
RESOURCE ALLOCATION AND INTERNAL EFFICIENCY OF PUBLIC SENIOR SECONDARY SCHOOLS IN JOS EAST LGA, PLATEAU STATE, NIGERIA

BY

¹John Moses Dakwat, ²Tolutope I. Oke & ³Theresa S. Gyang

¹Armed Forces Resettlement Centre, Oshodi, Lagos State, Nigeria.

^{2&3}Department of Educational Foundations, Faculty of Education, University of Jos, Nigeria.

Email: oketolu66@yahoo.com

Abstract

This paper investigated the nexus between resource allocation and internal efficiency of public senior secondary schools in Jos East Local Government Area, Plateau State. Four hypotheses were formulated to guide the study. The correlational survey design was adopted for the study. The population of the study is 4110 while the sample for the study comprised 100 respondents consisting of 10 principals 30 teachers, 50 students and 10 staff of secondary education board in Jos East LGA of Plateau State. The samples were drawn using the stratified random sampling. Four sets of instruments were used for data collection namely: Resource Allocation Questionnaire, Internal Efficiency Questionnaire, Resource Allocation Checklist (RAC) and Documentary Template for Inquiry Proforma (DTIP). Pearson Product Moment Correlation and regression analysis were used to test hypotheses formulated in the study. From the analysis of data collected, it was discovered that there is a significant relationship between material, human, financial and time resources allocation and internal efficiency of public senior secondary schools in Jos East Local Government Area. Based on the findings of the study it was recommended among others that government should allocate adequate material resources to schools such as books, laboratories equipment stationaries and other teaching aids to facilitate the standard of teaching and learning in schools. Only qualified teachers with at least NCE qualification should be recruited in secondary schools and government should allocate adequate funds for the smooth running of the schools among others.

Keywords: Resource Allocation, Internal Efficiency, Educational Resources, Public Secondary Schools.

Introduction

Resource allocation and internal efficiency are two key important indices in educational administration. Resource allocation to schools refer to the process by government allocate financial, human, material and other physical resources to schools. This is because resources constitute a very important factor in the functioning of the educational system as the success of the system depends on the manpower and materials made available to it. Fabunmi (2017) identified resources in an educational establishment to include material, human, financial and time resources. These are the major variables that determine the rate of educational development of a given country. Financial resource has equally been recognized as a major resource in the development of any educational system. A very vital aspect of the function of the school manager is the management of the school funds. Finance is positively related to the quality of education. Abdulmalik (2015) lamented on the issue of poor funding and maintenance of the secondary schools. He observed that the Nigerian government has not been sincere and consistent in its commitment to the development of education. Most of the structures and facilities in secondary schools have deteriorated with no effort from the government to renovate them.

Another vital resource is the human resources. They are seen as the greatest and most precious asset or factor in the production process. Human resources comprised both teaching and non-teaching staff. The importance of teaching and non-teaching staff in the secondary school education cannot be over stressed, because they play a number of roles. Specifically, teachers have been referred to as agents of innovation while non-teaching staff are the support system of the school framework. For meaningful innovations, allocation of qualified teachers is very important. Teachers are important in any educational system. This is because the quality of teachers in any educational system

determines to a great extent the quality of the system itself. Teachers in particular are crucial to the formulation and successful implementation to education policies in any country.

Furthermore, material resource is another indispensable resource in the school management. The availability of school buildings, classrooms, chairs, desks and other resources are necessary for the attainment of educational objectives. Hallak (2015) identified educational facilities as the major factor contributing to academic achievements in the school system. These include the school buildings, classrooms, furniture, libraries, laboratories, recreational equipment and other instructional aids. Physical facilities are the essential materials that must be put in place and into consideration for the objectives of the school system to be accomplished. The availability of these facilities determines the quality of instruction and performance of students in the school. Similarly, another resource of importance in the educational system is time. Time resource allocation is the process of planning and exercising conscious control of time spent on specific activities, especially to increase effectiveness, efficiency or productivity. Time resource allocation is a meta-activity with the goal to maximize the overall benefit of a set of other activities within the boundary condition of a limited amount of time, as time itself cannot be managed because it is fixed. Time resource management may be aided by a range of skills, tools, and techniques used to manage time when accomplishing specific tasks, projects, and goals complying with due dates. Internal efficiency of secondary schools deals with the effectiveness of schools in meeting their goals of providing quality education for students and how well they are being prepared for further education at the tertiary education level. At this level, children are transformed to adults by teachers through proper literacy, skills, norm and values imbibed in them. The indicators of internal efficiency in this study are cost effectiveness, failure of academic achievement and wastage (repetition and dropout rate). When students repeat classes at the senior secondary school level, it adds to the cost of education and reduces the cost-effectiveness of education.

In recent times, Nigeria has witness high enrollment rates in public senior secondary schools with little or no increase in resource allocation (Osagie, 2023). This has increased the level of pressure on existing human, material, financial and time resources leading to high dropout rates and low completion rate in school in the school system. Osagie (2023) discovered that only about 60% of students who get enrolled in the Nigerian school system stay till graduation. This finding reveals that there is low degree of internal efficiency in the Nigerian school system as there is a wide margin between enrolment and completion rate in the public senior secondary school system in Nigeria. Secondary school education in Nigeria has been plagued with series of problems ranging from low budgetary provision, poor resource allocation, poor maintenance culture and politicization of education. It is a known fact that Nigeria's budgetary allocation to education from 2017 to 2020 were as follows: 7.9%, 6.13%, 7.14% and 7.12% respectively (National Bureau of Statistics, 2021). This is far below the UNESCO minimum requirement of 26% hence secondary schools in Nigeria are characterized by inadequate resources. The classroom blocks and furniture in most public senior secondary schools are in a state of dilapidation, while laboratories and libraries are poorly equipped. Another factor militating against secondary school education is the issue of politicization of education. Issues like funding, allocation of teachers and provision of instructional facilities have been politicized to suit personal interest thus leaving secondary school education in a deplorable state in Nigeria. In the light of the challenges bedeviling secondary school education in Nigeria and Plateau State in particular, To address these issues, this question will be answered in this study: how does resource allocation correlate with internal efficiency in public senior secondary schools in Jos East Local Government Area, Plateau State? this study is prompted to investigate the relationship between resource allocation and internal efficiency of secondary schools in Jos East Local Government Area, Plateau State.

Literature Review

Resources constitute a very important factor in the functioning of the educational system as the success of the system or otherwise depend on the manpower and materials made available. Fabunmi (2017) identified resources in an educational establishment to include material, human and financial resources. These are the major variables that

determine the rate of educational development of a given country. Financial resource has equally been recognized as a major resource in the development of any educational system.

A very vital aspect of the function of the school manager is the management of the school funds. Finance is positively related to the quality of education. Abdulmalik (2015) lamented on the issue of poor funding and maintenance of the secondary schools. He observed that the Nigerian government has not been sincere and consistent in its commitment to the development of education. Most of the structures and facilities in secondary schools have deteriorated with no effort from the government to renovate them. Public secondary schools in Jos East Local Government Area, Plateau State have problem of shortage of materials, financial, human and time resources (Adetoro, 2018). These schools are characterized by inadequate conducive classrooms, desks, chairs and writing materials. Also, there is the issue of shortage of qualified teachers in the schools. In addition, the funds made available for the running of the schools is not adequate. In the quest for qualitative standard in the Nigerian secondary school educational system, teacher's welfare, provision of infrastructural materials, teaching aids and adequate funding of the educational sectors, as well as proper implementation of educational policies to the core must be prioritised.

Ideally, there should be a progressive flow of students from one grade to another in secondary schools in Jos East Local Government Area, Plateau State. However, there seems to be inefficiency in the secondary school system which limits the academic achievements of students and smooth transition to tertiary institutions. This implies that inefficiency of an educational system constitutes a sort of waste to the system. The aforementioned situation calls for urgent action to be remediated. The need for adequate human, material, financial and time resources to be allocated in public senior secondary schools in Nigeria cannot be over-emphasized. This is because these resources form the building blocks of quality education. If the lack or poor allocation of these resources to public senior secondary schools are not addressed, it will result in an ineffective school system and breeding of school graduates who cannot proceed to the next level of education and cannot contribute meaningfully to socio-economic and technological development of Nigeria as a country.

Research Hypotheses

The following hypotheses will be tested at 0.05 level of significance:

1. There is no significant relationship between material resource allocation and internal efficiency in secondary schools in Jos East Local Government Area, Plateau State
2. There is no significant relationship between financial resource allocation and internal efficiency in secondary schools in Jos East Local Government Area, Plateau State.
3. There is no significant relationship between human resource allocation and internal efficiency in secondary schools in Jos East Local Government Area, Plateau State
4. There is no significant relationship between time resource allocation and internal efficiency in secondary schools in Jos East Local Government Area, Plateau State

Methodology

The correlational survey design was adopted for the study and focused on establishing the relationship between resource allocation and internal efficiency of secondary schools in Jos East Local Government Area of Plateau State. The population of the study covered the 10 public senior secondary schools in Jos East Local Government Area with a population of 10 principals, 1,192 teachers, 2,980 students and 28 members of the secondary education board. The sample for the study covered 100 respondents consisting of 10 principals, 30 teachers, 50 students and 10 staff of secondary education board in Jos East LGA of Plateau State. The sample was drawn using the stratified random sampling. Four sets of instruments were used for data collection in this study namely: Resource Allocation Questionnaire, Internal Efficiency Questionnaire, Resource Allocation Checklist (RAC) and Documentary Template

for Inquiry Proforma (DTIP). These instruments were responded to by the students, teachers, principals and staff of secondary education board. Pearson Product Moment Correlation and regression analysis were used to test hypotheses formulated in the study.

Results

Hypothesis One

There is no significant relationship between material resource allocation and internal efficiency in secondary schools in Plateau State.

Table 1:
Model Summary Showing the Relationship between Material Resource Allocation and Internal Efficiency in Secondary Schools in Jos East Local Government Area

	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.131 ^a	.017	.005	13.686

Table 1 reveals the model summary showing the relationship between material resource allocation and internal efficiency in secondary schools in Plateau State. The result yielded a regression coefficient of 0.131, coefficient of multiple determination of 0.017 and the adjusted R-Square of .005. It indicates that material resource allocation relates with internal efficiency of secondary schools in Jos East Local Government Area of Plateau State.

Table 2:
Summary of ANOVA for Relationship between Material Resource Allocation and Internal Efficiency in Secondary schools in Plateau State

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	256.962	1	256.962	1.372	0.025 ^b
	Residual	14609.788	78	187.305		
	Total	14866.750	79			

Table 2 reveals the F-test that examines the degree of relationship between material resource allocation and internal efficiency in secondary schools in Jos East Local Government Area of Plateau State. The result shows that $F(1, 78) = 1.37$, $P > 0.05$. Since the p-value (0.025) is less than the 0.05 level of significance, the null hypothesis was rejected, it then implies that model is significant, meaning that material resource allocation is significantly related to internal efficiency of secondary schools in Jos East Local Government Area of Plateau State.

Table 3:
Coefficient of Relationship between Material Resource Allocation and Internal Efficiency

Model		Un-standardized Coefficients		Standardized Coefficients	T	Sig.
		β	Std. Error	Beta		
1	(Constant)	36.380	11.411		3.188	.002
		.962	.821	.131	1.171	.245

Table 3 reveals the un-standardized regression coefficient (β), the standardized regression coefficient (beta weight) t, and p -value. The result shows that material resource allocation: $\beta = .131$, $t (78) = 1.17$, $P = 0.025$, significantly contribute to internal efficiency of public secondary schools in Jos East Local Government Area of Plateau State.

Hypothesis Two

There is no significant relationship between financial resource allocation and internal efficiency in secondary schools in Plateau State.

Table 4:
Model Summary Showing the Relationship between Financial Resource Allocation and Internal Efficiency in Secondary Schools in Plateau State

Step	-2 Log likelihood	Cox and Snell R Square	Nagelkerke R Square	Percentage Correct
1	57.480	.036	.051	72

Table 4 reveals the model summary showing the relationship between financial resource allocation and internal efficiency in secondary schools in in Jos East Local Government Area of Plateau State. The result yielded a -2log likelihood of 57.48, a coefficient multiple determination of 0.036 and the adjusted R-Square of .051.

Table 5:
Variables in the Equation on Relationship between Financial Resource Allocation and Internal Efficiency in Secondary schools in Jos East, Plateau State

		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1 ^a	Financial resources Allocation	.858	.642	1.787	1	.181	2.359
	Constant	.486	.449	1.167	1	.280	1.625

Model $X^2 = 1.82$, $p = .178$
N = 80

Table 4 shows the that the logistic regression model was statistically significant, $X^2(1, 78) = 1.82$, $p=0.01$, since the p-value is less than 0.05 level of significance, the null hypothesis was rejected, it was concluded that there is a significant relationship between financial resource allocation and internal efficiency in secondary schools.

Hypothesis Three

There is no significant relationship between human resource allocation and internal efficiency in secondary schools in Plateau State

Table 6:
Model Summary Showing Relationship between Human Resource Allocation and Internal Efficiency in Secondary Schools in Jos East LGA, Plateau State

Step	-2 Log likelihood	Cox and Snell R Square	Nagelkerke R Square	Percentage Correct
1	58.904	.008	.011	72

Table 6 reveals the model summary showing the relationship between human resource allocation and internal efficiency in secondary schools in Jos East LGA, Plateau State. The result yielded a -2log likelihood of 58.90, a coefficient multiple determination of 0.008 and the adjusted R-Square of .011. It means that 1.1% of the variance in the model is explained by human resource allocation and correctly classified 72% cases.

Table 7:
Variables in the Equation on Relationship between human resource allocation and internal efficiency in secondary schools in Jos East Local Government Area of Plateau State

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a						
Human Resource Allocation	.405	.645	.395	1	0.003	1.500
Constant	.693	.500	1.922	1	.0016	2.000
Model X ² = .391, p = .003						
N = 80						

Table 7 shows the that the logistic regression model was statistically insignificant, $X^2(1, 78) = .391, p=0.003$, since the p-value is less than 0.05 level of significance, the null hypothesis was rejected, it was concluded that there is a significant relationship between humanresource allocation and internal efficiency in secondary schools in Jos East Local Government Area of Plateau State. Table 18 further shows the partial logistic regression coefficients (b), the standard errors of the partial slope coefficients (se), the significance level, and the odds ratio (or exponentiated slope coefficient). The result shows that human resource allocation: $\beta = .405, SE = .645, P = 0.003$, significantly contribute to internal efficiency of public secondary schools in Jos East LGA of Plateau State. It implies that there is a significant relationship between human resource allocation and internal efficiency of public secondary schools in Jos East Local Government Area of Plateau State

Hypothesis Four

There is no significant relationship between time resource allocation and internal efficiency in secondary schools in Plateau State.

Table 8:
Model Summary Showing Relationship between Time Resource Allocation and Internal Efficiency in Public secondary schools in Jos East Local Government Area of Plateau State

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.02 ^a	0.03	.04	13.435

Table 8 reveals the model summary showing the relationship between time resource allocation and internal efficiency in public secondary schools in Jos East Local Government Area of Plateau State. The result yielded a regression coefficient of 0.02, coefficient of multiple determination of 0.03 and the adjusted R-Square of .04. It indicates that time resource allocation do significantly relate to internal efficiency of public senior secondary schools in Jos East Local Government Area of Plateau State.

Table 9:
Summary of ANOVA for Relationship between Time Resource Allocation and Internal Efficiency of Public Senior Secondary Schools in Jos East LGA of Plateau State

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	788.540	1	788.540	4.369	.040 ^b
	Residual	14078.210	78	180.490		
	Total	14866.750	79			

Table 7 reveals the F-test that examines the degree of relationship between time resource allocation and internal efficiency of public senior secondary schools in Jos East LGA of Plateau State. The result shows that $F(1, 78) = 4.37, P < 0.05$. Since the p-value (0.040) is less than the 0.05 level of significance, the null hypothesis was rejected, it then implies that the model is significant, meaning that time resources allocation are significantly related to internal efficiency of public secondary schools in Jos East Local Government Area of Plateau State.

Table 8: Coefficient of Relationship between Time Resource Allocation and Internal Efficiency of Public Secondary Schools in Jos East local Government Area of Plateau State

Model		Un-standardized Coefficients		Standardized Coefficients	t	Sig.
		β	Std. Error	Beta		
1	(Constant)	96.562	22.506		4.291	.000
	Time Resource Allocation	-.557	.266	-.230	-2.090	.040

Table 8 reveals the un-standardized regression coefficient (β), the standardized regression coefficient (beta weight) t, and p -value. The result shows that time resource allocation scores: $\beta = -.230, t(78) = -2.09, P = 0.040$, do

significantly contribute to internal efficiency of public senior secondary school in Jos East Local Government Area of Plateau State.

Discussion

The results of the analysis of hypothesis one which states that there is no significant relationship between material resource allocation and internal efficiency in secondary schools in Plateau State was tested using linear regression and the results yielded a regression coefficient of 0.131, coefficient of multiple determination of 0.017 and the adjusted R-Square of .005. It indicates that material resource allocation relates with internal efficiency of secondary schools in Jos East Local Government Area of Plateau State. This finding is in tandem with the findings of Abdulmalik (2015) who discovered a significant impact of material resources allocation on internal efficiency of public secondary schools in Nigeria. Hypothesis two which states that there is no significant relationship between financial resource allocation and internal efficiency in secondary schools in Plateau State was tested using linear regression and the result yielded a $-2\log$ likelihood of 57.48, a coefficient multiple determination of 0.036 the logistic regression model was statistically significant, $X^2(1, 78) = 1.82$, $p=0.01$, since the p-value is less than 0.05 level of significance, the null hypothesis was rejected, it was concluded that there is a significant relationship between relationship between financial resource allocation and internal efficiency in secondary schools in Jos East, Plateau State. The findings is interdent with Adetoro, (2018).who discovered that financial resource among other educational resources prominently influence internal efficiency. The result shows that financial resource allocations significantly contributed to internal efficiency of public senior secondary schools in Jos East Local Government Area of Plateau State. Hypothesis three which states that there is no significant relationship between human resource allocation and internal efficiency in secondary schools in Plateau State was tested using linear regression and the result yielded a $-2\log$ likelihood of 58.90, a coefficient multiple determination of 0.008 and the adjusted R-Square of .011. It means that 1.1% of the variance in the model is explained by human resource allocation and correctly classified 72% cases. The result shows the that the logistic regression model was statistically insignificant, $X^2(1, 78) = .391$, $p=0.003$, since the p-value is less than 0.05 level of significance, the null hypothesis was rejected, it was concluded that there is a significant relationship between human resource allocation and internal efficiency in secondary schools in Jos East Local Government Area of Plateau State. It implies that there is a significant relationship between human resource allocation and internal efficiency of public secondary schools in Jos East Local Government Area of Plateau State. This finding is in consonance with the findings of Osagie (2023) who discovered that availability of human resources helps to facilitate the internal efficiency of secondary schools in Nigerian. Hypothesis four one which states that there is no significant relationship between time resource allocation and internal efficiency in secondary schools in Plateau State was tested using linear regression. The result yielded a regression coefficient of 0.02, coefficient of multiple determination of 0.03 and the adjusted R-Square of .04. It indicates that time resource allocation do significantly relate to internal efficiency of public senior secondary schools in Jos East Local Government Area of Plateau State. This finding is in agreement with the findings of Hallak (2015) who discovered that time resources allocation contributes efficiency and effectiveness of public secondary schools in Nigeria.

Conclusion

From the findings of the study, it was discovered that public secondary schools in Jos East Local is characterized by poor internal efficiency which is evident in low enrollment rate, wastages, high failure rate, high repetition, high dropout and low completion rates. Many secondary schools in Jos East LGA of Plateau State have problem of shortage of materials, financial, human and time resources. These schools are characterized by inadequate conducive classrooms, desks, chairs and writing materials. Also, there is the issue of shortage of qualified teachers in the schools. In addition, the funds made available for the running of the schools is not adequate. In the quest for qualitative standard in the Nigerian secondary school educational system, teacher's welfare, provision of infrastructural materials, teaching aids and adequate funding of the educational sectors, as well as proper

implementation of educational policies to the core must be prioritised. The need for adequate human, material, financial and time resources to be allocated in public senior secondary schools in Nigeria cannot be over-emphasized. This is because these resources form the building blocks of quality education. If the lack or poor allocation of these resources to public senior secondary schools are not addressed, it will result in an ineffective school system and breeding of school graduates who cannot proceed to the next level of education and cannot contribute meaningfully to socio-economic and technological development of Nigeria as a country. It is therefore concluded in this study that there is a significant impact of resource allocation on internal efficiency of public secondary schools however, there is an inadequate allocation to public secondary schools in Jos East LGA and hence the need to devise means of improving the state of resource allocation and internal efficiency of public secondary schools in the study area.

Recommendations

Based on the findings of the study, the following recommendations were proffered:

1. Government should allocate adequate material resources to schools such as books, laboratories equipment stationaries and other teaching aids to facilitate the standard of teaching and learning in schools
2. Only qualified teachers who have at least NCE qualification should be recruited to teach in schools
3. Government should allocate adequate financial resources for the smooth running of secondary schools.
4. School authorities should allocate adequate time for teaching and other extra-curricular activities which can enhance the educational and social development of students.

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