

# Appraisal of Effectiveness of Public and Private Partnership Initiatives in the Management of Public Secondary Schools in North Central Nigeria

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## Abstract

The study focused on the appraisal of the effectiveness of public and private partnership initiatives in the management of public secondary schools in North Central Nigeria. The study was guided by four research questions and four hypotheses. Survey research design was adopted for the study. The population of the study was 44,342 academic staff from 1,656 public secondary schools in North Central Nigeria. The sample for the study consisted of 396 respondents made up of 66 principals, 66 vice principal academic, 66 vice principal administration, 66 deans of studies and 132 class teachers in 66 selected public secondary schools that are spread in four states of Benue, Nasarawa, Kogi, Plateau and Federal Capital Territory Abuja in North Central Nigeria. The sampling technique used in this study was multi-stage sampling procedure. The instrument for data collection was a self-structured questionnaire. The instrument consisted of a 24-item questionnaire developed by the researchers. The items of the instrument were validated by four experts in the area of Educational Administration and Planning and one expert in the area of Measurement and Evaluation. The reliability coefficient of the instrument was established using Cronbach Alpha method. The reliability coefficient for the entire instrument was 0.89 which indicated that the instrument was reliable. The research questions posed in the study were descriptively answered using mean and standard deviation. The hypotheses formulated were tested at 0.05 level of significance using Chi-square test of goodness-of-fit statistic. The findings of the study indicated that public and private partnership initiatives have statistical significant positive effects on school management in the areas of funding, provision of facilities, instructional supervision with effect size statistic of 42.9%, 38.7% and 56.0% respectively but, have no statistical significant positive effect in the areas of staff development in public secondary schools in North Central Nigeria. Based on these results, it was recommended that there should be a continuous encouragement on the part of stakeholders in education for active private intervention in the areas of funding, provision of facilities, instructional supervision, with more emphasis on staff development.

## Introduction and Statement of the Problem

Education is a priority sector in every well-meaning society. Education has been recognized as an effective tool for human development. No meaningful development can take place without functional education. For education to be functional there must be a constant and careful appraisal of educational system. Emaikwu (2021) sees appraisal as the judgment or assessment of the value of something, especially a formal one based on qualitative and quantitative data and it always answers the questions: how good...or how well...? Appraisal tends to identify areas that need improvement in an issue of concern.

It involves attaching praises, commendations and condemnations to actions or performances. The main essence of appraisal in education is for quality assurance in education. It is a way of managing an organization so that every job, every process is implemented right at first time and always. A cursory appraisal of educational system depicts that education in Nigeria today is crisis ridden. These crises have affected and weakened educational institutions. One of the problems of Nigerian educational system is that of yearly low budgetary allocation to educational sector which has hindered the educational sector from

achieving its optimum objectives.

The problem of inadequate finance might have resulted from the failure of Federal Government to implement the UNESCO recommendation of 26% budget benchmark allocation to educational sector (Ogubia, 2014). Historically, education in Nigeria for the past eleven years has received the woeful percentages of 4.8 in 2010, 6.2% in 2011, 8.2% in 2012, 8.6% in 2013, 9.9% in 2014, 7.7% in 2015, 6.1% in 2016, 7.4% in 2017, 7.1% in 2018, 6.7% in 2020, 6.3% in 2021 of national budgets as against UNESCO recommendation of 26% national benchmark for developing country (Emaikwu, 2021). Education as a social investment is shared by government, individuals, missionaries, and other groups including international agencies.

The National Policy on Education (NPE, 2013) states that education is an expensive social service and requires adequate financial provision from the three tiers of government for successful implementation of educational programmes. Therefore the financing of education is expected to be a joint responsibility of the Federal, State, Local Governments and the private sector. This implies that Nigerian Government calls for public and private partnership initiative (PPPI) in the management of the nations' educational system. For the fact that Government alone cannot meet the educational needs of the teeming population of the country; there is the need for public and private sector partnership in the provision and management of public secondary schools in Nigeria.

Public and private partnership initiatives (PPPI) can be defined as arrangements between public and private actors for the delivery of goods, services or facilities. Public and private partnership initiatives (PPPI) is the blending of the resources and assets from both the public and private sectors with an objective of providing a more efficient and cost effective means of providing infrastructure and service delivery representing better value to people rather than traditional direct public delivery.

The rationale for adoption of the public and private partnership initiatives (PPPI) is to supplement government's limited capacity and expand access by incorporating private providers into the public sector. Hodge (2016) was of the view that the involvement of public and private partnership can lead to significant improvements in educational service delivery. *Public and private partnerships* approach can facilitate service delivery, lead to additional financing, expand equitable access, and improve learning outcomes. The primary role of *public and private partnerships is to act as the contractual representative of the government so as to protect governmental interests in performing obligations and enforcing the rights of the government in the public and private partnership initiative*. The ownership of educational institutions in Nigeria is between public and private sectors. The public sector refers to the government in three tiers namely Federal, State, and Local while the private sector is concerned with individuals, group of persons, organization, communities or missionary bodies coming together to establish and run educational institutions. According to the Bureau of Public Service Reforms (2016), the objectives of co-operation between government and the private sector in Nigeria (through PPPI) are set out as follows:

1. To fulfill sustainable funding requirements in the supply of infrastructure through mobilization of private sector funds.
2. To improve the quantity, quality, efficiency *and* sustainable delivery *of* services through healthy competition.
3. To improve the quality of management and maintenance in the supply of infrastructure.
4. To promote, co-ordinate and regulate the activities of the private sector agents.

The call for private sector involvement in public secondary school management is due to the challenges faced by the management of the public secondary schools established by the government. In the context of this study, private sector participation in the management of public secondary schools is the involvement of individuals, organization or group in the provision of funding, infrastructural facilities, quality assurance

and staff development in public secondary schools.

Management is a meticulous process of planning and allocating human and material resources, directing and coordinating same to realize specific objectives (Idoko, 2015). School management is concerned with planning, organizing, coordinating, directing and controlling the various resources and segments of a school towards achieving the set goals of the school. Effective management of schools entails combining the characteristics of management attributes and directing them towards achieving the goals of education. It requires provision of adequate funding, provision of school facilities, adequate staff development and adequate supervision which according to Daso (2013), are necessary ingredients for attaining the goals of education. These management attributes seem to be lacking in public secondary schools in the North Central Nigeria. Therefore the management attributes seemingly essential in public secondary schools in the North-Central Nigeria in which this study would focus on, are funding, school infrastructural facilities, staff development and instructional supervision are briefly explained in subsequent paragraphs.

The first management attribute of concern which is essential in this study is school funding. School funding may be conceptualized as the mobilizing, collection and disbursement of school funds in a school system. Adequate funding is essential for schools' development and achievement of set goals because funds are necessary to pay school staff, procure teaching and learning materials, construct school plant, and pay for other administrative expenses (Mohammed & Usman, 2016). Since funds are not easy to raise by the government alone, collaborations between the public and the private sectors through public and private partnership initiatives (PPPI) may help to enhance public secondary school funding and consequently, management of public secondary schools.

The second management attribute which is essential in this study is provision of school facilities. School infrastructural facilities are very important in attaining effective teaching and learning in a school system (Asiyai, 2012). Facilities such as site, buildings, playfields, functional laboratories, electricity and water are very essential for learning by students. Lack of these facilities may cause difficulty in transmission of knowledge and as such failure in academic achievement may result. These facilities may be provided in the public secondary schools by involving the private sector through public and private partnership initiatives.

The third management attribute of concern in this study is staff development. Staff development is a personnel management activity that is designed to increase the employees' abilities to contribute to the organizational effectiveness. The employees are required to undergo staff development programmes upon selection (Kapur, 2017). Staff development enhances their performance and achievement of school goals and this is part of the responsibility of school management. Members of staff need to attend workshops, seminars and other training courses in order to acquire and update their knowledge for better performance. Staff development, seeks to improve skills, knowledge and attitudes of employees in order to make them perform better. Staff development is expensive in terms of money and personnel to conduct the training. Public and private partnership initiative may be adopted to involve the private sector in developing the staff of public secondary schools.

The fourth management attribute of concern in this study is instructional supervision. Instructional supervision refers to all opportunities provided to teachers in developing their capacities towards contributing to students' academic success (Adams, 2019). These opportunities are varied and may include provision of good operational environment, teaching materials, and personnel to aid teachers develop their capacities. Through public and private initiatives, these opportunities could be provided by involving other individuals and organizations to support the development of teachers' capacities in instruction towards achievement of the public secondary school goals.

It is an issue of concern that in some public schools in North Central Nigeria, there are schools without enough classrooms; classrooms without enough chairs and tables; there are also many science schools

without laboratories and laboratories without chemicals and apparatuses; there are equally schools without libraries and libraries with outdated books. In many schools, teachers are largely neglected and degraded, looked upon with pity or disdain and often denied their salaries for several months (Adu, 2014). The collaboration between government and private partners brings about expanded capacity than a traditional government-does-all-approach may do. The evidence of the strategic effect of public and private partnership initiative on the management of public secondary schools is still sketchy and limited in North Central Nigeria. There is therefore the need for the appraisal of the effectiveness of public and private partnership initiatives in the management of public secondary schools in North Central Nigeria.

It is disheartening to note that in North Central Nigeria, public and private partnership arrangements in school management seem to be lacking or limited in public secondary schools as they are faced with very many school management challenges. It is hoped that the public and private partnership initiatives could aid the management of public secondary schools in the North Central Nigeria to achieve efficiency and effectiveness of public secondary school education in the zone. This study therefore focuses on the appraisal of the effectiveness of public and private partnership initiatives in the management of public secondary schools in North Central Nigeria. Precisely, the study sought to determine if public and private partnership initiatives are effective in the areas of school funding, provision of school facilities, staff development and instructional supervision.

### **Research Questions**

The following research questions were raised to guide the study

1. How effective is public and private partnership initiatives in the area of funding of the public secondary schools in the North Central Nigeria?
2. What is the effectiveness of public and private partnership initiatives in the area of provision of school facilities in public secondary schools?
3. How effective is public and private partnership initiatives in the area of staff development in public secondary schools?
4. What is the effectiveness of public and private partnership initiatives in the area of instructional supervision in public secondary schools?

### **Research Hypotheses**

The following hypotheses were formulated and were tested at 0.05% level of significance:

1. Public and private partnership initiatives do not have positive effect on school management in the area of funding in public secondary schools.
2. Public and private partnership initiatives do not have positive effect on school management in the area of provision of facilities in public secondary schools.
3. Public and private partnership initiatives do not have positive effect on school management in the area of staff development in public secondary schools.
4. Public and private partnership initiatives do not have positive effect on school management in the area of instructional supervision in public secondary schools.

### **Review of Related Empirical Studies**

This section deals with the review of related empirical studies that relate to public and private partnership initiatives with regard to school management on variables of funding, infrastructural facilities provision, staff development and instructional supervision.

Nakpodia (2013a) examined the role of private sector in enhancing the quality of public secondary schools in the Central Senatorial District of Delta State, Nigeria. The findings showed that private sector contributed to quality school buildings and that the private sector contributed to well equipped libraries and laboratories in the schools. The result showed that government could make laws that will compel the private sector to assist in the provision of well equipped laboratories, libraries and buildings to enhance the quality of public secondary schools. Ekpoh, Edet and Nkama (2013) conducted a study on staff development programmes and secondary school teachers' job performance. The findings showed that teachers who participated in staff development programmes were more effective in their job performance than those who did not, in terms of knowledge of the subject matter, classroom management, teaching methods and evaluation of students work. Kpolovie and Obilor (2013) conducted a study to find out the extent to which education funding is done in Nigeria, whether adequate or inadequate. The results of the study showed that funding of education by government was grossly inadequate in Nigeria and falls far below the 26% budgetary allocation to education recommended by UNESCO for developing countries. They concluded that these allocations over the years spell doom, crises, chaos, and danger for education in Nigeria; as on the average, Nigeria spends less than 6% of its annual budget on education.

*Nakpodia (2013b) carried out a research on the extent of private sector participation in funding education, and the strategies that can be used to make the private sector participate fully in financing education in Delta State in view of the adverse effect of government lack-luster attitude towards the education enterprise. The findings indicated that private sector participation in funding education is low in Delta State; and identified payment of a stipulated amount into education fund, ensuring that private sector incorporate educational development in their programmes of activities, use of task force on defaulting firms, and motivating of firms as strategies to increase private sector participation in funding of education in Delta State, Nigeria. Bare (2013) conducted an investigation on Public-private funding strategies in the administration of universities in South-South Nigeria. The purpose of the study was to find out the strategies adopted for funding administration of universities in South-South Nigeria. The findings were that government did not partner with the private sector and as a result funding was not adequate to run universities for educational excellence. Akighir (2014) conducted a study to investigate the contributions of PTA to school facility in secondary schools in Benue State. The findings of the study revealed that PTA has contributed significantly to the provision of instructional facilities, infrastructural facilities and recreational facilities.*

Ayeni (2015) conducted a study on assessment of principals' supervisory roles for quality assurance in secondary schools in Ondo State, Nigeria. The purpose was to identify the nature of principals' supervisory roles and perceived effectiveness of principals in the supervision of teachers' instructional tasks. The result showed that most principals accorded desired attention to supervisory activities such as monitoring of teachers' attendance, preparation of lesson notes, and adequacy of dairies of work; while tasks such as the provision of instructional materials, reference books, feedback and review of activities with stakeholders were least performed by many principals in secondary schools.

Dike (2016) conducted a study on the availability and utilization of laboratory facilities and their implication in the performance of students in Biology in Senior Secondary Certificate Examination (SSCE) in Zaria Metropolis of Kaduna State. The findings of the study revealed inadequate availability and utilization of laboratory facilities in the senior secondary schools. Inadequate laboratory facilities affect meaningful teaching and learning in schools and hindrance to academics performance and hence the significant relationship between the laboratory facilities and the laboratory facilities and the performance of students in Biology in the SSCE as revealed by the findings. Abokwara (2017) conducted a study to ascertain how regular teachers participate in in-service education programs and what categories of teachers attend. It also determined the relationship between the regularity of teacher's participation and their performances, and the type of in-service education programs available to teachers. The findings showed that teachers moderately

participated in in-service education regularly. It was also found out that the regularity of participation in in-service education is positively and highly related to teacher performances. The results also showed that less experienced teachers significantly participated in in-service education more than the experienced ones. The study concluded that teachers' performance in the school system is largely dependent on their sequence to rich retraining programs and incentive packages. Okunamiri (2018) carried out a study on the correlates of organized community financing of secondary schools in Okigwe education zone of Abia State. The purpose of the study was to ascertain the influence of community financing of secondary schools. The results indicated that organized groups such as parent teachers association, age grades, did not make a significant contribution in funding secondary education in the area of study. However, women organization and religious organization made minimal financial contributions in the provision of secondary education in the area. Obilikana (2018) investigated the provision and maintenance of school plant in Rivers State secondary schools. The purpose was to establish possible causes of falling standard of education with emphasis on the provision, utilization and maintenance of school plant. The finding showed that the level of facilities provision was generally low in Rivers State secondary school. The condition of available school plant was not in a perfect working condition. School plant in Rivers State secondary schools was inadequate. The regularity of the maintenance of facilities is inadequate, irregular and poor. Government, staff and students show negative attitude towards school plant.

## Methodology

The design for this study was survey research design. The study involved the collection of data from a representative sample of public secondary school principals, vice principals, dean of studies and teachers provided information through questionnaire on the effectiveness of public and private partnership initiatives in the management of public secondary school in North Central, Nigeria. The population of the study was 44,342 respondents made up principals, the vice principal academic, vice principal administration, dean of studies and class teachers some of whom were PTA officials from 1,656 public secondary schools in North Central Nigeria. The sample for the study was 396 respondents randomly selected from the population using Taro-Yamane formula. The sample was made up of principals, vice principal academic, vice principal administration, deans of studies and class teachers in 66 public secondary schools that are spread in four states of Benue, Nasarawa, Kogi, Plateau and Federal Capital Territory Abuja in North Central Nigeria.

The sampling technique used in this study was multi-stage sampling procedure. The instrument for data collection was a self-structured questionnaire. The instrument consisted of a 24-item questionnaire developed by the researchers. The questionnaire was a 4-point rating scale and anchored on the continuum of Strongly Agree (SA), Agree (A), Disagree (DA), and Strongly (SD). The items of the instrument were validated by four experts in the area of Educational Administration and Planning and Measurement and Evaluation. The reliability of the instrument was computed using Cronbach Alpha method. The reliability coefficients of the instrument using Cronbach Alpha method for clusters 1, 2, 3 and 4 were 0.83, 0.81, 0.85 and 0.79 respectively. The reliability coefficient for the entire instrument was 0.89 which indicates that the instrument is reliable. The research questions posed in this study were descriptively analyzed using mean and standard deviation. Mean score and standard deviation were calculated for each item of the instrument. The cut-off point of 2.50 was used for decision making. A mean score of item above 2.50 was considered as an agreement with the item and a mean score below 2.50 was considered as a disagreement to the item. In this study, weighted mean was used to further classify the extent of effectiveness and ineffectiveness of the mean responses for clusters 1, 2, 3 and 4. Any item with a mean value of 3.50 to 4.00 was regarded as very effective (VE), and any item with a mean value of 2.50 to 3.49 would be regarded as moderately effective (ME), while any item with mean response of 1.50 to 2.49 was regarded as ineffective (IE), whereas any item with mean response of 0.50 to 1.49 was regarded as very ineffective (VIE). The hypotheses formulated were tested at 0.05 level of significance using inferential statistics of Chi-square test of goodness-of-fit. Since Chi-Square by itself provides no answer regarding the magnitude of the relation, there was the need to confirm

how significant every obtained significant outcome of the hypothesis would be by calculating the *effect size statistic* for any result which yielded a significant result. The effect size statistic provides an indication of the magnitude of the significant result and this was given by the formula  $C =$  ,

According to Pallant (2011) as cited in Emaikwu (2019), for either R-1 or C-1 equal to 3, (four categories of response options) small effect size is when C value equals to 0.06 (6%); for medium effect size is when C is equal to 0.17 (17%); for large effect size, is when C is equal to 0.29 (29%)

## Presentation of Results

This section deals with the presentation of results of data analysis and discussion of findings based on the results of the study. The presentation follows the sequence of the research questions posed and the corresponding hypotheses that guided the study. The research questions were answered using mean and standard deviation.

**Research Question 1:** How effective is public and private partnership initiatives in the area of funding of the public secondary schools in the North Central Nigeria? To answer this research question, the responses of the respondents were collected, analyzed and their mean responses with their corresponding standard deviations are presented in Table 1 using the responses to items 1-6 of the instrument.

**Table 1: Mean and Standard Deviation of effectiveness of public and private partnership initiatives in the area of funding of the public secondary schools in the North Central Nigeria**

S/No.	Items	SA	A	DA	SD	Mean	Std Dev	Rank	Remark
1.	Through PPPI, public and private organizations donate funds to the school and this helps to increase the amount of money for school operations.	177	133	64	22	3.17	.89	2 <sup>nd</sup>	ME
2.	Through PPPI, public and private sector funding is evident in my school in the area of construction of school buildings	47	261	70	18	2.85	.67	5 <sup>th</sup>	ME
3.	Through PPPI, PTA donates funds to the school and this helps to increase the amount of money for school operations.	171	169	44	12	3.26	.77	1 <sup>st</sup>	ME
4.	Through PPPI, Alumni associations donate funds to the school and this helps to increase the amount of money for school operations.	173	124	83	16	3.15	.88	3 <sup>rd</sup>	ME
5.	Through PPPI, public and private sector funding is evident in my school in the procurement of learning materials or sporting facilities	160	124	81	31	3.04	.96	4 <sup>th</sup>	ME
6.	Through PPPI, banks may lend money to schools at a lower negotiated interest rates and this may help schools in executing some capital projects	53	92	182	69	2.33	.91	6 <sup>th</sup>	IE
	<b>Cluster mean and standard deviation</b>					<b>2.97</b>	<b>.85</b>		<b>ME</b>

**KEY:**

Any item with mean response of: 3.50 to 4.00 =Very Effective (VE), 2.50 to 3.49 = Moderately Effective (ME), 1.50 to 2.49= Ineffective (IE), 0.50 to 1.49 = Very Ineffective (VIE)

The data presented in Table 1 showed that items 1-6 which focused on how effective is public and private partnership initiatives in the area of funding of the public secondary schools, had item mean values of 3.17, 2.85, 3.26, 3.15, 3.04, 2.33 and with the corresponding standard deviation values of 0.89, 0.67, 0.77, 0.88, 0.96 and 0.91 respectively. On the basis of the criteria set for decision making, any item with a mean rating of 2.50 and above would be regarded as an acceptable medium of effectiveness of public and private partnership initiatives in the area of funding of the public secondary schools in the North Central Nigeria. Based on this classification, only one item has a mean value less than 2.50 in Table 1. In this study, weighted mean was also used to further classify the level of *effectiveness and ineffectiveness* of the mean responses for cluster 1. It was stated that any item with a mean value of 3.50 to 4.00 would be regarded as very effective (VE), and any item with a mean value of 2.50 to 3.49 would be regarded as moderately effective (ME), while any item with mean response of 1.50 to 2.49 would be regarded as ineffective (IE), whereas any item with mean response of 0.50 to 1.49 would be regarded as very ineffective (VIE). On the basis of this categorization, five items were classified as being moderately effective (ME) while one item was classified as ineffective (IE). Table 1 also shows the ordered ranking of how effective the items in cluster 1 are with regard to public and private partnership initiatives in the area of funding of the public secondary schools in the North Central Nigeria. From Table 1, the cluster mean and standard deviation are 2.97 and 0.85 respectively while the obtained observed frequencies are displayed in columns 3-6. To ascertain if the observed frequencies in columns 3-6 are statistically significant, the corresponding hypothesis is tested using Chi-Square goodness-of-fit statistic and the result is displayed in Table 5.

**Research Question 2:** What is the effectiveness of public and private partnership initiatives in the area of provision of school facilities in public secondary schools?

To answer this research question, the responses of principals, vice principal academic, vice principal administration and class teachers on the effectiveness of public and private partnership initiatives in the area of provision of school facilities in public secondary schools were collected, analyzed and their mean responses and standard deviation are presented in Table 2 using the responses to items 7-12 of the instrument.

**Table 2: Mean and Standard Deviation of the effectiveness of public and private partnership initiatives in the area of provision of school facilities in public secondary schools**

S/No.	Items	SA	A	DA	SD	Mean	Std Dev	Rank	Remark
7.	Through PPPI, classrooms are constructed in the school and this reduces shortage of classroom accommodation.	178	160	48	10	3.28	.77	1 <sup>st</sup>	ME
8.	Through PPPI, learning equipment like computers are supplied to the school thereby aiding teaching and learning	82	240	61	13	2.98	.70	2 <sup>nd</sup>	ME
9.	Through PPPI, sport facilities are supplied in my school by private organizations resulting in opportunities for physical development of staff and students.	140	116	111	29	2.92	.96	3 <sup>rd</sup>	ME
10.	Through PPPI, hostel facilities are provided in the school and this has helped to accommodate the students on the school compound.	139	108	105	44	2.86	1.02	4 <sup>th</sup>	ME
11.	Through PPPI, transport facilities are provided for staff and students thereby alleviating transportation problems in the school.	122	98	111	65	2.69	1.07	6 <sup>th</sup>	ME



12.	One form of school facilities provided by public and private sectors organizations in myschool is electricity supply	123	125	94	54	2.80	1.02	5 <sup>th</sup>	ME
<b>Cluster mean and standard deviation</b>						<b>2.92</b>	<b>0.92</b>		<b>ME</b>

**KEY:** Any item with mean response of;

3.50 to 4.00 =Very Effective (VE), 2.50 to 3.49 = Moderately Effective (ME),

1.50 to 2.49= Ineffective (IE), 0.50 to 1.49 = Very Ineffective (VIE).

The data presented in Table 2 showed that items 7-12 which focused on the effectiveness of public and private partnership initiatives in the area of provision of school facilities in public secondary schools in the North Central Nigeria had item mean values of 3.28, 2.98, 2.92, 2.86, 2.69 and 2.80 with the corresponding standard deviation values of 0.77, 0.70, 0.96, 1.02, 1.07, and 1.02 respectively. From Table 2, the cluster mean and standard deviation are 2.92 and 0.92 respectively On the basis of the criteria set for decision making, any item with a mean rating of 2.50 and above would be regarded as an acceptable medium of effectiveness of public and private partnership initiatives in the area of provision of school facilities in public secondary schools in the North Central Nigeria. Based on this classification, no item has a mean value less than 2.50 in Table 2. In this study, weighted mean was also used to further classify the level of *effectiveness and ineffectiveness* of the mean responses for cluster 2. It was initially stated that any item with a mean value of 3.50 to 4.00 would be regarded as very effective (VE), and any item with a mean value of 2.50 to 3.49 would be regarded as moderately effective (ME), while any item with mean response of 1.50 to 2.49 would be regarded as ineffective (IE), whereas any item with mean response of 0.50 to 1.49 would be regarded as very ineffective (VIE). On the basis of this categorization, all the items were classified as being moderately effective (ME) while no item was classified as ineffective (IE). Table 2 also shows the ordered ranking of how effective the items in cluster 2 are with regard to public and private partnership initiatives in the area of provision of school facilities in public secondary schools in the North Central Nigeria. From Table 2, the obtained observed frequencies are displayed in columns 3-6. To ascertain if the observed frequencies in columns 3-6 are statistically significant, the corresponding hypothesis is tested using Chi-Square goodness-of-fit statistic and the result is displayed in Table 6.

**Research Question 3:** How effective is public and private partnership initiatives in the area of staff development in public secondary schools?

To answer this research question, the responses of principals, vice principal academic, vice principal administration and class teachers on how effective is public and private partnership initiatives in the area of staff development in public secondary schools were collected, analyzed and their mean responses and standard deviation are presented in Table 3 using the responses to items 13-18 of the instrument.

**Table 3: Mean and Standard Deviation on how effective public and private partnership initiative is in the area of staff development in public secondary schools**

S/No	Items	SA	A	DA	SD	Mean	Std Dev	Rank	Remark
13.	Through PPPI, public and private organizations assist staff to attend seminars or workshops and this helps the staff to perform better in their teaching responsibilities.	34	95	225	42	2.31	.77	3 <sup>rd</sup>	IE
14.	Through PPPI, public and private organizations collect and circulate information on professional development courses to school staff and this result in staff attending seminars/workshops.	16	207	141	32	2.52	.70	1 <sup>st</sup>	ME

S/No	Items	SA	A	DA	SD	Mean	Std Dev	Rank	Remark
15.	Through PPPI, PTA evaluates training needs of staff on behalf of the school where necessary	20	179	162	35	2.46	.72	2 <sup>nd</sup>	IE
16.	Through PPPI, public and private sector organizations bring in experts to update teachers' knowledge and skills in their subject areas.	23	101	128	144	2.01	.92	5 <sup>th</sup>	IE
17.	Through PPPI, public and private sector organizations in conjunction with the school often organize staff development seminars or workshops for school staff and this helps in upgrading or updating the staff's skills.	34	122	110	131	2.15	.98	4 <sup>th</sup>	IE
18.	Through PPPI, public and private organizations award scholarships to staff for higher studies and as such staff perform better in their jobs.	25	65	144	162	1.88	.90	6 <sup>th</sup>	VIE
	<b>Cluster mean and standard deviation</b>					<b>2.22</b>	<b>.83</b>		<b>IE</b>

**KEY:** Any item with mean response of;

3.50 to 4.00 =Very Effective (VE), 2.50 to 3.49 =Moderately Effective (ME),  
1.50 to 2.49= Ineffective (IE), 0.50 to 1.49 = Very Ineffective (VIE).

The data presented in Table 3 showed that items 13-18 which focused on the effectiveness of public and private partnership initiatives in the area of staff development in public secondary schools had item mean values of 2.31, 2.52, 2.46, 2.01, 2.15 and 1.88 with the corresponding standard deviation values of 0.77, 0.70, 0.72, 0.92, 0.98 and 0.90 respectively. From Table 3, the cluster mean and standard deviation are 2.22 and 0.83 respectively. On the basis of the criteria set for decision making, any item with a mean rating of 2.50 and above would be regarded as an acceptable medium of effectiveness of public and private partnership initiatives in the area of staff development in public secondary schools. Based on this classification, only one item has a mean value more than 2.50 in Table 3. In this study, weighted mean was also used to further classify the level of *effectiveness and ineffectiveness* of the mean responses for cluster 3. It was stated that any item with a mean value of 3.50 to 4.00 would be regarded as very effective (VE), and any item with a mean value of 2.50 to 3.49 would be regarded as moderately effective (ME), while any item with mean response of 1.50 to 2.49 would be regarded as ineffective (IE), whereas any item with mean response of 0.50 to 1.49 would be regarded as very ineffective (VIE). On the basis of this categorization, only one item was classified as being moderately effective (ME) while the rest five items were classified as ineffective (IE). Table 3 also shows the ordered ranking of how effective the items in cluster 3 are with regard to public and private partnership initiatives in the area of staff development in public secondary schools in the North Central Nigeria. From Table 3, the obtained observed frequencies are displayed in columns 3-6. To ascertain if the observed frequencies in columns 3-6 are statistically significant with expected frequencies, the corresponding hypothesis 3 is tested using Chi-Square goodness-of-fit statistic and the result is displayed in Table 7.

**Research Question 4:** What is the effectiveness of public and private partnership initiatives in the area of instructional supervision in public secondary schools?

To answer this research question, the responses of principals, vice principal academic, vice principal

administration and class teachers on the effectiveness of public and private partnership initiatives in the area of instructional supervision in public secondary schools were collected, analyzed and their mean responses and standard deviation are presented in Table 4 using the responses to items 19-24 of the instrument.

**Table 4: Mean and Standard Deviation on how effective public and private partnership initiative is in the area of instructional supervision in public secondary schools**

S/No.	Items	SA	A	DA	SD	Mean	Std Dev	Rank	Remark
19.	Through PPPI, experienced community members offer useful suggestions to improve instructional practices.	39	279	69	9	2.88	.59	1 <sup>st</sup>	ME
20.	Through PPPI, teachers are provided with research findings about effective instructional delivery and this aids instruction.	24	153	100	119	2.21	.94	6 <sup>th</sup>	IE
21.	Through PPPI, public and private sector organizations help teachers to find solutions to problems they encounter during instruction and this aids teachers' performance.	27	167	184	18	2.51	.66	4 <sup>th</sup>	ME
22.	Through PPPI, experience members of school community assist the school in instructional supervision by providing useful suggestions to improve instructional practices and this aids teachers' performance.	40	140	200	16	2.52	.69	3 <sup>rd</sup>	ME
23.	Through PPPI, experienced community members make informal or formal visits to classrooms to assist teachers and this makes teachers to perform well.	23	175	147	51	2.43	.79	5 <sup>th</sup>	IE
24.	Through PPPI, public and private sector organizations assist the school in instructional supervision by providing instructional materials	23	216	131	26	2.60	.70	2 <sup>nd</sup>	ME
	<b>Cluster mean and standard deviation</b>					<b>2.53</b>	<b>.73</b>		<b>ME</b>

**KEY:** Any item with mean response of;

3.50 to 4.00 =Very Effective (VE), 2.50 to 3.49 =Moderately Effective (ME),

1.50 to 2.49= Ineffective (IE), 0.50 to 1.49 = Very Ineffective (VIE).

The data presented in Table 4 showed that items 19-24 which focused on the effectiveness of public and private partnership initiatives in the area of instructional supervision in public secondary schools had item mean values of 2.88, 2.21, 2.51, 2.52, 2.43 and 2.60 with the corresponding standard deviation values of 0.59, 0.69, 0.66, 0.94, 0.79 and 0.70 respectively. From Table 4, the cluster mean and standard deviation are 2.53 and 0.73 respectively. On the basis of the criteria set for decision making, any item with a mean rating of 2.50 and above would be regarded as an acceptable medium of effectiveness of public and private partnership initiatives in the area of instructional supervision in public secondary schools. Based on this classification, four items have a mean value more than 2.50 in Table 4. In this study, weighted mean was also used to further classify the level of *effectiveness and ineffectiveness* of the mean responses for cluster 4. It was stated that any item with a mean value of 3.50 to 4.00 would be regarded as very effective (VE), and any item with a mean value of 2.50 to 3.49 would be regarded as moderately effective (ME), while any item

with mean response of 1.50 to 2.49 would be regarded as ineffective (IE), whereas any item with mean response of 0.50 to 1.49 would be regarded as very ineffective (VIE). On the basis of this categorization, only four items were classified as being moderately effective (ME) while the rest two items were classified as ineffective (IE). Table 4 also shows the ordered ranking of how effective the items in cluster 4 are with regard to public and private partnership initiatives in the area of instructional supervision in public secondary schools in the North Central Nigeria. From Table 4, the obtained observed frequencies are displayed in columns 3-6. To ascertain if the observed frequencies in columns 3-6 are statistically significant with respect to expected frequencies, the corresponding hypothesis 4 is tested using Chi-Square goodness-of-fit statistic and the result is displayed in Table **Test of Hypotheses**

The hypotheses formulated for the study were tested using Chi-square test of goodness- of -fit analysis at 0.05 level of significance.

**Hypothesis 1:** Public and private partnership initiatives do not have significant positive effect on school management in the area of funding in public secondary schools.

To test hypothesis 1, Chi-square test of goodness- of -fit analysis was conducted at 0.05 level of significance and the result obtained is presented in Table 5.

**Table 5: Chi Square test of goodness- of -fit analysis of the effectiveness of public and private partnership initiatives on school management in the area of funding in public secondary schools.**

Response Options	Fo	Fe	a	Df	$\chi^2$ -cal	Asymp. Sig.	Remark
Strongly Agree	28	99.0					
Agree	87	99.0					
Disagree	151	99.0	0.05	3	89.394 <sub>a</sub>	0.000	S, Reject H <sub>0</sub>
Strongly Disagree	130	99.0					
<b>Total (N)</b>	<b>396</b>						

*N*=Total number of respondents, *Fo*= Observed frequency, *Fe*= Expected frequency *df*=degree of freedom, *-cal*= Chi-square calculated value, Asymp. Sig.= Asymptotic significance value under Chi Square test of goodness- of -fit analysis, *S*=Significant result (Reject H<sub>0</sub>), = Alpha Level= 0.05

The result presented in Table 5 showed the *Chi-square calculated value* of 89.394<sup>a</sup>, with 3 as the degree of freedom and at 0.05 level of significance, the *asymptotic significance value under Chi-Square test of goodness- of -fit analysis* yielded a P- value of 0.00. Based on decision rule, it was stated that wherever the p-value is less than -value of 0.05, the null hypothesis would be rejected whereas whenever the p-value would be greater than the -value of 0.05, the null hypothesis would be accepted, and since P-value of 0.00 is less than the -value of 0.05, this indicates that the test statistic is significant and hence the null hypothesis is rejected. This therefore implies that public and private partnership initiatives have positive effect on school management in the area of funding in public secondary schools. Effect size statistic provides an indication of the magnitude of the significant result and *s* calculated by using the contingency coefficient formula given as

Contingency Coefficient,  $C = \sqrt{\chi^2 / \chi^2 + N}$  , and from Table 5, *N*=396 and  $\chi^2_{cal} = 89.394$

So that coefficient of contingency =  $\sqrt{(89.394 / 89.394 + 396)}$  = 0.4291 ? 0.429 which when expressed in percentage is equal to 42.9%.

**Hypothesis 2:** Public and private partnership initiatives do not have significant positive effect on school

management in the area of provision of facilities in public secondary schools.

To test hypothesis 2, Chi-Square test of goodness- of -fit analysis is conducted at 0.05 level of significance and the result obtained is presented in Table 6.

**Table 6: Chi Square test of goodness-of-fit analysis of the effectiveness of public and private partnership initiatives on school management in the area of provision of facilities in public secondary schools.**

Response Options	Fo	Fe	a	df	$\chi^2$ -cal	Asymp. Sig.	Remark
Strongly Agree	131	99.0					
Agree	141	99.0					
Disagree	88	99.0	0.05	3	69.475 <sup>a</sup>	0.000	S, Reject H <sub>0</sub>
Strongly Disagree	36	99.0					
<b>Total (N)</b>	<b>396</b>						

The result presented in Table 10 showed the *Chi-square calculated value* of 69.475<sup>a</sup>, with 3 as the degree of freedom and at 0.05 level of significance, the *asymptotic significance value under* Chi-Square test of goodness- of -fit analysis yielded a P- value of 0.00. Based on decision rule, it was stated that wherever the p-value is less than -value of 0.05, the null hypothesis would be rejected whereas whenever the p-value would be greater than the -value of 0.05, the null hypothesis would be accepted. Since P-value of 0.00 is less than the -value of 0.05, this indicates that the test statistic is significant and hence the null hypothesis is rejected. This therefore implies that public and private partnership initiatives have positive effect on school management in the area of provision of facilities in public secondary schools. Effect size statistic provides an indication of the magnitude of the significant result and is calculated by using the contingency coefficient formula given as

Contingency Coefficient,  $C = \sqrt{\chi^2 / (\chi^2 + N)}$  and from Table 6, N=396 and  $\chi^2_{cal} = 69.475$

So that contingency coefficient = ?  $(69.475 / (69.475 + 396)) = 0.38697 = 0.387$  which when expressed in percentage is equal to 38.7%.

**Hypothesis 3:** Public and private partnership initiatives do not have significant positive effect on school management in the area of staff development in public secondary schools.

To test hypothesis 3, Chi-Square test of goodness- of -fit analysis is conducted at 0.05 level of significance and the result obtained is presented in Table 7.

**Table 7: Chi-Square test of goodness-of-fit analysis of the effectiveness of public and private partnership initiatives on school management in the area of staff development in public secondary schools.**

Response Options	Fo	Fe	a	Df	$\chi^2$ -cal	Asymp. Sig.	Remark
Strongly Agree	121	99.0					
Agree	91	99.0					
Disagree	94	99.0	0.05	3	6.606 <sup>a</sup>	0.086	NS, H <sub>0</sub> NR
Strongly Disagree	90	99.0					
<b>Total (N)</b>	<b>396</b>						

The result presented in Table 7 showed the *Chi-square calculated value* of 6.606<sup>a</sup>, with 3 as the degree of freedom and at 0.05 level of significance, the *asymptotic significance value under* Chi-Square test of

goodness- of -fit analysis yielded a P- value of 0.086. Based on decision rule, it was stated that wherever the p-value is less than -value of 0.05, the null hypothesis would be rejected whereas whenever the p-value would be greater than the -value of 0.05, the null hypothesis would be accepted. Since P-value of 0.086 is not less than the -value of 0.05, this indicates that the test statistic is not significant and hence the null hypothesis is not rejected. This therefore implies that public and private partnership initiatives have no positive effect on school management in the area of staff development in public secondary schools. There is no need to carry out further test by the calculation of *effect size statistic* to determine the extent of magnitude of how significant the outcome of this hypothesis is, since the obtained Chi-Square outcome did not produce significant result. Any observed physical difference between the observed frequency and expected frequency must have arisen from sampling error or any other variation in the study.

**Hypothesis 4:** Public and private partnership initiatives do not have significant positive effect on school management in the area of instructional supervision in public secondary schools.

To test hypothesis 4, Chi Square test of goodness- of -fit analysis is conducted at 0.05 level of significance and the result obtained is presented in Table 8.

**Table 8: Chi-Square test of goodness-of-fit analysis of the effectiveness of public and private partnership initiatives on school management in the area of instructional supervision in public secondary schools.**

Response Options	Fo	Fe	a	Df	$\chi^2$ -cal	Asymp. Sig.	Remark
Strongly Agree	29	99.0					
Agree	188	99.0					
Disagree	139	99.0	0.05	3	180.828 <sub>a</sub>	0.000	S, Reject H <sub>0</sub>
Strongly Disagree	40	99.0					
<b>Total (N)</b>	<b>396</b>						

The result presented in Table 8 showed the *Chi-square calculated value* of 187.677<sup>a</sup>, with 3 as the degree of freedom and at 0.05 level of significance, the *asymptotic significance value under* Chi-Square test of goodness- of -fit analysis yielded a P- value of 0.00. Based on decision rule, it was stated that wherever the p-value is less than -value of 0.05, the null hypothesis would be rejected whereas whenever the p-value would be greater than the -value of 0.05, the null hypothesis would be accepted. Since P-value of 0.00 is less than the -value of 0.05, this indicates that the test statistic is significant and hence the null hypothesis is rejected. This therefore implies that public and private partnership initiatives have positive effect on school management in the area of instructional supervision in public secondary schools. Effect size statistic provides an indication of the magnitude of the significant result and is calculated by using the contingency coefficient formula given as

Contingency Coefficient,  $C = \sqrt{\chi^2 / (\chi^2 + N)}$ , and from Table 8, N=396 and  $\chi^2 = 180.828$

So that contingency coefficient =  $\sqrt{(180.828 / (180.828 + 396))} = 0.5599 = 0.560$  which when expressed in percentage is equal to 56.0%.

## Discussion of Findings

The outcome of the findings from research question one and hypothesis one indicate that public and private partnership initiatives have statistical significant positive effect on school management in the area of funding in public secondary schools in North Central Nigeria with an effect size statistic of 42.9%. It was observed that through public and private partnership initiatives, Parent-Teacher Association (PTA) donates

funds to the school and this helps to increase the amount of money for school operations; private organizations donate funds to schools and this helps to increase the amount of money for school operations. In addition, alumni associations donate funds to the school and this helps to increase the amount of money for school operations. It is also obvious that public and private sector funding is evident in public secondary schools in the area of construction of school buildings. This result therefore partly supports the earlier findings by Nakpodia (2013b) who carried out a research on the techniques for improving private sector participation in funding educational institutions and indicated that private sector participation in funding education is very low. The result supports the findings of Okunamiri (2018) who carried out a study on the correlates of organized community financing of secondary schools and revealed that public and private partnership initiative has significant influence on the provision of financial assistance in secondary schools. The results indicated that women organization and religious organization made minimal financial contributions in the provision of secondary education in the area.

This result disagrees completely with that of Bare (2013) who conducted an investigation on public and private funding strategies and reported that government did not partner with the private sector. The outcome of this study agrees partly with Kpolovie and Obilor (2013) who conducted a study on adequacy-inadequacy of education funding in Nigeria and the results of their study showed that funding of education by government was grossly inadequate in Nigeria and falls far below the 26% budgetary allocation to education as recommended by UNESCO for developing countries. This spells doom, crises, chaos, and danger for education in Nigeria; as on the average, Nigeria spends less than 6% of its annual budget on education.

The outcome of the findings from research question two and hypothesis two indicate that public and private partnership initiatives have statistical significant positive effect on school management in the area of provision of facilities in public secondary schools in North Central Nigeria with an effect size statistic of 38.7%. The result presented in Table 2 showed the level of effectiveness of public and private partnership initiatives in the area of provision of facilities in public secondary schools in North Central Nigeria. On the basis of the criteria set for decision making and further classification on the level of *effectiveness and ineffectiveness* in the area of provision of facilities, it was observed in the order of ranking that through public and private partnership initiatives, classrooms are constructed in schools and this reduces shortage of classroom accommodation; learning equipment like computers are supplied to the schools thereby aiding teaching and learning; sport facilities are supplied to schools by private organizations resulting in opportunities for physical development of staff and students. This therefore indicates that public and private partnership initiatives exist and could be effect on school management in the area of provision of facilities in public secondary schools in North Central Nigeria; though available in public secondary schools but not adequate and hence the need for public and private partnership in this regard. This result therefore supports the earlier findings by Nakpodia (2013a) who examined the role of private sector in enhancing the quality of public secondary schools and reported that private sector contributed significantly to quality school buildings and that the private sector equally contributed to well equipped libraries and laboratories in the schools. This result also agrees with Akighir (2014) who conducted a study into PTA contribution to school facilities in secondary schools and the findings of the study has acknowledged the contributions of the PTA, a private sector organization, to infrastructural facilities provision in secondary schools by revealing that PTA has contributed significantly to the provision of instructional facilities and recreational facilities in secondary schools. The result does support in part, the findings of Dike (2016), who conducted a study on the availability and utilization of laboratory facilities and their implication in the performance of students. The findings revealed inadequate availability and utilization of laboratory facilities in the senior secondary schools and that inadequate laboratory facilities affect meaningful teaching and learning in schools and hindrance to academics performance. Since a significant relationship exists between the laboratory facilities and the performance of students, there is a need for public and private partnership for improvement in this regard. Similarly, Obilikana (2018) investigated the provision and maintenance of school plant and the findings showed that the level of facilities provision was generally low. The condition of available school

plant was not in a perfect working condition. The result disagrees with the finding of Sakari (2017) who conducted a study on public and private partnership in education and the findings indicated that although there was a corporate social responsibility policy towards education, very few secondary schools have received support to set up physical facilities or repair and maintain infrastructure in the last five years.

The outcome of the findings from research question three and hypothesis three indicate that public and private partnership initiatives have no statistical significant positive effect on school management in the area of staff development in public secondary schools in North Central Nigeria. This therefore indicates that public and private partnership initiatives exists but at ineffective level in the area of staff development, in public secondary schools in North Central Nigeria. This result therefore did not support the earlier findings by Ekpoh, Edet and Nkama (2013) who conducted a study on Staff development programmes and secondary school teachers' job performance and the findings showed that teachers who participated in staff development programmes were more effective in their job performance than those who did not, in terms of knowledge of the subject matter, classroom management, teaching methods and evaluation of students work. Moreover, the finding of this study disagrees with Abokwara (2017) who conducted a study on in-service education and teaching personnel performance in secondary in which the findings showed that teachers moderately participated in in-service education regularly and that the regularity of participation in in-service education is positively and highly related to teacher performances.

The outcome of the findings from research question four and hypothesis four indicate that public and private partnership initiatives have statistical significant positive effect on school management in the area of instructional supervision in public secondary schools in North Central Nigeria with an effect size statistic of 56.0%. The result presented in Table 4 showed the level of effectiveness of public and private partnership initiatives in the area of instructional supervision in public secondary schools in North Central Nigeria. This therefore indicates that public and private partnership initiatives exist and could be applied effectively on school management in the area of instructional supervision. The result partly agrees with Ayeni (2015) who conducted a study on assessment of principals' supervisory roles for quality assurance in secondary and the result showed that most principals accorded desired attention to supervisory activities such as monitoring of teachers' attendance, preparation of lesson notes, and adequacy of dairies of work; while tasks such as the provision of instructional materials, reference books, feedback and review of activities with stakeholders were least performed by many principals in secondary schools.

## Conclusion

Based on the findings of this study, it can be concluded that public and private partnership initiatives have significant positive effect on school management in the areas of funding and provision of facilities in public secondary schools in North Central Nigeria with effect size statistic of 42.9% and 38.7% respectively.

Moreover, it can also be concluded that public and private partnership initiatives have no significant positive effect on school management in the areas of staff development but have positive effect on school management in the area of instructional supervision in public secondary schools in North Central Nigeria with effect size statistic of 56.0%.

## Recommendations

Based on the findings of the study, the following recommendations are made.

1. Since it has been affirmed that public and private partnership initiatives have significant positive effects on school management in the areas of funding and provision of facilities in public secondary schools in North Central Nigeria, efforts should be made by Governments to continue to improve



upon the variables of funding and provision of facilities in public secondary schools. This implies that there should be an active private intervention in the areas of funding and provision of facilities for efficient and effective management of public secondary schools in North Central Nigeria.

2. For the fact that it is evident from the findings that public and private partnership initiatives have no significant positive effects on school management in the areas of staff development but have positive effect on instructional supervision in public secondary schools in North Central Nigeria, efforts should be made by Governments to maintain and sustain regular staff development to enhance teachers' skills and to continue to provide adequate instructional supervision in the management of public secondary schools for optimum effectiveness.

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