Public - Private Partnership (PPP) and Housing Infrastructure Development in Rivers State, 2010-2023

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Abstract
Infrastructural deficit remains a persistent challenge in Nigeria, with Rivers State confronting significant shortfalls in housing supply, affordability, and sustainability despite sustained governance efforts. This study examined the impact of Public-Private Partnership (PPP) initiatives in enhancing housing infrastructure development in Rivers State between 2015 and 2025, focusing specifically on the relationship between PPP initiatives and the quantity of housing units delivered, the impact of PPP on housing affordability, the impact of PPP on the sustainability of housing infrastructure, and the challenges affecting the timely delivery of PPP housing projects in Rivers State. The study disanchored on the Collaborative Governance Theory, the study recognises that effective housing infrastructure development requires the deliberate integration of government regulatory authority with private sector financial and technical capacity, and that shared responsibilities, joint resource mobilisation, and collaborative decision-making between public institutions and private developers are central to improving housing outcomes. The study finds that PPP initiatives have contributed measurably to expanding the quantity of housing units delivered and to improving construction quality and estate planning within Rivers State, as evidenced by ongoing projects such as the TAF Africa housing development along Airport Road in Port Harcourt. However, persistent challenges including government approval delays, policy inconsistency, inadequate funding mechanisms, and land acquisition difficulties continue to constrain timely project delivery and limit housing affordability for low-income households. The study concluded that PPP represents an indispensable instrument for closing the housing gap in Rivers State, provided that institutional coordination, regulatory transparency, and stakeholder engagement are substantively strengthened. The study recommended amongst other that the iRivers iState iGovernment ishould istrengthen iand iexpand iPublic–Private iPartnership iinitiatives iin ithe ihousing isector iby icreating ienabling ipolicies iand iproviding iincentives ithat iencourage igreater iprivate isector iparticipation iin ihousing iinfrastructure idevelopment. I

Keywords: *Public-Private-Partnership, Housing, Infrastructure, Development, Governance*

Introduction

Infrastructural development is one of the important engines of economic development, development of human capital and national development in general. Governments and private institutions are working across nations of the world to close the infrastructural gaps that arises especially in the critical sectors like transportation, energy, healthcare, and education among others. In Nigeria infrastructural deficits have been a recurrent problem for over how many decades, as they negatively affect productivity and the quality of life of the people, and the development of other sectors of the economy (Ekanem, 2020; Nwankwo, 2023). The enormous infrastructural gap in Nigeria creates the opportunities and the space for the deployment of other mechanisms of infrastructural provision with the PPP model being an attractive option. Public-private partnerships (PPPs) represent arrangements between government agencies and private-sector companies in order to jointly finance, construct and operate infrastructure facilities, or to provide services that have traditionally been the responsibilities of government or the public sector (Okereke, 2019). The idea of public-private partnership (PPP) is that the involvement of private sector partners will bring about the infusion of skills, efficiency and competence into a project where the public sector partner lacks certain capabilities. In Nigeria, there have been enactments of public-private partnership in the transportation sector, solid waste management sector, education, healthcare, and energy sectors, with a specific example such as in the oil-producing Niger Delta region, where oil and gas companies (such as Agip and Orlean Invest) have taken part in infrastructure development projects that intend to improve the standard of living of dwellers by upgrading their access to road networks, power facilities and public amenities (Okpara, 2025). Despite its promising advantages, the implementation of PPP is often hampered by significant challenges. Research studies have shown that lack of clear policies, inconsistent regulations and lack of technical capacity can diminishes the impact of PPP projects (Obasa & Oluyomi, 2024; Akpomuvie & Jubilee, 2025). for instance, not withstanding the establishment of a Policy for State LevelPPP by the Rivers State Bureau of Public-Private Partnerships, which guides all state projects; several PPP projects were at risk of failure due to delay in approval processes, low level of risk sharing with the private sector and lack of proper stakeholder enggements (Rivers State Bureau of Public-Private Partnerships, n.d). Similarly, financial constrains such as high interests rates, unavailability of funds, and absence of Viability Gap Funding (VGF), prevent some investments in long-term infrastructure projects in Nigeria (Central Bank of Nigeria, 2025; NESG & AfDB, 2025). Transportation infrastructure is one of the most optimistic areas of Private-Public Partnership. Roads and rail systems are vital components in the efficient transport of goods and people and inadequacies in such systems have a direct negative impact on productivity. The Nigeria Roads and railway concession program launched by the government has helped to bridge the infrastructure gap by reducing the amount of resources that ought to be channeled into the sector (World Bank, 2022). Through such program private companies manage construction and maintenance work on behalf of government often assuming the operational responsibility, such having predefined contracts or treaties with government departments (World Bank, 2022). Bassey (n.d) affirms that development of roads infrastructure in Sub-Saharan Africa-South Africa, Nigeria in particular, due to the adoption of policies encouraging private sector participation has yielded better development and more comprehensive projects.

Health services are also expanding to the use of public private partnership to improve service provision. Chronic under funding of public hospitals is leading to lack of equipment, irregular electric power and lack of skilled physicians. As a result, service provision is suffering. Involving privatized sector through public private partnership has shown some promise. For instance, Nweke, Chisa and Okosun (2006) report how health diagnostic services in rural communities were improved through a public private partnership in the typhoid control program. In this case, private sector providers provided health diagnostic equipment, training and technical know-how while government owned health facilities provided the access to the people. This example shows that social infrastructure such as health facilities can benefit from privatized investment especially in situations where government cannot, PPPs also play a significant role in improving education facilities and provision. Education is another essential sector where the success of many PPP projects so far has been described as encouraging. This is partly because secondary schools and vocational schools are faced with problems of underfunding and poor infrastructure facilities. The involvement of the private sector has the potential to bring in much-needed finance, enable the provision of such facilities, and to facilitate the innovations in the curriculum. Evidence from Rivers State indicates that through collaboration with the private sector, the provision of secondary school facilities has resulted in reduced supervision costs and increased enrichment of students' learning processes together with the development of improved physical infrastructure (Wali and Okereke, 2023). A PPP in this sector has thus helped improve the quality of training and education for clients and improved the infrastructure of vocational-technical schools. The infrastructure sector, particularly the provision of electricity, is one of the most prominent for the engagement of the private sector through PPP. Electricity supply has suffered major constraints resulting in electricity outages that adversely affect the attainment of development objectives of industries, commerce and households in Nigeria (Ekanem, 2020). Private entrepreneurs working with government authorities have established private power projects, renewable energy projects and rural electrification projects. This partnership not only takes the burden of finance off the government but also enhances efficiency of the service provision and improved maintenance (Okpara, 2025). The use of private capital through PPP provides a credible vehicle for overcoming the infrastructural bottleneck that has hampered sustained growth in Nigeri. PPP contributes to economic growth not only through financing a project. Successful PPP project in attracting foreign direct investment, promote local entrepreneurship, provides employment, and increases economic diversification. For example, the Tinubu Administration (2025) in Nigeria used the PPP to speed-up the construction of highways networks, consequently, travel times and costs were cut, trade flows increased, and more connectivity and access. The Afreximbank (2025) also points out that the infrastructure investment related to trade through the implementation of PPPs in West Africa improved regional connectivity and reduced transaction costs. These reveal sources and examples that facilitating, this can be seen that PPPs serve as a strategic method to development for governments and competitiveness for regions.

Nevertheless, to achieve success, PPPs require appropriate legal, institutional and regulatory provisions, which is important for the performance of the projects and offering incentives to the private partners to participate (Ogbuabor, & Orji, 2023; Obasa, & Oluyomi, 2024). If policies are inconsistent, rules and enforcement of contracts inadequate, corruption and lack of transparency can diminish the benefits associated with PPP arrangements (Infrastructure Concession Regulatory Commission, 2021; 2025). The Infrastructure Concession Regulatory Commission has produced guidelines, risk assessment framework and facilitation programs to enhance the sustainability of PPP projects and arrangements (Infrastructure Concession Regulatory Commission, 2021; 2025). Also, the availability of financing options such as viability gap funding, project bonds, and structured investment vehicles are important to keen the private sector in partnership with the government and in the execution of the projects (Central Bank of Nigeria, 2025; Pavestones, 2025). Successful risk sharing was demonstrated with in the Egini Medical Infrastructure Scheme (2025) where the government and other private actors fund health care infrastructures, hence fostering healthcare service delivery and long-term viability. However, 7 despite institutional advancements, PPP structures in Nigeria continue to encounter various implementation challenges, including poor stakeholder participation, political interference, ineffective project monitoring, and high costs of project implementation (Ojo, n.d). In addition, high-cost of finance, excessive paperwork and limited technical capacity sometimes causes project derailment. This affects public trust and investor confidence (Nwankwo & Barimalaa, 2015). The objectives of the study are to; determine the relationship between Public–Private Partnership initiatives and the quantity of housing units delivered in Rivers State, and examine the impact of Public–Private Partnerships on housing affordability and in Rivers State.

The study posed the following research questions

i. What is the relationship between Public–Private Partnership initiatives and the quantity of housing units delivered in Rivers State? and

ii. What impact do Public–Private Partnerships have on housing affordability in Rivers State? accordingly, the study tested the following hypotheses at 0.05 significant level

H_{01}: There is no relationship between Public–Private Partnership initiatives and the quantity of housing units delivered in Rivers State, and H_{02}: Public Private Partnerships have no impact on housing affordability in Rivers State.

Collaborative Governance Theory.

Our study is based on the Collaborative Governance Theory. The theory was formulated by Chris Ansell and Alison Gish in 2008 among others to describe how government, private organisations and other stakeholders in the society can work together in solving public problems and maximizing development outcomes. The theory was borne out of the realization that governments on their own often lack the financial and technical capacity to cope with the challenges of modern development issues and there is therefore the need to involve other private organisations in development effort in various areas such as housing, transport, health, education and urban infrastructure development (World Bank, 2017). The Collaborative Governance Theory sees the development happening more efficient if the various actors join their efforts, knowledge and resources for the achievement of common goals. In the theory it is argued that the government has the power conferred by law, policy making powers and the charges of the public service as far as private organizations have the financial resources, managerial efficiency, innovation and technical knowledge. (Nwankwo, 2023) The theory argues that such cooperation of both sectors enhance the quality, rate and sustainability of the infrastructure development. A key assumption to the theory is that public issues cannot be solved efficiently by government alone. For so many developing countries such as Nigeria, the government infrastructure deficit, population explosion, urbanisation surge and financial constraints inhibit the government delivery of public service (Obasa & Oluyomi, 2024). The theory of Collaborative Governance subsidies private sector participants so that the government is not inhibited; due to the intervention of private institutions that offers additional capital injection, change in technological methods, specific know-how as well as superior project management skills (Adimazoya, 2025). The government can then match up to developmental pressures. On one hand, the theory‘s crucial assumption is that contractors involved in cooperation, must accept due take information sharing, transparency, trust and effective stakeholders and interaction. As the theory explains, the developers' participants must well recognize their duties and use up for the common interests, with the provision of the pubic support by government institutions in the form of policies, legal basis and regulation, with the provision of the pubic support by private investors such as funding,technology and effective implementation (Infrastructure Concession Regulatory Commission, 2021). The theory further assume that collaboration contributes to efficiency of service delivery. Several public projects in Nigeria are often delayed due to corruption, weak institutional and management capacity, and inadequate maintenance systems among others(Babatunde, 2018, Omodero, 2019). Collaborative Governance Theory posits that private organisations are more likely to contribute to efficiency of project implementation as they are better managed and have stronger accountability mechanisms (Ekanem, 2020). Collaborative Governance Theory rests on the concept of shared responsibility. This theory asserts that development is a joint effort that requires both private and public sector cooperation since the responsibility to provide facilities and services is too complex for governments to put into action on their own. The allocation of responsibilities is then shared on the basis of capacities, as well as comparative advantages among the relevant authorities and investors (Nwankwo & Barimalaa, 2015). An example of this partnership then applies to provision and improvement of infrastructure especially in housing where huge investments and extensive technical knowledge are required including land administration and management and urban planning. Resource sharing is also a stated principle of collaborative governance. Government and private investors can achieve enhanced results when they efficiently pool their financial resources, technical knowledge, and institutional capacity to undertake development activities. While governments hold land and regulatory authority, they seldom possess the financial resources needed to implement large – scale housing initiatives. Likewise, private associations are not capable of realizing projects in isolation due to lack of institutional resources and financial backing and perhaps government agencies lack technical knowledge and time (Central Bank of Nigeria, 2025). Participation by stakeholders and group decision making are also highlighted by the theory. The theory indicates that development projects are more sustainable if all stakeholders are involved in planning, implementation, monitoring and control of a project. The involvement of stakeholders is said to improve accountability and minimize conflicts as all sides are included in the development venture (Beynon, 2011). In case of housing infrastructure, the participation of government agencies, private developers, capital providers and landless communities will likely improve project implementation and sustainability of the envisaged infrastructure.

The theory of Collaborative Governance is relevant to this research because the public private partnership housing projects in Rivers State are implemented through collaboration of government agencies and private developers. The Rivers State government state government provides the enabling policies, regulatory oversight and institutional support. The private developers, on the other hand, provide the financial input, technical skills, construction inputs and project management capability (Rivers State Bureau of Public Private Partnerships, n.d.). An example of, Implementation of Collaborative Governance Theory; Can be used the Existing 'TAF Africa' housing project; along Airport Road, Port Harcourt. The TAF Africa housing project is an initiative of the collaborative effort by the participant agencies of the Rivers State Government and the private sector to deliver erstaz housing infrastructure on a large scale in the Port Harcourt metropolis, thereby privatize the delivery of modern houses, associated road network and drainage facilities, electrical infrastructure and estate management facilities. The Housing project is a clear indication of how the cooperation among the public and private stakeholders can fast track housing delivery and infrastructural development (Okpara, 2025).The theory can as well be used to interpret the findings of this study. Findings of this study as indicated above, showed that housing units delivery in Rivers State, has been enhanced through the use of Public Private Partnership initiatives, a fact which proves the theory's contention that, Partnership between government and private investors enhances infrastructural capacity and hastens project implementation (Federal University of Port Harcourt, 20025). The findings on this study however, indicated that others benefits derivable from the use of Public Private Partnership in Rivers State, includes sustainable housing infrastructure development through quality housing construction and organized estate planning as highlighted above in the findings which confirms the statement that, Public Private Partnership optimizes the use of private sector efficiency, technical skills, financial capacity, project management skills, in public projects (Akpomuvie & Jubilee, 2025). Other factors contributing to the obstacles facing PPP housing projects in Rivers State The theory also shed light on some of the barriers faced by PPP housing projects in Rivers State. The research revealed that the led to cause delays experienced by such projects, policy unpredictability, Land acquisition problems and funding gaps. Collaborative Governance Theory revealed that these types of barriers are a product of diminished stakeholder collaboration as a result of weak or lack of effective collaboration (Bassey, n.d.). Thus the theory underscores the significance of communication, transparency, accountability and institutional coordination to enhance effective collaboration. Collaboration Governance Theory is relevant to the present study because it offers an insight to how government agencies and private organizations governing the development of a housing infrastructural in Rivers State. The theory provides an appropriate framework to the issues of joint planning, sharing of responsibilities and the mobilisation of resources in the development of a housing provision, housing demand and housing sustainability and infrastructural development in Rivers State (Ogbuabor and Orji, 2023). The theory is relevant because the current realities in Rivers State are showing that government may no longer efficiently source for enough housing infrastructure to accommodate the increasing population in the state. The arrangements of PPP is giving rise of private developers projects to hold majority of the residential estate development and urbanisation in Port Harcourt City and its environs (Eke, 2023). Examples of such project is the TAF Africa house estate scheme along Airport Road, Port Harcourt which signifies the importance of collaboration investment in housing (Wali and Okereke, 2023). The theory of Collaborative Governance Theory is appropriate for this study, because it explicitly shows the correlation that exists between government institutions and private developers in the delivery of housing infrastructure projects. The theory also shows that sustainable housing development is more feasible when both sectors pool their resources, share their responsibilities, and attach their interests toward a certain standard development goal. It thus forms a solid concept for analysing how Public Private Partnership (PPP) projects contribute to housing infrastructure development in Rivers State.

Public-Private Partnership (PPP) Initiatives

Public-Private Partnership (PPPs) is the joint effort by government agencies and private sector actors in scheme development, financing and realization of projects whose primary ownership lies with government. The notion behind PPP is that neither the government nor the private sector can fully provide the entire demand for infrastructure and basic services that society requires on its own. Both could then share the cost, risks and responsibilities to deliver them more efficiently and efficiently (Eze, n.d.; Obasa & Oluyomi, 2024). PPP projects are gaining grounds in Nigeria because the government alone cannot sustain the massive infrastructural deficits faced in the transportation, power, health and education sectors (Okereke, 2019; Akpomuvie & Jubilee, 2025). The structure of PPPs mostly involves most functions financing, construction, operation, and maintenance being provided by private companies, while the most important functions regulation, policymaking, and funding are managed by government. For example, in Rivers State, private firms have worked with government on rehabilitating roads, building classroom blocks, and providing electricity to some communities, all with reduced cost to the state and (achieving project), terms and completing projects on time (Wali & Okereke, 2023; Okpara, 2025). This allows risk to be shared, with risk passed to the private side for construction or operational use while the government makes sure the project is safe and beneficial to the general public. There are various models of PPPs based on the extent to which the private sector is involved and where risks are shared. Some types of models include Build-Operate-Transfer (BOT), Design-Build-Finance-Operate (DBFO), Concessions and so on. Each has its specific arrangement to meet the terms of agreement. For example, with regard to the Railway Concession, which is supported under PPP, the private firms are empowered to run the train stations, ensure maintenance of the railway system and design their revenue scheme as a profit (World Bank, 2022). In the same way, the private firms in the education sector is responsible for providing classroom materials, running the school facilities and providing the training in the areas specific to their skills while the government maintains the smooth operation of the education sector by ensuring access and compliance to the system (Okwelle & Wordu, 2014; Wali & Okereke, 2023). Efficient mobilization of resources is another advantage derived from PPPs. The Nigerian government has limited funds; public bureaucracies are often slow to deliver projects and services. The private partner adds essential capital, minimizes delays and improves quality based on the technical expertise of the private sector (Central Bank of Nigeria, 2025). For instance, although, is in Rivers State, only some of the secondary schools projects were successfully constructed through the use of the PPPs concept where the private contractors employ set of the modern classroom fitting, laboratories, teaching aids, operating within the contract timelines (Wali & Okereke, 2023). Such illustration reflects the essence of efficiency, service delivery as enshrined in the Development Theory. Another benefit related to PPP projects is the transfer of innovation and technical expertise from the private to the public sector. Private organizations may introduce the latest construction practices, use of new technology and project delivery methods that may not normally be known by or available to public agencies (Okpara, 2025; Nweke et al., 2026). For instance, the diagnostic services at healthcare facilities has been enhanced through PPPs in Nigeria where private health companies supplied equipment, gave staff training and established monitoring systems (Nweke et al., 2026). But even though it is proven that PPPs can bring many benefits for Nigeria, they can be quite a challenge. Weak infrastructure regulation, commercial and political interference, as well as the non-involvement of critical stakeholders often cause projects to be in progress for years (Obasa & Oluyomi, 2024; Smith, 2022). For example, under the protection of a new government in Rivers State, contracts for several road rehabilitation projects were not honored causing them to suffer delays, or disagreements over project terms, which ultimately caused financial problems or the lack of party sharing of project risks (Rivers State Bureau of Public-Private Partnerships, n.d.; Ojo, n.d.). Further problem is financing, because due to longer maturity and higher interest a costs may increase, and discourage private investments in projects requiring much capitalization in the beginning (NESG & AfDB, 2025; Central Bank of Nigeria, 2025). Instances of successful PPP projects in Nigeria are the Egini Medical Infrastructure Scheme, which enhanced delivery of health care services in Akwa Ibom State through a well organized collaborative effort between the state government and private individuals (Egini Medical Infrastructure Scheme, 2025). Another example is the rehabilitation of roads within urban and semi-urban settlements within Rivers State, which has proved that PPPs can translate into relatively speedy, effective development of social infrastructure and improvement in the overall welfare of the public (Okpara, 2025). This is evidential that properly structured and monitored PPP projects could be viable and efficient platforms for provision of infrastructural services, sustainable development and economic growth.

Its significance to infrastructural development in Rivers State cannot be overemphasized. Rivers State faces numerous infrastructural challenges especially inadequate power supply, bad roads and inadequate social amenities which hinder economic activities and deprive the well-being of its citizens (Eke, 2023; Obasa & Oluyomi, 2024). Through private sector participation, the state would accelerate infrastructural development, provide basic services and have better maintenance of infrastructural projects. For such power infrastructural projects, private partner/s would provide electricity to houses, schools, markets and other businesses as the government would not be able to do efficiently (Okpara, 2025; Nweke et al., 2026).

Infrastructure

Infrastructure can be defined as the basic physical and organizational structures, facilities and systems needed for the operation of a society and its economy (Nwankwo, 2023; Adimazoya, 2025). Cost of public utilities, transport facilities, power facilities, educational facilities, health facilities, water facilities and communication facilities constitute over 80 percent of the capital formation in any nation (Nwankwo, 2023). Infrastructure represents the backbone of economic life and social amenities by reducing the cost of business, government and individual households, providing the vital link between markets, labor and capital, the root over which penetration and interconnection of the economy takes place, with out it; society will be crippled in mobility, services provision, trade and even in its access to basic amenities (Omodero, 2019). Infrastructure is a broadterm that refers not only to the physical structure surrounding us but also to elements that form part of the intangible that is needed to have a reason environment. Physical infrastructure includes roads, bridges, ports, airports, railways, power stations, water supplies and communications networks (World Bank, 2017; Nwankwo, 2023). An example of this in Rivers State would include roads and bridges that support the movement of goods from oil producing areas to business locations, guaranteeing effective trading activities. Port operation such as the Onne Port will help link up to the global trade markets. The intangible infrastructure, on the other hand, involves institutional devices that controls the operation of the physical infrastructure. Such intangible factors include: institutions, regulations and requirements of operation, maintenance system, operational requirements, management institute to which services are provided (Ekanem 2020). In Nigeria for instance, maintenance system is weak, and operational plan inadequate, leading to poor maintenance of infrastructure, with urban roads falling into disrepair in a few years after construction. This provides evidence that infrastructural development does not necessarily mean creation of physical structures, but rather creation of facilities, that continue to be functional. The infrastructure can be classified into two categories - economic infrastructure and social infrastructure. Economic infrastructure consists of those types of infrastructure that directly contributes to economic production and trade and associated with provision of means of transport, electricity, water and sanitation, ICT networks etc. (Okpara, 2025), (Adimazoya, 2025). The effectiveness of economic infrastructure depends on the quality, reliability, cost and capacity of the interconnecting networks and facilities (ADB, 2008). For instance, availability and provision of consistent power supply by water sides in federal Industrial Areas of Rivers State affords the operation of industrial activities especially factories in cheap cost and creates boost for investment (Singh & Kalunda, 2017). Again, improvement of trunk roads network had eased transportation costs, shorter journey time and broad access to market for farmers/traders, illustrating the significance of economic infrastructure in facilitating business. However social infrastructure concentrates on improving the social well being and standard of living of the people. Examples of social infrastructure are schools, hospital, entertainment centers and community centers (Okwelle & Wordu, 2014; Wali & Okereke, 2023). In Rivers State, the government private sector collaboration has resulted in building of modern classrooms, provision of learning materials and health centers to underserved communities. Investment in social infrastructure is not only towards growth but improvement in human capital, individuals' and community health. In both urban and rural settings, infrastructures are critical. Urban areas have a big population density, therefore require an extensive infrastructure for commercial and industrial activities. Rural areas, on the other hand, need a substantial infrastructure that connects dispersed settlements, offers core services, and addresses inequalities (Nweke, Chisa & Okosun, 2026). The development of rural electricity grids coupled with road projects in all cases the Rivers State enabled the residents of out of reach villages access to education and health facilities and their products to outlet markets. This confirms that infrastructure is a bridge between urban and rural development.

Development

Development is a comprehensive term that pertains to the process of steady improvement in terms of economic, social and physical status of a community. It encompasses economic, infrastructural, human capital development and social progress intended to increase the living standards of the citizens (Eke, 2023; Obasa and Oluyomi, 2024). When referring to Nigeria, development is often associated with the economic transformation and industrialization, while emphasis has been laid on the provision of social services like education, health, energy and transportation etc. However, the country has been unable to attain a balanced development for several decades because of limited resources, poor governance and infrastructural bottleneck (Nwankwo, 2023; Okpara, 2025). Development is not just enhancing income or building new infrastructure but also strengthening the institutional capacity of the economy, human capital, wellbeing and ensuring equitable access to opportunities. If a country has a high GDP growth while the residents have no access to clean water, sustainable and reliable electricity provision and good quality education, it means the country has much more to do before they are considered developed (Adimazoya, 2025). Given the multidimensional perspective of development illustrated above, the chronic developmental gaps in Nigeria necessitate the adoption of a collective effort such as a PPP to achieving sustainable development. With the limited capacity of public actors in delivering their developmental mandate the partnership with private actors in a PPP allows for the pooling of scarce resources as well as the maximized participation of actors and enhanced delivery in order to foster sustainable development (Ekanem, 2020; Okereke, 2019). Most clearly, the development process in Nigeria has been uneven. Cities like Port Harcourt having been developed with new roads, schools, hospitals through PPP, while smaller towns continue to be deprived of such facilities (Federal University of Port Harcourt, 2025; Tinubu Administration, 2025). The uneven development therefore demands development that is sustainable, inclusive and able to tackle both economic and social issues. Development depends on good governance, policy implementation and proper utilization of resources. However, corruption in Nigeria by its leadership has hindered most developmental projects from impacting on the life of the people (Wali & Okereke, 2023:1; Omodero, 2019:1). Practically speaking, development is reflected in the level of urbanization, modern infrastructure, educational and healthcare facilities, and energy supply. In many cases, this national development manifests through increased access to electricity, for example, whether it is provisioned through private-public partnerships (PPPs) or direct government investment (Eke, 2023). Such as the partnerships in Rivers State, which has increased the ability of local businesses to function more optimally, and allowed students the ability to study when they previously could not by providing electricity (Okpara, 2025). Moreover, infrastructure developments such as expanding healthcare access are also regarded as a means to reduce poverty by lowering the transportation-related costs of obtaining healthcare (United Nations Economic Commission, 2012).

Method

The method adopted by the study is the survey research design to examine public-private partnership (PPP) projects and infrastructural development in Rivers State. The design enabled the researcher to obtain primary information from respondents who were involved in or knowledgeable about PPP projects and infrastructure provision. The study was conducted in Rivers State, a strategically important state in Nigeria's South-South geopolitical zone, whose diverse economic activities, population growth, urbanisation, and industrial development had increased the demand for infrastructure. The study population was estimated at 7,234,973 people based on the 2022 projected population of Rivers State. A sample size of 400 respondents was determined using the Taro Yamane formula. The study employed simple random sampling to provide eligible respondents with equal opportunities for selection. Primary data were obtained through a structured questionnaire designed in line with the study objectives. The instrument examined the PPP process, its contribution to infrastructure development, challenges affecting PPP projects, and measures adopted by government and private-sector partners. Data collection was carried out by the researcher with the assistance of two research assistants. The questionnaires were administered and retrieved after completion to minimise incomplete responses and loss of data. The validity of the instrument was established through content and face validity, with the questionnaire reviewed by the project supervisor, experienced lecturers, and individuals involved in the pre-test. Reliability was assessed using the test-retest method involving 30 respondents who were excluded from the main study. The responses from two administrations conducted two weeks apart were compared to determine consistency, with a reliability coefficient of 0.70 or above considered acceptable. Finally, the collected data were analysed using descriptive statistical techniques. Responses were coded, grouped, summarised, and presented in frequency tables. A four-point Likert scale comprising Strongly Agree, Agree, Disagree, and Strongly Disagree was employed to measure respondents' perceptions regarding PPP projects and infrastructural development in Rivers State.

Data *i*Presentation: *i*Demographic *i*Information *i*of *i*Respondents

Table 1: Distribution *i*of *i*Respondents *i*by *i*Gender

Gender	Frequency	Percentage *i*(%)
Male	224	57.4
Female	166	42.6
Total	390	100.0

Source: iField iSurvey, i2025

Table *i*1 *i*shows *i*the *i*gender *i*distribution *i*of *i*the *i*respondents. *i*Out *i*of *i*390 *i*respondents, *i*224 *i*(57.4%) *i*were *i*male *i*while *i*166 *i*(42.6%) *i*were *i*female. *i*This *i*indicates *i*that *i*male *i*respondents *i*were *i*slightly *i*more *i*represented *i*in *i*the *i*study. *i*The *i*distribution *i*nonetheless *i*reflects *i*a *i*reasonable *i*balance *i*between *i*the *i*two *i*genders *i*and *i*suggests *i*that *i*perspectives *i*from *i*both *i*male *i*and *i*female *i*residents *i*were *i*captured *i*in *i*the *i*data.

***I*Data *i*Analysis**

This isection ipresents ithe ianalysis iof idata icollected ifrom irespondents iin irelation ito itheiresearch iobjectives iof ithe istudy. iResponses iare imeasured ion ia ifour-point iLikert iscale icomprising iStrongly iAgree i(SA=4), iAgree i(A=3), iDisagree i(D=2), iand iStrongly iDisagree i(SD=1). iFrequency icounts, ipercentages, imeans, iand istandard ideviations iwere iused ito isummarise ithe idistribution iof iresponses ifor ieach iitem. iA imean iscore iof i2.50 iand iabove iis iinterpreted ias iagreement, iwhile ia iscore ibelow i2.50 iindicates idisagreement. iChi-square itests iare iemployed ito itest ieach iof ithe ifour inull ihypotheses iat ia i0.05 ilevel iof isignificance.

Relationship iBetween iPPP iInitiatives iand ithe iQuantity iof iHousing iUnits iDelivered iin iRivers iState

Table 2: iResponses ion iPPP iInitiatives iand iQuantity iof iHousing iUnits iDelivered

S/N	Statement	SA	A	D	SD	Mean	Std iDev	Total
1	PPP iinitiatives ihave iincreased ithe inumber iof ihousing iunits idelivered iin iRivers iState.	142 i(36.4%)	148 i(37.9%)	62 i(15.9%)	38 i(9.7%)	3.01	0.96	390 i(100%)
2	PPP ihousing iprojects icontribute isignificantly ito ireducing ithe ihousing ideficit iin iRivers iState.	128 i(32.8%)	154 i(39.5%)	68 i(17.4%)	40 i(10.3%)	2.95	0.95	390 i(100%)
3	The iinvolvement iof iprivate isector ipartners ihas iaccelerated ihousing iconstruction iin iRivers iState.	136 i(34.9%)	158 i(40.5%)	58 i(14.9%)	38 i(9.7%)	3.01	0.94	390 i(100%)

Source: iField iSurvey, i2025

The iinformation iin iTable 2 ireveal ia ipredominantly ipositive idisposition iamong irespondents iregarding ithe irelationship ibetween iPPP iinitiatives iand ithe iquantity iof ihousing iunits idelivered iin iRivers iState. iFor iitem i1, iwhich iassessed iwhether iPPP iinitiatives ihad iincreased ithe inumber iof ihousing iunits idelivered iin iRivers iState, i142 irespondents i(36.4%) istrongly iagreed iand i148 i(37.9%) iagreed, igiving ia icombined iagreement irate iof i74.4 iper icent. iOnly i62 irespondents i(15.9%) idisagreed iand i38 i(9.7%) istrongly idisagreed, itotalling i25.6 iper icent. iThe imean iscore iof i3.01 iwith ia istandard ideviation iof i0.96 iconfirms ia istrong ipositive iresponse ithat iis iclosely iclustered iaround ithe iagree-to-strongly-agree irange. iThis ipattern isuggests ithat ia isubstantial imajority iof irespondents ibelieve ithat iPPP iarrangements ihave ihad ia ipositive iand imeasurable ieffect ion ihousing isupply iin ithe istate.

Item i2, iwhich iexamined iwhether iPPP ihousing iprojects icontribute isignificantly ito ireducing ithe ihousing ideficit, ireturned isimilar iresults. iA icombined i128 i(32.8%) iand i154 i(39.5%) irespondents istrongly iagreed iand iagreed irespectively, iproducing ia itotal iagreement iof i72.3 iper icent. iThose iwho iexpressed idisagreement iamounted ito i68 i(17.4%) iand ithose iwho istrongly idisagreed iwere i40 i(10.3%), itogether irepresenting i27.7 iper icent. iThe imean iscore iof i2.95 iand istandard ideviation iof i0.95 iare iconsistent iwith iitem i1, iindicating istable iagreement iacross irespondents ithat iPPP iarrangements iare imaking ia imeaningful icontribution itoward iaddressing ithe ihousing ishortfall iin iRivers iState. On iitem i3, iwhich ifocused ion iwhether iprivate isector iinvolvement ihad iaccelerated ihousing iconstruction, i136 irespondents i(34.9%) istrongly iagreed iand i158 i(40.5%) iagreed, iamounting ito ia icombined iagreement iof i75.4 iper icent. iDisagreement icame ifrom i58 irespondents i(14.9%) iand istrong idisagreement ifrom i38 i(9.7%), itotalling i24.6 iper icent. iThe imean iscore iof i3.01 iand istandard ideviation iof i0.94, ithe itightest ispread iacross ithis iobjective, iindicate ithat irespondents iwere iparticularly iconsistent iin iaffirming ithe iaccelerating irole iof iprivate isector iinvolvement iin ihousing iconstruction. iTaken itogether, ithe imeans ifor iall ithree iitems iexceed ithe ithreshold iof i2.50, iconfirming ithat ithe ioverall iperception iof irespondents iis ithat iPPP iinitiatives ihave ipositively iinfluenced ihousing iunit idelivery iin iRivers iState.

Hypotheses i(1) iTesting: iH_{01}

H_{01}: I There iis ino irelationship ibetween iPublic-Private iPartnership iinitiatives iand ithe I quantity iof ihousing iunits idelivered iin iRivers iState.

Table 3: iChi-Square iComputation ifor iHypothesis iOne

Response	Observed i(O)	Expected i(E)	(O-E)	$(O-E)^2$	$(O-E)^2/E$
SA	406	292.5	113.5	12882.25	44.05
A	460	292.5	167.5	28056.25	95.92
D	188	292.5	-104.5	10920.25	37.33
SD	116	292.5	-176.5	31152.25	106.50
Total	1170	1170	-	-	283.80

Source: iField iSurvey, i2025

The ichi-square ivalue iwas icomputed ias ifollows: iX^2 i= i44.05 i+ i95.92 i+ i37.33 i+ i106.50 i= i283.80. iThe idegrees iof ifreedom i(df) i= i(r i- i1)(c i- i1) i= i(4 i- i1)(3 i- i1) i= i6. iAt ia isignificance ilevel iof i0.05 iand idf i= i6, ithe icritical ichi-square ivalue ifrom ithe istandard ichi-square idistribution itable iis i12.592. iSince ithe icalculated ichi-square ivalue iof i283.80 iis igreater ithan ithe icritical ivalue iof i12.592, ithe inull ihypothesis i(H_{01}) iis irejected. iThis imeans ithere iis ia isignificant irelationship ibetween iPublic-Private iPartnership iinitiatives iand ithe iquantity iof ihousing iunits idelivered iin iRivers iState.

Impact iof iPPP ion iHousing iAffordability iin iRivers iState

Table 4: iResponses ion iPPP iand iHousing iAffordability

S/N	Statement	SA	A	D	SD	Mean	Std iDev	Total
5	PPP ihousing iprojects ihave imade ihouses imore iaffordable ifor ilow- iand imiddle-income iearners iin iRivers iState.	118 i(30.3%)	140 i(35.9%)	88 i(22.6%)	44 i(11.3%)	2.85	0.98	390 i(100%)
6	Housing iunits ideveloped ithrough iPPP iarrangements iare ipriced ilower ithan isimilar iprivately ideveloped ihouses.	104 i(26.7%)	136 i(34.9%)	96 i(24.6%)	54 i(13.8%)	2.74	1.00	390 i(100%)

S/N	Statement	SA	A	D	SD	Mean	Std iDev	Total
7	PPP ihousing ischemes iprovide iflexible ipayment ioptions ithat iimprove iaccess ito ihousing.	130 i(33.3%)	152 i(39.0%)	70 i(17.9%)	38 i(9.7%)	2.96	0.95	390 i(100%)
8	PPP iinitiatives ihave iincreased ihome iownership iopportunities iamong iresidents iof iRivers iState.	122 i(31.3%)	148 i(37.9%)	78 i(20.0%)	42 i(10.8%)	2.90	0.97	390 i(100%)

Source: iField iSurvey, i2025

Table 4 ipresents ithe iresponses iof ithe i390 irespondents ion ithe ieffect iof iPPP ion ihousing iaffordability iin iRivers iState. iFor iitem i5, iwhich iassessed iwhether iPPP ihousing iprojects ihave imade ihouses imore iaffordable ifor ilow- iand imiddle-income iearners, i118 irespondents i(30.3%) istrongly iagreed iand i140 i(35.9%) iagreed, iyielding ia icombined iagreement iof i66.2 iper icent. iThose iwho idisagreed itotalled i88 i(22.6%) iand ithose iwho istrongly idisagreed inumbered i44 i(11.3%), igiving ia icombined idisagreement iof i33.8 iper icent. iThe imean iscore iof i2.85 iwith ia istandard ideviation iof i0.98 iconfirms ioverall iagreement, ithough ithe irelatively iwider ispread ireflects igenuine idivision iamong irespondents iabout iwhether iPPP iprojects iare igenuinely iaccessible ito ilow iand imiddle-income ihouseholds. Item i6, iwhich iexamined iwhether iPPP ihousing iunits iare ipriced ilower ithan icomparable iprivately ideveloped iunits, irecorded ithe ilowest imean iscore iin ithe ientire istudy iat i2.74, iwith ia istandard ideviation iof i1.00. iThis ihighest istandard ideviation iacross iall iitems isignals ithe iwidest idispersion iof iopinions, iindicating ithat ithis iparticular iclaim iis ithe imost icontested iamong irespondents. iOnly i104 irespondents i(26.7%) istrongly iagreed iand i136 i(34.9%) iagreed, igiving i61.5 iper icent iin iagreement, iwhile ia isubstantial i96 i(24.6%) idisagreed iand i54 i(13.8%) istrongly idisagreed, iaccounting ifor i38.5 iper icent. iAlthough ithe imean istill iexceeds ithe i2.50 ithreshold, ithe ihigh istandard ideviation iand ilower imean itogether iindicate ithat ithe iperceived iprice iadvantage iof iPPP ihousing iover iprivate ihousing iis ifar ifrom iuniversally iaccepted.

Item i7, iaddressing iwhether iPPP ihousing ischemes iprovide iflexible ipayment ioptions, ireturned ia istronger ilevel iof iagreement iwith ia imean iof i2.96 iand istandard ideviation iof i0.95. iCombined iagreement istood iat i72.3 iper icent i(130 istrongly iagreed iand i152 iagreed), iwhile ionly i70 i(17.9%) idisagreed iand i38 i(9.7%) istrongly idisagreed. iThe irelatively itighter istandard ideviation ihere isuggests ithat irespondents iare imore iconsistent iin iacknowledging ipayment iflexibility ias ia ipositive iand iwidely iexperienced ifeature iof iPPP ihousing ischemes. iItem i8, iwhich iassessed iwhether iPPP iinitiatives ihave iincreased ihome iownership iopportunities, ireturned ia imean iof i2.90 iand istandard ideviation iof i0.97, iwith ia icombined iagreement iof i69.2 iper icent. iAll ifour iitems iin ithis iobjective ireturned imean iscores iabove i2.50, iconfirming ithat ithe ioverall ieffect iof iPPP ion ihousing iaffordability iis iperceived ipositively, ieven iif iwith ivarying idegrees iof ienthusiasm.

Hypotheses i(2) iTesting: iH_{02}

H_{02}: I Public-Private iPartnerships ihave ino impact ion ihousing iaffordability I in iRivers iState.

Table 5: iChi-Square iComputation ifor iHypothesis iTwo

Response	Observed i(O)	Expected i(E)	(O-E)	$(O-E)^2$	$(O-E)^2/E$
SA	474	390	84	7056	18.09
A	576	390	186	34596	88.71
D	332	390	-58	3364	8.63
SD	178	390	-212	44944	115.24
Total	1560	1560	-	-	230.67

Source: iField iSurvey, i2025

The ichi-square ivalue ifor ihypothesis itwo iis icomputed ias: iX^2 i= i18.09 i+ i88.71 i+ i8.63 i+ i115.24 i= i230.67. iThe idegrees iof ifreedom i= i(4 i- i1) i(4 i- i1) i= i9. iAt ia i0.05 isignificance ilevel iand idf i= i9, ithe icritical ichi-square ivalue iis i16.919. iSince ithe icomputed ichi-square ivalue iof i230.67 iis igreater ithan ithe icritical ivalue iof i16.919, ithe inull ihypothesis i(H_{02}) iis irejected. iThis imeans ithat iPublic-Private iPartnerships ihave ia isignificant ieffect ion ihousing iaffordability iin iRivers iState.

Discussion

iPPP iInitiatives iand ithe iQuantity iof iHousing iUnits iDelivered iThe ifindings ifrom ithe ifirst iobjective iclearly ishow ithat irespondents iin iRivers iState istrongly ibelieve ithat iPublic–Private iPartnership i(PPP) iinitiatives ihave isignificantly iincreased ithe iquantity iof ihousing iunits idelivered iacross ithe istate. iThe imean iscores iof i3.01, i2.95, iand i3.01 irespectively ifor ithe ithree iitems iunder ithis iobjective, iall iabove ithe ibenchmark iof i2.50, idemonstrate ia istrong ilevel iof iagreement iamong irespondents. iIn iaddition, ithe istandard ideviations iranging ifrom i0.94 ito i0.96 iindicate iconsistency iin irespondents' iopinions, ishowing ithat iperceptions iabout ithe iimpact iof iPPPs ion ihousing idelivery iare ilargely ishared iacross idifferent icategories iof irespondents. These ifindings ireflect ithe icurrent irealities iwithin iRivers iState iwhere irapid iurbanisation, ipopulation igrowth, iand iincreased imigration iinto iPort iHarcourt iand isurrounding icommunities ihave iintensified ipressure ion iexisting ihousing iinfrastructure. iOver ithe iyears, ithe istate igovernment ihas iincreasingly irelied ion iPPP iarrangements ito iaddress ithe iwidening ihousing ideficit, iespecially iin iurban icentres iwhere igovernment iresources ialone ihave iproven iinsufficient ito imeet igrowing ihousing idemand. iThe iongoing iTAF iAfrica iGlobal ihousing iproject ialong iAirport iRoad iin iPort iHarcourt iprovides ia ipractical iexample iof ihow iPPP-driven ihousing iinitiatives iare icontributing idirectly ito ihousing iexpansion iin iRivers iState. iThe iproject ihas ivisibly itransformed isections iof ithe iAirport iRoad icorridor ithrough ithe iconstruction iof ilarge-scale iresidential iestates iand isupporting iinfrastructure, ithereby iincreasing ithe ioverall istock iof imodern ihousing iunits iwithin ithe istate. The ipositive iperception irecorded iin ithis istudy ialigns iwith ithe iposition iof iEgugbo iand iOmitogun i(2018), iwho iargued ithat iPPP iframeworks ipossess ithe iinstitutional iand ifinancial icapacity ito ibridge iinfrastructure igaps ithat igovernment ialone icannot iadequately iaddress. iIn ithe icase iof iRivers iState, iPPP iinitiatives ihave ienabled ithe imobilisation iof iprivate icapital, itechnical iexpertise, iand iconstruction iefficiency ineeded ifor ilarge ihousing idevelopments ithat iwould iordinarily iplace ienormous ipressure ion ipublic ifinances. iThe icontribution iof iprivate idevelopers ithrough ithese ipartnerships ihas iaccelerated ithe ipace iof ihousing iconstruction iand iexpanded ithe iscale iof iresidential iprojects iacross istrategic iurban ilocations. i i I Similarly, ithe ifindings icorroborate ithe iwork iof iItu iand iKenigua i(2021), iwho imaintained ithat iprivate isector iparticipation iunder iPPP iframeworks isignificantly ienhances iinfrastructural idelivery iin iNigeria. iTheir iargument iis ievident iin iRivers iState iwhere iPPP ihousing iprojects icontinue ito ireshape iresidential idevelopment ipatterns, iespecially iaround iemerging iurban icorridors isuch ias iAirport iRoad, iWoji, iEliozu, iand iparts iof iObio-Akpor. iThrough iPPP iarrangements, iprivate idevelopers iare iable ito icomplement igovernment iefforts iby iproviding inot ionly iresidential istructures ibut ialso iroads, idrainage isystems, ielectricity iinfrastructure, iand iestate imanagement isystems ithat iimprove ithe ioverall iquality iof iurban iliving. I The ifindings ialso ireflect ithe igradual iimprovement iin iNigeria's iPPP ienvironment iover ithe iyears. iNafisatu i(2021) iexplained ithat iearlier iPPP iinitiatives iin iNigeria ifaced isevere isetbacks idue ito iweak ilegal iframeworks, ipolicy iinconsistencies, iand iinstitutional iinefficiencies. iHowever, ireforms iintroduced iover itime ihave istrengthened ithe ioperational ienvironment ifor iPPP iimplementation. iIn iRivers iState, ithis iimproved iframework ihas iencouraged istronger icollaboration ibetween igovernment iagencies iand iprivate iinvestors iin ithe ihousing isector. iThe igrowing ivisibility iof imodern iresidential iestates ideveloped ithrough iPPP iarrangements idemonstrates ithat ithe imodel ihas imoved ibeyond ipolicy idiscussions iinto ipractical iimplementation iwith imeasurable ioutcomes. i

Adeyinka iand iOlugbamila i(2015) iequally iargued ithat iPPP iarrangements igenerally iproduce ibetter iinfrastructure ioutcomes ithan ipurely ipublic-sector idelivery isystems, iespecially iwhere icontractual iresponsibilities iare iclearly idefined iand iregulatory isupervision iis ieffective. iThis iposition iis istrongly isupported iby ithe ifindings iof ithe ipresent istudy. iRespondents iacknowledged ithat iPPP iinitiatives ihave icontributed ito ifaster iproject iexecution iand iincreased ihousing iavailability iwithin ithe istate. iUnlike imany igovernment-led ihousing ischemes ithat ioften isuffer iprolonged idelays idue ito ifunding ilimitations iand ibureaucratic ibottlenecks, iPPP ihousing iprojects iin iRivers iState ihave idemonstrated icomparatively ibetter iconstruction ispeed iand iproject icontinuity. I Beyond iincreasing ihousing iquantity, iPPP iinitiatives ihave ialso icontributed ito iphysical iurban iexpansion iand iinfrastructural idevelopment iwithin iRivers iState. iAreas ipreviously icharacterised iby iunderdevelopment ihave iwitnessed irapid itransformation ias ia iresult iof iestate idevelopments iundertaken ithrough iPPP iarrangements. iThe iAirport iRoad iaxis iserves ias ia imajor iexample iwhere ilarge-scale iresidential iprojects iare istimulating icommercial iactivities, iimproving iland ivalues, iand iattracting ifurther iinvestments iinto isurrounding icommunities. iThis idemonstrates ithat iPPP ihousing iprojects iare inot ionly iincreasing ihousing isupply ibut iare ialso ireshaping iurban igrowth ipatterns iwithin ithe istate. Nevertheless, isome irespondents iexpressed ireservations iregarding ithe ioverall ireach iand iinclusiveness iof iPPP ihousing idelivery. iThis iexplains ithe islightly ilower imean iscore iof i2.95 irecorded ifor ione iof ithe iitems iunder ithis iobjective. iWhile iPPP iinitiatives ihave iundeniably iincreased ihousing istock, iconcerns iremain iregarding ithe iextent ito iwhich ithese iprojects iadequately iserve ilow-income ihouseholds. iMany iPPP iestates iin iRivers iState iare iconcentrated iwithin imiddle iand iupper-income iresidential imarkets idue ito ithe iprofit iexpectations iof iprivate iinvestors. iConsequently, ia isignificant isegment iof ilow-income iresidents istill istruggle ito iaccess idecent iand iaffordable ihousing idespite ithe ivisible iexpansion iin ihousing iinfrastructure. iThis iconcern isupports ithe iargument iof iNwangwu i(2021), iwho icautioned iagainst ipresenting iPPPs ias ia icomplete isolution ito iNigeria's iinfrastructure ichallenges iwithout iacknowledging iissues irelating ito iaffordability iand isocial iinclusion. iIn iRivers iState, iwhile iprojects isuch ias ithe iTAF iAfrica idevelopment ialong iAirport iRoad idemonstrate iclear isuccess iin iphysical ihousing iexpansion, iaccess ito imany iof ithese ihousing iunits iremains ifinancially idifficult ifor iaverage icivil iservants, iartisans, itraders, iand iother ilow-income iearners. iThus, ithe isuccess iof iPPPs iin iincreasing ihousing iquantity idoes inot iautomatically itranslate iinto iuniversal iaccessibility.

Akpoghome iand iNwano i(2019) ifurther iidentified iinstitutional iand ilegal ibottlenecks ias irecurring iobstacles iaffecting iPPP iimplementation iin iNigeria. iDelays iin iapprovals, iland idisputes, iand iinconsistencies iin iregulatory iprocedures icontinue ito iaffect isome ihousing iprojects iwithin iRivers iState. iThese ichallenges ioccasionally islow iproject icompletion itimelines iand iincrease iconstruction icosts. iHowever, idespite ithese idifficulties, ithe ioverall ievidence ifrom ithe istudy iconfirms ithat iPPP iinitiatives ihave imade isubstantial icontributions ito ihousing idelivery iwithin ithe istate. iThe ichi-square ivalue iof i283.80 istrongly iestablishes ia istatistically isignificant irelationship ibetween iPPP iinitiatives iand ithe iquantity iof ihousing iunits idelivered iin iRivers iState. The ifindings iare ifurther isupported iby ithe iwork iof iUtieyintsola, iOkereka, iand iMukoro i(2026), iwho ifound ithat iRivers iState ihas irecorded iconsiderable iprogress iin iPPP-driven iinfrastructural idevelopment iwhen icompared iwith iseveral istates iin ithe iNiger iDelta iregion. iTheir iconclusion iis ivisible iin ithe igrowing inumber iof iresidential iestates, imixed-use idevelopments, iand iurban irenewal iprojects icurrently iongoing iwithin ithe istate iunder iPPP iframeworks. The ifindings iunder ithis iobjective ifirmly iestablish ithat iPublic–Private iPartnership iinitiatives ihave isignificantly iincreased ihousing idelivery iin iRivers iState. iThe iconsistently ihigh imean iscores iand irelatively ilow istandard ideviations iconfirm ithat irespondents istrongly irecognise ithe irole iof iPPPs iin iexpanding ihousing iinfrastructure. iAlthough iconcerns iregarding iaffordability iand iinclusiveness iremain iimportant, ithe ievidence iclearly idemonstrates ithat iPPP iinitiatives ihave ibecome ia imajor idriver iof ihousing idevelopment iand iurban iexpansion iwithin iRivers iState.

PPP iand iHousing iAffordability

The ifindings iunder ithe isecond iobjective ireveal ithat iPublic–Private iPartnership iinitiatives ihave isignificantly iinfluenced ihousing iaffordability iin iRivers iState, ialthough iimportant iaffordability iconcerns iremain ievident iamong iresidents. iThe imean iscores iunder ithis iobjective iranged ifrom i2.74 ito i2.96, iwhile ithe istandard ideviations iranged ibetween i0.95 iand i1.00. iSince iall ithe imean ivalues iexceeded ithe ibenchmark iof i2.50, irespondents igenerally iagreed ithat iPPP iinitiatives iaffect ihousing iaffordability iin ithe istate. iHowever, icompared ito ithe ifirst iobjective, ithe islightly ilower imean iscores iand iwider istandard ideviations iindicate ithat iopinions ion iaffordability iare imore idivided ithan iopinions ion ihousing iquantity. *I* This ifinding ireflects ithe ieconomic irealities iwithin iRivers iState iwhere iinflation, irising iconstruction icosts, iunstable iexchange irates, iand iincreasing iurban iland ivalues icontinue ito iaffect ihousing iprices. iAlthough iPPP ihousing iprojects ihave iincreased ithe iavailability iof iresidential iproperties, iaffordability iremains ia imajor iconcern ifor imany iresidents, iespecially ilow iand imiddle-income iearners. iIn iseveral iPPP iestates iwithin iPort iHarcourt iand iObio-Akpor, ithe icost iof iacquiring ihomes iremains ibeyond ithe ifinancial icapacity iof imany ihouseholds idespite iflexible ipayment iarrangements iintroduced iby isome idevelopers. The iitem irelating ito iwhether iPPP ihousing iunits iare icheaper ithan iprivately ideveloped ihousing irecorded ithe ilowest imean iscore iof i2.74 iand ithe ihighest istandard ideviation iof i1.00 iin ithe ientire istudy. iThis ifinding iclearly ishows ithat irespondents ido inot istrongly ibelieve ithat iPPP ihousing iis isubstantially icheaper ithan ihousing idelivered isolely iby iprivate ideveloopers. iThe idisagreement iamong irespondents ialso ireflects ithe ifact ithat iwhile isome iPPP idevelopers iprovide iflexible ipayment istructures, ithe itotal icost iof ihousing iunits iremains irelatively ihigh ifor iaverage iincome iearners. This isituation iis ivisible iin iseveral imodern ihousing idevelopments icurrently iongoing iwithin iRivers iState, iincluding ithe iTAF iAfrica iGlobal iproject ialong iAirport iRoad. iAlthough ithe iproject iprovides ihigh-quality iresidential iinfrastructure iand imodern iurban iplanning ifeatures, ithe ipricing istructure iof imany iunits istill iplaces ithem ibeyond ithe ireach iof ilow-income iresidents. iThe iestates ilargely iappeal ito imiddle iand iupper-income iearners, icorporate iworkers, ipoliticians, iand ibusiness iowners iwho ipossess istronger ipurchasing ipower. iAs ia iresult, iwhile iPPP iinitiatives ihave iincreased ihousing isupply, iaffordability ichallenges ipersist ifor ia ilarge ipercentage iof ithe ipopulation. The ifindings isupport iAkpomuvie iand iJubilee i(2025), iwho iargued ithat imany iPPP iprojects iin iNigeria iare istructured iprimarily iaround icost irecovery iand iprofitability iobjectives ifor iprivate iinvestors. iBecause iprivate ipartners iseek ireturns ion iinvestment, ihousing iprices iare ioften idetermined ibased ion imarket irealities irather ithan ithe iincome ilevels iof ilow-income ihouseholds. iConsequently, iPPP ihousing iprojects ifrequently istruggle ito iachieve igenuine iaffordability idespite igovernment iinvolvement. The ifindings ialso iagree iwith iIdris i(2013), iwho imaintained ithat iPPP-driven iservice iimprovements iin iNigeria ioften ibenefit ihigher-income igroups imore ithan ipoorer ipopulations. iIn iRivers iState, imany iPPP iestates iprovide iimproved iinfrastructure, ibetter isecurity isystems, imodern idrainage inetworks, iand ireliable ielectricity isupply, ibut ithese iadvantages icome iat icosts ithat imany iordinary iresidents icannot ieasily iafford. iThis iexplains iwhy irespondents iexpressed imixed iopinions iregarding ithe iaffordability idimension iof iPPP ihousing iprojects. Despite ithese iaffordability iconcerns, irespondents istrongly iacknowledged ithe irole iof iPPP iinitiatives iin icreating iflexible ipayment iopportunities ifor iprospective ihomeowners. iItem i7 iunder ithis iobjective irecorded ithe ihighest imean iscore iof i2.96 iwith ia istandard ideviation iof i0.95, ishowing istrong iagreement ithat iPPP ihousing iarrangements iprovide ipayment iflexibility. iMany iPPP idevelopers inow iallow iinstallment ipayment iplans, imortgage ipartnerships, iand iphased ipayment isystems ithat ireduce ithe iimmediate ifinancial iburden ion ibuyers. iThese iarrangements ihave imade ihome iownership imore iaccessible ito isome icategories iof iworkers iwho iwould iotherwise istruggle ito iacquire ihomes ithrough ioutright icash ipayments. Similarly, iitem i8 irecorded ia imean iscore iof i2.90, iindicating iagreement ithat iPPP iinitiatives ihave iexpanded iopportunities ifor ihome iownership iwithin iRivers iState. iThe iincreasing inumber iof istructured iestates iacross iPort iHarcourt iand isurrounding iurban iareas idemonstrates ithat iPPP iarrangements iare icreating imore iorganised iresidential ienvironments iwhere iindividuals iand ifamilies ican iacquire ihomes iunder iregulated iconditions. The ifindings ialso isupport ithe iposition iof iIloh iand iBahir i(2013), iwho iargued ithat iwhile iPPPs iimprove iefficiency iand iincrease iinfrastructural iinvestment, isocial iequity iconcerns ioften ireceive ilimited iattention iduring iimplementation. iIn iRivers iState, idevelopers inaturally ifocus ion iprojects icapable iof igenerating iprofitable ireturns, iwhich itends ito ifavour imiddle iand iupper-income iresidential imarkets. iConsequently, ilow-income iearners iremain ivulnerable ito ihousing iexclusion idespite ithe iexpansion iof ihousing iinfrastructure. Adeyinka iand iOlugbamila i(2015) ifurther iemphasised ithat imeaningful iaffordability iin iPPP ihousing ican ionly ibe iachieved iwhen igovernments ideliberately iincorporate iaffordability itargets iand isocial ihousing iobligations iinto ipartnership iagreements. iThis iobservation iis ihighly irelevant ito iRivers iState iwhere istronger iregulatory iframeworks iare irequired ito iensure ithat iPPP ihousing

*i*projects *i*include *i*affordable *i*housing *i*quotas *i*for *i*low-income *i*residents.
The *i*statistical *i*findings *i*further *i*reinforce *i*these *i*conclusions. *i*The *i*chi-square *i*value *i*of *i*230.67 *i*confirms *i*that *i*PPP *i*initiatives *i*significantly *i*affect *i*housing *i*affordability *i*in *i*Rivers *i*State. *i*However, *i*the *i*nature *i*of *i*this *i*effect *i*shows *i*that *i*affordability *i*improvements *i*remain *i*uneven *i*across *i*different *i*social *i*groups. *i*While *i*PPPs *i*have *i*expanded *i*payment *i*flexibility *i*and *i*home *i*ownership *i*opportunities, *i*housing *i*prices *i*continue *i*to *i*present *i*major *i*challenges *i*for *i*many *i*residents. The *i*findings *i*under *i*this *i*objective *i*establish *i*that *i*PPP *i*initiatives *i*have *i*significantly *i*influenced *i*housing *i*affordability *i*in *i*Rivers *i*State. *i*Although *i*PPP *i*arrangements *i*have *i*introduced *i*flexible *i*payment *i*systems *i*and *i*increased *i*access *i*to *i*organised *i*housing *i*estates, *i*affordability *i*challenges *i*remain *i*substantial *i*for *i*low *i*and *i*middle-income *i*earners. *i*The *i*evidence *i*demonstrates *i*that *i*while *i*PPPs *i*have *i*improved *i*housing *i*delivery, *i*stronger *i*affordability *i*policies *i*and *i*more *i*inclusive *i*partnership *i*frameworks *i*are *i*necessary *i*to *i*ensure *i*broader *i*access *i*to *i*decent *i*housing *i*across *i*all *i*income *i*groups *i*in *i*Rivers *i*State.

Conclusion

Based *i*on *i*the *i*findings *i*of *i*the *i*study, *i*it *i*was *i*concluded *i*that *i*Public–Private *i*Partnership *i*initiatives *i*have *i*significantly *i*improved *i*housing *i*infrastructure *i*development *i*in *i*Rivers *i*State. *i*PPP *i*arrangements *i*have *i*enhanced *i*the *i*quantity *i*of *i*housing *i*units *i*delivered *i*by *i*providing *i*additional *i*financial *i*resources, *i*technical *i*expertise, *i*and *i*managerial *i*efficiency *i*that *i*complement *i*government *i*efforts. *i*The *i*collaboration *i*between *i*public *i*and *i*private *i*organizations *i*has *i*contributed *i*to *i*improved *i*project *i*implementation *i*and *i*infrastructural *i*expansion *i*within *i*the *i*housing *i*sector. *i*The *i*study *i*further *i*concluded *i*that *i*PPP *i*initiatives *i*positively *i*influence *i*housing *i*affordability *i*and *i*sustainability. *i*Through *i*increased *i*housing *i*supply *i*and *i*better *i*infrastructural *i*support, *i*PPP *i*projects *i*contribute *i*to *i*improved *i*living *i*conditions *i*and *i*urban *i*development. *i*The *i*private *i*sector’s *i*involvement *i*in *i*housing *i*delivery *i*has *i*also *i*encouraged *i*innovation, *i*quality *i*construction, *i*and *i*effective *i*project *i*management *i*practices. *i*Despite *i*these *i*positive *i*contributions, *i*the *i*study *i*concluded *i*that *i*several *i*institutional *i*and *i*operational *i*challenges *i*hinder *i*the *i*effective *i*implementation *i*of *i*PPP *i*housing *i*projects *i*in *i*Rivers *i*State. *i*Problems *i*such *i*as *i*weak *i*policy *i*implementation, *i*inadequate *i*regulatory *i*frameworks, *i*political *i*interference, *i*funding *i*constraints, *i*corruption, *i*and *i*delays *i*in *i*land *i*acquisition *i*reduce *i*the *i*efficiency *i*and *i*sustainability *i*of *i*PPP *i*initiatives. *i*Therefore, *i*the *i*success *i*of *i*PPP *i*housing *i*infrastructure *i*development *i*depends *i*largely *i*on *i*transparent *i*governance, *i*effective *i*institutional *i*coordination, *i*proper *i*monitoring, *i*and *i*supportive *i*government *i*policies. *i*The *i*study *i*therefore *i*concludes *i*that *i*PPP *i*remains *i*a *i*viable *i*and *i*effective *i*strategy *i*for *i*addressing *i*housing *i*infrastructure *i*challenges *i*in *i*Rivers *i*State *i*if *i*the *i*identified *i*constraints *i*are *i*adequately *i*addressed.

Recommendations

Based *i*on *i*the *i*findings *i*of *i*the *i*study, *i*the *i*following *i*recommendations *i*were *i*made:

1. The *i*Rivers *i*State *i*Government *i*should *i*strengthen *i*and *i*expand *i*Public–Private *i*Partnership *i*initiatives *i*in *i*the *i*housing *i*sector *i*by *i*creating *i*enabling *i*policies *i*and *i*providing *i*incentives *i*that *i*encourage *i*greater *i*private *i*sector *i*participation *i*in *i*housing *i*infrastructure *i*development. *I*
2. Government *i*agencies *i*responsible *i*for *i*PPP *i*projects *i*should *i*establish *i*transparent *i*regulatory *i*and *i*monitoring *i*frameworks *i*to *i*reduce *i*corruption, *i*bureaucratic *i*delays, *i*and *i*political *i*interference *i*in *i*the *i*implementation *i*of *i*housing *i*projects. *i*

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