

## INNOVATIVE METHODS ADOPTED BY SECONDARY SCHOOL ADMINISTRATORS IN MANAGING AVAILABLE RESOURCES FOR ACHIEVEMENT OF EDUCATIONAL GOALS IN IMO STATE

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### Abstract

The study investigated the innovative methods adopted by secondary school administrators in managing available resources for achievement of educational goals in Imo state. Five specific objectives, research questions and null hypotheses were used to guide the study. The population of this study comprised all secondary school administrators (the principal and vice principals) in Imo State. The study adopt correlational survey design, while stratified random sampling technique was used to select a sample size of 70 school administrators each from the three senatorial districts of the state which gate a total of 270 respondents. The study used an instrument for data collection tagged “Secondary Schools Resources Innovative Management Methods Questionnaire (SSRIMMQ)” which were administered to the respondents via direct delivery method. Descriptive statistics and regression analysis were used in answering the research questions and testing the hypotheses. From the results of the data analysis, the following recommendations were made such as: Secondary school administrators should enhance professional development and continuous learning to enhance principals' capacity for effective human resource management, ensuring optimized educational outcomes in Imo State, among other things.

**Keywords:** Innovative Methods, Secondary School Administrators, Available Resources, and Educational Goals.

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### Introduction

Achieving educational goals depends heavily on the secondary schools' efficient resource management, especially in limited resource areas like Imo State in Nigeria. It is impossible to overestimate the importance of school administrators in creatively allocating these resources. In the face of increasing demands for quality education, coupled with the persistent challenges of inadequate funding, overcrowded classrooms, and limited infrastructure, school administrators are compelled to adopt innovative methods to optimize the available resources (Nwafor & Ndukwe, 2018). Despite the limitations, these strategies are crucial for guaranteeing that learning objectives are fulfilled. Human resource utilization is one

important area where innovation has been prevalent. In order to fully utilize the capabilities of both teaching and non-teaching personnel, administrators are becoming more and more supportive of this approach. For instance, cross-training teachers to handle multiple subjects or administrative roles has become a common practice, thereby reducing the need for additional staff and ensuring that all educational areas are adequately covered (Okorie & Anudu, 2020). This strategy encourages a culture of adaptability and ongoing learning among employees in addition to optimizing human resources.

Furthermore, secondary school administrative procedures have been completely transformed

by the use of Information and Communication Technology (ICT) in resource management as Administrators can now assess student performance, manage financial resources more effectively, and improve staff-student and parent-student communication. This digital transformation has significantly reduced the administrative burden and allowed for more focused attention on instructional leadership (Eze & Ugochukwu, 2019). Transparency and accountability, which are essential for accomplishing educational goals, have been made easier by the use of ICT in resource management. Administrators in Imo State are increasingly using public-private partnerships in addition to ICT to make up for the shortfall in government financing. By collaborating with private organizations, schools have been able to access additional resources, such as infrastructure development, teaching materials, and capacity-building programs for staff (Umeji & Opara, 2021). These partnerships have shown to be a successful tactic for closing resource gaps and raising the standard of instruction given in secondary schools. As mentioned by Marques (2014) and cited by Nwachukwu, Iheanaetu & Elezuo, (2020), this innovative idea is frequently the result of changes happening at the same time in various areas, whereby interrelation and reliance are components.

In addition, creative approaches to financial management have been used to guarantee the effective utilization of available capital. With contributions from a range of stakeholders, such as educators, parents, and local authorities, budgeting has become a more collaborative process. This inclusive approach ensures that the allocation of resources aligns with the actual needs of the school, thereby minimizing wastage and promoting the judicious use of funds (Onwuka & Chikwe, 2022). Furthermore, in an effort to supplement their budgets, some administrators have implemented revenue-generating initiatives at schools, such as farming endeavors and career training courses. Many secondary schools in Imo State still struggle with their physical infrastructure, but creative solutions have been used to efficiently manage these resources.

Administrators have initiated maintenance schedules, rotational use of classrooms, and even temporary structures to accommodate the growing student population (Nnaji & Okafor, 2023). Despite the shortcomings in the infrastructure, these tactics have been essential in preserving a positive learning atmosphere. In secondary education, time management is a part of resource management. To guarantee that instructional and non-instructional activities are properly balanced, administrators have put creative timetabling strategies into practice. The adoption of block scheduling, for example, has allowed for more in-depth teaching and learning sessions, thereby improving student comprehension and performance (Ikechi & Ogu, 2018). Making the most of the little amount of instructional time available has been made possible by these advancements in time management. Equally, an inventive method of resource management has been identified that is; the incorporation of community resources into the educational system. Schools have leveraged community volunteers, local experts, and even alumni to supplement teaching and learning activities (Chukwu & Ukaegbu, 2020). This collaboration not only enriches the educational experience of Students' educational experiences are enhanced by this cooperation, which also strengthens their feeling of community ownership and participation in the learning process.

On the other hand, professional Development and Continuous Learning involves creating personalized professional development plans that cater to the unique needs of each staff member as it can consist of online courses, workshops, and peer collaboration sessions, fostering a culture of lifelong learning and adaptability among school personnel (Adu, & Ngibe, 2020). They include: Strategic budgeting and financial planning involves adopting a zero-based budgeting approach, where each expense must be justified from scratch rather than relying on historical budgets (Ezenwanne & Eziyi, 2020). By matching their budgets to their strategic objectives, schools can make sure that every dollar they spend goes directly towards raising student achievement.

Flipped classroom model; in this model, students review instructional content at home usually through videos or online materials and use classroom time for collaborative exercises, discussions, and hands-on projects (Kim & Ketenci, 2020). With this method, educators may spend more time attending to the specific requirements of each student and encouraging deeper learning through active learning. The flipped model also optimizes the efficient use of classroom time by moving some of the learning outside of the classroom.

Using cloud-based LMS systems is a major advancement in technological resource management. These technologies make instructional materials, homework, tests, and communication tools easily available from any location at any time. This methodology not only mitigates the requirement for tangible material storage but also facilitates instantaneous updates and cooperative education. However, the LMS platforms also enable teachers to track student progress, provide timely feedback, and tailor learning experiences to individual student needs, thus maximizing the utility of digital resources (Johnson & Boston, 2021). The influence of cloud-based Learning Management Systems (LMS) on the effective management of technology resources by principals in secondary schools is significant and multifaceted. Cloud-based LMS platforms help school principals better allocate and manage technology resources by reducing the need for physical infrastructure. By hosting educational content and tools on the cloud, principals no longer need to invest heavily in maintaining on-site servers or software updates. This reduction in physical infrastructure allows for more efficient financial planning and resource distribution, enabling funds to be directed towards other areas such as professional development or purchasing additional digital tools for classrooms (Smith & Johnson, 2020).

### **Problem Statement**

Management positions posit on one, the mantle to coordinate and efficiently harness scarce resources efficiently. School administrators are saddled with the responsibility to coordinate, and effectively put to use the limited available

resources at their disposals in order to achieve the educational objectives of their schools. No doubt, management in every sector is a tiresome 'essential burden' that can weigh the unprepared and un-dynamic down. Secondary school administrators in Imo state are consistently faced with these cumbersome tasks as they ensure that the limited academic resources they have at their disposal are put into efficient use endeavouring an absence of failure in pursuit of their educational objectives and goals. However, management is a position opened for constant learning, unlearning and relearning as any school administrator who fails to evolve with new trends and patterns of administrating is bound to be lost. Considering this, this research intends to unravel the innovative methods that secondary schools in Imo state has harnessed in order to effectively manage the available resources in their schools.

### **Objectives of the Study**

The main objective of the research was to assess the innovative methods adopted by secondary school administrators in managing available resources for achievement of educational goals in Imo State. Specifically, the study sought to:

1. Find out how professional development and continuous learning contribute to effective management of human resources by principals in secondary schools in Imo State.
2. Find out how digital resource management systems contributes to effective management of material resources by principals in secondary schools in Imo State.
3. Examine how strategic budgeting and financial planning contribute to effective management of financial resources by principals in secondary schools in Imo State.
4. Assess how flipped classroom model contribute to effective management of time resources by principals in secondary schools in Imo State.
5. Assess how cloud-based learning management systems (LMS) contributes to effective management of Technology resources by principals in secondary schools in Imo State.

## Research Questions

The following research questions guided the study:

1. To what extent have professional development and continuous learning contributed to effective management of human resources by principals in secondary schools in Imo State?
2. To what extent has digital resource management systems contributed to effective management of material resources by principals in secondary schools in Imo State?
3. To what extent have strategic budgeting and financial planning contributed to effective management of financial resources by principals in secondary schools in Imo State?
4. To what extent has flipped classroom model contributed to effective management of time resources by principals in secondary schools in Imo State?
5. To what extent has cloud-based learning management systems (LMS) contributed to effective management of Technology resources by principals in secondary schools in Imo State?

## Hypotheses

The following hypothesis were formulated and tested at 0.05 significant level:

- H0<sub>1</sub>:** There is no significant influence of professional development and continuous learning on effective management of human resources by principals in secondary schools in Imo State.
- H0<sub>2</sub>:** There is no significant influence of digital resource management systems on effective management of material resources by principals in secondary schools in Imo State.
- H0<sub>3</sub>:** There is no significant influence of strategic budgeting and financial planning on effective management of financial resources by principals in secondary schools in Imo State.
- H0<sub>4</sub>:** There is no significant influence of flipped classroom model on effective

management of time resources by principals in secondary schools in Imo State.

- H0<sub>5</sub>:** There is no significant influence of cloud-based learning management systems (LMS) on effective management of Technology resources by principals in secondary schools in Imo State.

## Research Methodology

A correlational survey design was used for this study. This is because this research work is to investigate the innovative methods adopted by secondary school administrators in managing available resources for achievement of educational goals in Imo state. Kpolovie (2010) points out that correlational research design is aimed at the relationship of one variable with other one or more variables. Data obtained from school administrators on their managerial skills were correlated with the achievement of educational goals in Imo State.

The study area is Imo State, which is one of the thirty-six (36) states of the Federal Republic of Nigeria. Imo State occupies a total landmass of 5,530 square kilometers square of Nigeria's wealth basin. Imo State, located in the southeastern region of Nigeria, serves as the area of study for this research. The state is known for its rich cultural heritage and is one of the prominent states in the Igbo-speaking region of the country. Imo State comprises 27 Local Government Areas, with its capital in Owerri, a major educational and economic hub.

The target population for this study was all secondary school administrators (the principal and vice principals) in Imo State, and the sample size of two hundred and seventy (270) school administrators comprising (90 principals 90 vice principals academics and 90 vice principals administration) school administrators from each of the three senatorial district of the state were drawn using stratified random sampling technique

The researchers used an instrument tagged "Secondary Schools Resources Innovative Management Methods Questionnaire

(SSRIMMQ)". The questionnaire measured each of the variables such as types of available resources in secondary schools that can help school administrators achieve educational goals, innovative ways of managing human resources, material resources, financial resources, time resources, technological resources and achievement of educational goals. It was design on a four point Likert modified scale.

The instrument was subjected to face and content validation by one expert in management, measurement and evaluation and another expert in administration, while a pilot test was carried out on 30 school administrators drawn from 10 secondary schools not included in the study. The responses in the questionnaire were analysed using CronbachAlpha statistics in order to examine the consistency of the instruments and how the items come together in harmony to measure the variables.

The instruments were administered to the

respondents via direct delivery method. The researcher ensured that the instruments were filled only by the sampled respondents. The instruments were retrieved immediately to ensure 100% retrieval case. Descriptive statistics was used in answering the research questions, while regression analysis was used in testing the hypotheses. The result was tested for significance at 0.05 alpha level.

**Results**

The data collected for this study were statistically analysed and arranged according to the research questions and hypotheses of the study.

**Research Questions 1:** The research question sought to find out the extent to which professional development and continuous learning have contributed to effective management of human resources by principals in secondary schools in Imo State. To answer the research question percentage analysis was performed on the data.

**Table 1:** Descriptive statistics of the extent to which professional development and continuous learning have contributed to effective management of human resources by principals in secondary schools in Imo State

Variable	N	Group Items Observed Mean	Group Items Expected Mean	R	Remark
Professional Development	270	16.90	12.5	0.71*	*Moderately Strong Relationship
Human Resource Management		18.55	12.5		...

**Source: Field Survey**

The above table 1 shows that there is no remarkable influence of professional development and continuous learning on effective management of human resources by principals in secondary in Imo State. The two variables were observed to have moderately strong relationship at 71%. The group items observed mean score for Professional development (16.90) was observed to be greater than the group items expected mean score of

12.5. In addition to that, the group items observed mean score as regards human resource management (18.55) was observed to be higher than the group items expected mean score of 12.5. The result therefore means that there is remarkable effect of professional development and continuous learning on effective management of human resources by principals in secondary schools in Imo State.

**Research Questions 2:** The research question sought to find out the extent to which digital resource management systems has contributed to effective management of material resources by

principals in secondary schools in Imo State. To answer the research question percentage analysis was performed on the data.

**Table 2:** Percentage analysis of the extent to which digital resource management systems has contributed to effective management of material resources by principals in secondary schools in Imo State

Variable	N	Group Items Observed Mean	Group Items Expected Mean	R	Remark
Digital Resource Management Systems	270	14.80	12.5	0.91*	*Strong to Perfect Relationship
Material Resources		12.85	12.5		...

**Source: Field Survey**

The above table 2 shows that there is remarkable influence of digital resource management systems on effective management of material resources by principals in secondary schools on professional development and continuous learning in secondary schools in Imo State. The two variables were observed to have Strong to Perfect Relationship at 91%. The group items observed mean score for digital resource management (14.80) was observed to be greater than the group items expected mean score of 12.5. In addition to that, the group items observed mean score as regards material resources (12.85) was observed to be higher than the group items

expected mean score of 12.5. The result therefore means that there is remarkable effect of digital resource management systems on effective management of material resources by principals in secondary schools in Imo State

**Research Questions 3:** The research question sought to find out the extent to which strategic budgeting and financial planning have contributed to effective management of financial resources by principals in secondary schools in Imo State. To answer the research question percentage analysis was performed on the data.

**Table 3:** Percentage analysis of the extent to which strategic budgeting and financial planning have contributed to effective management of financial resources by principals in secondary schools in Imo State

Variable	N	Group Items Observed Mean	Group Items Expected Mean	R	Remark
Strategic Budgeting	270	18.1	12.5	0.93*	*Strong to Perfect Relationship
Financial Resources		15.5	12.5		...

**Source: Field Survey**

The above table 1 presents the percentage analysis of the extent strategic budgeting and financial planning has contributed to effective management of financial resources by principals in secondary schools in Imo State. The two variables were observed to have Strong to Perfect Relationship at 93%. The group items observed mean score for strategic budgeting (18.1) was observed to be greater than the group items expected mean score of 12.5. In addition to that, the group items observed mean n score as regards financial resources (15.5) was observed to be higher than the group items expected mean score

of 12.5. The result therefore means that there is remarkable effect of the extent of strategic budgeting and financial planning on effective management of financial resources by principals in secondary schools in Imo State.

**Research Questions 4:** The research question sought to find out the extent to which flipped classroom model has contributed to effective management of time resources by principals in secondary schools in Imo State. To answer the research question percentage analysis was performed on the data.

**Table 4:** Percentage analysis of the extent to which flipped classroom model has contributed to effective management of time resources by principals in secondary schools in Imo State

Variable	N	Group Items Observed Mean	Group Items Expected Mean	R	Remark
Flipped Classroom	270	14.3	12.5	0.91*	*Strong to Perfect Relationship
Time Resources		13.2	12.5		...

**Source: Field Survey**

The above table 4 presents the percentage analysis of the extent of flipped classroom model has contributed to effective management of time resources by principals in secondary schools in Imo State. The two variables were observed to have Strong to Perfect Relationship at 91%. The group items observed mean score for flipped classroom (14.3) was observed to be greater than the group items expected mean score of 12.5. In addition to that, the group items observed mean score as regards time resources (13.2) was observed to be higher than the group items

expected mean score of 12.5. The result therefore means that there is remarkable effect of flipped classroom model on effective management of time resources by principals in secondary schools in Imo State.

**Research Questions 5:** The research question sought to find out the extent cloud-based learning management systems (LMS) has contributed to effective management of Technology resources by principals in secondary schools in Imo State. To answer the research question percentage analysis was performed on the data.

**Table 5:** Percentage analysis of the extent to which cloud-based learning management systems (LMS) has contributed to effective management of Technology resources by principals in secondary schools in Imo State

Variable	N	Group Items Observed Mean	Group Items Expected Mean	R	Remark
Cloud-based Learning	270	12.6	12.5	0.95*	* Strong to Perfect Relationship
Technology Resources		13.7	12.5	...	

**Source: Field Survey**

The above table 5 presents the percentage analysis of the extent of flipped classroom model has contributed to effective management of time resources by principals in secondary schools in Imo State. The two variables were observed to have Strong to Perfect Relationship at 95%. The group items observed mean score for flipped classroom (12.6) was observed to be greater than the group items expected mean score of 12.5. In addition to that, the group items observed mean score as regards time resources (13.7) was observed to be higher than the group items expected mean score of 12.5. The result therefore

means that there is remarkable effect of flipped classroom model on effective management of time resources by principals in secondary schools in Imo State.

**Hypotheses testing**

**Ho1:** The null hypothesis states that there is no significant influence of professional development and continuous learning on effective management of human resources by principals in secondary schools in Imo State. In order to answer the hypothesis, simple regression analysis was performed on the data.

**Table 6:** Simple Regression Analysis of the influence of professional development and continuous learning on effective management of human resources by principals in secondary schools in Imo State.

Model	R	R-Square	Adjusted R Square	Std. error of the Estimate	R Square Change
1	0.71a	0.51	0.50	0.42	0.50

**\*Significant at 0.05 level; df= 268; N= 270; critical R-value = 0.195**

The above table 6 shows that the calculated R-value (0.71) was greater than the critical R-value of 0.195 at 0.05 alpha levels with 268 degrees of freedom. The R-Square value of 0.51 predicts 51% of the influence of professional development and continuous learning on effective management of human resources by principals in secondary schools in Imo State. This rate of percentage is highly positive and therefore means that there is significant influence of professional development and continuous learning on effective management of human

resources by principals in secondary schools in Imo State. The significance of the result caused the null hypotheses to be rejected while the alternative one was upheld.

**Ho2:** The null hypothesis states that there is no significant influence of digital resource management systems on effective management of material resources by principals in secondary schools in Imo State. In order to answer the hypothesis, simple regression analysis was performed on the data.



Table 7: Simple Regression Analysis of the influence of digital resource management systems on effective management of material resources by principals in secondary schools in Imo State.

Model	R	R-Square	Adjusted R Square	Std. error of the Estimate	R Square Change
1	0.91a	0.83	0.83	0.76	0.83

\*Significant at 0.05 level; df= 268; N= 270; critical R-value = 0.195

The above table 7 shows that the calculated R-value (0.91) was greater than the critical R-value of 0.195 at 0.05 alpha levels with 268 degrees of freedom. The R-Square value of 0.83 predicts 83% of the influence of digital resource management systems on effective management of material resources by principals in secondary schools in Imo State. This rate of percentage is highly positive and therefore means that there is significant influence of digital resource management systems on effective management of material resources by principals in secondary

schools in Imo State. The significance of the result caused the null hypotheses to be rejected while the alternative was accepted.

**Ho3:** The null hypothesis states that there is no significant influence of strategic budgeting and financial planning on effective management of financial resources by principals in secondary schools in Imo State. In order to answer the hypothesis, simple regression analysis was performed on the data.

Table 8: Simple Regression Analysis of the influence of strategic budgeting and financial planning on effective management of financial resources by principals in secondary schools in Imo State.

Model	R	R-Square	Adjusted R Square	Std. error of the Estimate	R Square Change
1	0.93a	0.87	0.87	0.66	0.87

\*Significant at 0.05 level; df= 268; N= 270; critical R-value = 0.195

The above table 8 shows that the calculated R-value (0.93) was greater than the critical R-value of 0.195 at 0.05 alpha levels with 268 degrees of freedom. The R-Square value of 0.86 predicts 86% of the influence of strategic budgeting and financial planning on effective management of financial resources by principals in secondary schools in Imo State. This rate of percentage is highly positive and therefore means that there is a significant influence of strategic budgeting and financial planning on effective management of

financial resources by principals in secondary schools in Imo State. The significance of the result caused the null hypotheses to be rejected while the alternative one was upheld.

**Ho4:** The null hypothesis states that there is no significant influence of flipped classroom model on effective management of time resources by principals in secondary schools in Imo State. In order to answer the hypothesis, simple regression analysis was performed on the data.

Table 9: Simple Regression Analysis of the influence of flipped classroom model on effective management of time resources by principals in secondary schools in Imo State.

Model	R	R-Square	Adjusted R Square	Std. error of the Estimate	R Square Change
1	0.91a	0.83	0.83	0.55	0.83

\*Significant at 0.05 level; df= 268; N= 270; critical R-value = 0.195

The above table 9 shows that the calculated R-value (0.91) was greater than the critical R-value

of 0.195 at 0.05 alpha levels with 268 degrees of freedom. The R-Square value of 0.83 predicts 83% of the influence of flipped classroom model on effective management of time resources by principals in secondary schools in Imo State. This rate of percentage is highly positive and therefore means that there is a significant influence of flipped classroom model on effective management of time resources by principals in secondary schools in Imo State. The

significance of the result caused the null hypotheses to be rejected while the alternative one was upheld.

Ho5: The null hypothesis states that there is no significant influence of cloud-based learning management systems (LMS) on effective management of Technology resources by principals in secondary schools in Imo State. In order to answer the hypothesis, simple regression analysis was performed on the data.

**Table 10:** Simple Regression Analysis of the influence of cloud-based learning management systems (LMS) on effective management of Technology resources by principals in secondary schools in Imo State.

Model	R	R-Square	Adjusted R Square	Std. error of the Estimate	R Square Change
1	0.95a	0.90	0.90	0.46	0.90

\*Significant at 0.05 level; df= 268; N= 270; critical R-value = 0.195

The above table 10 shows that the calculated R-value (0.95) was greater than the critical R-value of 0.195 at 0.05 alpha levels with 268 degrees of freedom. The R-Square value of 0.90 predicts 90% of the influence of cloud-based learning management systems (LMS) on effective management of Technology resources by principals in secondary schools in Imo State. This rate of percentage is highly positive and therefore means that there is significant influence of cloud-based learning management systems (LMS) on effective management of Technology resources by principals in secondary schools in Imo State.

**Summary of the analyses**

1. There was significant influence of professional development and continuous learning on effective management of human resources by principals in secondary schools in Imo State
2. There was significant influence of digital resource management systems on effective management of material resources by principals in secondary schools in Imo State
3. There was significant influence of strategic budgeting and financial

4. planning on effective management of financial resources by principals in secondary schools in Imo State
5. There was significant influence of flipped classroom model on effective management of time resources by principals in secondary schools in Imo State.
- There was significant influence of cloud-based learning management systems (LMS) on effective management of Technology resources by principals in secondary schools in Imo State

**Discussions**

The calculated R-value (0.71) was greater than the critical R-value of 0.195 at 0.05 alpha levels with 268 degrees of freedom as can be seen in tables 1 and 6. Hence, the results prove that there is significant influence of professional development and continuous learning on effective management of human resources by principals in secondary schools in Imo State. This finding supports the research findings of Adu, & Ngibe (2020), which stated that professional development plans cater to the unique needs of each staff member as it can

consist of online courses, workshops, and peer collaboration sessions, fostering a culture of lifelong learning and adaptability among school personnel. The findings is also in line with the opinion of Okoroma, (2017) which posited that Principals who engage in continuous learning can adopt new strategies for fostering a positive school environment, handling conflicts, and enhancing teacher performance through constructive feedback and support. Also in line with the study of Eze & Obasi, (2019), which stated that strong professional development framework helps principals stay updated on best practices in staff management, enabling them to create an inclusive and collaborative culture among teachers and administrative staff. Training on leadership and emotional intelligence, for example, has been shown to improve principals' decision-making and their relationships with staff, leading to higher job satisfaction and reduced turnover. The significance of the result caused the null hypotheses to be rejected while the alternative one was upheld.

Equally, the calculated R-value (0.91) was greater than the critical R-value of 0.195 at 0.05 alpha levels with 268 degrees of freedom as can be seen in tables 2 and 7. Hence, the results prove that there is remarkable influences of digital resource management systems on effective management of material resources by principals in secondary schools in Imo State. This finding is in line with the research findings of (Levy, 2021), which stated that tracking, allocating, and maintaining school assets may be done more effectively by putting digital platforms to use for material resource management and that these systems can offer up-to-date information on the availability of lab supplies, textbooks, and other materials, which helps cut down on waste and guarantee that resources are available when required. This study also aligns with Okeke (2021) whose studies revealed that by adopting digital systems, principals can streamline administrative processes, which enhances transparency and reduces the risk of resource misallocation. Furthermore, these systems support inventory control and timely maintenance, ensuring that resources remain in

good condition and are readily available to support teaching and learning activities. The significance of the result caused the null hypotheses to be rejected while the alternative was accepted.

Also the calculated R-value (0.93) was greater than the critical R-value of 0.195 at 0.05 alpha levels with 268 degrees of freedom as can be seen in tables 3 and 8. Hence, the results prove that there is remarkable relationship between the influence of strategic budgeting and financial planning on effective management of financial resources by principals in secondary schools in Imo State. Findings from this study is in agreement with the research of Ezenwanne & Eziyi |(2020), which proved that adopting a zero-based budgeting approach, where each expense must be justified from scratch rather than relying on historical budge. Also, according to him, by matching their budgets to their strategic objectives, schools can make sure that every dollar they spend goes directly towards raising student achievement. It also agrees with Obasi & Okoye (2021) who asserted that with a structured budget, principals are better equipped to monitor expenditures, control costs, and identify potential savings, which improves financial transparency and accountability. Additionally, financial planning enables principals to evaluate past spending patterns, make adjustments, and enhance decision-making for future financial cycles, ultimately boosting resource utilization and supporting educational goals. The significance of the result caused the null hypotheses to be rejected while the alternative one was upheld.

Then, on the influence of flipped classroom model on effective management of time resources by principals in secondary schools in Imo State. The calculated R-value (0.91) was greater than the critical R-value of 0.195 at 0.05 alpha levels with 268 degrees of freedom as can be seen in tables 4 and 9. Hence, the results prove that there is remarkable relationship between the influences of flipped classroom model on effective management of time resources by principals in secondary schools in Imo State. This findings is in line with the research of Kim &

Ketenci (2020), which stated that students review instructional content at home usually through videos or online materials and use classroom time for collaborative exercises, discussions, and hands-on projects. With this method, educators may spend more time attending to the specific requirements of each student and encouraging deeper learning through active learning. The flipped model also optimizes the efficient use of classroom time by moving some of the learning outside of the classroom. Also Obi & Okeke (2020) found out that Principals who support flipped learning facilitate more efficient use of time, as teachers spend less time lecturing and more time engaging students in active learning. This shift allows principals to allocate classroom time toward collaborative and interactive activities, which can enhance student comprehension and engagement. The significance of the result caused the null hypotheses to be rejected while the alternative one was upheld.

On the other hand, the influence of cloud-based learning management systems (LMS) on effective management of technology resources by principals in secondary schools in Imo State, has calculated R-value (0.95) which was greater than the critical R-value of 0.195 at 0.05 alpha levels with 268 degrees of freedom as can be seen in tables 5 and 10. Hence, the results prove that there is remarkable relationship between the influences influence of cloud-based learning management systems (LMS) on effective management of Technology resources by principals in secondary schools in Imo State. These findings is in line with the research of Johnson & Boston (2021) which stated that LMS platforms also enable teachers to track student progress, provide timely feedback, and tailor learning experiences to individual student needs, thus maximizing the utility of digital resources. Okoro & Eze (2020), also posited that by utilizing a cloud-based LMS, principals can better allocate and monitor the use of digital tools, reducing redundancy and maximizing the utility of existing technology infrastructure. The significance of the result caused the null hypotheses to be rejected while the alternative was accepted.

## Summary

This study adopted a correlational survey design. This design was considered appropriate for the research as it checked the already existing influence of the independent variables on the dependent variables. To achieve the five research objectives, five research questions and hypotheses were formulated. The target population for this study comprised all secondary school administrators (the principal and vice principals) in Imo State. A stratified random sampling technique was used to select a sample size of two hundred and seventy (270) school administrators comprising 90 (30 principals 30 vice principals academics and 30 vice principals administration) school administrators from each of the three senatorial district of the state. A pilot test was carried out on 30 school administrators drawn from 10 secondary schools not included in the study. The responses in the questionnaire was coded and treated with Cronbach Alpha statistics in order to examine the consistency of the instruments and how the items come together in harmony to measure the variables.

## Conclusion

The adoption of innovative resource management strategies by secondary school administrators in Imo State has proven to be pivotal in advancing educational goals amidst challenges of limited resources. By embracing modern practices such as strategic budgeting, resource pooling, and leveraging technology for efficient administration, these leaders demonstrate a commitment to maximizing resource utility and improving educational outcomes. Their approaches not only foster a more effective learning environment but also underscore the importance of resourcefulness and adaptability in achieving academic success. These innovative strategies, while optimizing available assets, set a foundation for sustainable improvement and underscore the potential of resource management as a critical driver of educational excellence in the region. It also be concluded that there is significant influence of professional development and continuous learning on effective management of human resources by principals in secondary schools in Imo State. Also, there is significant influence of

digital resource management systems on effective management of material resources by principals in secondary schools in Imo State. There is significant influence of strategic budgeting and financial planning on effective management of financial resources by principals in secondary schools in Imo State. Another conclusion drawn here is that there is significant influence of flipped classroom model on effective management of time resources by principals in secondary schools in Imo State. Finally, cloud-based learning management systems (LMS) has significant on effective management of Technology resources by principals in secondary schools in Imo State.

### Recommendations

Based on the results, the following recommendations were made:

1. Secondary school administrators should enhance professional development and continuous learning to enhance principals' capacity for effective human resource management, ensuring optimized educational outcomes.
2. Secondary school administrators should prioritize the adoption of digital resource management systems to optimize the effective use of material resources, ensuring that educational goals in Imo State are met efficiently and sustainably.
3. School administrators should prioritize strategic budgeting and financial planning to enhance resource allocation efficiency, thereby fostering optimal educational outcomes. Principals should adopt innovative financial management methods that align resources with targeted educational goals. Financial planning practices should consistently support sustainable development in schools to maximize learning impact.
4. Principals should embrace the flipped classroom model to optimize time resources, ensuring that instructional hours are used effectively and contribute significantly to educational goals.
5. School administrators should integrate cloud-based learning management systems to optimize the management of technology resources, ensuring streamlined access and fostering academic excellence.

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