policies remain barriers (Muhammed et al., 2020). Public Choice Theory (Mueller, 1979) explains inefficiencies through self-interested behavior, while Sustainable Development Theory (Brundtland, 1987) stresses integrating environmental and social objectives in project delivery.

Empirical studies (Dabak, 2014; Babatunde & Perera, 2017) confirm that political will, legal clarity, and effective risk management enhance PPP outcomes. Governance and accountability remain key success factors (Nishtar, 2004).

RESEARCH METHOD

Research Design

The study employed a descriptive survey design to assess the contributions of Public–Private Partnerships (PPPs) to sustainable infrastructure development in selected Local Government Areas (LGAs) and tertiary institutions in Imo State.

Area of Study

The research covered LGAs and tertiary institutions in Imo State where PPP initiatives have been implemented or proposed. The LGA-based projects examined were the Shopping Complex (Ministry of Housing), Modular Refinery, and Virtual Pipeline CNG projects (Ministry of Petroleum). For the tertiary institutions, the study initially included Federal Polytechnic Nekede (FedPoNek), Imo State University (IMSU), Alvan Ikoku Federal University of Education (ALVAN), and Federal University of Technology, Owerri (FUTO). However, ALVAN reported no existing PPP project, and FUTO did not return the administered questionnaire. Consequently, only FedPoNek and IMSU formed the sample for the tertiary institutions.

Population and Sampling Procedure

The population consisted of stakeholders directly involved in PPP activities, including government officials, project supervisors in relevant ministries, and heads of tertiary institutions. A purposive sampling technique was used to select respondents who possessed adequate knowledge of the PPP projects under review. Three (3) questionnaires were administered to the Ministry of Housing (Supervising the Shopping Complex) and Ministry of Petroleum (supervising the Modular Refinery and Virtual Pipeline CNG) for the LGA-based PPP projects. Four (4) questionnaires were administered to the four tertiary institutions (FedPoNek, IMSU, ALVAN, and FUTO). Out of the seven questionnaires administered, six (6) were adequately completed and returned: However, no PPP existence was acknowledged in ALVAN. Thus, the final working sample consisted of three respondents from ministries and two respondents from tertiary institutions, making a total of five valid responses.

Instrument for Data Collection

Two sets of structured questionnaires were used, each tailored to the specific characteristics of the PPP projects under examination. For the LGA-based PPPs, a single instrument was designed and applied across all LGA-level projects. It comprised five sections: Socio-Demographic Information, Funding Mechanisms, Regulatory Framework, Stakeholder Involvement and Technical Expertise, and Project Outcomes. For the tertiary institution PPPs, a separate instrument was developed, also consisting of five sections: General Information, Funding and Regulatory Arrangements, Outcomes and Benefits, Stakeholder Engagement and Challenges, and Sustainability. This dual-instrument approach ensured that information relevant to both LGA-based and institution-based PPPs was comprehensively captured.

Method of Data Analysis

Data were analyzed using descriptive methods, including frequency tables, bar charts, and pie charts and heatmaps. Graphical representations were generated using the R statistical programming language.

RESULTS AND DISCUSSION

Existing PPP Projects in Selected LGAs and Tertiary Institutions

Table 1: Summary of Identified PPP Projects in Selected LGAs and Tertiary Institutions.

Sector	PPP Project	Supervising Agency	Duration of Implementation	Current Status

Housing	Shopping Complex	Ministry of Housing	> 6 years	Operational
Oil	Modular Refinery (Ohaji/Egbema)	Ministry of Petroleum	4–6 years	Operational
Energy	Virtual Pipeline CNG (Owerri)	Ministry of Petroleum	> 6 years	Operational
Education	FedPoNek (Transport, Printing Press, Shopping Complex)	Institution Management	Ongoing	Active
Education	IMSU (Hostel Project – BOT)	Institution Management	Planning Stage	Not yet executed
Education	ALVAN	–	–	No PPP Project
Education	FUTO	–	–	No response

Source: Field Survey, 2025.

These findings show that PPP projects are gradually gaining ground in both state and educational sectors of Imo State, although the degree of involvement varies significantly across institutions.

Nature of Funding Mechanisms in PPP Projects

Table 2: Distribution of PPP Projects by Funding Mechanism

Funding Model	**Number of Projects**
Private Financing (Loans/Equity)	2
Concessional/Government Loan	1
Lease/Concession	3
Build-Operate-Transfer	1

Source: Field Survey, 2025.

Three of the PPP projects (43%) considered in this study are financed through **Lease/Concession arrangements**, two projects (29%) are by **Private Financing**, while only one (14%) project each used **BOT** or **Concessional/Government loans**.

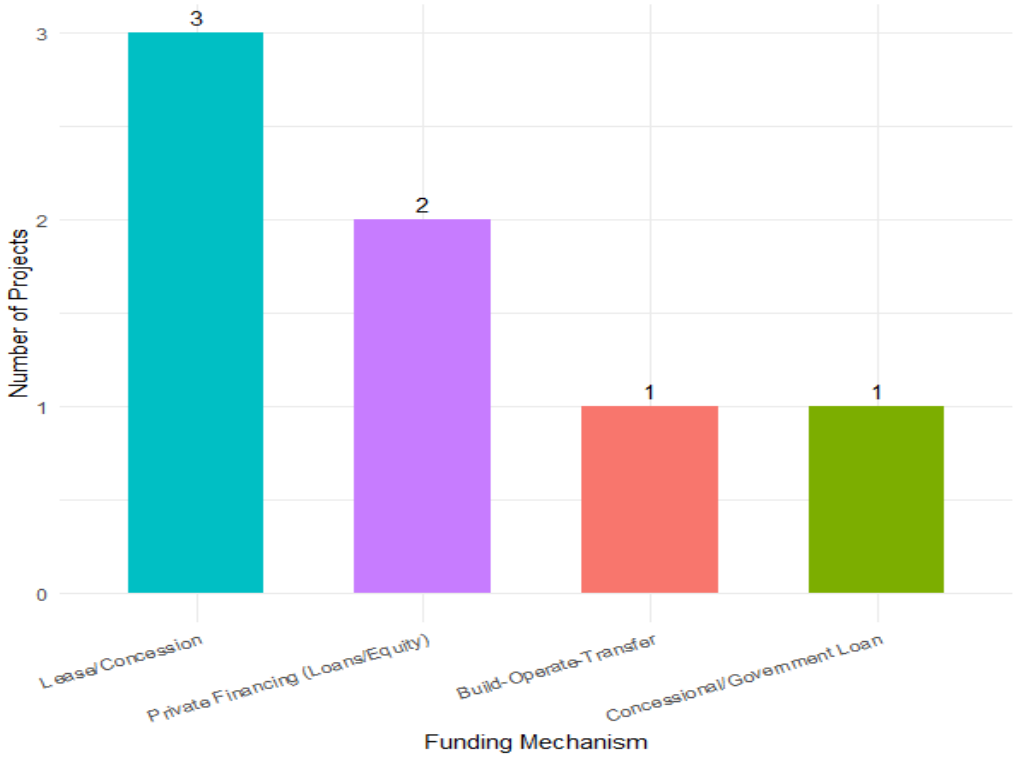

Figure 1: Distribution of PPP Projects by Funding Mechanism

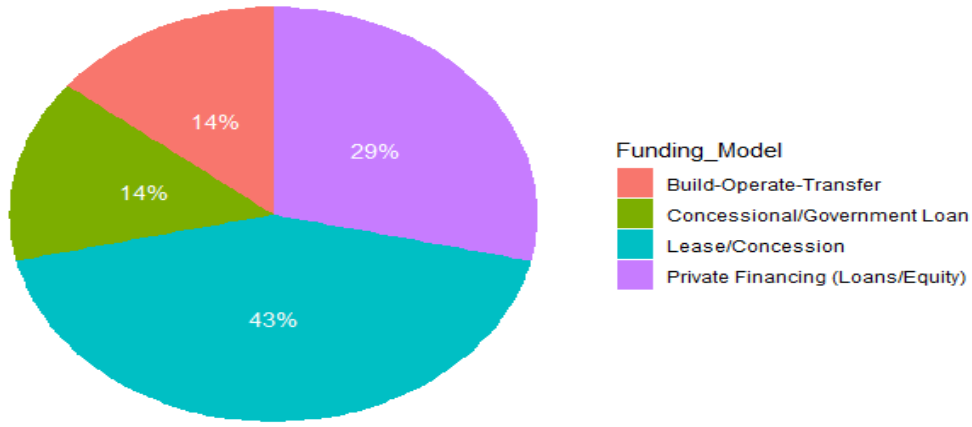

Figure 2: Percentage Share of PPP Funding Models

Table 2 and Figures 1 & 2 present the distribution of PPP projects according to their funding mechanisms in the selected LGAs and tertiary institutions of Imo State. The analysis indicates that the Lease/Concession model dominates PPP financing, particularly within education-sector projects at Federal Polytechnic Nekede. The Private Financing (Loans/Equity) model was used in large-scale infrastructure projects such as the Shopping Complex and Modular Refinery, both under state-level ministries.

Only one project utilized a Concessional or Government-based loan (Virtual Pipeline CNG Project), while the Build-Operate-Transfer model was adopted for the proposed hostel project at Imo State University. This variation in funding structures highlights the adaptive approach of stakeholders to project scale and sectoral needs.

Level of Adherence to Regulatory Framework Governing PPP Projects

Table 3: Summary of Regulatory Compliance by PPP Project

Project	Number of Compliance Indicators Satisfied
Shopping Complex	4
Modular Refinery	1
Virtual Pipeline CNG	2

Source: Field Survey, 2025.

Table 3 presents the extent of adherence to the regulatory framework across selected PPP projects in Imo State. The compliance indicators considered include clarity of partner roles, regulatory stability, existence of monitoring and compliance mechanisms, observance of environmental guidelines, and the presence of regulatory overlaps or conflicts that delay project delivery.

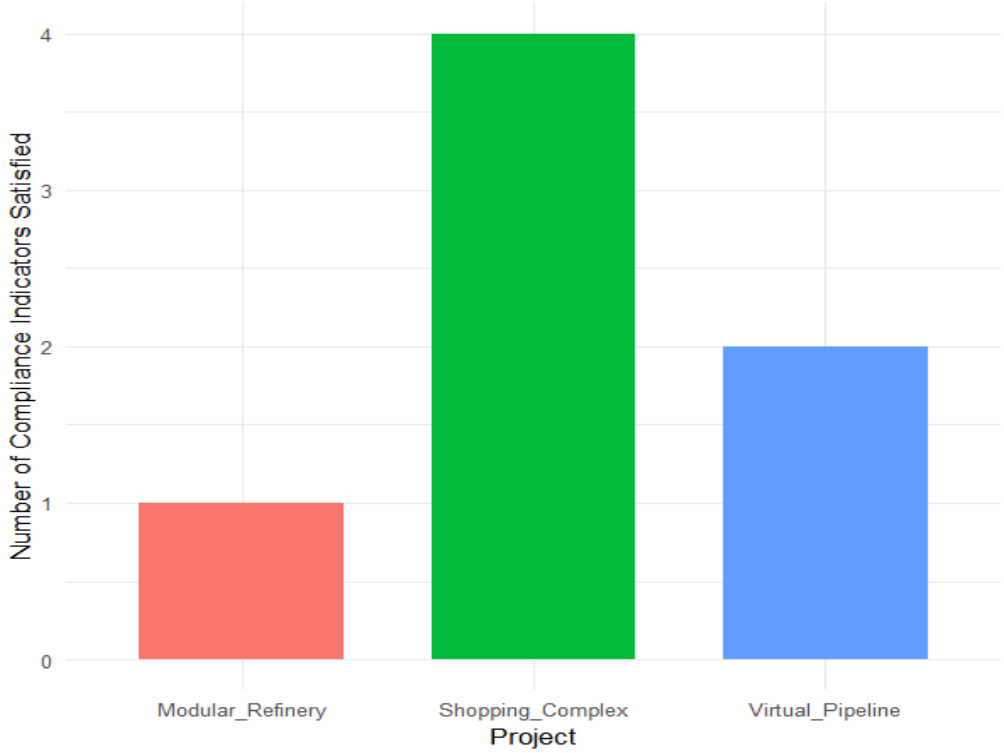

Figure 3: Regulatory Compliance by PPP Projects

Figure 3 shows the number of regulatory compliance indicators satisfied by each PPP LGA-based project. The Shopping Complex achieved the highest compliance, followed by the Virtual Pipeline CNG project.

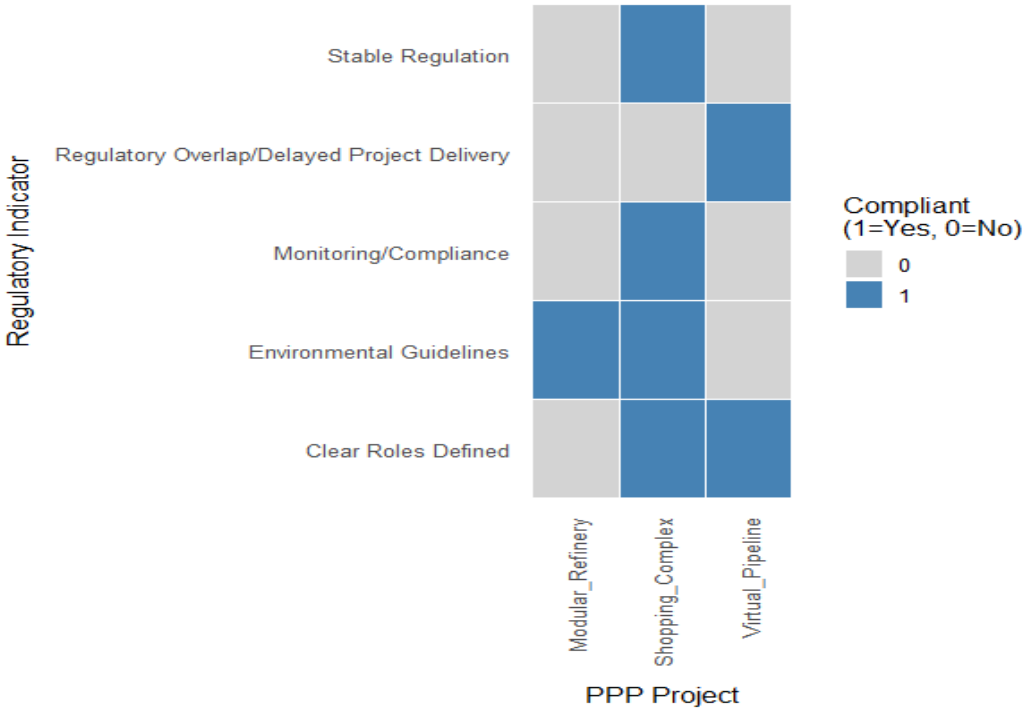

Figure 4: Compliance Indicators across PPP Projects

Figure 4 illustrates compliance with specific regulatory indicators for each project. Blue cells indicate full compliance (1), while gray cells represent non-compliance (0).

The results show notable variations in the level of compliance among the projects. The **Shopping Complex project** supervised by the Ministry of Housing demonstrated the highest adherence, satisfying four (clear definition of roles and responsibilities, consistency & stability of regulatory environment, provision of adequate monitoring and compliance checks by state agencies, observance of environmental & safety guidelines) of the five regulatory indicators. The **Virtual Pipeline CNG project** under the Ministry of Petroleum achieved moderate compliance, satisfying two indicators. In contrast, the **Modular Refinery project** satisfied only one indicator—environmental guideline compliance—suggesting weak regulatory alignment during implementation.

These findings highlight the need for a more harmonized and transparent PPP regulatory frameworks to minimize jurisdictional conflicts, ensure continuity across political administrations, and enhance the predictability of project outcomes. Strengthening monitoring mechanisms and maintaining regulatory stability will foster investor confidence and improve long-term sustainability of PPP projects in the state.

In the tertiary institutions, FedPoNek confirmed that clear institutional PPP guidelines exist and are being followed. IMSU, however, left this section of the questionnaire unanswered, likely due to the project was at its early planning stage.

Role of Public-Sector Involvement in Driving Sustainable Infrastructure Outcomes and Performance of Private Sector Expertise in Executing PPP Projects

Table 4: Public and Private Sector Roles in Selected PPP Projects in Imo State

Project	**Public Sector Role**	**Private Sector Expertise**
Shopping Complex	Provided land, permits and guarantees	Strong technical and financial capacity

Modular Refinery	Active in planning and oversight; provided land and permits	Strong technical and financial capacity
Virtual Pipeline CNG	Participated in project planning and strategy	Project delays caused by technical issues
FedPoNek PPPs (Transport, Printing Press, Shopping Complex)	Institution management provided operational oversight	Managed operational costs effectively
IMSU Hostel	Project at planning stage; government oversight planned	Expected to deliver hostel under BOT arrangement

Source: Field Survey, 2025.

Table 4 presents the major roles performed by the public and private sectors in the implementation of selected PPP projects in Imo State. The findings reveal complementary responsibilities between the two sectors across various stages of project development and execution. The public sector primarily provided land, permits, and regulatory oversight**,** while the private sector contributed technical expertise, financial resources, and operational management.

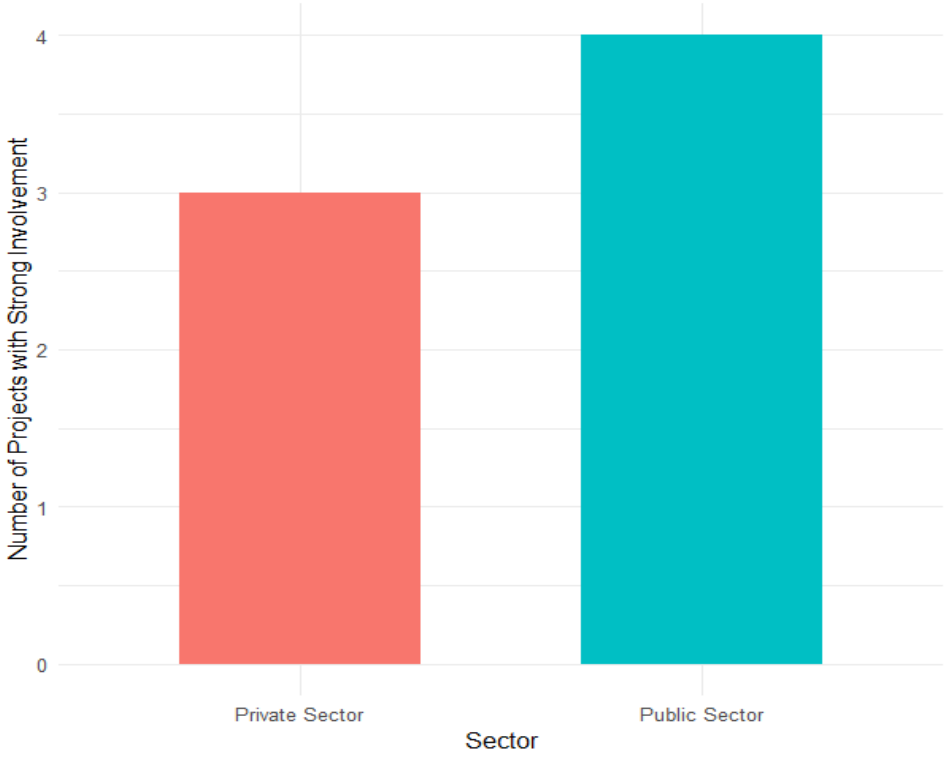

Figure 5: Level of Public and Private Sector Involvement in PPP Projects

Figure 5 shows the number of PPP projects with strong public and private sector involvement. Both sectors were strongly engaged in most projects, with the public sector slightly more active overall.

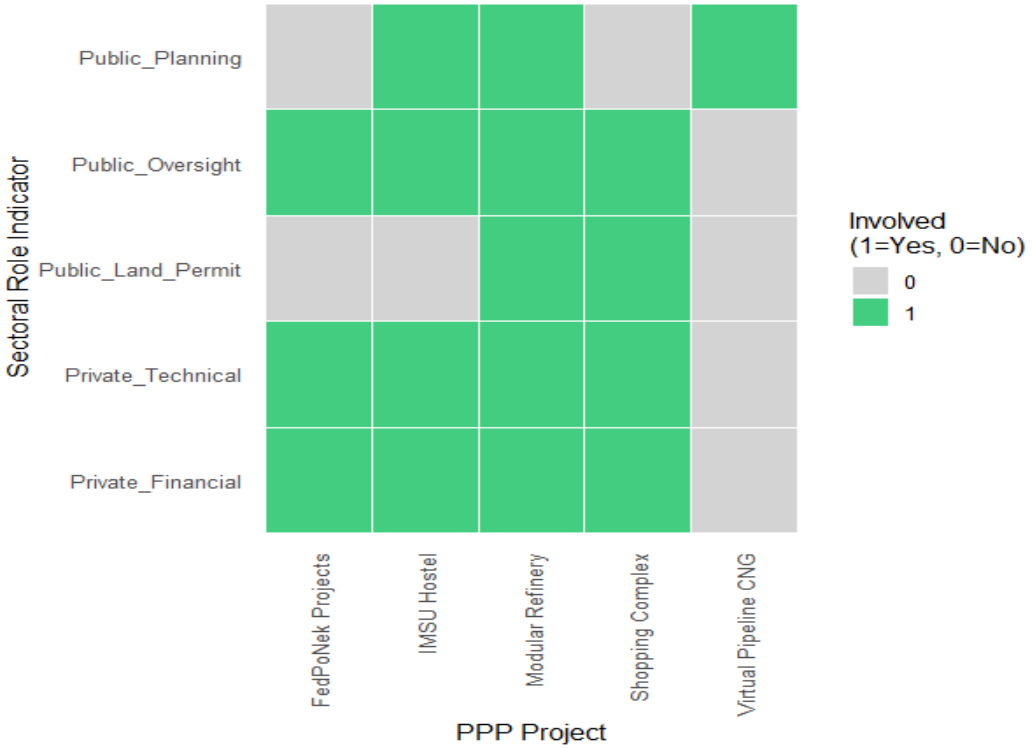

Figure 6: Matrix of Public and Private Sector Roles in PPP Projects

Figure 6 illustrates the distribution of public and private sector functions across PPP projects. Green cells indicate areas of strong involvement, while gray cells denote limited or no participation.
The analysis shows that both sectors played significant and complementary roles in achieving sustainable infrastructure outcomes. The Shopping Complex and Modular Refinery projects benefited from strong collaboration, with clear responsibilities and shared commitments. The Virtual Pipeline CNG project demonstrated weaker private sector performance due to technical challenges, while institution-based PPPs at FedPoNek showed effective management of operational activities under institutional oversight. The IMSU Hostel project remains in the planning stage, but is expected to follow a well-defined Build–Operate–Transfer (BOT) arrangement. Overall, the findings underscore the importance of maintaining a balanced partnership model, where public oversight ensures accountability and sustainability, while private expertise and financing drive project execution and efficiency.

Impact of PPP Projects on the Socio-Economic Wellbeing of the Community

Table 5: Socio-Economic Outcomes of Selected PPP Projects in Imo State

Socio-Economic Outcome	Projects Reporting	Frequency
Created Jobs / Business Opportunities	Shopping Complex, Modular Refinery, Virtual Pipeline, FedPoly PPPs, IMSU Hostel	5
Infrastructure Delivered Met Public Expectations	Shopping Complex, Modular Refinery	2
Infrastructure Operational and Maintained Regularly	Shopping Complex, Virtual Pipeline	2
Revenue Generation	FedPoly PPPs, IMSU Hostel	2

Improved Learning/Teaching Environment	IMSU Hostel	1
Reduced Infrastructure Deficit	IMSU Hostel	1
Cost Management / Operational Efficiency	FedPoly PPPs	1

Source: Field Survey, 2025

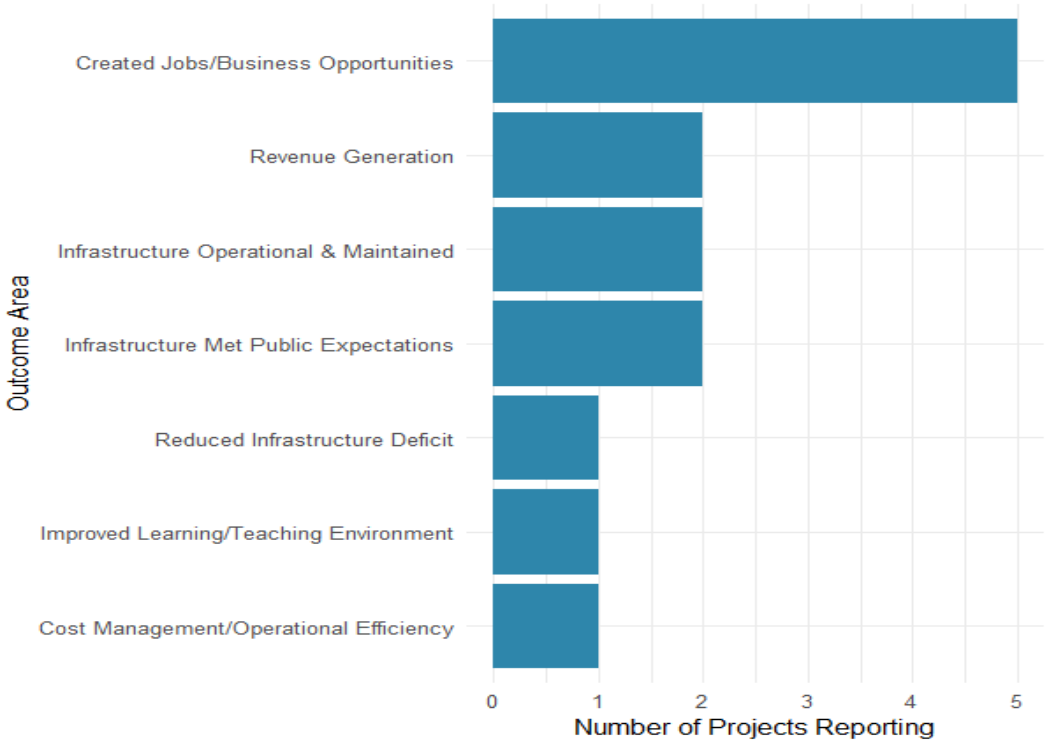

Figure 7: Socio-Economic Outcomes of PPP Projects in Imo State

Table 5 and Figure 7 summarize the socio-economic outcomes observed across selected PPP projects in Imo State. The findings reveal that all projects contributed to job and business opportunity creation, confirming PPPs' role in stimulating local economic activity. Infrastructure-related PPPs (such as the shopping complex, modular refinery, and virtual pipeline) were also reported to have met public expectations and were operationally sustainable. Within the education sector, PPP initiatives—particularly at the Federal Polytechnic Nekede and Imo State University—generated institutional revenue, improved cost management, and are expected to enhance the learning environment and reduce infrastructure deficits. Overall, these outcomes demonstrate that PPPs deliver not only physical assets but also meaningful social and economic benefits. However, sustainability depends on continued institutional oversight, maintenance funding, and monitoring of socio-economic indicators to ensure that benefits persist beyond project completion.

Discussion

The analysis of PPP implementation in selected Local Government Areas and tertiary institutions in Imo State provides important insights into the evolving landscape of subnational infrastructure delivery in Nigeria. Although the PPP framework in the state remains underutilized, visible progress is emerging in the housing, energy, and education sectors. This pattern aligns with findings that PPP adoption in Nigeria typically begins in sectors with high commercial viability and strong social relevance (Essia & Yusuf, 2013; Babatunde et al., 2012). The clustering of projects in these sectors therefore reflects both market-driven incentives and a cautious but growing institutional willingness to embrace PPP models.

The analysis of funding patterns indicates that private loans and equity remain the dominant sources of PPP financing in the state, while concessional loans and lease or concession arrangements are more common in tertiary institutions. This observation aligns with studies showing that private financing dominates PPP arrangements in developing economies where public fiscal space is constrained (Akintoye et al., 2003; Babatunde et al., 2015). These funding models have implications for *economic sustainability*, as private-sector participation can increase efficiency but may also introduce long-term financial risks if contracts are not properly structured.

Findings also reveal considerable variation in regulatory compliance across the examined projects. The Shopping Complex project demonstrated high adherence to PPP guidelines, whereas the Modular Refinery and Virtual Pipeline CNG projects showed only partial or weak compliance. This is consistent with evidence that uneven application of PPP regulations across government tiers undermines project predictability and investor confidence (ICRC, 2018; Essia & Yusuf, 2013). Inconsistent regulatory compliance poses threats to *environmental sustainability*, particularly in energy-related PPPs where poor monitoring may exacerbate environmental risks.

Public and private sector roles in the projects also provide insights into implementation dynamics. The public sector primarily provided land, permits, regulatory oversight, and administrative support—all of which reduce transaction risks for private actors. This supports earlier findings on the enabling role of government in ensuring PPP bankability (Akintoye et al., 2003; ICRC, 2018). The private sector contributed finance, technical expertise, and operations management, but variations in performance were evident. In particular, delays in the Virtual Pipeline CNG project illustrate gaps in technical capacity, a challenge also noted in broader assessments of PPP performance in Nigeria (Babatunde et al., 2020). These technical delays have serious implications for the long-term viability and sustainability of energy infrastructure projects. When disruptions occur in cleaner-energy systems such as the Virtual Pipeline CNG project, they reduce the reliability of energy supply and weaken public confidence in transitioning away from traditional fossil fuels. Delays also increase operational costs, slow down environmental benefits intended from cleaner fuel use, and may discourage future private investment in energy PPPs. Over time, frequent technical setbacks can undermine the projected economic returns of the project, threaten maintenance cycles, and compromise the overall sustainability and continuity of energy infrastructure delivery in the state.

The socio-economic outcomes observed in the study reflect contributions across the three pillars of sustainable development.

- **Economic sustainability** is reflected through job creation, increased business activity, institutional revenue generation, and improved operational efficiency in FedPoNek's PPP projects.
- **Social sustainability** is demonstrated through improved learning environments (as expected from the IMSU hostel project), better service delivery, and expanded access to commercial services.
- **Environmental sustainability** is most evident in the Virtual Pipeline CNG project, which supports cleaner energy distribution, and in the Modular Refinery's compliance with environmental standards—although partial regulatory adherence limits their long-term environmental benefits.

The study also encountered limitations such as limited institutional responses, data gaps, and coordination challenges. These constraints are well-documented in PPP research (Babatunde et al., 2012; Ibrahim et al., 2006), and while they may affect the generalizability of findings, they do not reduce their practical significance. Overall, the evidence suggests that PPPs can significantly reduce infrastructure deficits in Imo State, provided that regulatory systems are harmonized, institutional capacity is strengthened, and transparent mechanisms are implemented for financial, environmental, and performance monitoring.

CONCLUSION AND RECOMMENDATIONS

PPPs in Imo State have contributed significantly to infrastructure provision and socio-economic development, particularly across the housing, energy, and education sectors. However, their long-term viability hinges not only on harmonized regulation, strengthened institutional capacity, and transparent financing mechanisms, but also on balanced and well-defined risk allocation between public and private partners. The study's findings—especially those highlighting funding gaps and technical delays—underscore that unclear or uneven risk sharing remains a core source of project vulnerability. Ensuring that risks are appropriately priced, allocated, and managed is therefore essential for sustaining PPP performance and preventing the systemic failures observed in similar contexts.

To strengthen PPP outcomes, this study recommends:

- improving transparency in financing and risk sharing
- enforcing sustainability and maintenance clauses
- enhancing monitoring and stakeholder participation
- developing standard PPP templates for tertiary institutions to streamline implementation.

REFERENCES

Abubakar, I. (2014). Financing infrastructure development through public-private partnerships in Nigeria. Journal of African Finance and Development, 11(2), 145-160.

Akintoye, A., Beck, M., & Hardcastle, C. (2003). Public-private partnerships: Managing risks and opportunities. Blackwell Science.

Akinwale, A. A. (2020). Critical success factors for public-private partnerships in Nigerian infrastructure delivery. Journal of Building Performance, 11(1), 45-58. https://ir.unilag.edu.ng/bitstreams/1c8a64d4-cedd-4ba7-b904-5b39ffe338c4/download

Akinwale, Y. (2012). Prospects for renewable energy development in Nigeria. Renewable Energy Review, 16(2), 45-58.

Babatunde, S. O. and Perera, S. (2017). Cross-sectional Comparison of Public-Private Partnerships in Transport Infrastructure Development in Nigeria. Engineering, Construction and Architectural Management, 1-33.

Babatunde, S. O., Ekundayo, D., Udeaja, C. and Abubakar, U. O. (2020). Stakeholder Perceptions of Drivers for, and Barriers to, the Incorporation of Sustainability in PPP Infrastructure Projects in Nigeria. Open House International, 1-18.

Babatunde, S. O., Opawole, A., & Akinsiku, O. E. (2012). Critical success factors in public-private partnership (PPP) projects in Nigeria: A perceptual survey. Journal of Construction Engineering and Management, 138(3), 294-304. https://ir.unilag.edu.ng/bitstreams/1c8a64d4-cedd-4ba7-b904-5b39ffe338c4/download

Babatunde, S. O., Perera, S., Zhou, L. and Udeaja, C. (2015). Barriers to Public-Private Partnership Projects in Developing Countries. Engineering, Construction and Architectural Management, 22(6), 669 – 691.

Babatunde, S. O., Perera, S., Zhou, L., & Udeaja, C. (2020). Stakeholder perceptions of drivers for and barriers to the implementation of sustainable public-private partnerships in Nigeria. Organization, Technology & Management in Construction: An International Journal, 12(1), 373–384. https://www.emerald.com/insight/content/doi/10.1108/OHI-04-2020-0054/full/html

Babatunde, S. P., Srinath, Z. L. and Udeaja, C. (2016). Stakeholder Perceptions on Critical Success Factors for Public-Private Partnership Projects in Nigeria. Built Environment Project and Asset Management, 6 (1), 74-91.

Dabak, P. D. (2014). Public-Private Partnership: The Answer to Nigeria's Development Challenges. Journal of Economics and Sustainable Development, 5(22), 143-147.

Essia, U. and Yusuf, A. (2013). Public-Private Partnership and Sustainable Development of Infrastructures in Nigeria. Journal of Economics and Sustainable Development, 4(14), 45-52.

Ibrahim, A.D., Price, A.D.F. and Dainty, A.R.J. (2006). The Analysis and Allocation of Risks in Public-Private Partnerships in Infrastructure Projects in Nigeria. Journal of Financial Management of Property and Construction, 11(3), 149 - 163.

ICRC. (2016). Public-private partnership regulations and guidelines in Nigeria. Infrastructure Concession Regulatory Commission

ICRC. (2018). PPP Manual for Nigeria. Abuja: Federal Government of Nigeria. https://www.icrc.gov.ng/wp-content/uploads/2024/01/PPP-Manual-for-Nigeria-2018-.pdf

Mueller, D. C. (1979). Public choice. Cambridge University Press.

Muhammed T. B., Kwasi, G. B. A., Abdul-Rasheed A. and Olga, F. (2020). The Challenges of Access to Local Finance for PPP Infrastructure Project Delivery in Nigeria. Journal of Financial Management of Property and Construction, 1-24.

Nishtar, S. (2004). Public–Private Partnerships in health – A Global Call to Action. Health Research Policy and Systems, 2(5), 1-7.

Obadan, M. (2015). The politics of infrastructure development in Nigeria. West African Journal of Policy and Development, 12(1), 63-78.

Obasa, S. O., & Oluyomi, T. (2024). Public-Private Partnerships and the Sustainable Development Goals in Nigeria: Challenges and Prospects. African Journal of Sustainable Development, 12(2), 33–49.

Okhade, B. O. (2021). Public-Private Partnership and Infrastructural Development in Nigeria. International Policy Brief Series, 11(4), 56–70. https://internationalpolicybrief.org/wp-content/uploads/2023/10/ARTICLE4-129.pdf

Omisore, A. (2021). Public-private partnerships for energy infrastructure in sub-Saharan Africa: The Nigerian experience. Energy Policy Journal, 50(4), 66-81.

Ramanna, P., Patel, S., & Moyo, B. (2025). Public-Private Partnership for Sustainable Infrastructure Development: A Systematic Literature Review. ResearchGate Preprint. https://www.researchgate.net/publication/389357682_Public_private_partnership_for_the_sustainable_infrastructure_development_a_systematic_literature_review

Oyeyemi, T. (2021). Public-private partnerships in the Nigerian telecommunications sector: A success story. Telecommunication Policy Journal, 45(3), 150-161.