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GLOBAL PARTNER

ASSESSING THE IMPACT OF PUBLIC PRIVATE PARTNERSHIPS (PPPS) ON ROAD INFRASTRUCTURE DEVELOPMENT IN NIGERIA

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Abstract

This study examines the impact of Public-Private Partnerships (PPPs) on road infrastructure development in Nigeria, with specific focus on the Federal Capital Territory (FCT), Abuja and Lagos State. In response to the persistent infrastructure deficit, particularly in the road transport sector, the Nigerian government has increasingly adopted PPPs as a strategic approach to leverage private sector investment, expertise, and efficiency in delivering critical infrastructure. Despite the growing reliance on PPPs, questions remain regarding their effectiveness, sustainability, and contribution to road development outcomes. The study employed both primary and secondary sources of data. Primary data were obtained through structured questionnaires administered to key stakeholders, including government agencies, private sector partners, and road users within selected PPP road projects. Descriptive survey design was used to capture respondents' perceptions, while secondary data were sourced through content analysis of government reports, policy documents, and academic literature. The theoretical framework for the study was anchored on the Public Choice Theory, which provides insight into the dynamics of collaborative governance and interest alignment in PPP arrangements. Findings reveal that while PPPs have contributed to improved road infrastructure in terms of quality, maintenance, and delivery timelines in both Abuja and Lagos, several challenges persist. These include disparities and underperforming projects, which may reflect regional inequalities, flawed implementation, misaligned expectations, and limited involvement of stakeholders, including local communities, civil society organizations, and investors, in the planning and implementation

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

phases of PPP projects. The study recommends strengthening institutional frameworks for PPP governance, enhancing transparency in contract negotiation and execution, and fostering a more enabling environment for private sector participation through clear regulatory guidelines and incentives. It also advocates for the establishment of monitoring and evaluation systems to ensure that PPP projects deliver long-term value for money and contribute to national development objectives.
Keywords: Public-Private Partnerships, Road Infrastructure, Service Delivery, Development, EconomicDevelopmen

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

1. Introduction

The development of efficient and resilient road infrastructure is indispensable to the socio-economic transformation of any nation, serving as a foundation for mobility, trade facilitation, and equitable access to services. In Nigeria, road transportation remains the dominant mode of transport, accounting for over 90% of internal goods and passenger movement (Federal Ministry of Works and Housing (FMW\&H), 2020). However, the country faces a persistent infrastructure deficit, particularly in the road sector, which undermines economic productivity, regional integration, and social welfare (National Planning Commission, 2019). This deficit is exacerbated by chronic underinvestment, fiscal constraints, governance challenges, and growing urban populations particularly in major urban centers such as the Federal Capital Territory (FCT), Abuja, and Lagos State.

Historically, the provision and maintenance of road infrastructure in Nigeria have been predominantly financed and managed by the public sector. However, the inability of successive governments to meet infrastructure demands through public financing alone has led to increasing consideration of alternative mechanisms. In response to these challenges, Nigeria has embraced Public-Private Partnerships (PPPs) as a viable model for mobilizing private sector investment, technical expertise, and operational efficiency in the delivery of public infrastructure (Akade, 2020). Public-Private Partnerships are formal contractual arrangements between public authorities and private entities, wherein the private sector assumes significant responsibilities ranging from financing and construction to operation and maintenance of infrastructure projects, often in exchange for future returns through tolls or government payments (World Bank, 2021). This model represents a departure from traditional procurement methods by fostering risk-sharing, performance-based incentives, and innovation (Adere, 2023). In the Nigerian context, the legal and institutional framework for PPP implementation has been progressively strengthened through policy instruments such as the National Policy on Public-Private Partnerships and the establishment of the Infrastructure Concession Regulatory Commission (ICRC), which was created by the ICRC Act of 2005 to regulate, monitor, and promote PPP projects nationwide (ICRC, 2022).

One of the strategic interventions promoting PPPs in Nigeria is the National Integrated Infrastructure Master Plan (NIIMP), which underscores the role of the private sector in bridging the infrastructure financing gap estimated at over $3 trillion over a 30-year horizon (National Planning Commission, 2019). Lagos State and the FCT, Abuja, have emerged as focal points for PPP-led road infrastructure projects, given their status as economic and administrative hubs, respectively. Projects such as the Lekki-Epe Expressway in Lagos and the Outer Northern Expressway in Abuja illustrate the growing reliance on PPPs to enhance road connectivity, reduce congestion, and stimulate economic development (Akindele & Okpaka, 2021).

Given the increasing prominence of PPPs in the road sector, it is imperative to critically assess their impact on infrastructure development outcomes in Nigeria. Such an assessment is essential for informing policy decisions, improving implementation strategies, and ensuring that PPP projects deliver long-term value to the public. This study, therefore, seeks to evaluate the effectiveness, challenges, and socio-economic implications of PPP arrangements in Nigeria's road infrastructure development, with a focus on the experiences of Lagos State and the Federal Capital Territory.

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

2. Statement of the Problem

Nigeria's road networks, particularly in the Federal Capital Territory (FCT), Abuja and Lagos State should reflect the nation's administrative and economic status through efficient, well-maintained, and sustainable infrastructure. The desired state is a road transport system that supports seamless mobility, attracts investment, and enhances the quality of life for residents and businesses alike. However, the current state of road infrastructure in the FCT and Lagos state remains suboptimal, marked by deteriorating road conditions, congestion, poor maintenance, and inadequate coverage. These infrastructural deficits have significantly impeded economic productivity, public service efficiency, and urban livability (Adeniran & Ogundipe, 2020; Ojo & Emmanuel, 2022). The pressures of rapid urbanization, population growth, and expanding commuter needs have further intensified the demand for sustainable infrastructure solutions in the region (National Bureau of Statistics (NBS) 2023).

In response to these challenges, the Nigerian government has embraced Public-Private Partnerships (PPPs) as an alternative financing and project delivery mechanism aimed at bridging infrastructure gaps. Through policy initiatives, such as the National Policy on Public-Private Partnerships and the establishment of the Infrastructure Concession Regulatory Commission (ICRC), the government has sought to leverage private sector capital, innovation, and efficiency in the development and maintenance of public infrastructure (ICRC, 2021). Several PPP initiatives have been launched in the FCT and Lagos state with the goal of enhancing road infrastructure delivery and management.

Despite these efforts, the effectiveness of PPPs in achieving their intended outcomes remains contested. While some scholars highlight PPPs as a viable solution to Nigeria's infrastructure deficit (Amobi, 2019), others argue that implementation has been marred by bureaucratic delays, weak regulatory oversight, inadequate stakeholder coordination, and limited transparency (Ezeabasili & Nwagboso, 2021; Yusuf & Alabi, 2022). These challenges have often led to project delays, cost overruns, legal disputes, and in some cases, project abandonment, thus undermining the potential benefits of PPPs. Although previous studies has acknowledged the potential of PPPs and documented various challenges, the persistence of infrastructural inefficiencies in the FCT and Lagos state suggests that these interventions have not yielded the desired systemic transformation. The disconnect between PPP policy frameworks and practical outcomes calls for a critical examination of both institutional capacity and implementation dynamics in the region.

Therefore, this research seeks to fill the identified gap by conducting a comprehensive analysis of the impact of PPPs on road infrastructure development in the FCT, Abuja and Lagos State Specifically, it aims to evaluate the effectiveness of PPP projects in meeting infrastructural goals, identify the systemic and contextual barriers to successful implementation, and propose evidence-based strategies for enhancing the performance and sustainability of PPP-driven road projects.

3. Research Questions

ISSN: 2971-7760 | VOL 9, ISS 1 | 27 OCTOBER 2026
https://doi.org/10.5281/zenodo.23683335
NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

i) What are the impact of Public-Private Partnerships (PPPs) on road infrastructure development in Nigeria?
ii) What are the strategies adopted by the government in the implementation of Public-Private Partnerships in Nigeria?

4. Objectives of the Study

i) To examine the impact of Public-Private Partnerships (PPPs) on road infrastructure development in Nigeria
ii) To analyze the strategies adopted by the government in the implementation of Public-Private Partnerships in Nigeria.

5. Literature Review

Conceptual Clarification

Public-Private Partnership (PPP)

The study of Public-Private Partnerships (PPPs) continues to be constrained by the absence of a universally accepted definition a challenge that has persisted despite decades of scholarly engagement. The term “PPP” encompasses a diverse spectrum of arrangements, each differing significantly in terms of risk allocation, financing structures, institutional arrangements, and transparency obligations. This diversity complicates the formulation of a singular, comprehensive definition capable of capturing the multifaceted nature of PPPs across various contexts. Recent scholarship reflects this ongoing definitional ambiguity. Ke et al. (2024), for instance, introduce the "PPP sunflower model," which identifies six core elements clarity of roles, appropriate risk allocation, resource and expertise sharing, cooperative engagement, bundling of services, and long-term contractual commitments as foundational to understanding PPPs. This model seeks to provide a structured yet flexible framework capable of accommodating the complexity and interdisciplinary nature of PPPs, while also addressing variations in legislative and institutional contexts.

At the national level, definitional inconsistencies persist. Sani (2021), in a critique of Nigeria’s Infrastructure Concession Regulatory Commission (ICRC) Act, argues that the Act’s narrow legal definition of PPPs fails to align with international best practices and does not adequately capture the plurality of partnership models currently in use. As a result, the Act may inadvertently constrain the potential for private sector engagement in addressing critical infrastructure gaps. The persistence of these definitional challenges has been attributed to a number of factors. Wettenhall (2003) and Weihe (2006) emphasize the role of conceptual vagueness and ideological predispositions in shaping the discourse on PPPs. Furthermore, the evolving nature of PPPs particularly post-contractual complexities such as governance dynamics, regulatory frameworks, and stakeholder behavior has further compounded efforts to establish a definitive conceptual boundary (Onyoin, 2021).

While Okoli (2021) offers a functional definition of PPPs as collaborative ventures between government and private entities, structured through contractual agreements delineating the sharing of resources, risks, and rewards in the provision of public services or infrastructure, this conceptualization remains predominantly operational. It focuses on structural and legal dimensions, often neglecting the broader governance, socio-economic, and environmental factors that increasingly shape PPP outcomes. In particular, Okoli’s definition does not sufficiently

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

engage with emerging imperatives such as inclusivity, long-term sustainability, and the co-creation of public value dimensions that are now critical for the legitimacy and effectiveness of PPPs in both developed and developing contexts. Similarly, Okoye and Oghoghomeh (2021) define PPPs primarily as contractual arrangements wherein private sector actors assume financial and operational risks to improve service delivery and infrastructure quality. While this characterization rightly highlights the importance of risk transfer and efficiency, it tends to overlook the strategic, institutional, and socio-political dimensions that underpin successful PPP implementation. As such, their approach risks reducing PPPs to mere transactional or outsourcing mechanisms, rather than recognizing them as complex, dynamic relationships embedded within broader systems of co-production and collaborative governance.

In light of these limitations, this study proposes a more integrative conceptual framework for understanding Public-Private Partnerships (PPPs). This framework moves beyond the traditional emphasis on legal contracts and financial structuring, to highlight PPPs as dynamic, co-governance arrangements between public authorities and private entities. It conceptualizes PPPs not merely as vehicles for project delivery, but as collaborative mechanisms that facilitate the joint planning, financing, implementation, and long-term management of road infrastructure. Central to this approach is the recognition of PPPs as instruments for advancing broader developmental objectives, including sustainability, efficiency, transparency, and the equitable provision of transport infrastructure.

Infrastructural Development

Infrastructure development, as a conceptual construct, encompasses both the physical and institutional frameworks necessary for facilitating societal functionality and advancing economic growth. It integrates two core dimensions: infrastructure, referring to the foundational physical systems (e.g., transport networks, utilities, telecommunications, and public buildings) and development, signifying the process of enhancing capacities and improving socio-economic outcomes. According to Diugwu, Mohammed, and Baba (2024), infrastructure development serves as a critical determinant of national progress, functioning as both a driver and indicator of a country's developmental status. Abumere (2019) broadens this understanding by incorporating human and institutional capital, recognizing infrastructure not merely as physical assets but as enablers of productivity, quality of life, and social organization. Okpalaoka (2021) conceptualizes infrastructure development as comprising the physical and organizational structures essential to economic functionality, yet his approach underrepresents emerging dimensions such as digital infrastructure, environmental sustainability, and social inclusion elements that are increasingly vital in contemporary development discourse.

Idaeho and Adeshina (2021) further distinguish between "hard" infrastructure (e.g., transport, energy) and "soft" infrastructure (e.g., governance, institutional frameworks), highlighting infrastructure's role in reducing transaction costs, enhancing connectivity, and fostering inclusive growth. However, their framing, while comprehensive, tends to overlook the complex interdependencies among technological, environmental, and socio-political systems.

Therefore, for the purpose of this study, infrastructure development is conceptualized as a multidimensional and integrative process involving the planning, construction, maintenance, and sustainable management of road networks and associated institutional frameworks. It encompasses both the physical development of transport corridors and the institutional

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

mechanisms that ensure their functionality, accessibility, and durability. This conceptualization recognizes road infrastructure not merely as a technical asset, but as a strategic enabler of equitable mobility, regional integration, economic productivity, and long-term socio-economic transformation.

6. Overview of Selected Road Infrastructural Development under the Auspices of Public-Private Partnership in Nigeria

In addressing Nigeria's persistent infrastructural deficits, Public-Private Partnerships (PPPs) have emerged as vital instruments for mobilizing private sector expertise and capital while maintaining public sector oversight (Adeniran & Ogundipe, 2020). The road transport sector, being critical for economic growth and regional integration, has witnessed notable PPP interventions. This overview critically examines two prominent PPP-driven road infrastructure projects in Nigeria: the Lekki–Epe Expressway in Lagos State and the Abuja–Akwanga Expressway within the Federal Capital Territory (FCT). Emphasis is placed on the structural frameworks, financing modalities, and project components underpinning these developments.

The Lekki–Epe Expressway, approximately 49.5 kilometers in length, functions as a key arterial route connecting Victoria Island to the Epe district in Lagos State. Originally constructed in the 1980s, the expressway underwent substantial rehabilitation and expansion under a PPP arrangement initiated in 2008 (Adere, 2023). The initiative aimed primarily to mitigate chronic traffic congestion, enhance road safety standards, and catalyze socio-economic development along the Lekki corridor (Ojo & Emmanuel, 2022). The project employed a hybrid Design, Build, Operate, and Transfer (DBOT) and Rehabilitate, Operate, and Transfer (ROT) contractual model. Oversight was vested in the Lekki Concession Company (LCC), a Special Purpose Vehicle (SPV) comprising the Lagos State Government, Asset and Resource Management Company (ARM), and Hitech Construction (Adere, 2023).

The financing structure was multifaceted, involving multiple domestic and international stakeholders. The African Development Bank (AfDB) extended a senior loan of approximately US\$85 million with a 15-year tenure. Concurrently, the Lagos State Government provided mezzanine debt financing amounting to US\$42 million over 20 years. A consortium of Nigerian commercial banks, including First Bank, United Bank for Africa, and Zenith Bank, collectively issued a 12-year note facility of US\$80 million. An international tranche of US\$93 million was arranged by Standard Bank over 15 years. Equity participation was sourced from ARM, the Africa Infrastructure Investment Fund (AIIF), Larue Projects, and Hitech Construction, aggregating to US\$58.9 million (Osagie & Chuba, 2022). Key infrastructural components encompassed the widening and upgrading of the existing dual carriageway, construction of three toll plazas, development of an additional 20 km coastal road, and incorporation of safety features such as footbridges and bus stops.

In contrast, the Abuja–Akwanga Expressway serves as a strategic corridor within Nigeria's central region, facilitating connectivity between the Federal Capital Territory and adjoining states. The project's primary objective was to rehabilitate and dualize the road to improve regional mobility, reduce travel time, and enhance economic integration (Okonkwo & Chukwuemeka, 2023). Financing predominantly derived from external borrowing, notably a Chinese loan approximating US\$112.53 million, covering the Abuja–Keffi expressway and the

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

Keffi–Akwanga–Makurdi dualization (Yusuf & Alabi, 2022). The project implemented a cashless tolling system designed to optimize revenue collection for loan servicing and infrastructure maintenance. The scope of work included the conversion of the existing carriageway into a dual road system, construction of modern toll plazas, installation of safety and traffic management infrastructure, and enhancement of road signage and drainage facilities.

Collectively, these projects exemplify divergent yet complementary PPP frameworks in Nigerian road infrastructure development. The Lekki–Epe Expressway illustrates a complex multi-stakeholder financing approach integrating equity, debt, and concessional loans, whereas the Abuja–Akwanga Expressway reflects a model reliant primarily on sovereign-backed foreign loans supplemented by toll revenues. Both projects underscore the critical role of transparent governance, effective project management, and stakeholder collaboration in achieving sustainable infrastructure delivery (Amobi, 2021).

7. Impact of Public-Private Partnerships (PPPs) on Road Infrastructural Development

Traditionally, the responsibility for providing public infrastructure and services has rested squarely with governments. However, the growing pressures of rapid population increase, urbanization, and heightened developmental expectations have significantly strained the ability of governments, particularly in developing countries like Nigeria, to deliver adequate infrastructural services (Akintoye, 2024). In response to these challenges, the Nigerian government has increasingly adopted Public-Private Partnerships (PPPs) as a viable model for enhancing infrastructural development, especially in the road sector. Public-Private Partnerships are collaborative agreements between government entities and private sector participants designed to finance, construct, and operate infrastructure projects. One of the primary advantages of PPPs lies in their ability to mobilize alternative financing sources for infrastructure development, thereby reducing immediate fiscal pressures on government budgets. Under such arrangements, the private sector assumes substantial financial risks in the expectation of long-term profit through user fees or government payments (Abas, Audu, & Jawo, 2019).

The role of PPPs in accelerating the development of road infrastructure is particularly noteworthy. PPPs often lead to improved project outcomes compared to purely public or private initiatives, largely because each party contributes its core competencies—governments in regulation and oversight, and private partners in efficiency, innovation, and cost management. This synergy frequently results in faster project completions, minimized delays, and greater adherence to schedules and budgets, all of which are critical performance indicators in road infrastructure development (Abuma, 2023).Furthermore, the integration of private sector innovation into road projects introduces novel design and financing approaches that may not be feasible under conventional public procurement processes. By ensuring rigorous risk assessments at the early stages of project planning, PPPs enhance project feasibility and sustainability. A key benefit of PPPs in the road sector is the effective transfer of operational and execution risks to private entities that are generally more experienced in managing project costs and operational efficiency (Jacob, 2020).

Another significant impact of PPPs in road development is the incentivization of timely project completion. Many PPP contracts include performance-based incentives, such as early completion bonuses, which drive efficiency and reduce the likelihood of cost overruns or scope creep.

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

Additionally, by leveraging private sector investment, PPPs enable the government to allocate limited public funds to other critical sectors, such as education or healthcare, thereby promoting broader socio-economic development (Attah, Usman, Ibrahim, & Eze, 2018). PPPs also offer long-term benefits in terms of maintenance and operational quality. Because private partners often operate the infrastructure for a concession period, there is an inherent incentive to maintain high-quality standards throughout the project's lifecycle. This contrasts with traditional public procurement methods, where post-construction maintenance is often underfunded or poorly managed.

Nevertheless, despite these advantages, the PPP model is not without challenges. One notable limitation is the knowledge asymmetry between the public and private sectors. The private sector typically possesses superior technical and financial expertise, which can place the government at a disadvantage during contract negotiation and implementation. This can lead to inflated cost estimates or unfavorable contract terms if not carefully managed (Kabiru, 2020). PPPs have made a significant positive impact on the development of road infrastructure in Nigeria and other developing contexts. By combining public oversight with private sector efficiency and innovation, PPPs facilitate faster, more cost-effective, and higher-quality road projects.

8. Theoretical framework

This study adopts Public Choice Theory, a framework that applies economic reasoning to political decision-making. Propounded by James Buchanan (1919–2013) and Gordon Tullock (1922–2014), and developed extensively from the 1960s through the 1980s, Public Choice Theory challenges the conventional notion that public officials always act in the best interest of society. Instead, it posits that both public and private actors are guided by self-interest, incentives, and institutional constraints. This theoretical perspective provides a critical lens through which to examine the dynamics of Public-Private Partnerships (PPPs) in the context of road infrastructure development in the Federal Capital Territory (FCT) and Lagos State.

In Nigeria, PPPs have increasingly been adopted as a strategic response to persistent infrastructure deficits, especially in the transport sector. The limitations of public funding and the inefficiencies associated with conventional government-led infrastructure delivery have led policymakers to embrace PPPs as a means of leveraging private sector investment, technical capacity, and operational efficiency. From the Public Choice perspective, this shift reflects not only the need to bridge infrastructure gaps but also the motivations of political and bureaucratic actors to optimize political gains, shift fiscal burdens, and, in some cases, attract foreign investment. In the FCT and Lagos State, road infrastructure development has witnessed several PPP initiatives, notably involving urban expressways, arterial roads, and supporting transport networks. Public Choice Theory suggests that such collaborations are often influenced by political calculations rather than purely developmental objectives. Government officials may enter into PPP arrangements to gain electoral advantages, consolidate political capital, or satisfy influential interest groups. As such, the selection and structuring of PPP projects may be shaped by rent-seeking behavior, where contracts are awarded based on political affiliation or elite lobbying rather than cost-efficiency or public benefit.

Moreover, the theory highlights the role of bureaucratic incentives and institutional constraints in shaping PPP outcomes. In Abuja and Lagos State, PPP-led road infrastructure projects have

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

often been affected by administrative bottlenecks, regulatory ambiguities, and inconsistent policy frameworks. These challenges align with the Public Choice critique that institutional actors, including civil servants and regulatory agencies, may pursue agendas driven by self-preservation or departmental interests, thereby compromising project efficiency and long-term sustainability. Instances of opacity in contract negotiations, limited public consultation, and concerns over value for money further underscore the risks associated with PPPs, as predicted by Public Choice Theory. For example, while some road infrastructure projects in the FCT and Lagos State have achieved partial success in improving connectivity and reducing congestion, others have been criticized for cost overruns, delayed completion, and inequitable distribution of benefits.

Nonetheless, Public Choice Theory also acknowledges the potential for improved outcomes where competitive pressures, transparency mechanisms, and regulatory oversight are robust. When PPPs are designed with clear accountability structures and aligned incentives, they can contribute significantly to effective infrastructure delivery. In the case of the FCT and Lagos State, well-structured road PPPs have the capacity to enhance urban mobility, stimulate economic activity, and support the region's broader development goals.

9. Methodology

The research design adopted for this study is a descriptive survey design. The main aim of this design is to understand the research problem more comprehensively. Descriptive research enables the researcher to gain deeper insights into the issue under investigation. The population for the study was 451,313, comprising staff from the Ministry of Works and Housing, private sector representatives from construction and engineering firms, project managers, consultants, and residents who are end-users of the roads developed under Public-Private Partnership (PPP) arrangements in the FCT and Lagos State. To select the sample size, the study utilized the sample size determination formula in the social sciences proposed by Yamane (1967), arriving at a sample size of 400. A total of 400 questionnaires were administered, out of which 378 were completed and retrieved for analysis. A simple random sampling technique was employed to avoid bias. The instrument used for data collection was a structured questionnaire titled "Impact of Public-Private Partnerships on Road Infrastructure Development." The study utilized both primary and secondary data. Primary data were collected through the structured questionnaire, which was designed using a five-point Likert scale: (1) Strongly Disagree, (2) Disagree, (3) Undecided, (4) Agree, and (5) Strongly Agree. For qualitative data, secondary sources such as journals, articles, magazines, periodicals, and policy documents on PPP and road infrastructure development were used. Data from the questionnaires were analyzed quantitatively using simple percentages, while secondary data were analyzed using content analysis.

10. Data Analysis and Presentation of Results

Table 1. Impact of Public-Private Partnerships (PPPs) on road infrastructure development in Nigeria

S/N	Statement	Response	Frequency	Percentage
1	Public-Private Partnerships (PPPs) have improved the quality of road infrastructure in Nigeria	Strongly Agree Agree Strongly Disagree Disagree Undecided	145 132 82 19 0	38.36% 34.92% 21.69% 5.03% 0.00%

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

		Total	**378**	**100%**
2	PPPs have improved the timeliness of road project completion in Nigeria	Strongly Agree Agree Strongly Disagree Disagree Undecided **Total**	78 65 123 109 3 **378**	20.63% 17.20% 32.54% 28.84% 0.79% **100%**
3	PPPs arrangements have been effective in ensuring the regular maintenance of road infrastructure	Strongly Agree Agree Strongly Disagree Disagree Undecided Total	92 72 123 91 0 378	24.34% 19.05% 32.54% 24.07% 0.00% 100%
4	The involvement of private partners has led to better road services (e.g., tolling systems, rest areas, lighting, safety) for users	Strongly Agree Agree Strongly Disagree Disagree Undecided Total	47 59 145 127 0 378	12.43% 15.61% 38.36% 33.60% 0.00% 100%
5	There is public acceptance of PPP-driven road infrastructure projects in Nigeria	Strongly Agree Agree Strongly Disagree Disagree Undecided Total	87 79 96 109 7 378	23.02% 20.90% 25.40% 28.84% 1.85% 100%
6	PPPs in road infrastructure have positively contributed to economic growth in Nigeria (e.g., improved trade, access to markets).	Strongly Agree Agree Strongly Disagree Disagree Undecided Total	107 98 76 97 0 378	28.31% 25.93% 20.11% 25.66% 0.00% 100%

Source: Field Work, August, 2025

This section presents a quantitative analysis of respondents' perceptions regarding the impact of Public-Private Partnerships (PPPs) on road infrastructure development in Nigeria. The data is derived from six key statements assessed through a Likert-scale response format, with the objective of evaluating critical dimensions such as quality, timeliness, maintenance, user services, public acceptance, and economic contribution. A significant majority of respondents acknowledged a positive impact of PPPs on the quality of road infrastructure. Specifically, 145 respondents representing 38.36% strongly agreed, 132 respondents representing 34.92% agreed with the assertion, constituting a combined affirmative response of 73.28%. Conversely, 82 respondents representing 21.69% strongly disagreed, 19 respondents representing 5.03% disagreed. Notably, no respondent selected undecided, suggesting strong respondent awareness and clear opinions regarding this dimension. This result indicates that PPPs are widely perceived as instrumental in enhancing road infrastructure quality in Nigeria. The minimal proportion of

ISSN: 2971-7760 | VOL 9, ISS 1 | 27 OCTOBER 2026
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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

negative responses may point to localized deficiencies or dissatisfaction with specific projects, but overall, the sentiment is strongly favorable.

Regarding timeliness, the data indicates a largely critical perception, 78 respondents representing 20.63% strongly agreed, 65 respondents representing 17.20% agreed with the assertion, while 123 respondents representing 32.54% strongly disagreed, 109 respondents representing 28.84% disagreed that PPPs have improved project completion timelines. These findings suggest that PPP arrangements in Nigeria may be encountering delays or bureaucratic inefficiencies that hinder timely project delivery. Despite potential improvements in quality, speed remains a critical challenge within PPP project execution. Similar to the results on timeliness, respondents expressed skepticism regarding the effectiveness of PPPs in ensuring regular maintenance. Specifically, 92 respondents (24.34%) strongly agreed, 72 respondents (19.05%) agreed, 123 respondents (32.54%) strongly disagreed, and 91 respondents (24.07%) disagreed. No respondents selected "undecided." This distribution reveals a perception gap concerning the sustainability of PPP-provided infrastructure. Despite initial improvements in quality, ongoing maintenance often key to infrastructure longevity is perceived as inadequately addressed. This analysis aligns with the view of Oke (2023), who states that the absence of routine and preventive maintenance on road infrastructure has been consistently linked to the progressive deterioration and eventual failure of road systems. He further emphasizes that inadequate maintenance practices accelerate pavement distress, leading to potholes, cracks, and surface deformities that compromise the structural integrity of roadways. These defects not only reduce road lifespan but also pose significant safety hazards to users. As observed by Agyemang (2024), neglected roads are more prone to sudden collapse and increased accident rates, especially in regions where rainfall or heavy vehicular traffic exacerbates underlying weaknesses. The cumulative effect of deferred maintenance is not merely economic reflected in higher future rehabilitation costs but also social, manifesting in elevated accident risks and potential loss of life. This underscores the critical need for governments and stakeholders to prioritize regular maintenance as an integral component of sustainable road management. On the provision of auxiliary road services such as tolling systems, lighting, and rest areas public perception is predominantly negative. Only 28.04% gave positive responses, while 71.96% strongly disagreed (38.36%) or disagreed (33.60%). This reflects a significant deficit in user-centric features within PPP-driven road projects. Such services are critical for safety, comfort, and efficiency, and their perceived absence could diminish public support for toll-based PPP schemes. Responses to the statement on public acceptance were relatively mixed but leaned toward critical, 87 respondents representing 23.02% strongly agreed, 79 respondents representing 23.02% agreed with the assertion, while 96 respondents representing 25.40% strongly disagreed, 109 respondents representing 28.84% disagreed, this shown a slightly larger portion (54.24%) expressed disagreement. Notably, 1.85% were undecided, indicating some uncertainty in public sentiment. These findings suggest that public acceptance of PPPs in road infrastructure remains contentious. This could stem from issues such as transparency, affordability of tolls, or unmet expectations, which require proactive stakeholder engagement strategies. On Contribution to Economic Growth, the strongest positive response across all items was observed in relation to the economic impact of PPPs. 107 respondents representing 28.31% strongly agreed, 98 respondents representing 25.93% agreed, while 76 respondents representing 20.11% strongly disagreed, 97 respondents representing 25.66% disagreed that PPPs have contributed positively to economic growth (e.g., improved trade and market access). No respondent selected undecided. Despite

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

operational and service delivery concerns, a majority of respondents recognize the broader macroeconomic value of PPP interventions. This suggests that even where execution may fall short, the strategic intent and outcomes of PPP investments are acknowledged.

Table 2. Strategies adopted by the government in the implementation of Public-Private Partnerships in Nigeria

S/N	Statement	Response	Frequency	Percentage
1	Government policies currently support the implementation of Public-Private Partnerships (PPPs) in Nigeria	Strongly Agree Agree Strongly Disagree Disagree Undecided **Total**	153 148 29 41 7 **378**	40.5% 39.2% 7.7% 10.8% 1.9% **100%**
2	Government agencies (e.g., ICRC, BPE) are involved in the implementation of PPPs	Strongly Agree Agree Strongly Disagree Disagree Undecided **Total**	124 118 26 8 2 **378**	32.8% **31.2%** **6.9%** **2.1%** **0.5%** **100%**
3	Mechanisms are in place for risk-sharing between the public and private sectors in Nigerian PPPs	Strongly Agree Agree Strongly Disagree Disagree Undecided Total	102 129 98 49 0 378	27.0% 34.1% 25.9% 13.0% 0.0% 100%
4	Transparency in the bidding and procurement process is essential for PPP projects	Strongly Agree Agree Strongly Disagree Disagree Undecided Total	178 159 17 24 0 378	47.1% 42.1% 4.5% 6.3% 0.0% 100%
5	PPP projects are monitored and evaluated by the government's post-implementation team	Strongly Agree Agree Strongly Disagree Disagree Undecided Total	177 152 31 13 5 378	46.8% 40.2% 8.2% 3.4% 1.3% 100%
6	PPP planning and implementation involve stakeholder engagement, including communities, civil society, and investors	Strongly Agree Agree Strongly Disagree Disagree Undecided Total	64 98 119 88 9 378	16.9% 25.9% 31.5% 23.3% 2.4% 100%

Source: Field Work, August, 2025

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

Table 2 above presents empirical data from a survey conducted to assess respondents' perceptions of various governmental strategies that facilitate PPP projects in Nigeria. A total of 153 respondents, representing 40.5%, strongly agreed, while 148 respondents representing 39.2% agreed with the assertion that current government policies are supportive of PPP implementation. Conversely, 29 respondents representing 7.7% strongly disagreed, 41 respondents representing 10.8% disagreed, and 7 respondents representing 1.9% were undecided. This indicates a generally favorable policy environment for PPPs, suggesting that the government has made commendable efforts to formulate policies conducive to public-private collaborations. Regarding the involvement of government agencies in the implementation of PPPs, the analysis shows that 124 respondents representing 32.8% strongly agreed and 118 respondents representing 31.2% agreed that key governmental agencies such as the Infrastructure Concession Regulatory Commission (ICRC) and the Bureau of Public Enterprises (BPE) are actively involved. On the other hand, minimal dissent was observed: 26 respondents representing 6.9% strongly disagreed, 8 respondents representing 2.1% disagreed, and 2 respondents representing 0.5% were undecided. On the issue of risk allocation, the responses were more evenly distributed, revealing a lack of consensus. While 102 respondents representing 27.0% strongly agreed and 129 respondents representing 34.1% agreed that risk-sharing mechanisms are in place, a notable 98 respondents representing 25.9% strongly disagreed and 49 respondents representing 13.0% disagreed. This polarization may reflect inconsistencies in the application of risk-sharing frameworks across sectors or projects, suggesting a need for further standardization and clearer communication of risk-sharing strategies to enhance investor confidence and project sustainability. Transparency in the bidding and procurement process received overwhelming support. The analysis revealed that 178 respondents representing 47.1% strongly agreed and 159 respondents representing 42.1% agreed that transparency is essential to PPP success. The negligible disagreement 17 respondents representing 4.5% strongly disagreed and 24 respondents representing 6.3% disagreed reflects a strong consensus on the importance of transparent processes, highlighting this as a cornerstone strategy for securing private sector trust and promoting fair competition. A similar trend was observed with respect to post-implementation Monitoring and Evaluation (M\&E). Approximately 87% of respondents affirmed that PPP projects are subjected to M\&E by government teams, with 177 respondents representing 46.8% strongly agreed and 152 respondents representing 40.2% agreed. This implies that accountability mechanisms are perceived to be functional, although the 8.2% who strongly disagreed indicate that these mechanisms may not be uniformly applied across all projects or sectors. In contrast to the positive responses in other categories, stakeholder engagement during PPP planning and implementation received less favorable assessments. Only 64 respondents representing 16.9% strongly agreed and 98 respondents representing 25.9% agreed that communities, civil society, and investors are actively involved in these processes. In contrast, a substantial 119 respondents representing 31.5% strongly disagreed and 88 respondents representing 23.3% disagreed, revealing a critical gap in inclusive governance. The limited engagement of stakeholders could undermine project legitimacy, reduce local support, and hinder long-term project success.

11. Discussion of Findings

In the preceding sections of this paper, particularly in the introductory part, two research questions and objectives were posited with a view to assessing the impact of Public-Private Partnerships (PPPs) on road infrastructure development in Nigeria. Based on the investigation

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NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

conducted using both primary and secondary sources of data, the following findings were observed:

i. This finding aligns with the data collected, emphasizing the comparative advantage of private sector involvement in infrastructure delivery particularly in terms of innovation, efficiency, and adherence to international engineering standards. Private partners often bring technical expertise, quality assurance mechanisms, and performance-based contractual obligations that are less emphasized in wholly public-sector projects. In the Nigerian context, this is reflected in improved expressways and tolled roads developed under PPP models, such as the Lekki-Epe Expressway in Lagos State and the Abuja-Akwanga Expressway, which have become benchmarks for road quality in the country. However, a minority of dissenting responses point to localized disparities or underperforming projects, which may reflect regional inequalities, flawed implementation, or misaligned expectations. Thus, while PPPs are generally perceived to be improving quality at a macro level, ensuring consistency and inclusivity in project execution remains essential for both policy and operational refinement.

ii. Another concerning finding from this study relates to the limited involvement of stakeholders including local communities, civil society organizations, and investors in the planning and implementation phases of PPP projects. Only a small number of respondents affirmed active stakeholder participation, while a majority strongly disagreed with the assertion. This negative perception reveals a substantial governance gap within the PPP implementation framework in Nigeria. Stakeholder engagement is widely recognized in infrastructure development as a critical component of sustainable and inclusive growth. Meaningful participation by affected communities and civil society enhances transparency, fosters local ownership, reduces resistance, and improves the social and environmental sustainability of infrastructure projects. The apparent exclusion of these groups, as highlighted in the data, could erode public trust, generate opposition, and ultimately undermine the legitimacy and long-term viability of PPP interventions.

12. Conclusion

The impact of Public-Private Partnerships (PPPs) on road infrastructure development in Nigeria has been significant, offering a viable solution to the persistent challenges of inadequate funding, poor maintenance, and project inefficiencies that have long plagued the sector. Through PPP arrangements, the Nigerian government has been able to leverage private sector investment, expertise, and innovation to deliver critical road projects, improve service delivery, and enhance long-term sustainability. However, while PPPs have shown promise, their success is often hindered by regulatory inconsistencies, bureaucratic delays, and a lack of institutional capacity. For PPPs to achieve their full potential in transforming Nigeria's road infrastructure, there is a need for stronger policy frameworks, transparent procurement processes, risk-sharing mechanisms, and robust monitoring systems. Ultimately, effective collaboration between the public and private sectors remains essential in driving infrastructure development that supports economic growth, regional connectivity, and social inclusion in Nigeria.

13. Recommendations

Based on the findings made above, the following recommendations are hereby proffered:

i) The government should implement standardized monitoring and evaluation (M&E) frameworks across all PPP projects to ensure consistent quality and equitable performance. This

ISSN: 2971-7760 | VOL 9, ISS 1 | 27 OCTOBER 2026
https://doi.org/10.5281/zenodo.23683335
NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

would help address regional disparities and underperforming projects by enforcing uniform benchmarks for project delivery, technical standards, and accountability across the country. Such a framework should include regular audits, third-party quality assessments, and public disclosure of project performance metrics to reinforce quality assurance.

ii) The government should institutionalize mandatory stakeholder engagement protocols at all stages of PPP project development. This includes establishing legal or regulatory requirements for the inclusion of local communities, civil society organizations, and investors in project design, planning, and monitoring processes. Mechanisms such as public consultations, community impact assessments, and participatory planning workshops should be made integral to project approvals, fostering greater transparency, trust, and project sustainability.

References

Abas, I. A., Audu, I., & Jawo, M. A. (2019). The role of Public-Private Partnerships in infrastructure delivery in Nigeria. *Journal of Infrastructure Development Studies*, 8(2), 45–57.

Abuma, J. O. (2023). Performance evaluation of PPP projects in Nigeria's road sector. *International Journal of Project Management and Infrastructure*, 11(1), 20–36.

Adeniran, A., & Ogundipe, A. A. (2020). Infrastructure deficit and economic growth in Nigeria: An empirical investigation. *Nigerian Journal of Economic Policy*, 27(1), 45–62.

Adere, K. (2023). Public infrastructure financing in emerging economies: PPPs and fiscal sustainability. *African Economic Review*, 45(2), 56–74.

Agyemang, W. (2024). Road maintenance and safety in developing countries: A critical analysis. *Journal of Transport and Infrastructure,* 3(2), 85–94.

Akade, T. (2020). Challenges of infrastructure financing in Nigeria: The case for alternative models. *Journal of African Infrastructure Studies*, 8(1), 21–35.

Akindele, T., & Okpaka, R. (2021). Institutional frameworks and the implementation of PPPs in Nigerian urban infrastructure. *Journal of Urban Policy and Planning*, 12(3), 189–207.

Akintoye, A. (2024). Public infrastructure delivery challenges in developing economies: The Nigerian experience. *African Journal of Development and Governance*, 12(3), 101–118.

Amobi, D. S. (2021). Public-Private Partnerships as alternative financing model for infrastructure development in Nigeria. *African Journal of Public Policy*, 13(2), 110–127.

Attah, M. O., Usman, A., Ibrahim, S., & Eze, C. (2018). Socio-economic impacts of PPPs on Nigerian road infrastructure. *Nigerian Journal of Economic and Social Studies*, 60(4), 89–104.

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https://doi.org/10.5281/zenodo.23683335
NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA

Ezeabasili, A. C., & Nwagboso, C. (2021). Evaluating public-private partnership implementation in Nigeria: Issues and prospects. *International Journal of Public Administration*, 44(6), 497–510.

Infrastructure Concession Regulatory Commission (ICRC). (2021). Annual report on PPP projects in Nigeria. Abuja. https://www.icrc.gov.ng/portfolio-item/2021-annual-report/

Jacob, T. (2020). Risk management strategies in PPP road projects in Sub-Saharan Africa. *Journal of Construction and Policy Analysis*, 7(1), 33–50.

Kabiru, L. A. (2020). Public-private negotiation dynamics in Nigerian infrastructure contracts. *African Journal of Public Sector Management*, 5(2), 112–127.

National Planning Commission. (2019). National Integrated Infrastructure Master Plan (NIIMP). Abuja: Federal Government of Nigeria.

Ojo, J. S., & Emmanuel, T. M. (2022). Urban transport infrastructure and economic competitiveness in Abuja, Nigeria. *Journal of Urban Development Studies*, 8(1), 63–78.

Oke, O. A. (2023). Impact of road maintenance on transportation and safety in Nigeria. *International Journal of Civil Engineering and Technology*, 5(3), 45–52.

Okonkwo, I. M., & Chukwuemeka, B. U. (2023). Public-private partnerships in Nigeria's transport sector: A case study of road infrastructure in Abuja. *Journal of African Infrastructure Research*, 6(3), 29–48.

Osagie, D., & Chuba, M. (2022). Challenges of implementing public-private partnerships in Nigeria: A policy review. *International Journal of Development and Infrastructure Studies*, 7(1), 103–118.

World Bank. (2021). *Public-private partnerships: Reference guide version 3.0.* Washington, DC: World Bank Publications.

Yusuf, M., & Alabi, T. S. (2022). Regulatory frameworks and challenges of PPP projects in Nigeria: A policy analysis. *Nigerian Journal of Development Studies,* 12(4), 76–93.