

Bridging the Infrastructure Gap: Exploring Public-Private Partnerships in Education Facility Development in Osun State, Nigeria

Afees Olumide Hassan (PhD)

Department of Public Administration,
Obafemi Awolowo University, Ile-Ife, Nigeria

ahassan@oauife.edu.ng

+234-805-221-4446, +234-806-470-2241

and

Stephen Olawale Olajide

Department of Public Administration,
Obafemi Awolowo University, Ile-Ife, Nigeria

Stephenolajide360@gmail.com

+234-806-437-6747

Abstract

This study investigates the role of Public-Private Partnerships (PPPs) in addressing the infrastructure gap in education facilities in Osun State, Nigeria. The research explores the coverage, effects, and challenges, of PPPs in the education sector. It adopts a mixed method of questionnaire administration and interviews. Copies of questionnaire were administered to 267 teachers from selected secondary schools across the three (3) senatorial districts in the State, while in-depth interviews were conducted with the Director of Finance and Account in Osun State Ministry of Finance and the Director of Planning, Research and Statistics in Osun State Ministry of Education; and Head, Investment and Research Unit of Lotus Capital Limited. Data collected were analysed using percentages, chi-square and content analysis. The study reveals that PPPs in Osun State partially cover building provision, procurement of furniture and lab equipment, among others, in education facilities development. These partnerships have demonstrated positive effects, including increased enrollment rates, enhanced teaching-learning activities, and improved teaching environments in public secondary schools. However, challenges such as the lack of a robust policy framework, inadequate stakeholder sensitization, and ambiguous objectives hinder the full potential of PPPs in education facility development. The study recommends enhancing the policy framework, conducting comprehensive stakeholder education programmes, developing partnership skills, strengthening the legal and institutional framework, and implementing rigorous monitoring and evaluation mechanisms.

Commented [DBY1]: Is this an issue of concern supposed to have been addressed by the policy document of PPP?

Keywords: Public Private Partnership (PPP), Education, Infrastructure, Nigeria

Background to the Study

The rapid global population growth places significant pressure on governments to meet the increasing demand for public goods while ensuring citizen welfare and stability. This growth exacerbates the strain on existing infrastructure, necessitating the development of new facilities to support public services. However, many developing countries, particularly those in sub-Saharan Africa like Nigeria, grapple with insufficient public goods due to economic challenges and management inefficiencies.

Historically, governments have sought to bridge the gap between revenue and expenditure through tax increases or borrowing, risking budget deficits and criticisms over inadequate public service provision and maintenance. To address these challenges, the concept of New Public Management emerged, advocating for a synergy between the public and private sectors to enhance efficiency and resource utilization. This paradigm shift emphasizes customer service, efficiency, and continuous improvement, contrasting with traditional bureaucratic approaches.

Public-Private Partnerships (PPPs) are a key component of New Public Management, facilitating collaboration between public and private entities to finance, develop, and manage infrastructure and services. In sectors like healthcare, transportation, waste management, and education, PPPs offer long-term commitments to improve or create essential facilities. In the case of education, literacy stands as a fundamental driver of national development, impacting economic growth, poverty reduction, cultural diversity, and democracy.

Despite constitutional mandates for universal education in Nigeria, implementation remains inadequate, with a significant portion of the population still lacking access to quality education. Challenges such as economic instability and governance issues further hinder progress in the education sector. Government-owned schools, in particular, suffer from insufficient funding and inadequate facilities, perpetuating the perception that only economically disadvantaged families rely on them.

While PPPs are not a panacea for public sector challenges, they offer a promising avenue to enhance the accessibility and quality of public infrastructure, including educational facilities. Scholars advocate for their strategic adoption to address specific issues within public administration, recognizing their potential to drive development and improve service delivery. In Osun State, Nigeria, the government's engagement with the private sector through PPPs presents an opportunity to enhance education quality and accessibility, forming the basis for this study's exploration of PPPs in education facility management.

Statement of the Problem

The educational landscape in Nigeria is characterized by a troubling decline in quality, as evidenced by poor student performance in external examinations, particularly at the secondary school level. This decline is underscored by the stark findings of the 2018 West African Examination Council (WAEC) ratings, where only two federal government-owned secondary schools featured among the top 30 schools nationally. Notably, no state-owned secondary school made the list, signalling a systemic neglect of the education sector by state governments.

Commented [DBY2]: Introduction better?

Commented [DBY3]: Such as?

Commented [DBY4]: Management or development?

Commented [DBY5]: The PPP objectives in Osun required here.

Commented [DBY6]: Source needed

Numerous studies, including Okoroma (2006), attribute this decline to the poor implementation of educational policies stemming from factors such as discontinuity of programs, lack of political will, and widespread corruption. These issues have undermined national aspirations for development and perpetuated the crisis in the educational system. The situation is exacerbated by inadequate funding, as evidenced by the Nigerian government's persistent failure to meet international benchmarks recommended by UNESCO. Despite UNESCO's recommendation of allocating 15-26% of the budget to education, Nigeria consistently falls short, with allocations of only 7.04%, 7.02%, and 6.7% in the 2018, 2019, and 2020 budgets, respectively.

Commented [DBY7]: UK English is preferred

The crux of improving public schools lies in the effective provision and management of educational facilities, qualified teachers, and a conducive learning environment. However, Nigeria's education system grapples with challenges in these areas, exacerbated by the insufficient attention given to public-private partnerships (PPPs) as a viable solution. Despite advocacy from corporate groups, international aid organizations, and scholars like Hodge & Greve (2016) and Babalola and Hafsatu (2016), PPPs remain underutilized in the Nigerian education sector.

Commented [DBY8]: Source needed

Commented [DBY9]: And

Comparatively, Nigeria lags behind other emerging economies in adopting PPPs for education, reflecting a disappointing reluctance to embrace this model. Thus, this research aims to investigate the extent of PPP coverage in education facility development in Osun State, assessing its impact on secondary school development and identifying barriers to its adoption. By exploring the challenges and opportunities associated with PPPs in education, this study seeks to contribute to the discourse on improving educational infrastructure and quality in Nigeria.

Commented [DBY10]: No research questions, hypotheses or propositions developed?

An Overview of Public Private Partnership

Public Private Partnership (PPP) is a strategic collaboration between the public and private sectors aimed at delivering goods and services efficiently while leveraging the strengths of both sectors. PPP entails a long-term partnership where the public sector combines its resources with the technical expertise of the private sector to provide public goods and services at optimal value. This partnership model aligns with the government's objective of promoting public interest and enhancing service delivery (Kasim & Okafor, 2015).

Commented [DBY11]: Literature review needed not overview

PPP encompasses various cooperative arrangements between the government and private or non-governmental organizations to enhance service delivery and infrastructure development through outsourcing, contracting, or privatization (Fombad, 2013). The private sector's involvement in PPP is crucial for injecting financial resources, and managerial expertise, and fostering competitiveness through improved operational efficiency (Kasim & Okafor, 2015). Oyedele (2014) notes that PPP projects typically involve the private sector in constructing facilities or supplying equipment, with public agencies assuming ownership and operational responsibilities or engaging maintenance companies for service delivery.

The concept of PPP reflects a shift from input-based to output-oriented approaches in public service provision, emphasizing value creation and public interest (Stoker, 1999). It serves as an alternative financing mechanism for infrastructure projects, allowing the public sector to focus on cost-effective infrastructure development while transferring operational responsibilities to private partners (Hood & McGarvey, 2002). Various PPP models, such as strategic partnerships, joint ventures, and design-build-

operate arrangements, offer flexibility in project implementation and risk management (Hood & McGarvey, 2002).

Effective project management and monitoring mechanisms are essential for ensuring the success of PPP projects and achieving value for money (Robinson & Scott, 2009). The criteria for evaluating PPP projects include demonstrating value for money, transferring risk to the private sector, and ensuring genuine private sector investment.

PPP is not synonymous with privatization; it involves continuous government involvement and accountability in partnership with the private sector (Farquharson et al., 2011). The World Bank defines PPP as a long-term contractual relationship where the private sector assumes significant risk and management responsibilities in delivering public services or assets (Public Private Partnerships Reference Guide, 2014). Similarly, the IMF and European Union emphasize the collaborative nature of PPP in infrastructure development and service provision (Public Procurement, 2006). Various PPP models include:

i. **Design-Build (DB)**: Also known as a Turnkey Contract, this model involves the private sector designing and constructing infrastructure according to the public sector's performance terms, typically for a fixed price. This approach transfers the risk of cost overruns to the private sector.

ii. **Operation & Maintenance Contract (O & M)**: In this model, the private partner operates and maintains a publicly-owned asset for an agreed term, while ownership remains with the public sector.

Commented [DBY12]: And

iii. **Operation License**: Under this arrangement, a private operator receives rights or a license to operate a public service for a specified term, often seen in IT projects.

iv. **Build-Operate-Transfer (BOT)**: One of the most popular PPP models, BOT involves the private sector designing, financing, constructing, and operating a new public facility on behalf of the government under a long-term lease agreement. The private partner recovers its investment through user fees during the contract period, after which ownership transfers back to the government.

v. **Build-Own-Operate (BOO)**: In this model, the government transfers ownership and responsibility for an existing facility or contracts with a private partner to build, own, and operate a new facility or service indefinitely.

vi. **Build-Own-Operate-Transfer (BOOT)**: The public sector grants a franchise to a private entity to finance, design, build, and operate a facility with user fees charged for a specified period, after which ownership transfers to the public entity.

vii. **Buy-Build-Operate (BBO)**: This model involves the transfer of a publicly owned asset to a quasi-public or private entity under contract to upgrade and operate the assets for a specified period.

viii. **Build-Lease and Transfer (BLT)**: A private firm is permitted to build and lease out a facility to recover its investment before transferring ownership at an agreed time.

ix. Investment-Management & Investment Services (IM/IS): This model allows a private development firm to construct or complete the construction of a facility while an independent investment management firm manages the facility on behalf of both parties, ensuring the facility's quality and eventual transfer to the owner.

Commented [DBY13]: Source and synthesis needed please

In Nigeria, PPP has gained prominence as a strategy to address infrastructure deficits and promote economic development (AfDF, 2010). The establishment of the Infrastructure Concession Regulatory Commission (ICRC) in 2008 signalled a shift towards greater private sector participation in infrastructure projects (National Policy on PPP, 2008). The objectives of PPP in Nigeria include efficient resource utilization, job creation, and improved public service delivery across various sectors (National Policy on PPP, 2008).

Key principles underpinning PPP include value for money, public interest, risk allocation, output requirements, and transparency (National Policy on PPP, 2008). PPP projects are characterized by competitive tender processes, long-term contracts, performance-based payments, and risk sharing between public and private partners (Espen & others, 2014). These characteristics ensure accountability, efficiency, and sustainability in delivering public infrastructure and services through PPP arrangements.

PPP is a strategic partnership that leverages the strengths of the public and private sectors to enhance service delivery, infrastructure development, and economic growth. By adhering to key principles and fostering transparency, PPP can be an effective tool for addressing infrastructure gaps and promoting sustainable development.

State of Educational Infrastructure in Developing Countries

Education serves as the cornerstone of any society, be it developed or developing, exerting profound influence across all economic sectors. However, educational progress in developing nations faces numerous hurdles. Market inefficiencies and equity issues loom large, particularly concerning the stark contrast between urban and rural educational facilities. In rural areas, students often endure long journeys to reach schools, exacerbating educational access challenges caused by resource disparities and prompting rural-urban migration (Abdullah, 2017).

Commented [DBY14]: Is this literature review or an overview?

Access to education represents only one facet of the challenge; poor educational quality further impedes learning outcomes. UNESCO's Director General, Irina Bokova, highlights the pervasive issue of illiteracy, with staggering numbers of youth struggling to read fluently (UNESCO, 2016). In Ghana, for instance, educational shortcomings are evident as a significant portion of students fail to complete basic education and even those who do often struggle with basic literacy (Stanford Social Innovation Review, 2012).

Moreover, educational systems in developing nations often overlook the needs of disabled children, hindering their learning experiences (Abdullah, 2017). Insufficient provisions for disabled students reflect broader inadequacies in addressing diverse educational needs, compounded by financial constraints and political instabilities that plague educational policy formulation and implementation (Blanco & Grier, 2009).

Technological advancements offer promising solutions to bridge educational disparities, yet limited access to technology and inadequately trained teachers hinder progress. The state of classrooms, often dilapidated

and overcrowded, further diminishes the learning environment's efficacy (UNESCO, 2016). Duflo (2012) emphasizes the critical role of competent teachers and modern learning tools in achieving educational excellence.

In summary, the educational landscape in developing countries grapples with multifaceted challenges spanning access, quality, inclusivity, technological integration, and resource deficiencies, necessitating holistic reforms to meet international educational standards.

Public Private Partnership in the Education Sector

Public Private Partnership (PPP) in the education sector has become increasingly essential, particularly in developing countries where government finances alone may not suffice for all educational expenditures. The significance of education in national development cannot be overstated, as it directly influences the overall advancement of a society. However, limited government revenue often hampers the allocation of adequate funds to the education sector.

PPP presents a viable solution to alleviate the financial constraints faced by governments. By engaging private entities, PPP enables the leveraging of untapped manpower, financial resources, and specialized skills that may be lacking in government operations. This collaborative approach, as noted by Jandhyala (2016) allows for a more efficient, engaging, up-to-date, and transparent public education system.

Private sector participation in education has witnessed significant growth globally, with the World Bank (2009) highlighting the substantial contribution of the private sector alongside government funding. In various contexts, private partners have been contracted to provide specific education services such as hostel facilities, teacher training, and even managing public schools, with government subsidies often involved.

While private schools may sometimes boast better facilities, studies like those by Termes, Bonal, Zancajo, Verger (2015) and Osorio and Wodon (2014) emphasize that effective management, rather than resource abundance, significantly impacts learning outcomes. Therefore, structuring PPP programs to ensure a certain level of school facilities and resources under government oversight could be beneficial.

PPP in education extends beyond infrastructure and resource provision; it encompasses policy-making, funding, management, evaluation, institution running, special education programs, and more (Jandhyala, 2016). This collaborative model is advocated not only for cost reduction but also for enhancing resource utilization efficiency and service quality, aligning with broader sectoral improvements observed in hospitals, schools, and transport (OECD, 2008).

Despite its benefits, PPP in education is not without challenges. Critics argue that it creates an unequal partnership favouring profit-driven private interests over public service motives (Katarina & Tomasveski, 2006). However, proponents like Untari (2016) argue that PPP can improve education quality, accessibility, and accountability, particularly for vulnerable groups, through scholarships, material provisions, and enhanced infrastructure.

PPP represents a dynamic approach to addressing educational challenges by leveraging private sector resources and expertise while ensuring public oversight and service delivery. As demonstrated in various

Commented [DBY15]: Is this review of related empirical studies or what?

studies across different countries, when effectively structured and managed, PPP can significantly enhance education accessibility, quality, and outcomes, contributing to broader societal development goals.

Challenges of Adopting Public Private Partnerships for Educational Infrastructure Development

Implementing Public Private Partnership (PPP) for educational infrastructure development faces a myriad of challenges that must be addressed to ensure successful execution. Studies like those by Babatunde, Perera, Udeaja, and Zhou (2016) have categorized these challenges into several key areas, including technological, economic, social, political, legal, and environmental barriers.

Technological barriers pose significant hurdles, with a lack of skilled personnel and experience in both the public and private sectors being a primary concern. Additionally, the unavailability of large construction companies capable of delivering projects adds complexity to PPP initiatives (Babatunde et al., 2016). Economic challenges, such as the failure of local institutions to provide long-term funding and the perception of developing countries as high-risk economies, further hinder PPP implementation (Babatunde et al., 2016).

Social barriers, including public resistance, cultural impediments, and discontent against the private sector, can lead to project cancellations or delays (Babatunde et al., 2016). Political challenges, such as political renegeing and lack of strong political commitment, also contribute to the PPP project.

Legal barriers present another set of challenges, with weak enabling policies, poor regulatory frameworks, and inadequate judicial frameworks affecting PPP execution (Babatunde et al., 2016).

Environmental barriers, encompassing acquisition issues, lack of transparency, accusations of corruption, and corrupt tendencies, further complicate PPP projects (Babatunde et al., 2016). These challenges can impede effective execution and result in public scepticism and trust issues.

Addressing human factors is also crucial, as effective leadership and management play a pivotal role in PPP success (Egboh & Chukwuemeka, 2012). Fombad (2013) emphasized the importance of accountability in PPP arrangements to mitigate socioeconomic, political, fiscal, and societal challenges.

In addition, concerns about corruption, lack of transparency, competition biases, and inadequate financial expertise impact PPP implementation (Fombad, 2013; Singh & Khan, 2015). Limited trust between public and private partners, increased transaction costs, and poor economic viability further complicate PPP endeavours (Chaudhry & Uboweja, 2014).

Mitigating these challenges requires strong regulatory and legal frameworks, transparent processes, financial expertise, and effective governance (Beh, 2010; Chaudhry & Uboweja, 2014). Collaborative efforts between public and private sectors, with shared goals and visions, are essential for successful PPP execution. Additionally, addressing environmental concerns, enhancing public consultation, and promoting competition can improve PPP outcomes (Fombad, 2013).

Theoretical Framework

Commented [DBY16]: Avoid 2 and 3 lines paragraphs

Commented [DBY17]: The concept of Educational Infrastructure Development has not been reviewed

The study is underpinned by both systems theory and principal-agent theory, offering valuable insights into how these theoretical frameworks explain Public-Private Partnerships (PPP) in education facility development in Osun State, Nigeria.

Systems theory, as described by Bertalanffy and popularized by Easton, provides a holistic approach to understanding complex systems like educational infrastructure development through PPP. The theory posits that systems are composed of interconnected elements that interact with their environment. In the context of education infrastructure, the economic, social, technological, and legal environments play crucial roles.

Commented [DBY18]: What is the theory saying? How relevant is it to the study? No where this theory was explained and related to the study.

Commented [DBY19]: Reasons for adopting 2 theories needed

- Open Systems and Environmental Influences:** Systems can be open or closed, with open systems relying on their environment for inputs. In education infrastructure development, the economic environment determines funding availability, while social acceptance and technological advancements influence the success of PPP initiatives.
- Interconnectedness and Feedback Mechanisms:** Systems theory emphasizes the interconnectedness of system components, where changes in one aspect can impact the entire system. Feedback loops help evaluate the effectiveness of PPP strategies and adapt them based on outcomes.

By applying this framework, the study aims to understand the dynamics of PPP projects in Osun State, Nigeria, including how environmental factors impact partnership outcomes. This approach enhances the study's ability to offer comprehensive insights into the complexities of PPP in education infrastructure development.

Methodology

Primary and secondary data were used for the study. Primary data were collected through the administration of questionnaire and conduct of interviews. Copies of questionnaire were administered to 267 teachers from selected secondary schools across the three (3) senatorial districts in Osun State. In addition, in-depth interviews were conducted with the Director of Finance & Account in Osun State Ministry of Finance and the Director of Planning, Research and Statistics in Osun State Ministry of Education and; Head, Investment and Research Unit of Lotus Capital Limited. Data collected were analysed using percentages, chi-square and content analysis.

Commented [DBY20]: What are the assumptions of the systems theory? Limitations and how can it be applied to the study? Justification needed.

Commented [DBY21]: And

Commented [DBY22]: Research design, population, sample size and techniques are needed here. More so, details of the instruments including reliability and validity of the instruments used in data collection are needed here. What are the measurements of the variables or constructs of the study?

Data Presentation and Analysis

The Coverage of Public Private Partnership in Education Facility Management in Osun State

The section investigates the coverage of the Public Private Partnership in education facility management in Osun State. The respondents were asked to rate the coverage of the private sector in managing the education facility in Osun state. Table 1 shows the frequency distribution, percentage, mean and standard deviation of each of the facility items. In addition, the mean value (χ) summarizes the strength of the respondents on each of the variables using a decision rule thus: ($\chi > 2.5$), full coverage; ($\chi > 1.5$), partial coverage; where ($\chi < 1.5$), no coverage.

Commented [DBY23]: Or development? Is PPP engaged in the management of education facility or development?

Table 1: The Coverage of Public Private Partnership in Education Facility Management in Osun State

	Full Coverage	Partial Coverage	No Coverage	Descriptive Statistics
--	---------------	------------------	-------------	------------------------

Facility	f(%)	f(%)	f(%)	Mean Value	Standard Deviation	Decision
Provision of buildings (classrooms, offices, laboratories e.t.c)	9 (6.8)	68(51.1)	56(42.1)	1.65	0.605	Partial Coverage
Procurement of chairs, tables and chalkboard	17(12.8)	53(39.8)	63(47.4)	1.65	0.697	Partial Coverage
Procurement of laboratory equipment	7 (5.3)	82(61.7)	44(33.1)	1.72	0.555	Partial Coverage
Procurement of laboratory consumables	7(5.3)	63(47.4)	63(47.4)	1.58	0.593	Partial Coverage
Provision of scholarships for outstanding students	4(3)	69(51.9)	60(45.1)	1.85	0.553	Partial Coverage
Provision of training for teachers	2(1.5)	38(28.6)	93(69.9)	1.32	0.498	No Coverage
Provision of managerial functions in schools	3(2.3)	31(23.3)	99(74.4)	1.28	0.498	No Coverage
Maintenance of buildings (classrooms, offices, laboratories)	7(5.3)	35(26.3)	91(68.4)	1.37	0.584	No Coverage
Provision of sporting equipment	7(5.3)	59(44.4)	67(50.4)	1.55	0.596	Partial Coverage

Source: Field Survey, 2022

Based on the item-by-item analysis of Table 1, it could be inferred that the provision of buildings (classrooms, offices, laboratories etc.); chairs, tables and chalkboards; scholarship for outstanding students; sporting equipment; procurement of laboratory equipment and laboratory consumables were partially covered by PPP in the education facility development of Osun State.. Provision of training for teachers; managerial functions in schools and maintenance of buildings (classrooms, offices, laboratories) were not covered. Corroborating the data gathered through questionnaires with the interview, the Head of Investment and Research Unit, Lotus Capital Limited revealed that the arrangement is asset financing. It covers buildings and laboratory equipment. It does not cover the training of teachers. The other two directors interviewed in the Ministry of Finance and the Director of Planning in the Ministry of Education also shed more light on the involvement of the private sector in the education facility development of Osun State. The Director of Finance and Account in Osun State Ministry of Finance states that:

the arrangement is necessary because of the challenges that come with governance in the twenty-first century, government can't provide for all the needs of the people since the resources at the covers of government are meagre. So, the government of Osun state has entered an agreement with the private sector to provide educational facilities like buildings and laboratory equipment for the schools.

Providing more information on the response of the Director of Finance and Account in Osun State Ministry of Finance, Director of Planning, Research and Statistics in Osun State Ministry of Education reveals that the core education activities in the state like training of teachers, and management of the day-to-day

Commented [DBY24]: s

Commented [DBY25]:

Commented [DBY26]: Is this part of education infrastructure development?

Commented [DBY27]: Is this part of education infrastructure development?

Commented [DBY28]: is this part of facility development?

Commented [DBY29]: ?

Commented [DBY30]: ?

activities in the schools are still with the government those other facilities like logistics are the only aspect given to the private sectors. He further revealed that what he meant by logistics involves the provision of buildings, laboratory equipment and procurement of chairs, tables and chalkboards. He further revealed that apart from the provision of this equipment, the private sector has owned the building for a certain number of years and on rare occasions, takes part in the management of some of these facilities they provided depending on the arrangement between them and the government. In line with this submission, the Head of Investment and Research Unit, Lotus Capital Limited reveals that "public partner is responsible for the management of the facility. The assets, when they are constructed belong to the private partners, but they are under the usage and management of the State government".

Drawing inferences on the analysis of the interview and questionnaire responses, the study reveals that the provision of buildings, procurement of chairs, tables and chalkboards, and procurement of laboratory equipment are the areas of coverage of public private partnerships in the education facility development of Osun State.

The Effects of Public Private Partnership Scheme on the Management of Education Facility in Secondary Schools in Osun State

The section evaluates the effect of PPP on the management of education facilities in Osun State. The respondents were asked to rate the level of effect on the 4-Likert scale. Table 2 shows the frequency distribution, percentage, mean and standard deviation of each of the effects. In addition, the mean value (χ) summarizes the strength of the respondents on each of the effects using a decision rule thus: above ($\chi > 2.5$), more of the respondents agreed, and where ($\chi < 2.5$), more of the respondents disagreed.

Commented [DBY31]: Of what relevance?

Table 2 The Effects of Public Private Partnership Scheme on the Management of Education Facility in Secondary Schools in Osun State

Effect	Major Effect	Moderate Effect	Minor Effect	No Effect	Descriptive Statistics		
	f(%)	f(%)	f(%)	f(%)	Mean Value	Standard Deviation	Decision
Promotion of enrolment in public secondary schools	27(20.3)	44(33.1)	33(24.8)	29(21.8)	2.52	1.049	Moderate effect
Improvement of teaching-learning activities in secondary schools	38(28.6)	36(27.1)	31(23.3)	28(21.1)	2.63	1.111	Moderate effect
Reduction of out-of-school children	27(20.3)	31(23.3)	44(33.1)	31(23.3)	2.41	1.059	Minor effect
Reduction in the rate of absenteeism in secondary schools	21(15.8)	24(18)	48(36.1)	40(30.1)	2.20	1.041	Minor effect
Enhancement of teaching environment in secondary schools	49(36.8)	37(27.8)	23(17.3)	24(18)	2.83	1.116	Moderate effect
Increment in access to education	35(26.3)	21(15.8)	39(29.3)	38(28.6)	2.40	1.161	Minor effect
Reduction of education inequality in the State	26(19.5)	22(16.5)	40(30.1)	45(33.8)	2.22	1.117	Minor effect
Improvement of public school students' academic performance in the State.	30(22.6)	28(21.1)	38(28.6)	37(27.8)	2.38	1.12	Minor effect
Improvement of attitude and behaviour of students in the State	24(18)	16(12)	54(40.6)	39(29.3)	2.19	1.053	Minor effect

Source: Field Survey, 2022

In the first effect as shown in Table 2, respondents were asked to evaluate the level of effect of the PPP involvement in education facilities in boosting the enrolment rate in public secondary schools. 27(20.3%) thought that it has had a major effect, 44(33.1%) choose moderate effect, 33(24.8%) picked minor effect and 29(21.8%) believed that it has had no effect. The mean value and standard deviation ($\chi = 2.52$, $SD = 1.049$) which is a little above average show that PPP involvement in education facilities has had a moderate effect on the number of enrolments in the public primary school.

On improvement of teaching-learning activities in the secondary schools, 38(28.6%) of the respondents believed that it has a major effect on teaching-learning activities, 36(27.1%) picked moderate effect, 31(23.3%) minor effect and 28(21.1%) were of the view that PPP in managing education facility does not affect the teaching-learning activities in the secondary schools. The mean value and standard deviation ($\chi = 2.63$, $SD = 1.111$) which is a little above average show that PPP involvement in education facilities has had a moderate effect on the number of enrolments in the public primary school.

On the extent to which PPP involvement in managing education facilities has helped in reducing out-of-school children in secondary schools. 27(20.3%) revealed that it has a major effect, 31(23.3%) revealed it

Commented [DBY32]: Is this the concern of the study? Is there a correlation between the two variables? Justification needed please

Commented [DBY33]: Revisit please to ensure there is correlation

Commented [DBY34]:

has contributed moderately, 44(33.1%) picked no effect and 31(23.3%) picked no effect. The result revealed that PPP involvement in managing education facilities has a minor effect on the reduction of out-of-school children in the state. The level of effect is further verified by the mean value and standard deviation ($\chi = 2.41$, $SD = 1.059$) which is below the decision rule of 2.5.

On reduction in the rate of absenteeism in secondary schools, 21(15.8%) believed that it has had a major effect on the rate of absenteeism, 24(18%) picked moderate effect, 48(36.1%) selected minor effect and 40(30.1%) believed that it has no effect on the rate of absenteeism in secondary schools. The result revealed that PPP involvement in managing education facilities has a minor effect on the reduction in the rate of absenteeism in secondary schools in the state. The level of effect is further verified by the mean value and standard deviation ($\chi = 2.20$, $SD = 1.041$) which is below the decision rule of 2.5.

With regards to the enhancement of the teaching environment in secondary schools, 49(36.8%) of the respondents revealed that PPP has had a major effect, 37(27.8%) picked moderate effect, 23(17.3%) selected a minor effect and 24(18%) picked no effect. The result revealed that PPP involvement in managing education facilities has a moderate effect on the enhancement of the teaching environment in secondary schools. The level of effect is further verified by the mean value and standard deviation ($\chi = 2.83$, $SD = 1.116$) which is above the decision rule.

Concerning increment of access to education, 35(26.3%) picked major effect, 21(15.8%) selected moderate effect, 39(29.3%) were of the view that it has a minor effect while 38(28.6%) picked no effect. The result revealed that PPP involvement in managing education facilities has a minor effect on the increment of access to education. The level of effect is further verified by the mean value and standard deviation ($\chi = 2.40$, $SD = 1.161$) which is below the decision rule.

In the area of reduction of education inequality in the State, 26(19.5%) revealed that PPP involvement in education facility management has a major effect in reducing education inequality in the state, 22(16.5%) picked moderate effect, 40(30.1%) selected minor effect while 45(33.8%) believed that it has no effect. The level of effect is verified by the mean value and standard deviation ($\chi = 2.22$, $SD = 1.117$) which is below the decision rule.

In terms of Improvement of public school students' academic performance in the State, 30(22.6%) of the respondents believed that PPP involvement has a major effect, 28(21.1%) picked moderate effect, 38(28.6%) selected minor effect while 37(27.8%) no effect. The result revealed that PPP involvement in managing education facilities has a minor effect on the public-school student's academic performance in the state. The level of effect is further verified by the mean value and standard deviation ($\chi = 2.38$, $SD = 1.12$) which is below the decision rule.

On the improvement of attitude and behavior of students in the State 24(18%) of the respondents picked major effect, 16(12%) selected moderate effect, 54(40.6%), and 39(29.3%) picked no effect. The result revealed that PPP involvement in managing education facilities has a minor effect on of attitude and behaviour of students. The level of effect is further verified by the mean value and standard deviation ($\chi = 2.19$, $SD = 1.053$) which is below the decision rule.

The item-by-item analysis of Table 2 shows that increase in the enrolment in public secondary schools, improvement of teaching-learning activities, and the enhancement of the teaching environment in public secondary schools are some of the major effects of public private partnerships on the development of education facilities in secondary schools. The analysis of the interviews conducted shows that PPP has both

Commented [DBY35]: How does PPP relates to these please?

long-term and short-term effects on the state. The Director of Finance and Account in Osun State Ministry of Finance states that "raising funds from the private sector is a good way of modernizing education facility. This has helped the government in fulfilling its promises of developing public secondary schools across the state. Many secondary schools in the state have a new look, and some of the alumni of those schools are happy to identify with those schools again. He further states that

Before the introduction of the PPP in education facility management, some of the public schools in the state have become the shadow of themselves. Parents prefer to pay a large sum of money to send their wards to private secondary schools to get quality education and compete with the challenges of this generation. But in the last few years, attendance in our secondary schools has increased. Some of these successes may be credited to the introduction of PPP in education facility management.

The Director of Planning, Resources and Statistics in Osun State Ministry of Education also states that the schools' environment has been beautified and the lost glories of some of these schools have been restored. However, he was asked to clarify this argument since he said the private sector only takes part in the provision of buildings, laboratory equipment and the provision of chairs, tables and chalkboards. He explains that

Students in some of these schools before the commencement of PPP were receiving lectures under the trees and some in dilapidated buildings and infrastructures in some of these schools received poor ratings. These made some of the parents and guardians withdraw their wards from the public schools. But our records show that enrolment in these schools has increased geometrically. These may be attributed to the new structures put in place in some of these schools.

In the same vein, the Head of Investment and Research Unit, Lotus Capital Limited states that the focus of PPP is on the modernization of secondary school education which will students to be aware of the economic options available to them in the long run. He also reiterated the importance of the scheme in promoting the enrolment rate in the state. However apart from the view of the other interviewees, he stated that PPP is a win-win for both the government and the private investors. The government has been noted to lose as a result of the process. He emphatically states that "the public has nothing to fear as regards loss of control or ownership. It's a financial arrangement basically, you don't control the entire education system because of a financial arrangement".

He further states that the government, directly and indirectly, is regulating the activities of the private sector and that address the issues of ownership control. He explains that

when the SUKUK bond is raised, it is governed by the agencies of the government such as the Securities and Exchange Commission, so it is not like the private sector relationship with the State government alone, it is well regulated by the agencies of the FGN. The relationship is regulated by the Capital Market regulator as far as raising funds from the private sector is concerned. But the question is still better addressed to the State

Concluding the analysis of the interview and questionnaire responses, the study revealed that the increase in the enrolment in public secondary schools, improvement in teaching-learning activities and enhancement of the teaching environment are the major effects of public private partnership on the development of education facilities in secondary schools in Osun State.

Test of Hypothesis

This section deals with the analysis and interpretation of the hypothesis of the study. The statistical tool used in the analysis is ANOVA. The level of significance used in the analysis was 5% i.e., 0.05. Table 4.6 presents the ANOVA analysis of the effect of Public Private Partnerships on the development of education facilities in Osun state secondary schools. According to the table, the result was positive with (F= 34.755) degree of association which is significant at $p > 0.05$. The null hypothesis is therefore rejected and the alternate accepted. This, therefore, suggests that the Public Private Partnership has a significant effect on the development of education facilities in Osun State secondary schools.

Table 3: Anova Analysis Effect of Public Private Partnership on Development of Education Facility in Osun State Secondary Schools

Hypothesis	Df	F	Sig
Public Private Partnership has a significant effect on the development of Education Facilities in Osun State secondary schools	1	34.755	.000 ^b

Source: Field Survey, 2022

The Challenges Facing the Adoption of Public Private Partnership in the Education Facility Management in Osun State

Commented [DBY36]: No hypotheses were developed initially where are these coming from?

Commented [DBY37]: Is this the only test result?

Commented [DBY38]: ?

Commented [DBY39]: Is this another hypothesis?

Table 4: The Challenges Facing the Adoption of Public Private Partnership in Education Facility Management in Osun State

Challenges	Major Challenge	Minor Challenge	Not A Challenge	Descriptive Statistics		Decision
	f(%)	f(%)	f(%)	Mean Value	Standard Deviation	
Lack of PPP policy framework in Osun State	94(70.7)	34(25.6)	5(3.8.)	2.71	0.489	Major challenge
Change in government	67(50.4)	53(39.8)	13(9.8)	2.42	0.654	Major challenge
Corruption among government officials	110(82.7)	18(31.5)	5(3.8)	2.82	0.444	Major challenge
Inadequate sensitization on the importance of PPP to actors in the education sector	118(88.7)	11(8.3)	4(3)	2.89	0.365	Major challenge
Lack of transparency and accountability in the PPP process in the education sector	87(65.4)	41(30.8)	5(3.8)	2.63	0.544	Major challenge
Politicization of PPP contracts	87(65.4)	41(30.8)	5(3.8)	2.63	0.544	Major challenge
Ambiguous objectives and obligations laid down by the government	73(54.9)	53(39.8)	7(5.3)	2.52	0.573	Major challenge
Poor and insufficient legal/institutional framework of PPP in the Education sector	65(48.9)	44(33.2)	21(0.8)	2.32	0.755	Major challenge
Lack of partnering skills and good relationships hamper PPP projects in the education sector	117(88)	14(10.5)	2(1.6)	2.88	0.350	Major challenge

Source: Field Survey, 2022

The item-by-item analysis of Table 4 shows that lack of PPP policy framework, change in government, inadequate sensitization on the importance of PPP to actors in the education sector, ambiguous objectives and obligations laid down by the government, poor and insufficient legal/institutional framework of PPP in the education sector, and lack of partnering skills and good relationships hamper PPP projects in the education sector are some challenges facing the adoption of public private partnership in the education facility development in Osun State. The analysis of the interviews conducted shows that PPP challenges are facing the adoption of public private partnerships in the education facility development. In reaction to some of these challenges, the Head of the Investment and Research Unit, Lotus Capital Limited states that the business of government is to provide viable projects such as road infrastructure, rural electrification, health care, and water projects, among others. In a situation where the government does not have the funds

to carry out all these functions, the government will fail in discharging its responsibility to the populace. Standing on this, he further reveals that the government of the state is still developing its policy framework on PPP arrangement and this to some extent is affecting PPP arrangement.

The two directors interviewed also stated that what they considered as the challenges do not include policy framework as the House of Assembly in line with the recommendation of the government is building on the existing PPP policy from time to time following the situation of things in the state. They also emphasized that even though there was a change in government in the state about three and half years ago, that does not in any way affect the PPP arrangement in the state. The Head of Investment and Research Unit, Lotus Capital Limited also revealed that "once the relevant laws guiding such arrangement, approval of the state assembly and FGN are in place, there would be no worry/concern for change of government, as it does not affect the kind of partnership". Rather what they considered as challenges are inadequate sensitization on the importance of PPP to actors in the education sector and a lack of partnering skills and good relationships.

Concluding the analysis of the interview and questionnaire responses, the study reveals that the lack of PPP policy framework, inadequate sensitization on the importance of PPP to actors in the education sector, ambiguous objectives and obligations laid down by the government, and lack of partnering skills and good relationships are the major challenges facing the adoption of public private partnership in the education facility development in Osun State.

Discussion of Findings

This section discusses the findings of both qualitative and quantitative analysis of the study. This is done to juxtapose the findings of this study with the existing studies in the literature on the subject being investigated.

Major findings on the coverage of PPP in the education facility development are the provision of buildings, procurement of chairs, tables and chalkboards, and procurement of laboratory equipment are the areas of coverage of public private partnerships in the education facility development of Osun State. The findings are in agreement with the study of Obozuwa (2011) where he presented the various forms of Design-Build (DB), Operation & Maintenance Contract (O & M), Build-Operate-Transfer (BOT), Build-Own-Operate (BOO), Build-Own-Operate-Transfer (BOOT) among others. He argues that for any private-sector arrangement with the public sector to thrive it must follow any of the PPP agreements he posited.

The Major findings on the effect of PPP on education facility development are an increase in the enrolment in public secondary schools, improvement in teaching-learning activities and enhancement of the teaching environment. These findings are in agreement with the study of Untari (2016). His study centred on secondary schools in Indonesia. The study found that private sector participation will increase the quality of education as well as its accessibility in the form of support to the most vulnerable groups in society through physical education materials and scholarship. Also, the study supports the Foundation Assisted School (FAS) scheme carried out by the World Bank in the developing region. The study revealed that the provision of resources like buildings, classrooms, and chalkboards in the Foundation assisted schools has encouraged an increase in the enrolment of students in such schools (World Bank, 2009).

The Major challenges facing the adoption of public private partnerships are a lack of PPP policy framework, inadequate sensitization on the importance of PPP to actors in the education sector, ambiguous objectives and obligations laid down by the government, and lack of partnering skills and good relationships. These findings are in agreement with the study of Fombad (2013) the information disclosed is limited to the name of the project, PPP type, private partner(s), the government establishments in charge of the project, value

Commented [DBY40]: Is this part of PPP operational framework?

Commented [DBY41]: How can PPP be adopted in a state without a policy framework? Need to be reconsidered please.

of the project, project timeline, capital value of the contracts approved to date and the benefit to the government. His position that the non-disclosure of PPP contracts to the public could further compromise the public's perceptions of the government's transparency shows that inadequate sensitization on the importance of PPP to the general public is one of the challenges of PPP.

Commented [DBY42]: No summary of findings

Conclusion

The study delved into the landscape of public-private partnerships (PPPs) in education facility development in Osun State, Nigeria. Through a combination of quantitative and qualitative analyses, several key findings emerged. Firstly, the coverage of PPPs in education facility management primarily includes the provision of buildings, procurement of furniture and equipment, and some aspects of infrastructure maintenance. This highlights the selective yet impactful role of PPPs in addressing specific educational infrastructure needs.

Secondly, the effects of PPPs on education facility management in Osun State are notable, with significant improvements in enrollment rates, teaching-learning activities, and the overall teaching environment in public secondary schools. While these effects are promising, there remain challenges that impede the full adoption and optimization of PPPs in the education sector.

Recommendations

- i. **Policy Framework Enhancement:** Develop and strengthen the PPP policy framework specifically tailored for the education sector in Osun State. This framework should outline clear objectives, roles, and obligations for both public and private partners, ensuring transparency and accountability.
- ii. **Stakeholder Sensitization:** Conduct comprehensive sensitization programs to educate all stakeholders, including government officials, educators, students, parents, and the public, about the benefits and importance of PPPs in improving educational infrastructure and outcomes.
- iii. **Partnership Skills Development:** Provide training and capacity-building programs for government officials and private sector partners involved in PPPs. This includes enhancing partnering skills, negotiation techniques, and project management capabilities to facilitate smoother collaborations and project implementation.
- iv. **Legal and Institutional Framework Strengthening:** Address gaps in the legal and institutional framework governing PPPs in education. Clarify ambiguous objectives and obligations, establish dispute resolution mechanisms, and ensure alignment with international best practices to attract more private investment and ensure project success.
- v. **Continuous Monitoring and Evaluation:** Implement robust monitoring and evaluation mechanisms to track the progress and impact of PPP projects in education. Regular assessments should be conducted to measure key performance indicators, identify challenges early, and make data-driven decisions for continuous improvement.
- vi. **Public-Private Engagement Forum:** Establish a dedicated platform or forum for ongoing dialogue and collaboration between public and private stakeholders in the education sector. This forum can facilitate knowledge sharing, exchange of best practices, and collective problem-solving to overcome barriers and drive sustainable PPP initiatives.

Commented [DBY43]: What are the bases for these recommendations?

References

- Abdullah, A. K. A. (2017). Public-Private Partnership: Application of Analytic Hierarchy Process (Ahp) And Multi Attribute Utility Theory (Maut) In Selection For Private Partners In Saudi Arabia For Housing Projects.
- Africa Development Bank (2010). Project Appraisal Report and Recommendation. By the Management of the AfDB Group to the Board of Directors On A Proposed Loan To Nigeria for Capacity Building Project Infrastructure For Public Private Partnership (CB 4PPi), August 2010.
- Babalola, V. & Hafsatu, A. (2016). School Administration and Instructional Supervision of Secondary School Chemistry for Students' Academic Performance. *Issues in Scientific Research* Vol.1 (3), pp. 27-36, April 2016
- Babatunde, S. O., Perera, S., Zhou, L., & Udejaja, C. (2016). Stakeholder perceptions on critical success factors for public-private partnership projects in Nigeria. *Built Environment Project and Asset Management*.
- Beh, L. S. (2010). Development and Distortion of Malaysian Public-Private Partnerships-Patronage, Privatised Profits and Pitfalls. *Australian Journal of Public Administration*, 69, S74-S84.
- Chaudhry, S., & Uboweja, A. (2014). Public-Private Partnerships in School Education Learning and Insights for India. *Central Square Foundation*.
- Duflo, E. (2012). Women empowerment and economic development. *Journal of Economic Literature*, 50(4), 1051-79.
- Farquharson, E., De Mastle, C. T., Yescombe, E. R., & Encinas, J. (2011). How to Engage with the Private Sector in Public Private Partnerships in Emerging Markets. *Washington DC, USA: The International Bank for Reconstruction and Development/World Bank*.
- Fombad, C. M. (2011). African bills of rights in a comparative perspective. *Fundamental: A Journal of Legal History*, 17(1), 33-64.
- Hodge, G.A. & Greve, C. (2016), On Public Private Partnership Performance: A Contemporary Review, *Public Works Management & Policy*, 1-24
- Hood, J., & Mcgarvey, N. (2002). Managing the risks of public-private partnerships in Scottish local government. *Policy Studies*, 23(1), 21-35.
- Jandhyala, S. (2016). International Organizations and Political Risk-The case of multilateral development banks in infrastructure projects.
- Kasim, U. & Okafor, J. I. (2015). Public Private Partnership policy in Nigeria: An overview. *International Journal of social science and humanities reviews*, 5 (2), 77-71. ISSN 2276-8645
- Katarina, T. (2006). The State of the right to education worldwide: Free or fee-2006 Global Report. *Journal of Education Planning and Administration*.
- LaRocque, N. (2008). *Public-private partnerships in basic education: An international review*. Reading: CfBT Education Trust.
- Obozuwa, D. (2011). PPP as a tool for Infrastructural Development in Nigeria. *Business Day*, October, 20.

- Osorio, J. C. P., & Wodon, Q. (Eds.). (2014). *Faith-based schools in Latin America: Case studies on Fe y Alegría*. World Bank Publications.
- Oyedele, O. A. (2014). The Challenges of Infrastructure Development in Democratic Governance. Being Paper presented at the FIG Working Week 2012 - Knowing to manage the territory, protect the environment, evaluate the cultural heritage - Rome, Italy, 6-10 May 2012.
- Public Private Partnerships Reference Guide. (2014). World Bank, Asian Development Bank, Inter-American Development Bank.
- Public Procurement. (2006, January 02). Retrieved from European Union: http://europa.eu/legislation_summaries/internal_market/businesses/public_procurement/122012_en.htm Solheim-Kile Espen, Ladre Ola, Lohne Jardar & Oystein Husefest Meland Characteristics of Public Private Partnerships in Norway. presented 22nd Annual Conference of the International Group for Lean Construction At Oslo, Norway Volume 1. at Book 2014
- Singh, G., & Khan, M. S. (2015). The role of public private partnership (PPP) in building society. *Management Studies and Economic Systems*, 54(2648), 1-8.
- Stoker, J. (1999). The Government Deficit and the Exchange Rate. *Review of International Economics*, 7(4), 753-763.
- Termes, A., Bonal, X., Verger, A., & Zancajo, A. (2015). Public-private partnerships in Colombian education: the equity and quality implications of "Colegios en concesión".
- Untari, S. (2016). Public-Private Partnerships in Improving the Quality of Education for the Poor World Bank (2012). World Development Report 2013: Jobs. Washington, DC: World Bank.