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School Location and Road Accessibility as Determinants of Administrative Effectiveness of Public Secondary Schools in Jalingo Education Zone, Taraba State, Nigeria

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Abstract: Administrative effectiveness is essential for the effective coordination of teaching, learning, human resources and material resources in public secondary schools. However, the geographical location of schools and the accessibility of roads may constrain the capacity of principals to discharge their administrative responsibilities effectively, particularly in areas where schools are distributed across urban, semi-urban and rural environments. This study examined the influence of school location and road accessibility on the administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State, Nigeria. The study adopted a descriptive survey research design. The population comprised 1,776 teachers drawn from 43 public secondary schools in Jalingo and Ardo-Kola Local Government Areas. A sample of 317 teachers was selected using proportionate and simple random sampling techniques, with the sample size determined using the Krejcie and Morgan table. Data were collected using a researcher-developed instrument titled Geospatial Factors, Infrastructure and Administrative Effectiveness Questionnaire (GFIAEQ). The instrument consisted of items measuring school location, road accessibility and administrative effectiveness. Face and content validity were established by three experts, while test-retest reliability produced a coefficient of 0.812. Mean and standard deviation were used to answer the research questions, while chi-square statistics were used to test the null hypotheses at the 0.05 level of significance. The findings revealed that school location had a positive influence on administrative effectiveness, with a cluster mean of 2.79. The chi-square result showed a statistically significant influence of school location on administrative effectiveness, $\chi^2(20) = 82.899$, $p < .001$. Road accessibility also had a positive influence, with a cluster mean of 2.79, and the hypothesis test indicated a statistically significant influence, $\chi^2(20) = 83.699$, $p < .001$. The study concluded that geographical accessibility is an important condition for effective school administration. It recommended, among other measures, strategic school siting, improvement of access roads to schools, regular maintenance of rural school roads and stronger coordination between education and works authorities.

Keywords: school location, road accessibility, administrative effectiveness, public secondary schools,



Jalingo Education Zone, Taraba State.

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Introduction

Administrative effectiveness is a major determinant of the capacity of educational institutions to achieve their stated objectives. It refers to the extent to which school administrators are able to plan, organise, coordinate, supervise and control school activities and resources in ways that promote effective teaching and learning. In secondary schools, administrative effectiveness is reflected in the quality of instructional supervision, staff coordination, student discipline, resource management, communication, record keeping and implementation of educational programmes. Sulyman et al. emphasised that effective school administration is necessary for the coordination of human and material resources and for the achievement of institutional goals.

The responsibilities of secondary school administrators are extensive. Principals are expected to supervise teachers, organise instructional activities, maintain school facilities, manage school records, enforce discipline, communicate with parents and education authorities, and ensure the implementation of government policies [1]. These responsibilities require an environment in which educational personnel, resources and information can move efficiently. Thus, school administration does not occur in isolation from the physical environment in which schools are located.

Among the environmental conditions that may affect administrative effectiveness are geospatial factors. Geospatial factors relate to the physical location of schools and their spatial relationships with transportation networks, communities, administrative offices, educational facilities and other support services. School location may determine the extent to which schools are connected to essential services and educational resources. Oyeleye argued that school location may influence principals' administrative performance because schools located in accessible environments generally benefit from better connectivity and easier access to educational support services [2].

School location is particularly important in contexts where there are substantial differences between urban and rural communities. Schools located in urban areas may have greater access to education offices, markets, communication infrastructure, electricity, qualified personnel and other institutional services. Rural and remote schools, in contrast, may experience greater difficulties in accessing these resources. Such geographical disparities may impose additional administrative responsibilities on principals and may reduce the amount of time available for instructional leadership and other core management activities [3].

The relationship between school location and administrative effectiveness may also operate through teacher attendance and retention. Where schools are difficult to reach, teachers and other staff may encounter transportation difficulties, particularly during periods of poor weather. This may affect punctuality, attendance and willingness to remain in remote schools. In turn, principals may need to devote additional administrative attention to staffing problems, timetable adjustments and supervision.

Road accessibility represents another critical component of the physical environment of schools. Road accessibility refers to the ease with which a school can be reached by teachers, students, education officials, parents, suppliers and other stakeholders. Effective administration requires regular interaction between school management and these groups [4]. Where roads are accessible, supervisory visits, delivery of teaching materials, staff movement and communication with external stakeholders can take place more efficiently.

Poor road accessibility can create several difficulties for school administration. Education authorities may experience difficulty reaching schools for inspection and monitoring. Instructional materials may be delivered late. Principals may find it difficult to attend meetings at education offices or obtain urgent administrative support. Parents and community members may also participate less frequently in school activities where access is difficult. Okwori, Ede and Obochi reported that poor road networks hindered effective supervision and monitoring of secondary schools in Benue State.

The problem of road accessibility may be more pronounced in rural and geographically dispersed areas. During the rainy season, roads that are already in poor condition may become

difficult or impossible to use. This can isolate some schools from education authorities and communities. Musa and Bello, in their study of rural areas in Adamawa and Taraba States, reported that road accessibility influenced the timely delivery of educational materials, teacher punctuality and interaction with stakeholders [5].

Jalingo Education Zone provides an important context for investigating these relationships. The zone consists of Jalingo and Ardo-Kola Local Government Areas and contains public secondary schools located across urban, semi-urban and rural communities. The differences in geographical accessibility among these schools may create different administrative conditions for principals and teachers. Some schools are close to major roads and administrative centres, while others are located in less accessible communities.

The need to investigate school location and road accessibility is strengthened by the broader challenges confronting public secondary school administration. Where resources are limited, a geographically inaccessible school may experience even greater disadvantages because available support cannot be delivered efficiently [6]. Hence, geographical location and transport accessibility should be considered in educational planning, school siting, resource distribution and administrative support.

Statement of the Problem

Administrative effectiveness is indispensable to the successful operation of public secondary schools. Principals are expected to organise instructional activities, supervise teachers, manage school facilities, enforce discipline and coordinate relationships with education authorities, parents and communities. However, reports of administrative difficulties in many public secondary schools suggest that principals do not always operate under conditions that support the effective performance of these responsibilities.

One possible explanation is the geographical environment in which schools are located. Public secondary schools are not equally distributed across accessible and inaccessible communities. While some schools are located close to major roads, education offices and urban services, others are situated in rural or remote areas [7]. Schools in difficult locations may experience greater difficulties in receiving educational materials, attracting and retaining staff, obtaining external supervision and maintaining regular interaction with stakeholders.

Road accessibility compounds these challenges. Where access roads are poor, transportation becomes difficult for teachers, education officials, parents and suppliers. During the rainy season, the situation may become more serious as roads may be flooded, eroded or otherwise impassable. This can delay supervisory visits, reduce staff punctuality and interfere with the timely implementation of school programmes [8].

Several interventions have been introduced to improve educational quality in Nigeria, but geographical and transportation constraints remain important concerns. There is therefore a need to determine empirically whether differences in school location and road accessibility are associated with differences in administrative effectiveness.

The problem is particularly important in Jalingo Education Zone because the public secondary schools are distributed across the two Local Government Areas of Jalingo and Ardo-Kola, with substantial variation in location and accessibility. Yet, there is limited empirical evidence showing the extent to which these two geospatial factors influence administrative effectiveness in the zone. The present study was therefore undertaken to examine the influence of school location and road accessibility on administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State, Nigeria [9].

Purpose of the Study

The purpose of this article is to examine the influence of selected geospatial factors on administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State, Nigeria.

Specifically, the study sought to:

1. examine the influence of school location on administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State; and
2. examine the influence of road accessibility on administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State [10].

Research Questions

The following research questions guided the study:

1. What is the influence of school location on administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State?
2. What is the influence of road accessibility on administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State?

Hypotheses

The following null hypotheses were tested at the 0.05 level of significance:

H₀₁: There is no significant influence of school location on administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State.

H₀₂: There is no significant influence of road accessibility on administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State.

Concept of Administrative Effectiveness

Administrative effectiveness refers to the degree to which administrators successfully perform organisational functions and achieve predetermined institutional objectives. In schools, it includes planning, organisation, supervision, coordination, decision-making, communication, resource management and evaluation of educational activities. Effective principals create structures that enable teachers to perform their instructional roles efficiently. They coordinate staff, establish procedures, maintain discipline and ensure that instructional resources are properly utilised. Sulyman et al. observed that administrative effectiveness encompasses the ability of school leaders to coordinate school activities and resources toward achieving educational goals. Administrative effectiveness is therefore influenced not only by the individual competence of school leaders but also by the organisational and physical conditions under which leadership takes place. A principal working in a school with inadequate infrastructure or difficult geographical access may face administrative constraints that are not present in a more accessible environment.

School Location and Administrative Effectiveness

School location refers to the geographical position of a school and its relationship with surrounding communities, roads, administrative centres and educational services. Schools may be located in urban, peri-urban or rural environments, and these locations can create different opportunities and constraints for administration.

An accessible school location can enhance administrative effectiveness by facilitating communication, supervision and movement of personnel and resources. Principals of schools close to education offices may have easier access to administrative information and support. Similarly, teachers in accessible schools may be better able to attend school punctually and participate in professional activities [11].

Oyeleye reported that school location influenced principal administrative performance in secondary schools in Ondo State, with urban schools generally benefiting from better accessibility to resources and support services than rural schools. The implication is that location may indirectly influence administrative effectiveness through resource availability, teacher stability and frequency of supervision.

School location may also shape community participation. Schools situated close to communities may have stronger interaction with parents and community leaders. Such interaction can support school development, discipline and mobilisation of resources. In remote communities, geographical

separation may reduce the frequency of such interactions.

The influence of school location is particularly important in developing educational systems where infrastructure and support services are unevenly distributed. Urban schools may be closer to markets, banks, health facilities, communication infrastructure and administrative offices, while rural schools may require substantial travel to access these services.

Road Accessibility and Administrative Effectiveness

Road accessibility refers to the availability, quality and usability of roads connecting schools with surrounding settlements and administrative centres. It is a major determinant of the ease with which people, materials and information can move to and from schools. Effective school administration requires regular monitoring and interaction. Education officials need to visit schools for inspection, monitoring and professional support. Teachers need to travel to schools consistently. Suppliers need to transport instructional materials and other goods. Parents and community leaders also need access to schools for meetings and other activities.

Okwori et al. found that poor road accessibility hindered effective supervision of secondary schools in Benue State. Inaccessible roads reduced the frequency of monitoring visits and created difficulties in the transportation of educational materials. Musa and Bello similarly found that road accessibility influenced administrative effectiveness in rural parts of Adamawa and Taraba States. The researchers identified timely distribution of educational materials, staff punctuality and interaction with stakeholders as important areas affected by road conditions [12].

Nwankwo and Okeke also reported that poor rural road accessibility affected school administration through delays in supervision, reduced stakeholder participation and difficulties in accessing educational facilities. Their findings suggest that road accessibility is not simply a transport issue but an organisational factor that can influence the functioning of educational institutions.

The study is anchored primarily on Henri Fayol's Administrative Management Theory and supported by the broader systems perspective.

Administrative Management Theory

Henri Fayol developed his administrative management principles in the early twentieth century and identified core managerial functions including planning, organising, coordinating, commanding and controlling. The theory assumes that effective management depends on the systematic performance of these functions. The theory is relevant to school administration because principals perform similar managerial functions. They plan instructional activities, organise human and material resources, coordinate teachers and students, supervise implementation and control school operations.

School location and road accessibility can influence the extent to which these administrative functions can be performed efficiently. For example, poor road accessibility may limit external supervision, delay resource delivery and make communication with educational authorities more difficult [13]. Thus, the physical environment can either facilitate or constrain administrative processes.

Systems Perspective

The systems perspective views the school as an interconnected system comprising inputs, processes and outputs. The school interacts continuously with its environment, and changes in one component may influence the functioning of other components. Within this perspective, school location and road accessibility can be regarded as environmental conditions that influence school processes. Administrative effectiveness constitutes one of the process outcomes affected by the interaction between school management and its environment. The theoretical implication is that administrative effectiveness cannot be considered independently of the physical context in which the school operates.

Methodology

Research Design

The study adopted a descriptive survey research design. The design was considered appropriate because data were collected from teachers concerning existing conditions in their schools without manipulating the variables. The study sought to describe respondents' perceptions concerning school location, road accessibility and administrative effectiveness.

Area of the Study

The study was conducted in Jalingo Education Zone, Taraba State, Nigeria. The zone consists of Jalingo and Ardo-Kola Local Government Areas. It contains public secondary schools located in different geographical environments, ranging from urban centres to rural communities. The area was considered suitable because of its mixture of accessible and less accessible school locations. The zone also provides an appropriate context for examining how physical accessibility may influence school administration.

Population of the Study

The population consisted of 1,776 teachers drawn from 43 public secondary schools in Jalingo and Ardo-Kola Local Government Areas. Thirty schools were located in Jalingo Local Government Area, while 13 were located in Ardo-Kola Local Government Area.

Sample and Sampling Technique

A sample of 317 teachers was selected from the population of 1,776 teachers using the Krejcie and Morgan sample-size table. Proportionate and simple random sampling techniques were employed. Eight schools were selected from the 43 public secondary schools. Six schools were selected from Jalingo Local Government Area and two from Ardo-Kola Local Government Area based on their proportion of the total number of schools. Teachers were subsequently selected proportionately from the sampled schools. Simple random sampling was employed to give eligible teachers a reasonable opportunity for selection.

Instrument for Data Collection

Data were collected using a researcher-developed questionnaire titled Geospatial Factors, Infrastructure and Administrative Effectiveness Questionnaire (GFIAEQ). For this article, two clusters of the instrument were considered: Cluster A: School Location, Cluster B: Road Accessibility. The questionnaire items were rated using a four-point scale:

High Influence (HI) = 4

Moderate Influence (MI) = 3

Low Influence (LI) = 2

No Influence (NI) = 1

The instrument contained seven items on school location and seven items on road accessibility.

3.6 Validity of the Instrument

The GFIAEQ was subjected to face and content validation by three experts. One expert was drawn from Measurement and Evaluation, while two were from Educational Administration and Planning. The validators examined the relevance, clarity, comprehensiveness and appropriateness of the questionnaire items. Their recommendations were incorporated into the final version of the instrument. A validity index of 77% was reported.

Reliability of the Instrument

A test-retest procedure was employed to determine the reliability of the instrument. Fifty teachers from G.D.S.S. Kpantisawa and G.D.S.S. Zing in Zing Education Zone, Taraba State, participated in the pilot test. The instrument was administered twice at an interval of two weeks. The scores obtained from the two administrations were correlated using Pearson Product Moment

Correlation. The analysis produced a reliability coefficient of $r = .812$, indicating satisfactory stability of the instrument.

Data Collection Procedure

The researcher obtained an introductory letter from the Department of Educational Foundations, Taraba State University, Jalingo, and used it to seek permission from the principals of the selected schools. The researcher subsequently visited the selected schools and established contact with school authorities. Research assistants were briefed on the objectives of the research and procedures for administering and retrieving the questionnaires. The questionnaire was administered directly to the selected teachers, and completed copies were retrieved to reduce loss and non-response.

Method of Data Analysis

Mean and standard deviation were used to answer the research questions. A criterion mean of 2.50 was adopted. Mean scores of 2.50 and above were interpreted as indicating agreement or positive influence, while mean scores below 2.50 were interpreted as indicating disagreement or low influence. Chi-square statistics were used to test the two null hypotheses at the 0.05 level of significance. The null hypothesis was rejected where the probability value was less than .05 and retained where the probability value was greater than .05.

Results

Research Question One

What is the influence of school location on administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State?

Table 1. Mean and Standard Deviation of Respondents' Ratings on the Influence of School Location on Administrative Effectiveness

S/N	Item	Mean	SD	Decision
1	Location enables the principal to supervise school activities effectively	3.32	0.92	Agree
2	Schools located in urban areas experience more effective administration than those in remote areas	2.86	0.93	Agree
3	Proximity of the school to the local community enhances administrative effectiveness	2.79	1.31	Agree
4	School location influences ease of communication between administrators and stakeholders	2.61	1.11	Agree
5	Geographical location affects prompt implementation of administrative decisions	2.50	1.25	Agree
6	Schools situated in accessible environments experience fewer administrative challenges	2.81	1.10	Agree
7	School location contributes positively to overall effectiveness of school management	2.65	1.09	Agree
	Cluster Mean	2.79	1.10	Agree

Source: Field work, 2026. Criterion mean = 2.50.

The results presented in Table 1 show that all seven items recorded mean scores of 2.50 or above. The highest mean score of 3.32 was obtained for the statement that school location enables principals to supervise school activities effectively. The lowest mean of 2.50 was recorded for the statement concerning the geographical location of the school and prompt implementation of administrative decisions. The cluster mean of 2.79 was above the criterion mean of 2.50, indicating that respondents generally agreed that school location positively influences administrative effectiveness.

Research Question Two

What is the influence of road accessibility on administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State?

Table 2. Mean and Standard Deviation of Respondents' Ratings on the Influence of Road Accessibility on Administrative Effectiveness

S/N	Item	Mean	SD	Decision
1	Quality of road networks influences effective supervision of school activities by administrators	3.04	1.18	Agree
2	Road accessibility influences regular monitoring visits by educational authorities	2.80	1.00	Agree
3	Poor road conditions influence the effectiveness of administration in public secondary schools	2.73	1.01	Agree
4	Road accessibility influences staff punctuality and attendance	2.58	1.13	Agree
5	Road accessibility influences timely delivery of educational materials	2.75	1.10	Agree
6	Year-round motorability of roads influences effectiveness of school administration	2.46	1.11	Disagree
7	Easy road access influences interaction between administrators and external stakeholders	3.20	1.25	Agree
	Cluster Mean	2.79	1.11	Agree

Source: Field work, 2026. Criterion mean = 2.50.

Table 2 shows that six of the seven items recorded mean scores above the criterion mean. The highest mean score of 3.20 was recorded for the statement that easy road access influences interaction between administrators and external stakeholders, followed by a mean of 3.04 for the influence of road quality on effective supervision. The lowest mean of 2.46 was recorded for year-round motorability of roads and was interpreted as disagreement. Nevertheless, the overall cluster mean of 2.79 exceeded the criterion mean, indicating that respondents generally agreed that road accessibility influences administrative effectiveness [14].

Hypothesis One

H₀₁: There is no significant influence of school location on administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State.

Table 3. Chi-Square Test of the Influence of School Location on Administrative Effectiveness

Test	Value	df	p-value
Pearson Chi-Square	82.899	20	< .001
Likelihood Ratio	76.203	20	< .001
Linear-by-Linear Association	70.717	1	< .001
N of Valid Cases	317		

The result in Table 3 shows that the Pearson chi-square value was 82.899 with 20 degrees of freedom and a probability value below .001. Since the p-value is less than the 0.05 level of significance, the null hypothesis was rejected. This indicates that school location has a statistically significant influence on administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State.

4.4 Hypothesis Two

H₀2: There is no significant influence of road accessibility on administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State.

Table 4. Chi-Square Test of the Influence of Road Accessibility on Administrative Effectiveness

Test	Value	df	p-value
Pearson Chi-Square	83.699	20	< .001
Likelihood Ratio	77.451	20	< .001
Linear-by-Linear Association	71.834	1	< .001
N of Valid Cases	317		

Table 4 shows a Pearson chi-square value of 83.699 with 20 degrees of freedom and a probability value below .001. Since the p-value is less than .05, the null hypothesis was rejected. The finding indicates that road accessibility has a statistically significant influence on administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State.

Discussion of Findings

School Location and Administrative Effectiveness

The study found that school location significantly influences administrative effectiveness of public secondary schools in Jalingo Education Zone. The descriptive result produced a cluster mean of 2.79, indicating that respondents generally agreed that location contributes to effective school administration. The hypothesis test further confirmed a statistically significant association between school location and administrative effectiveness, $\chi^2(20) = 82.899$, $p < .001$.

The finding suggests that geographical setting affects the conditions under which principals carry out their responsibilities. Schools in accessible urban or semi-urban locations may offer administrators greater opportunities to interact with education authorities, obtain support services and coordinate stakeholder activities. Proximity to communities and transport facilities may also make communication and supervision easier.

The finding agrees with Oyeleye, who reported that school location influenced principal administrative performance in secondary schools in Ondo State. The consistency may be attributed to the fact that schools in urban environments generally have greater access to educational and social infrastructure. The current finding also agrees with Mbanwi et al. who found that rural schools encountered greater administrative challenges than urban schools in the English-speaking regions of Cameroon.

Kirui similarly reported that location was related to principals' perceptions of cost efficiency in Bomet County, Kenya. The study suggested that urban schools can benefit from proximity to markets, administrative offices and other services. The present finding extends this understanding by demonstrating that school location is significantly associated with administrative effectiveness in Jalingo Education Zone [15].

The result has important implications for educational planning in Taraba State. School siting should not be based solely on population considerations. Accessibility to roads, administrative centres, communities and other support facilities should also be considered. Where schools are located in remote areas, additional administrative and infrastructural support may be required to compensate for geographical disadvantages.

Road Accessibility and Administrative Effectiveness

The study also found that road accessibility significantly influences administrative effectiveness. The cluster mean of 2.79 indicated general agreement among respondents, while the chi-square

result, $\chi^2(20) = 83.699$, $p < .001$, demonstrated a statistically significant influence.

The finding implies that the physical condition and accessibility of roads are important to school administration. Good roads facilitate movement of teachers, school officials, parents, instructional materials and education supervisors. They also improve opportunities for communication and collaboration between schools and external stakeholders.

The finding agrees with Okwori et al. who reported that poor road networks hindered effective supervision of secondary schools in Benue State. The similarity is understandable because both studies were conducted in Nigerian contexts where some public secondary schools are located in rural areas with difficult terrain and inadequate transport infrastructure.

The study also agrees with Musa and Bello, who examined rural areas of Adamawa and Taraba States and found that road accessibility influenced timely delivery of educational materials, teacher punctuality and stakeholder interaction. The relevance of this finding to the present study is particularly strong because the earlier study included Taraba State.

Similarly, Nwankwo and Okeke (2025) reported that poor rural road accessibility affected school administration through delays in supervision, reduced stakeholder participation and difficulties in accessing educational facilities. This suggests that road accessibility is a significant administrative issue across different Nigerian settings.

The highest mean in the present study was 3.20 for the statement that easy road access influences interaction between administrators and external stakeholders. This finding demonstrates that roads have implications beyond physical transportation. They facilitate the broader network of relationships necessary for effective school administration.

The only item with a mean below 2.50 concerned year-round motorability of roads. This may indicate that respondents considered some roads accessible during particular periods but not consistently throughout the year. Seasonal variations, particularly during the rainy season, may therefore remain a challenge despite improvements in general accessibility.

Conclusion

Based on the findings of the study, school location and road accessibility are significant geospatial factors associated with administrative effectiveness of public secondary schools in Jalingo Education Zone, Taraba State. School location was found to have a positive descriptive influence on administrative effectiveness, with a cluster mean of 2.79, and the hypothesis test confirmed a significant association. Road accessibility similarly recorded a cluster mean of 2.79 and a statistically significant chi-square result. The findings indicate that administrative effectiveness is shaped not only by the skills and efforts of principals but also by the physical and geographical environment in which schools operate. Accessible school locations and functional road networks facilitate supervision, communication, resource delivery and stakeholder participation. Conversely, difficult geographical locations and poor roads may impose additional administrative constraints on public secondary schools. Based on the findings, the following recommendations are made: The Taraba State Government and relevant education authorities should consider accessibility to roads, education offices and essential services when planning and siting new public secondary schools. Geographic and accessibility assessments should form part of school-siting decisions. Existing schools located in remote communities should receive additional administrative and logistical support to reduce the disadvantages associated with their geographical location. Government should collaborate with relevant works and local government authorities to construct, rehabilitate and maintain access roads leading to public secondary schools, particularly schools in rural communities. Priority should be given to roads that become difficult to use during the rainy season. Regular maintenance and drainage improvement should be undertaken to enhance year-round accessibility. Educational authorities should establish effective arrangements for transporting instructional materials to schools in remote areas and should strengthen monitoring mechanisms where road conditions limit frequent physical visits. School administrators should strengthen relationships with parents, community leaders and other stakeholders within their immediate

communities to support school activities where geographical constraints make external interaction difficult. The study contributes to knowledge by providing empirical evidence that geospatial conditions are associated with administrative effectiveness in public secondary schools in Jalingo Education Zone. Rather than viewing administrative effectiveness solely as a function of leadership competence, the study demonstrates that the physical context of schools is also important. The study further contributes context-specific evidence from Taraba State, where there is relatively limited empirical work on the relationship between school geography, transportation accessibility and school administration. The findings may be useful to educational planners, policy makers, principals and infrastructure agencies in designing interventions that recognise differences in school accessibility. The study also provides evidence supporting the integration of geographical considerations into educational planning. School mapping, accessibility assessment and infrastructure planning can therefore complement conventional administrative interventions.

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