Public –Private Partnership (PPP) and Management of Public Infrastructure in Enugu State

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Abstract

.The study appraised the Public-Private-Partnership and Management of Public Infrastructures in Enugu State.. To achieve the objectives, three research questions were raised while three hypotheses were formulated. The study adopted a descriptive survey research design. The study employed secondary and primary sources of data. The collected data were analyzed through the use of mean score. T-test statistical technique was applied in testing the hypotheses. The findings revealed that public infrastructures have been managed properly through PPP in Enugu state (where value t = 65.588 and critical value = 1.99), that the concession agreement pattern improved the development of public infrastructures in Enugu state (where value t = 68. 856 and critical value = 1.99) and that Limited financial resources are some of the challenges facing the operations of the PPP in infrastructural development in Enugu state (where value t = 55.434 and critical value = 1.99). The study concluded that in Enugu State, Public-Private Partnerships (PPPs) have showcased transformative potential in the management of public infrastructure. By leveraging on private sector expertise and investment, Enugu State has witnessed improved infrastructural development, from roads to utilities. These collaborations enhance efficiency, innovation, and timely project delivery. The study recommended that to strengthen Regulatory Frameworks: the Enugu State government should enhance its regulatory and policy environment to provide clarity and consistency,

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offering a secure foundation for Public-Private Partnerships (PPPs) and encouraging private sector engagement in public infrastructure projects.	

1. Introduction

In Nigeria, before the adoption of public-private partnerships, the state of public infrastructures was a critical aspect of the country's socio-economic landscape, posing both challenges and opportunities. Public-Private Partnership (PPP) in Nigeria, including Enugu State, have evolved in response to the country's economic challenges, and the need for innovative approaches to infrastructure development. Historically, Nigeria's reliance on traditional public funding mechanisms faced limitations, leading to a paradigm shift towards PPPs. The introduction of the Infrastructure Concession Regulatory Commission (ICRC) in 2005 marked a crucial milestone, providing a legal and regulatory framework to govern PPPs at the federal level (ICRC, 2021). Enugu State, aligning with the national trend, has progressively embraced PPPs to address gaps in critical sectors such as transportation and utilities (Adegbite, 2020).

Public-Private Partnership (PPP) is a collaborative model for public infrastructure management that involves a strategic alliance between government entities and private sector organizations. In the PPP framework, the government and private entities enter into contractual agreements to jointly design, finance, implement, and operate public infrastructure projects (Owotemu, Daniel, & Abubakar, 2022). This approach leverages the strengths of both sectors: the public sector's role in policy-making, regulation, and service provision, and the private sector's efficiency, innovation, and access to capital. In Nigeria, the dynamic environment of public infrastructure development has witnessed a paradigm shift through the adoption of Public-Private Partnerships (PPPs). This innovative approach to infrastructure management marks a departure from traditional models, reflecting a collaborative alliance between the public sector and private entities. With a burgeoning population and diverse economic needs, Nigeria has recognized the imperative of leveraging private sector expertise, capital, and efficiency to address the growing demand for robust public infrastructure (Shaibu, 2019).

In Enugu State, the Federal Government of Nigeria has embraced the paradigm of Public-Private Partnerships (PPPs) to enhance the provision of public infrastructure. This collaborative approach signifies a strategic alliance between the federal government and private entities to address the region's infrastructure needs. Recognizing the significance of efficient infrastructure in fostering economic development, the federal government has engaged in partnerships to leverage private sector resources and expertise. Enugu State has witnessed the positive impacts of this collaboration, with initiatives spanning transportation, healthcare, and utilities. The infusion of private investment not only accelerates project timelines but also introduces innovation in infrastructure development. As the federal government continues to navigate the challenges of public funding constraints, PPPs emerge as a vital strategy to optimize resources and ensure sustainable infrastructure growth, contributing to the overall socio-economic advancement of Enugu State and its residents. The federal government of Nigeria, through their various agencies and parastatals, have partnered with the private sector in the provision and management of public infrastructure namely: the upgrade of Akanu Ibiam International Airport, Enugu, the Construction of Substation Ugwuaji (Extension) 330/132/33kV, 1x150MVA & 1x60MVA, rehabilitation of Enugu-Onitsha Expressway, etc (PPP.gov, 2021).

Today, Enugu State grapples with the repercussions of poor infrastructure management, which hampers its economic potential and compromises residents' quality of life. In navigating the challenges of poor infrastructure management, the adoption of PPPs emerges as a pivotal step

towards a more vibrant and functional Enugu State, ensuring its citizens benefit from a well-maintained and robust public infrastructure system. It is against this backdrop that the study examined the Public-Private-Partnership and Management of Public Infrastructure in Enugu State (2015-2022).

1.1 Statement of the Problem

Enugu State confronts a multifaceted challenge in the realm of Public-Private Partnerships (PPPs) and the management of public infrastructure. One of the predominant issues is the inadequacy of public funds for comprehensive infrastructure development. The state's limited financial resources often hinder the timely execution and completion of crucial projects, leaving essential infrastructure such as roads, healthcare facilities, and utilities in a state of disrepair. Another significant problem lies in the complexities of regulatory frameworks governing PPPs. Enugu State grapples with the need for streamlined and transparent policies to attract private investment while ensuring the equitable distribution of risks and benefits. This lack of a conducive regulatory environment can deter potential private partners, stalling collaborative efforts to address the infrastructure deficit. Moreover, the challenge extends to public awareness and stakeholder engagement. Insufficient understanding of the benefits of PPPs among the public and key stakeholders can lead to scepticism and resistance, hindering the implementation of this collaborative model. Overcoming these multifaceted challenges demands a strategic and concerted effort to revitalize Enugu State's approach to PPPs, ensuring a conducive regulatory environment, enhanced public awareness, and optimal resource utilization for the sustainable development of public infrastructure.

These challenges imply that investors may be finding it difficult to enter into partnerships with the government. The complexities of regulatory frameworks governing Public-Private Partnerships (PPPs) in Enugu State pose challenges to infrastructure development. Ambiguities and bureaucratic hurdles can hinder project initiation and execution, leading to delays and increased costs. Striking a balance between regulatory oversight and a conducive business environment is essential for attracting private investments.

Therefore, the study examined the Public-Private-Partnership and Management of Public Infrastructure in Enugu State (2015-2022).

1.2 Objectives of the Study

The broad objective of the study is to evaluate the Public-Private-Partnership and Management of Public Infrastructure in Enugu State. The specific objectives of the study are to:

i. Examine how public infrastructures have been managed through PPP in Enugu state.
ii. Determine the extent to which the Concession agreement pattern improved on the development of public infrastructures in Enugu state.
iii. Ascertain the challenges facing the operations of the PPP in infrastructural development in Enugu state.

2.Conceptual Review

Public Private Partnership

Public-Private Partnerships (PPPs) are collaborative endeavours between public entities and private sectors to deliver public services and infrastructure. This innovative approach fosters shared responsibilities, risk allocation, and resource optimization for mutual benefit (World Bank, 2017). As a dynamic model, PPPs are increasingly gaining traction globally due to their potential to address funding gaps and enhance efficiency in public projects (IFC, 2020).PPPs involve a spectrum of sectors, including transportation, healthcare, and education, showcasing their adaptability to diverse societal needs (EPEC, 2021). Partnerships manifest in various forms, such

as Build-Operate-Transfer (BOT), Build-Own-Operate (BOO), and Concessions, each tailored to specific project requirements (OECD, 2012). One key advantage of PPPs is risk-sharing, where both public and private entities contribute capital and expertise, mitigating financial burdens on the public sector (ADB, 2018). This collaborative approach encourages innovation and efficiency, leading to timely project delivery and cost-effectiveness (UNESCAP, 2019).

PPPs represent a promising avenue for addressing global infrastructure and service delivery challenges. By harnessing the strengths of both the public and private sectors, PPPs can contribute significantly to economic development and societal well-being (ADB, 2017). As the world evolves, embracing and refining PPP models is crucial for fostering sustainable and inclusive development.

Concession Agreement

A concession agreement is a contractual arrangement where a government or public authority grants rights or permits to a private entity to develop, operate, and maintain a specific infrastructure project or provide a public service for a defined period (Guasch, 2004). This form of public-private partnership (PPP) aims to leverage private sector efficiency and investment while transferring certain risks to the concessionaire (Estache and Fay, 2010).

The agreement typically outlines the rights, obligations, and responsibilities of both parties, including financial arrangements, performance standards, and dispute resolution mechanisms (Grimsey and Lewis, 2004). Concession agreements are prevalent in sectors like transportation, energy, and utilities, providing a framework for sustainable and cost-effective service delivery (World Bank, 2017). Effective concession agreements require careful negotiation, transparent governance, and regulatory frameworks to ensure alignment with public interests (Drewry, 2013). They serve as a valuable tool for governments to optimize resource allocation and stimulate private sector participation in critical infrastructure development (Guasch, 2004).

Public infrastructure

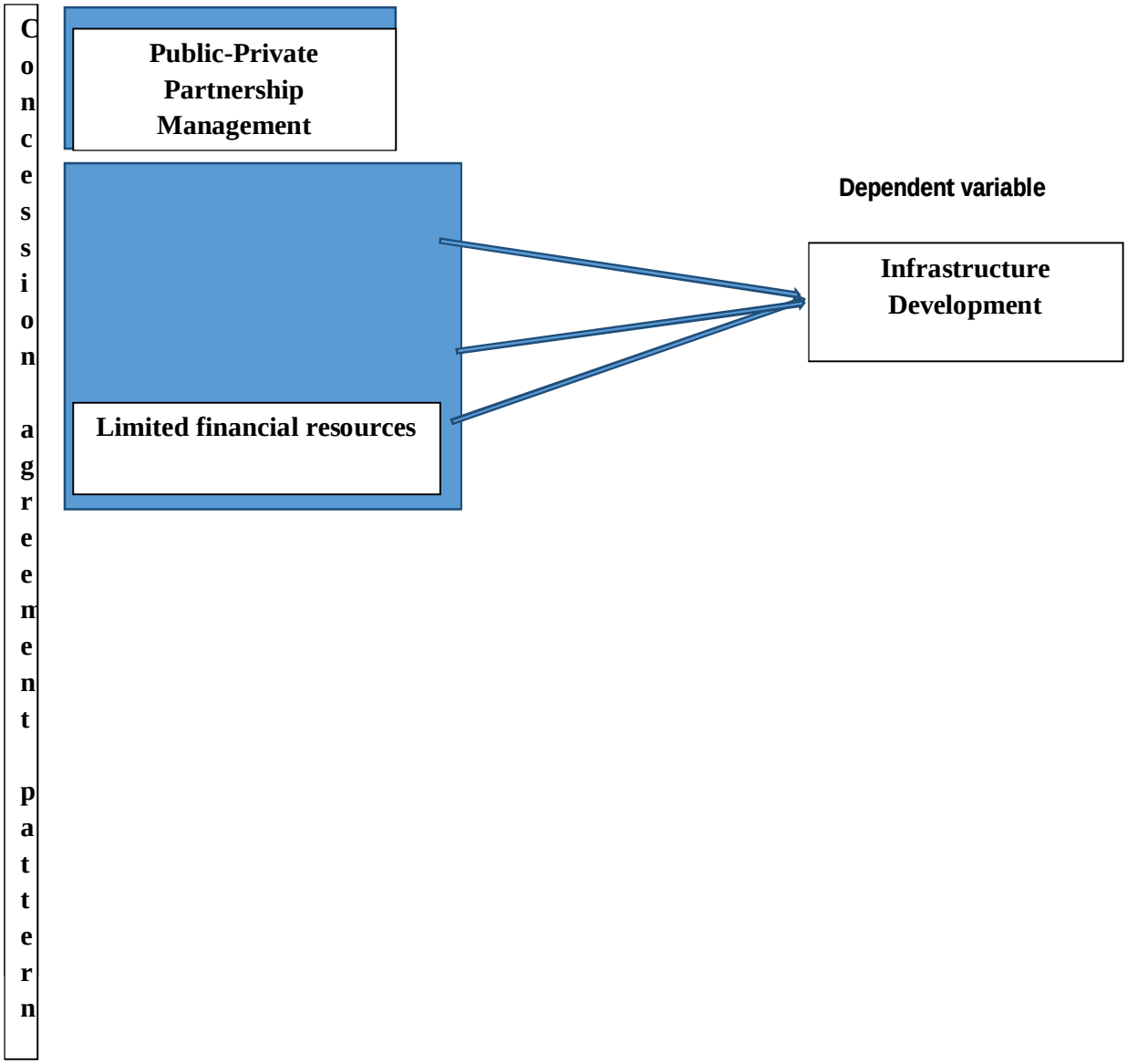
Public infrastructure plays a pivotal role in shaping the socio-economic landscape of nations, serving as the backbone for sustainable development (World Bank, 2019). Defined as the physical and organizational structures and facilities essential for the functioning of society, public infrastructure encompasses transportation networks, energy systems, water supply, and communication technologies (OECD, 2017). Investing in robust infrastructure is linked to improved economic productivity, job creation, and enhanced quality of life (Aschauer, 1989). Adequate infrastructure stimulates economic activities by reducing transportation costs, facilitating trade, and attracting investments (Eichengreen, et al., 2011). Effective public infrastructure fosters social inclusion, providing communities with better access to education, healthcare, and other essential services (Fay and Morrison, 2005). Furthermore, resilient infrastructure is crucial in mitigating the impact of natural disasters and climate change, ensuring the safety and well-being of populations (UNDP, 2016).

Effective public infrastructure management is vital in ensuring the functionality, sustainability, and resilience of essential services and facilities within a society (World Bank, 2019). Infrastructure assets, such as transportation networks and utilities, require strategic planning, efficient operations, and proactive maintenance to meet the evolving needs of communities (Flyvbjerg et al., 2003). Strategic asset management practices involve optimizing resource allocation, prioritizing projects, and adopting innovative technologies for improved efficiency (Cabinet Office, 2011). Additionally, lifecycle management approaches, integrating planning, design, construction, and maintenance, contribute to the longevity and cost-effectiveness of rastructure assets (FHWA, 2016). Public-private partnerships (PPPs) are increasingly utilized infrastructure management, leveraging private sector expertise and investment to enhance

project delivery and service quality (Estache and Fay, 2010). Collaborative governance, stakeholder engagement, and transparent decision-making processes are crucial for successful

infrastructure management (Klijn and Koppenjan, 2000).

Independent variable



Source: Author's conceptualization, 2023

Theoretical Framework

Principal-Agent Theory:

Principal-Agent Theory was primarily developed by economist Michael C. Jensen and his co-author William H. Meckling in 1976. They first introduced the theory in their seminal paper titled "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," which was published in the Journal of Financial Economics in 1976. The theory has since become a cornerstone in the study of organizational economics and is widely used in various fields to analyze

relationships where one party (the principal) delegates authority to another (the agent) to act on their behalf. This theory explores relationships where one party (principal) delegates authority to another (agent) to act on their behalf. In the context of PPPs, it helps to understand the challenges in aligning the interests of the public sector (principal) and the private sector (agent) in achieving common goals.

The theory's tenets include information asymmetry, where the agent possesses more information than the principal, leading to potential conflicts of interest. Agencies' costs, such as monitoring and bonding expenses, arise as mechanisms to align the agent's behaviour with the principal's interests. Contractual arrangements aim to mitigate these costs by specifying expectations and incentives. The theory acknowledges that perfect alignment is challenging due to divergent goals and opportunistic behaviour. Consequently, it underscores the importance of designing contracts, monitoring mechanisms, and incentive structures to address the inherent challenges in principal-agent relationships, shaping organizational governance and decision-making dynamics.

Empirical Review

Public-Private Partnership Initiatives and Public Infrastructure Development

Wasiu (2019) Effectiveness of Public-Private Partnership Initiatives on Transportation Management in Nigeria: Empirical from Lagos Metropolitan Area Transport Authority (Lamata). The study adopted a descriptive research design. The study discovered that the Public Private Partnership has improved the procurement of vehicles for public transport, reduced traffic and enhanced revenue generation for the government. It concluded among others, that Public Private Partnership has been able to improve transportation service in Lagos state.

Kwaghbo, Okwori and Agbe (2019) examined the impact of the public-private partnership initiative (PPPI) on the management of security in the Federal Government Unity Colleges in North-Central Nigeria. The study adopted the survey research method. The population comprised 2,866 teachers and PTA officials in the Unity Colleges. Descriptive statistics of mean and standard deviation were used to answer the research questions, while the Chi-square goodness of fit was employed to test the null hypothesis at a 0.05 level of significance. The mean rating of 2.50 and above was the cut-off mark for acceptance of the research question. The finding of the study indicated no impact of PPPI on the management of security in the Unity Colleges.

Ulayi, Arikpo and Anthony (2022) conducted a study on Public Private Partnership (PPP) and Collaboration in Education: A Panacea for Sustainable Development of Tertiary Institutions in Nigeria. Through content analysis, the paper examined the extent to which public-private partnership and collaboration in education contribute to the sustainable development of tertiary institutions in areas such as infrastructural and human development. The paper further reveals that the attainment of meaningful and sustainable development requires the genuine participation of the public, the organized private sectors, donor agencies, individuals and civil society.

Concession Agreement and Public Infrastructure Development

Shaibu (2019) explored the Sustainable Infrastructural Development in Africa: The Build Operate and Transfer (BOT) Alternative for the Power Sector in Nigeria. Using qualitative methods and documentary evidence to predict the public-private partnership model, the study found that the electricity infrastructure in Nigeria is obsolete and inadequate. Power generation in Nigeria compared to other leading economies in Africa is abysmally low due to lack of adequate investment in the sector. The BOT investment model has been used successfully to build and maintain cost-intensive infrastructures like power plants, highways, railways, airports, etc in both

developed and developing countries of the world; as seen in China, India, Pakistan, Philippines, South Africa, Ghana, etc.

Raheem (2021) focused on the Public-Private Partnership Model for Propelling Infrastructural Development in Nigeria: A Review. The study relied solely on the review of available literature sourced online. Regarding infrastructure, there is some evidence that PPP leads to efficiency gains. The evidence is stronger when looking at labour productivity, a finding related to the fact that most transitions to private participation have entailed significant labour downsizing. On the other hand, there is mixed support for private participation leading to improvements in total factor productivity or quality. Overall, there is also no clear-cut conclusion regarding how PPP have affected coverage and affordability.

Challenges of Public-Private Partnership and Public Infrastructure Development

Enya and Ezeali (2021) examined Public Investment in Infrastructure and the Economic Growth of Nigeria. The study adopted Econometric analysis using E-View. The study had it that Public Investment in Technology, Educational infrastructure and Power all has a positive relationship with the Economy whereas Transport has a negative relationship with the Economy. The study went further to conclude that Public Investment plays an important role in stimulating the Nigerian Economy, especially in this era of democracy.

Nwali, Nwokeiwu and Oganezi (2019) carried out a study Privatisation of Public Enterprises in Nigeria: Challenges and Prospects of Economic Development. The analytical tool adopted in this paper is descriptive and focuses on the review and evaluation of the privatisation exercise in Nigeria. Findings indicate that corruption, indiscipline, suspicion, transparency and national sovereignty among others were the major challenges of privatisation in Nigeria. Aligning with the new order of moving poor resource utilization to more innovative and creative initiatives orchestrated the call for privatisation in Nigeria in addition to productivity improvement, increase in revenue, reduction in budget deficits as well as elimination of wastes and improvement of efficiency.

3.Methodology

The researcher used a descriptive research design. Data for this study was descriptive and were sought from both primary and secondary sources. The population of the study is 586 with a sample size of 238. Stratified random sampling was used in selecting the respondents. The study adopted a questionnaire as an instrument of data collection. The researcher made use of frequency distribution, mean, and standard deviations to analyze descriptive research. Inferential statistics was a technique used by researchers to study samples and make generalization about the population. In the study, the researcher tested the hypotheses using one sample t-test statistical technique. One Sample t-test analysis was performed to determine whether the independent variables influenced the dependent variable.

4. Data Presentation

This chapter has to do with the presentation and analysis of primary data gathered by the researcher through a well-structured questionnaire. The Simple tables and Means Score method of data presentation and analysis were utilized. Moreover, Z-score statistics were used to test the research hypotheses formulated in section one.

Research question One: How have public infrastructures been managed through PPP in Enugu state?

Table 1: How public infrastructures have been managed through PPP in Enugu state

s/n	Items	SA (5)	A (4)	U (3)	D (2)	SD (1)	FREQ	Mean	Decision
1	The government identifies projects that are suitable for PPPs. These are often large-scale infrastructure projects like roads, bridges, airports, water treatment plants, and other public facilities	74	95	11	33	18	231	3.6	Accepted
2	Detailed feasibility studies are conducted to assess the viability of the project. This involves evaluating the economic, financial, technical, and social aspects to ensure that the project is worthwhile and sustainable	87	89	14	28	13	231	4.0	Accepted
3	The government and private sector negotiate the terms and conditions of the partnership. This includes defining the scope of the project, risk allocation, revenue-sharing mechanisms, and the duration of the partnership.	89	92	9	27	14	231	3.9	Accepted
4	The government usually conducts a competitive bidding process to select a private partner or consortium.	91	98	9	21	12	231	3.9	Accepted
5	Once a private partner is selected, detailed negotiations take place to finalize the contractual arrangements.	89	67	11	44	20	231	3.7	Accepted
	Grand Mean							3.8	

Source: Field Survey, 2024

Table 1 shows the responses on how public infrastructures have been managed through PPP in Enugu state. All items from 1-5 were accepted with strong affirmation by the respondents with a mean score of 3.6, 4.0, 3.9, 3.9, and 3.7 respectively. The grand mean score of 3.8 is an indication that the respondents agreed that public infrastructure is effectively being managed through PPP.

Research Question Two: To what extent has the Concession agreement pattern improved on the development of public infrastructures in Enugu state?

Table 2: The extent to which the Concession agreement pattern has improved on the development of public infrastructures in Enugu state.

s/n	Items	SA (5)	A (4)	U (3)	D (2)	SD (1)	FREQ	Mean	Decision
1	Concession agreements are attractive to private investors as they provide a clear	70	110	11	27	13	231	3.9	Accepted

	legal framework and a defined period during which the private entity can recoup its investment and generate returns								
2	Concession agreements often involve a clear allocation of risks between the public and private sectors.	78	90	14	39	10	231	3.8	Accepted
3	Private entities, driven by profit motives, often bring efficiency and innovation to project delivery. They have incentives to complete projects on time and within budget, as delays and cost overruns can impact their profitability.	93	89	4	34	11	231	3.9	Accepted
4	Private partners in concession agreements may bring in advanced technology and innovative solutions to infrastructure development	89	93	3	27	19	231	3.9	Accepted
5	Concession agreements often require the private entity to handle the operation and maintenance of the infrastructure for the duration of the concession.	72	93	11	34	21	231	3.7	Accepted
	Grand Mean							3.8	

Source: Field Survey, 2024

The data in Table 2 revealed that the respondents were all positive in their responses. The respondents accepted all items 1-5 with a mean score of 3.9, 3.8, 3.9, 3.9 and 3.7. The grand mean score of 3.8 is an indication that the respondents were firm in the conviction that the extent to which the Concession agreement pattern has improved on the development of public infrastructures in Enugu state is very high.

Research question three: What are the challenges facing the operations of the PPP in infrastructural development in Enugu state?

Table 3: The challenges facing the operations of the PPP in infrastructural development in Enugu state

S/N	Item	**SA (5)**	**A (4)**	**U (3)**	**D (2)**	**SD (1)**	FREQ	Mean	Decision
1	Inconsistent or inadequate regulatory frameworks and policies can create uncertainty for private investors	63	97	20	30	21	231	3.7	Accepted
2	Frequent changes in government policies and political instability can pose risks to PPP projects	51	88	10	40	20	231	3.2	Accepted
3	Lengthy and complex approval processes for PPP projects can lead to delays in implementation	76	84	15	31	25	231	3.7	Accepted

4	Securing financing for PPP projects can be challenging, particularly for long-term infrastructure projects	79	77	10	43	22	231	3.6	Accepted
5	Public resistance to user fees, tolls, or other charges associated with PPP projects can create challenges.	63	88	10	50	20	231	3.5	Accepted
	Grand Mean							3.5	

Source: Field Survey, 2024

Table 3 indicates the opinion of the respondents on the challenges facing the operations of the PPP in infrastructural development in Enugu state. From the responses, it can be seen that all the items from 1-5 were affirmed by the respondents based on mean scores of 3.7, 3.2, 3.7, 3.6 and 3.5 respectively. The grand mean of 3.7 is a strong indication that the respondents strongly agreed with the questions being asked.

Testing of the Hypotheses

T-test is used to analyze the relationship between Public-Private-Partnership related variables and the provision of public infrastructure in South East Nigeria. A T-test was adopted to determine the correlation of individual independent variables.

Test of Hypotheses One

Statement of Hypothesis One

Ho: Public infrastructures have not been managed properly through PPP in Enugu state.

Hi: Public infrastructures have been managed properly through PPP in Enugu state.

Table 4: Summary of t-test analysis of mean ratings of PPP and Public infrastructures

Test value = 0.05					
			(95%) confidence interval of the difference		
t	df	Sig.(2-tailed)	Mean Difference	Lower	Upper
65.588	16	0.000	4.40	4.44	4.17

Source: Field Survey 2024; SPSS 23.0 Output

This is a two-tailed test with d.f = 16. The statistical value for 0.05 at 16 degrees of freedom is 1.99. Since the calculated value t = 65.588 is greater than the computed value of 1.99, we reject the null hypothesis (Ho) and accept the alternative hypothesis (Hi). This implies that Public infrastructures have been managed properly through PPP in Enugu state.

Decision

The statistical significance indicates that Public infrastructures have been managed properly through PPP in Enugu state.

Test of Hypotheses Two

Statement of Hypothesis Two

Ho: Concession agreement patterns have not improved on the development of public infrastructures in Enugu state.

Hi: Concession agreement pattern have improved on the development of public infrastructures in Enugu state

Table 4.5: Summary of T-test analysis of mean ratings of Concession agreement pattern and public infrastructures

Test value = 0.05					
			(95%) confidence interval of the difference		
t	df	Sig.(2-tailed)	Mean Difference	Lower	Upper
68. 856	16	0.000	4.40	4.27	4.53

Source: Field Survey 2024; SPSS 23.0 Output

This is a two-tailed test with d.f = 16. The statistical value for 0.05 at 16 degrees of freedom is 1.99. Since the calculated value t = 68. 856 is greater than the computed value of 1.99, we reject the null hypothesis (Ho) and accept the alternative hypothesis (Hi). This implies that the Concession agreement pattern has improved on the development of public infrastructures in Enugu state.

Decision

The statistical significance indicates that Concession agreement patterns have improved the development of public infrastructures in Enugu state

Test of Hypotheses Three

Statement of Hypothesis Three

Ho: Limited financial resources are not some of the challenges facing the operations of the PPP in infrastructural development in Enugu state.

Hi: Limited financial resources are some of the challenges facing the operations of the PPP in infrastructural development in Enugu state.

Table 4.6: Summary of t-test analysis of mean ratings of Limited financial resources and infrastructural development

Test value = 0.05					
			(95%) confidence interval of the difference		
t	df	Sig.(2-tailed)	Mean Difference	Lower	Upper
55.434	16	0.000	4.40	4.56	4.15

Source: Field Survey 2024; SPSS 23.0 Output

This is a two tailed test with d.f = 16. From the statistical value for 0.05 at 16 degree of freedom is 1.99. Since the calculated value t = 55.434 is greater than the computed value of 1.99, we reject the null hypothesis (Ho) and accept the alternative hypothesis (Hi). This implies that that Limited financial resources are some of thechallenges facing the operations of the PPP in infrastructural development in Enugu state.

Decision

The statistical significance indicates that Limited financial resources are some of the challenges facing the operations of the PPP in infrastructural development in Enugu state.

Discussion of Results

Public-Private Partnership Initiatives and Public Infrastructure Development

The first research objective attempted to examine how public infrastructures have been managed through PPP in Enugu state. The statistical significance of the t-test (This is where value t =65.588 is greater than the computed value of 1.99) showed that Public infrastructures have been managed properly through PPP in Enugu state. The finding is in agreement with the data in Table 4.1 which is a strong indication that the government identifies projects that are suitable for PPPs. These are often large-scale infrastructure projects like roads, bridges, airports, water treatment plants, and other public facilities. Detailed feasibility studies are conducted to assess the viability of the project. This involves evaluating the economic, financial, technical, and social aspects to ensure that the project is worthwhile and sustainable. We infer that the government and private sector negotiate the terms and conditions of the partnership. This includes defining the scope of the project, risk allocation, revenue-sharing mechanisms, and the duration of the partnership.

Concession Agreement and Public Infrastructure Development

The study's second objective was to determine the extent to which the Concession agreement pattern improved the development of public infrastructures in Enugu state. The t-test for hypothesis two (t = 68. 856, p =.000) revealed that Public infrastructures have been managed properly through PPP in Enugu state. The finding is in line with data in Table 4.2 where it was shown that Concession agreements are attractive to private investors as they provide a clear legal framework and a defined period during which the private entity can recoup its investment and generate returns, we infer that Concession agreements often involve a clear allocation of risks between the public and private sector. The finding affirmed that Private entities, driven by profit motives, often bring efficiency and innovation to project delivery. They have incentives to complete projects on time and within budget, as delays and cost overruns can impact their profitability, the respondents affirmed that Concession agreements often require the private entity to handle the operation and maintenance of the infrastructure for the duration of the concession.

Challenges of Public-Private Partnership and Public Infrastructure Development

Finally, the third objective was to ascertain the challenges facing the operations of the PPP in infrastructural development in Enugu state. The estimated value of correlation text (t = 55.434, P =.000) supported the hypothesis. The finding revealed that Limited financial resources are some of the challenges facing the operations of the PPP in infrastructural development in Enugu state. The study is in tandem with data in table 4.3 where it was affirmed that inconsistent or inadequate regulatory frameworks and policies can create uncertainty for private investors. It is affirmed that frequent changes in government policies and political instability can pose risks to PPP projects and it was affirmed that lengthy and complex approval processes for PPP projects can lead to delays in implementation. The findings affirmed that securing financing for PPP projects can be challenging, particularly for long-term infrastructure projects.

5. Summary of Findings

The following were the findings from the study.

i. Public infrastructures have been managed properly through PPP in Enugu state (where value t = 65.588 and critical value = 1.99). This suggests that once a private partner is selected, detailed negotiations take place to finalize the contractual arrangements.
ii. Concession agreement pattern improved on the development of public infrastructures in Enugu state (where value t = 68. 856 and critical value = 1.99). This goes to show that Private entities, driven by profit motives, often bring efficiency and innovation to project delivery.
iii. Limited financial resources are some of the challenges facing the operations of the PPP in infrastructural development in Enugu state (where value t = 55.434 and critical value = 1.99). This is an indication that Securing financing for PPP projects can be challenging, particularly for long-term infrastructure projects.

5.1 Conclusion

In Enugu State, Public-Private Partnerships (PPPs) have showcased transformative potential in the management of public infrastructure. By leveraging private sector expertise and investment, Enugu has witnessed improved infrastructure development, from roads to utilities. These collaborations enhance efficiency, innovation, and timely project delivery. However, challenges such as regulatory uncertainties, funding constraints, and public perception must be addressed for sustained success. Enugu's commitment to refining the PPP framework, fostering transparency, and mitigating risks will be pivotal in unlocking the full benefits of these partnerships, ensuring a resilient and well-maintained infrastructure network for the state's socio-economic advancement.

5.2 Recommendations

Based on the findings of the study, the researcher recommended the following:

1. To strengthen Regulatory Frameworks: Enugu State, government should enhance its regulatory and policy environment to provide clarity and consistency, offering a secure foundation for Public-Private Partnerships (PPPs) and encouraging private sector engagement in public infrastructure projects.

   To Foster Transparent Procurement, both federal and state governments implement transparent and efficient procurement processes to build trust and attract reputable private partners. Clear, fair, and accountable procedures will enhance competition, ensuring optimal selection of private entities for PPP projects in Enugu State.

   The Enugu state government should prioritize building institutional capacity within government agencies responsible for PPPs. Training and equipping personnel with the skills to effectively negotiate, structure, and oversee PPP contracts will enhance the successful management of public infrastructure projects.

References

Adegbite, K. J. (2020).Privatization and commercialization of public enterprises in Nigeria: the challenges or problems and the way forward. *Sapientia Global Journal of Arts, Humanities and Development Studies (SGOJAHDS), 3(3), 311 – 322.*

Aschauer, D. (1985). Fiscal policy and aggregate demand. *America Economic Review.* (75), 117-127

Asian Development Bank. (2017). Public-private partnership operational plan 2017–2020. https://www.adb.org/documents/public-private-partnership-operational-plan-2017-2020

Eichengreen, B., Gullapalli, R. and Panizza U. (2011). Capital account liberalization, financial development and industry growth: a synthetic view. *Journal of International Money and Finance* 30 (6), 1090-1106

Enya F.O., Ezeali B.O. (2021), Public investment in infrastructure and economic growth in nigeria (1980-2020). *African Journal of Economics and Sustainable Development* 4(3), 1-22.

Faisal, A. S, Hamed Al H. and Asad U. (2022). The role of the public-private partnership (PPP) in achieving the optimal economic and social benefits through the port sector. *International Journal of Management Science and Business Administration*, 8(5), 57-65.

Fay, M. and Morrison, M. (2005). Infrastructure in latin America: recent developments and key challenges. Volume 1. World Bank Publications- Reports 8801, the World Bank Group

Flyvbjerg, B., Bruzelius, N. and Rothengatter, W. (2003). *Megaprojects and risks: an anatomy of ambition.* Cambridge: Cambridge University Press. ISBN 0-521-00946-4

Grimsey, D. and Lewis, M. (2004). *Public private partnership: the worldwide revolution in infrastructure provision and project finance.* United Kingdom: Edward Elgar Publishing Company.

Guasch (2004). *Granting and renegotiating infrastructure concessions: doing it right.*World Bank Publications Books, the World Bank Group, number 15024, December.

IEEE Electrical Power and Energy Conference (EPEC) (2021). https://ieeexplore.ieee.org › *xpl*

International Finance Corporation (IFC, 2020). 2020 IFC Annual Report. Long term investment

Infrastructure Concession Regulatory Commission. (2021). Annual report

Klijn, E.H. and Koppenjan, J.M (2000). Public management and policy networks: the theoretical foundation of the of the network approach to governance in public management. 2(2), 135-158.

Kwaghbo, T.M., Okwori, A. & Agbe, J.I. (2019). Public-private partnership initiative and the management of security in the federal government unity colleges in North-central Nigeria. BSUJEM, I(1), 165-175.

Madu, ITU. & Kenigua, W.T. (2021). The role of public-private partnership (PPP) on infrastructural development in Nigeria. *Journal of Global Social Sciences,* 2(5), 23-43.

Nwali, A.C. Nwokeiwu, J. & Oganezi, B. (2019). Privatisation of public enterprises in Nigeria: challenges and prospects on economic development. *Mediterranean Journal of Social Sciences, 10(4), 131-142.*

Nwangwu, G. (2021).Public-private partnerships in Nigeria: the journey so far. *Journal of Commercial and Property Law, Nnamdi Azikiwe University, Awka.8(3), 97-119.*

OECD (2012). Public governance of public-private partnerships. https://www.oecd.org › *PPP Recommendation*

Owotemu, A. E., Daniel, C. O., & Abubakar, H. S. (2022). Evaluating the management of public private partnerships for the provision of affordable housing in Nigeria. *Journal of Service Science and Management,* 15, 392-415.

Raheem, A.T. (2021). *Public-private partnership model for propelling infrastructural development in Nigeria: A Review.* Department of Political Science, College of Management and Social Sciences, Fountain University, PMB 4491, Oke Osun, Osogbo, Nigeria.

Shaibu, M.E. (2019). Sustainable infrastructural development in Africa: the Build Operate and Transfer (BOT) alternative for the power sector in Nigeria. *American Journal of Humanities and Social Sciences Research,*02(11), 188-196.

Ulayi, A. I. & Arikpo, E. B. (2022). Public Private Partnership (PPP) and collaboration in education: A panacea for sustainable development of tertiary institutions in Nigeria. *A Journal of Contemporary Research* , 19 (4): 40-52.

United Nations Development Programme (2016). Human development report.

United Nations Economic and Social Commission for Asia and Pacific (2019). Economic and social survey of Asia and the pacific: ambitions beyond growth. Bangkok: United Nations Publication

Wasiu A. M. (2019).Effectiveness of public-private partnership initiatives on transportation management in Nigeria: Empirical from Lagos Metropolitan Area Transport Authority (LAMATA). *Sumerianz Journal of Social Science, 2(11), 251-255.*

World Bank (2019). https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/2021-03/Guidance