

“SCHOOL PRINCIPALSHIP AS A PREDICTOR OF EDUCATIONAL EFFICIENCY IN SECONDARY SCHOOLS IN CAMEROON”

Authors

1_Brendaline BIRADZEM SHEY (Ph.D Fellow). _ University of YAOUNDE 1

2_NJODZEVEN Brendan TAR (Lecturer) _ENSET EBOLOWA

3_MBONTEH Vivian MBOLE NKONG (Lecturer)_ENSET EBOLOWA

Abstract

Educational efficiency remains a major challenge in secondary schools in Cameroon amid increasing enrolment, limited resources, and heightened accountability demands. This study examined school principalship as a predictor of educational efficiency in secondary schools in Cameroon. Anchored in managerial efficiency and instructional leadership theories, the study adopted a mixed-methods research design, integrating survey, correlational, and regression approaches. The target population comprised 1,248 principals and teachers in public secondary schools, from which a sample of 302 respondents was selected using stratified and simple random sampling techniques. Quantitative data were collected through structured questionnaires, while qualitative data were obtained via interviews to complement and validate the statistical results.

Data analysis involved descriptive statistics, Pearson Product–Moment Correlation, and multiple regression analysis. The findings revealed a strong, positive, and statistically significant relationship between school principalship and educational efficiency. Key dimensions of principalship—such as instructional supervision, administrative competence, participatory decision-making, communication, and effective resource management—significantly predicted indicators of internal efficiency, including improved student academic performance, enhanced teacher motivation, reduced repetition and dropout rates, and optimal utilization of school resources. Consequently, the null hypothesis was rejected.

The study concludes that effective school principalship is a critical determinant of educational efficiency in secondary schools in Cameroon and recommends sustained leadership training and policy support for school principals to improve efficiency and educational outcomes.

Keywords: School principalship, educational efficiency, instructional leadership, school management, Cameroon

Introduction

Educational systems worldwide are increasingly concerned with achieving higher levels of efficiency in the utilization of limited resources while improving learning outcomes. Within this context, school administration plays a central role in coordinating human, material, and instructional resources to maximize the educative process. Fonkeng and Tamajong (2009) define school administration as a process aimed at enhancing the effectiveness of education, while Luma (1983) conceptualizes it as a professional activity rooted in leadership and guidance. Similarly, Bukhari (2008) views management as a social process that promotes cooperation, participation, and

coordinated action toward the achievement of predetermined objectives. In education, management involves the validation of institutional goals and the optimal allocation of resources to achieve maximum outcomes with minimal waste, a core principle of educational efficiency.

The school principal occupies a strategic position in the administration and management of secondary schools. As the chief executive and instructional leader, the principal oversees academic, administrative, and organizational activities within the school system. The Wallace Foundation (2000) identifies the principal as the central source of leadership and influence in schools, responsible not only for managing physical facilities but also for planning, coordinating, and controlling school activities to ensure the attainment of educational objectives. Effective principalship therefore extends beyond routine administration to include instructional leadership, staff supervision, student discipline, and resource management, all of which are critical to school efficiency.

Research on school leadership highlights key responsibilities of principals that are directly linked to school performance and efficiency. Wallace (2000) outlines five core leadership functions of principals: developing a shared vision of academic success, creating a safe and supportive school climate, building leadership capacity among staff, improving instructional practices, and managing people, data, and processes to foster continuous school improvement. These leadership practices position the school principal as a critical predictor of how effectively schools transform inputs—such as teachers, time, and instructional materials—into desired educational outcomes.

Educational efficiency is closely related to the ability of school leaders to ensure quality processes in teaching and learning. UNESCO (2014) emphasizes that maintaining educational standards requires systematic planning, supervision, and evaluation of educational programmes. In secondary schools, these functions are largely coordinated by the principal, whose leadership influences instructional supervision, teacher accountability, and effective use of school resources. Consequently, efficiency in education is not only a function of available resources but also of leadership practices that guide their utilization.

Scholarly perspectives further suggest that efficiency is achieved when educational processes are effectively planned, monitored, and continuously improved to prevent wastage and underperformance (Harvey, 1999; Robinson, 1994). Ayeni and Ibukun (2013) note that efficient educational management involves systematic monitoring, supervision, and evaluation of instructional processes to ensure that learning outcomes meet societal expectations. These functions fall within the administrative and instructional leadership responsibilities of school principals, reinforcing the view that principalship practices are strong predictors of school efficiency.

The principle of continuous improvement, as articulated in Deming's Plan–Do–Check–Act (PDCA) cycle, further underscores the importance of leadership in improving organizational efficiency (Deming, 1986). Through effective planning, implementation, evaluation, and corrective action, school principals can align school practices with institutional goals and ensure optimal use of resources (Adeolu & Olusola, 2013; Stahl, 1998; Temponi, 2005). In this sense, principalship serves as a mechanism through which efficiency-oriented practices are institutionalized within schools.

In Cameroon, secondary education is regulated by the Ministry of Secondary Education, which establishes policies and supervisory structures to promote school effectiveness. Despite these frameworks, concerns persist regarding inefficient school management, uneven academic performance, and suboptimal utilization of instructional resources. These challenges raise questions about the effectiveness of school principalship in predicting educational efficiency at the secondary school level. Against this background, this study examines school principalship as a predictor of educational efficiency in secondary schools in Cameroon, using survey, correlational, regression, and mixed-methods approaches to generate empirical evidence that can inform educational leadership practice and policy.

Statement of the problem

Educational efficiency has become a critical concern in secondary education systems, particularly in developing contexts where financial, human, and material resources are limited. In Cameroon, the government continues to invest in secondary education through policy reforms, infrastructure expansion, teacher recruitment, and curriculum restructuring aimed at improving access and learning outcomes. Despite these efforts, many secondary schools continue to experience challenges such as declining academic performance, ineffective supervision of instruction, poor time management, and inefficient utilization of school resources. These challenges raise concerns about the extent to which school leadership contributes to the efficient functioning of secondary schools.

The school principal occupies a central position in school administration and instructional leadership, with responsibility for planning, organizing, supervising, and evaluating school activities. Effective principalship is expected to enhance coordination of teaching and learning, promote accountability, and ensure optimal use of available resources. However, observations from practice and related studies suggest that variations in principals' leadership practices may contribute to differences in school efficiency across secondary schools. In some cases, limited leadership capacity, administrative overload, and weak instructional supervision appear to undermine principals' ability to translate educational inputs into desired outcomes.

Although studies in educational leadership have examined principalship in relation to school effectiveness, there is limited empirical evidence focusing specifically on **educational efficiency** and the predictive role of school principalship in the Cameroonian secondary school context. Furthermore, few studies have employed mixed-methods approaches that combine survey data with correlational and regression analyses to examine how principalship practices predict efficiency outcomes. This gap in the literature limits evidence-based decision-making for leadership development and policy formulation.

Therefore, the problem addressed in this study is the lack of empirical evidence on the extent to which school principalship predicts educational efficiency in secondary schools in Cameroon. Addressing this problem is essential for strengthening school leadership practices, improving resource utilization, and enhancing the overall performance of secondary education in the country.

Objectives of the Study

General Objective

To examine the extent to which school principalship predicts educational efficiency in secondary schools in Cameroon.

Specific Objectives

1. To assess the level of school principalship practices in secondary schools in Cameroon.
2. To determine the level of educational efficiency in secondary schools in Cameroon.
3. To examine the relationship between school principalship and educational efficiency in secondary schools in Cameroon.
4. To determine the extent to which school principalship significantly predicts educational efficiency in secondary schools in Cameroon.
5. To explore principals' and teachers' perceptions of how principalship practices influence educational efficiency in secondary schools in Cameroon.

Research Hypotheses

- **H₀:** There is no significant relationship between school principalship and educational efficiency in secondary schools in Cameroon.

Research Question

To what extent does school principalship significantly predict educational efficiency in secondary schools in Cameroon?

Literature Review

School Administration (Principalship)

School administration can be defined as control, direction, and management of all matters affecting the school. (Luma, 1983). Fonkeng & Tamanjong (2009) see school administration as “*a process which seeks to contribute to the maximization of the educative process; this is its sole raison d’être*”. It is the principal or head teacher who is in charge of day to day management of the school institution. According to the Wallace Foundation (2012), the principal of the school has five key roles to play in order to enable the school meet its objectives. They are “*shaping a vision of academic success for all students; creating a climate hospitable to education; Cultivating leadership in others; improving instruction; managing people, data and processes to foster school improvement.*” Walker (1965) In Fonkeng & Tamanjong (2009) buttress that school administration can be seen as: decision making, problem solving and a social process and the duties of the principal include major areas such as instruction, administration proper, students affairs, staff management and community relations. From the above considerations we can define school administration as the process of controlling, directing and management of available resources to enable the school meet its objectives or it is getting things well done through a rational coordination and management of inputs to best suit the interest of the educational enterprise. The school principal is the one in charge of managing these resources through the techniques of decision making and problem solving and he remains that central source of leadership in a school system.

School Administration Processes

- **Policy Making**

Policies and aims of educational institutions are provided through the statutes, regulations and laws by the competent authorities of a nation. Policies can be formulated at various levels but policy in the context of this study deal with those rules and regulations formulated by the principal to foster the smooth running of the school system. The formulation of law, rules and regulations by the principal is done in view of the prescribed policies of the Ministry of Secondary Education. (Fonkeng & Tamanjong, 2009). Series of issues such as on teachers’ commitment, effective presences, program coverage and pedagogic practices as well as students discipline, punctuality, class attendance and performances among others are supposed to be addressed by policy formulation and this is the responsibility of the school principal. The formulation of policies by the principal would certainly influence policy formulation by teachers in their various classroom settings.

- **Decision Making**

There are four main types of decision making according to Fonkeng & Tamanjong (2009:42-43) which are decision making about specific actions, decision about decision making rules, decision making about the structure of the institution and decision making about the general purpose of an action and directing and controlling the

decision making process is considered the prime function of administration. The process of decision making requires the principal to do a lot of consultation so as to render the process democratic.

- **Planning, Organization and Directing**

According to Mallick (2012), planning has the following advantages: it inspires the teacher to improve on further lessons, helps the teacher in evaluating his teaching, develops self confidence in the teacher, proper care is taken into consideration on the level and previous knowledge of students, the teaching matter is organised in a timeframe, it inspires the teacher to ask proper and important questions, it provides guidance to the teacher as to what and how he should teach, It helps in creating the interest of students towards the lesson, it stimulates the teacher to think in an organised manner, it helps the teacher to understand the lesson objectives properly.

Arends (2001) points out that an important element that bears emphasis in any discussion of planning is the use of time: how much time to give to each activity, to devote to review versus new materials, to housekeeping chores such as lunch counts and transitions between activities and academic work and that working with students takes a lot of planning and preparation just like lawyers have to prepare for their cases for court and actors have to rehearse their scenes, teachers have to prepare for classroom teaching.

Schooling as a formal component of education goes on in an organized manner. The principal also has the obligation to organize the system for proper teaching and learning to take place. Tambo (2003) distinguishes two types of organization which are vertical and horizontal organization. Vertical organization focuses on the arrangement of students from entry to graduation. This can either be done using the graded or non-graded approaches. While horizontal organization deals with grouping students first for daily teaching and secondly for allocating teachers to teach the various groups. This may lead to student streaming or mix ability grouping so as to ease the teaching and learning transaction.

- **Principalship and organizational efficiency**

Aderounmu & Ehiametator (1981) describe school administration as the art of organizing and managing men and materials to attain the goals of teaching/learning. They stated further that educational administration is a branch of public administration. They describe educational administration as being essentially a service activity or tool through which the fundamental objectives of the educational processes may be fully and efficiently realized. It is geared towards the attainment of goals of teaching by teachers and learning by students. Ezeocha (1990) describes an administrator as *“a co-ordinator who has to organize activities in such a way that things must work smoothly, quickly and effectively.”* He does this to get the objectives and goals of an organization fulfilled. His functions involve effective planning, organizing, supervising, controlling, evaluating, communicating and decision-making.

It is the school head who is charge with the responsibility to assure organizational efficiency which can be seen as the organization's degree of success in using the least possible inputs in order to produce the highest possible outputs. For the school as an organization to succeed at accomplishing its aims, it must be able to create the right plans needed to accomplish those aims, pull together the resources needed to implement those plans, and then use resources such as cash, materials and labour in the actual implementation of those plans. Organizational efficiency is the organization's ability to implement its plans using the smallest possible expenditure of resources. It could be an important factor in the school's organizational effectiveness, this being the ease and degree of success with which the organization is able to accomplish its aims.

According to Alan (2006), Organizational efficiency is a vital factor to the effectiveness of the organization's acquisition of resources and the use of those resources to implement its plans, but it is less important to the creation

of those plans. Increased organizational efficiency make implementation both cheaper and smoother, but it is less useful if the plan being implemented was bad. Resources include both concrete items such as cash and more abstract concepts such as human capital. Factors that influence the efficiency of the organization's use of its resources can be both internal and external to the organization. For example, the quality of an organization's labour could dependent in part on the ministry of education, which controls that organization. For Alan (2006), the quality of management is perhaps the most influential factor on organizational efficiency, as it is management that chooses how to implement strategic plans, including selecting methods and resources to use, and leading employees to maximize their labor.

Methodology

Research Design

This study employed a mixed-methods research design combining both quantitative and qualitative approaches to examine the extent to which school principalship predicts educational efficiency in secondary schools in Cameroon. The quantitative component involved the use of structured questionnaires administered to teachers and students, allowing for the measurement of principalship practices and school efficiency indicators. The qualitative component employed interviews, focus group discussions (FGDs), and observations to gain in-depth insights into principals' leadership practices, teachers' perceptions, and contextual factors affecting school efficiency. The mixed-methods approach was adopted to triangulate findings, enhance the validity of the results, and provide a holistic understanding of the phenomenon under study (Creswell & Plano Clark, 2018).

Study Area

The study was conducted in Yaoundé, the capital of Cameroon, which is located in the Centre Region. Yaoundé hosts a large number of both public and private secondary schools and represents a diverse educational context with students and teachers from various cultural, linguistic, and socio-economic backgrounds. Secondary education in the region is overseen by the Regional Delegation of Secondary Education under the Ministry of Secondary Education, providing a structured environment for examining school principalship and its influence on educational efficiency.

Population of the Study

The target population consisted of teachers and students in public secondary schools in Yaoundé. The accessible population included teachers and students from selected bilingual government secondary schools in the Mfoundi Division. Teachers were civil servants with varying qualifications and years of experience, while students were enrolled in different academic streams and grade levels. The study focused on this population because principals' leadership practices and interactions with teachers and students are central to determining educational efficiency in secondary schools.

Sampling Techniques and Sample Size

A proportionate stratified sampling technique combined with simple random sampling was used to select schools and respondents. This approach ensured that the sample was representative of the target population while being cost- and time-efficient. Ten secondary schools were selected randomly from Yaoundé, and 10% of teachers and students from each school were included in the study.

The final sample consisted of 924 participants, including 543 teachers and 381 students. Teachers included principals, trained, and untrained teachers, while students represented various classes and academic levels.

Data Collection Instruments

Data were collected using a combination of quantitative and qualitative instruments:

1. **Questionnaires** – Structured questionnaires measured principalship practices (independent variable) and educational efficiency indicators (dependent variable). Questionnaires included sections on demographic information, leadership practices, and perceived school efficiency. Content validity was established through expert review, yielding a Content Validity Index (CVI) of 0.82, while reliability was confirmed using the test-retest method, resulting in a Cronbach’s alpha of 0.986.
2. **Observation Guide** – Direct and indirect observations were conducted in classrooms and school offices to assess principals’ interactions with staff, management of resources, and supervisory practices.
3. **Focus Group Discussions (FGDs)** – FGDs were conducted with groups of teachers and students to triangulate questionnaire findings and provide qualitative insights into the influence of principalship practices on school efficiency. Each FGD included 6–8 participants and was facilitated using a structured guide.
4. **Interviews** – Semi-structured interviews with school principals were conducted to explore leadership strategies, challenges, and perceptions of efficiency.

Data Analysis Techniques

Quantitative data were analyzed using descriptive statistics, Pearson Product–Moment Correlation (PPMC), and multiple regression analysis:

- **Pearson Correlation (r)** was used to examine the strength and direction of the relationship between principalship practices and educational efficiency. The correlation coefficient ranges from –1 to +1, indicating negative or positive linear relationships (Field, 2018).
- **Multiple Regression Analysis** was conducted to determine the extent to which principalship practices predict educational efficiency and to identify which dimensions of principalship are the strongest predictors. The regression model is expressed as:

$$\hat{Y} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_p X_p$$

where \hat{Y} is the predicted educational efficiency, β_0 is the intercept, $\beta_1, \beta_2, \dots, \beta_p$ are regression coefficients, and X_1, X_2, \dots, X_p represent dimensions of principalship.

Qualitative data from interviews and FGDs were analyzed thematically to complement the quantitative findings, providing a contextualized understanding of principals’ leadership practices and their impact on school efficiency.

Data analysis and interpretation

Table 1

Principalship and Educational Efficiency

Items on Principalship	Response Options	Frequency	Percentage (%)
Instructional Leadership of the Principal	Little Potential/Quality	163	30.0
	Somewhat Potential/Quality	163	30.0
	Moderate Potential/Quality	6	1.1
	Strong Potential/Quality	48	8.8
	Excellent Potential/Quality	163	30.0
	Total	543	100.0
Organizational Leadership	Little Potential/Quality	216	39.8
	Somewhat Potential/Quality	155	28.5
	Moderate Potential/Quality	15	2.8
	Strong Potential/Quality	76	14.0
	Excellent Potential/Quality	81	14.9
	Total	543	100.0
Moral Dimension	Little Potential/Quality	110	20.3
	Somewhat Potential/Quality	121	22.3
	Moderate Potential/Quality	54	9.9
	Strong Potential/Quality	164	30.2
	Excellent Potential/Quality	94	17.3
	Total	543	100.0
Political Context / Policy Making	Little Potential/Quality	144	26.5
	Somewhat Potential/Quality	60	11.0
	Moderate Potential/Quality	64	11.8
	Strong Potential/Quality	133	24.5
	Excellent Potential/Quality	142	26.2
	Total	543	100.0
School Vision	Little Potential/Quality	66	12.2
	Somewhat Potential/Quality	288	53.0
	Moderate Potential/Quality	52	9.6
	Strong Potential/Quality	111	20.4

	Excellent Potential/Quality	26	4.8
	Total	543	100.0
Communication Skills	Little Potential/Quality	175	32.2
	Somewhat Potential/Quality	160	29.5
	Moderate Potential/Quality	16	2.9
	Strong Potential/Quality	105	19.3
	Excellent Potential/Quality	87	16.0
	Total	543	100.0
Comfort and Empathy	Little Potential/Quality	132	24.3
	Somewhat Potential/Quality	78	14.4
	Moderate Potential/Quality	30	5.5
	Strong Potential/Quality	135	24.9
	Excellent Potential/Quality	168	30.9
	Total	543	100.0
Decision Making	Little Potential/Quality	44	8.1
	Somewhat Potential/Quality	80	14.7
	Moderate Potential/Quality	54	9.9
	Strong Potential/Quality	168	30.9
	Excellent Potential/Quality	197	36.3
	Total	543	100.0
Commitment to Task	Little Potential/Quality	144	26.5
	Somewhat Potential/Quality	60	11.0
	Moderate Potential/Quality	64	11.8
	Strong Potential/Quality	133	24.5
	Excellent Potential/Quality	142	26.2
	Total	543	100.0
Self-Management	Little Potential/Quality	26	4.8
	Somewhat Potential/Quality	96	17.7
	Moderate Potential/Quality	64	11.8
	Strong Potential/Quality	211	38.9
	Excellent Potential/Quality	146	26.9
	Total	543	100.0

Time Management	Little Potential/Quality	60	11.0
	Somewhat Potential/Quality	114	21.0
	Moderate Potential/Quality	32	5.9
	Strong Potential/Quality	149	27.4
	Excellent Potential/Quality	188	34.6
	Total	543	100.0
Influence	Little Potential/Quality	30	5.5
	Somewhat Potential/Quality	138	25.4
	Moderate Potential/Quality	44	8.1
	Strong Potential/Quality	156	28.7
	Excellent Potential/Quality	175	32.2
	Total	543	100.0
Community Leadership	Little Potential/Quality	62	11.4
	Somewhat Potential/Quality	88	16.2
	Moderate Potential/Quality	70	12.9
	Strong Potential/Quality	123	22.7
	Excellent Potential/Quality	200	36.8
	Total	543	100.0
Planning	Little Potential/Quality	66	12.2
	Somewhat Potential/Quality	160	29.5
	Moderate Potential/Quality	46	8.5
	Strong Potential/Quality	108	19.9
	Excellent Potential/Quality	163	30.0
	Total	543	100.0
Organization	Little Potential/Quality	46	8.5
	Somewhat Potential/Quality	140	25.8
	Moderate Potential/Quality	94	17.3
	Strong Potential/Quality	120	22.1
	Excellent Potential/Quality	143	26.3
	Total	543	100.0
Directing	Little Potential/Quality	42	7.7
	Somewhat Potential/Quality	182	33.5

	Moderate Potential/Quality	55	10.1
	Strong Potential/Quality	113	20.8
	Excellent Potential/Quality	151	27.8
	Total	543	100.0
Checking and Control	Little Potential/Quality	54	9.9
	Somewhat Potential/Quality	92	16.9
	Moderate Potential/Quality	68	12.5
	Strong Potential/Quality	208	38.3
	Excellent Potential/Quality	121	22.3
	Total	543	100.0

Source: Field Work (2024)

The findings in Table 1 assess principals' leadership qualities as organizational inputs influencing educational efficiency in government bilingual secondary schools in Cameroon. The results reveal varied perceptions of principals' competencies across leadership domains, highlighting areas of strength and weakness.

The data indicate that decision-making, community leadership, influence, and time management were the strongest leadership dimensions observed among principals. For instance, 67.2% (*strong* and *excellent potential/quality*) of respondents affirmed that principals demonstrate strong decision-making abilities, while 59.5% viewed them as effective in community leadership roles. Likewise, 60.9% considered principals' influence and interpersonal relationships as strong or excellent, reflecting principals' ability to motivate and coordinate staff toward institutional goals. Effective time management also received a positive evaluation, with 62% of respondents acknowledging strong to excellent capacity in this area, suggesting efficient allocation of instructional and administrative time.

Conversely, weaker ratings were noted in organizational leadership, instructional leadership, and school vision. Only 28.9% of respondents perceived organizational leadership as strong or excellent, while nearly 68.3% rated it little to somewhat potential, indicating shortcomings in principals' ability to structure and sustain effective organizational systems. Similarly, instructional leadership recorded mixed results, with equal proportions (30%) each for *little*, *somewhat*, and *excellent* potential, implying inconsistencies in principals' instructional supervision and curriculum implementation practices. The school vision dimension also showed moderate strength, with more than half (53%) rating it only as *somewhat potential*, suggesting limited clarity and communication of long-term strategic goals.

Positive leadership traits such as self-management, commitment to task, and planning were moderately appreciated, with between 45% and 55% of respondents recognizing strong to excellent performance in these areas. These findings suggest that principals generally possess strong interpersonal and managerial competencies but may lack robust strategic and instructional leadership skills necessary for ensuring school efficiency.

Overall, the findings demonstrate that principalship plays a critical role in shaping school performance and internal efficiency. Effective principals—those with strong decision-making, planning, and communication skills—are more likely to foster a supportive learning environment, enhance teacher productivity, and promote educational quality. However, the observed weaknesses in organizational and instructional leadership suggest the need for continuous professional development and leadership training to improve principals' administrative capacities and strategic visioning in the secondary educational system.

Test of hypothesis

(H₀): There is no significant relationship between school principalship and educational efficiency in secondary schools in Cameroon.

(H₁): There is a significant relationship between school principalship and educational efficiency in secondary schools in Cameroon.

Table 2: Model Summary of Simple Linear Regression on the quality of principalship on Educational Efficiency

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.999 ^a	.998	.998	.55489	.998	18897.568	16	526	.000	.313
a. Predictors: (Constant), Checking and control, Organizational Leadership, Moral Dimension, School Vision, Instructional Leadership of the Principal, Communication Skills, Directing, organization, Community Leadership, Planning, , Self-Management, Influence, Decision Making, Comfort and Empathy, Time Management, Commitment to task										
b. Dependent Variable: Educational internal Efficiency										

(Source: Field Work, 2024)

The regression analysis presented in Table 2 examines the relationship between the quality of principalship and school internal efficiency in the secondary educational system in Cameroon.

The statistical results shows that, $R = 0.999$: This indicates an extremely strong positive correlation between the quality of principalship and educational efficiency. It suggests that changes in the quality of principalship are closely associated with changes in school efficiency. $R\text{ Square } (R^2) = 0.998$: This value implies that 99.8% of the variance in school internal efficiency can be explained by the independent variables related to principalship quality, such as instructional leadership, communication skills, organizational leadership, planning, decision-making, and community leadership. $\text{Adjusted } R\text{ Square} = 0.998$: This confirms that even after adjusting for the number of predictors in the model, the explanatory power remains extremely high, indicating that the model is robust and reliable. $\text{Standard Error of the Estimate} = 0.55489$: This very small error value shows that the predicted values are very close to the actual data points, indicating a high level of accuracy in the model's predictions. $F\text{ Change} = 18,897.568$ and $\text{Sig. } F\text{ Change} = 0.000$: The F-statistic is very high and statistically significant at $p < 0.05$, showing that the overall regression model fits the data well and that the predictors collectively have a significant effect on school internal efficiency. $\text{Durbin-Watson} = 0.313$: Although this value is lower than the ideal range (1.5–2.5), suggesting some level of positive autocorrelation, the overall strength and significance of the model indicate that this does not substantially undermine the results.

The results reveal that the quality of principalship strongly and significantly influences school internal efficiency. This means that schools led by principals who demonstrate effective leadership—through strong communication, planning, decision-making, instructional supervision, and organizational management—tend to perform more efficiently in achieving educational goals.

Since the p -value (0.000) < 0.05 , the null hypothesis (H_{03}) is rejected, and the alternative hypothesis (H_{a3}) is accepted. Thus, the study concludes that the quality of principalship has a statistically significant and positive effect on internal school efficiency within the Cameroonian secondary education system.

The findings imply that the principal’s leadership behavior, skills, and management strategies are vital organizational inputs that drive efficiency. Principals who exhibit moral integrity, effective communication, time management, and community engagement are more likely to enhance teacher productivity, student learning outcomes, and resource utilization—key indicators of internal efficiency.

This aligns with the work of Leithwood and Jantzi (2008) and Hallinger (2011), who both found that effective principalship contributes significantly to improved school performance, teacher motivation, and student success.

Based on the data, it is evident that principal leadership quality is a key determinant of educational efficiency in secondary schools. Effective principals ensure proper coordination, motivation, and resource management, leading to high internal efficiency levels.

Table 3: ANOVA Results Showing the Influence of the Quality of Principalship on School Internal Efficiency

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	93097.738	16	5818.609	18897.568	.000 ^b
	Residual	161.957	526	.308		
	Total	93259.694	542			
a. Dependent Variable: Educational internal Efficiency						
b. Predictors: (Constant), Checking and control, Organizational Leadership, Moral Dimension, School Vision, Instructional Leadership of the Principal, Communication Skills, Directing, organization, Community Leadership, Planning, Self-Management, Influence, Decision Making, Comfort and Empathy, Time Management, Commitment to task						

(Source: Field Work, 2024)

Table 3 presents the results of an Analysis of Variance (ANOVA) conducted to test the hypothesis that the quality of principalship influences school internal efficiency in secondary schools in Cameroon.

The results show that the regression model is statistically significant at $p = .000$ (which is less than 0.05). This means that the model explains a significant proportion of the variance in educational efficiency based on the quality of principalship. The F-value ($F = 18,897.568$) is also very large, indicating a strong relationship between the independent variables representing principalship quality and the dependent variable (educational efficiency).

The sum of squares for regression (93,097.738) is much higher than the residual sum of squares (161.957), demonstrating that most of the variation in educational efficiency is explained by the principalship-related factors included in the model. These factors—such as instructional leadership, communication skills, planning, decision-making, and commitment to tasks—collectively have a significant positive impact on the efficiency of schools.

Given the significant F-statistic ($p < 0.05$), the null hypothesis (H_{03})—that *the quality of principalship does not influence school internal efficiency*—is rejected. Consequently, the alternative hypothesis (H_{a3})—that *the quality of principalship influences school internal efficiency*—is accepted.

Based on the ANOVA results, it can be concluded that the quality of principalship significantly influences school internal efficiency in the secondary educational system in Cameroon. This implies that effective leadership practices such as planning, communication, instructional supervision, and decision-making by principals are critical determinants of how efficiently schools utilize resources and achieve educational goals.

Table 4: Correlation Between Quality of Principalship and School Internal Efficiency

Correlations		Principalship	Educational internal Efficiency
Principalship	Pearson Correlation	1	.989**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	220399.716	141747.114
	Covariance	406.642	261.526
	N	543	543
Educational internal Efficiency	Pearson Correlation	.989**	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	141747.114	93259.694
	Covariance	261.526	172.066
	N	543	543
**. Correlation is significant at the 0.05 level (2-tailed).			

(Source: Field Work, 2024)

Table 4 presents the Pearson correlation coefficient between the quality of principalship and school internal efficiency. The correlation coefficient is $r = 0.989$, which is very high and positive, indicating a strong direct relationship between the two variables. The associated significance value ($p = 0.000$) is less than 0.05, showing that this correlation is statistically significant.

This result implies that as the quality of principalship increases, school internal efficiency also increases. In other words, effective leadership practices—such as instructional supervision, decision-making, planning, communication, and commitment to tasks—strongly enhance the efficiency of schools.

Given the significant positive correlation, the null hypothesis (H_{03})—that *the quality of principalship does not influence school internal efficiency*—is rejected, while the alternative hypothesis (H_{a3})—that *the quality of principalship influences school internal efficiency*—is accepted.

The correlation analysis confirms that the quality of principalship is a critical determinant of school internal efficiency in Cameroon’s secondary education system. Principals who exhibit strong leadership qualities positively impact how schools function, utilize resources, and achieve educational outcomes efficiently.

The observation check-list results showed Leadership practices observed across the schools revealed a strong correlation between principal punctuality, supervision, and overall school discipline. Principals in GBHS Etoug-Egbe, GBHS Essos, GBHS Mendong, and GBHS Emana demonstrated consistent presence, proactive supervision, and regular pedagogic animation, all of which contributed to teacher discipline, punctuality, and organized school environments. However, in GBHS Ekorezok and GBHS Mbalgong, principals were occasionally absent or minimally involved in classroom follow-up, resulting in weaker staff motivation and lower teaching effectiveness.

This supports Leithwood, Harris, and Hopkins (2020), who emphasize that strong instructional leadership enhances teacher morale, enforces accountability, and raises student achievement. Hence, the findings indicate that effective principalship—characterized by regular supervision, presence, and pedagogic leadership—positively influences internal efficiency in government bilingual secondary schools.

Implication and conclusion

Discussion of Findings on Research Objective and Question 3

The third objective of the study sought “to assess the impact of school administration (principalship) on school internal efficiency.” Correspondingly, the research question asked: “Does the principalship affect the internal efficiency of government secondary schools?”

Findings from the data analysis revealed that school administration, specifically the role of the principal, has a significant effect on internal efficiency in government secondary schools. The regression and correlation results indicated a strong positive relationship between effective principalship practices and indicators of internal efficiency such as reduced repetition and dropout rates, timely completion, teacher motivation, and student academic performance. These findings imply that when principals demonstrate competent administrative, instructional, and managerial leadership, schools tend to operate more efficiently and achieve better educational outcomes.

The study’s results are in line with the assertion that the principal occupies a central position in determining school success through effective coordination of human, material, and financial resources (Okumbe, 2013). The principal, as the chief executive officer of the school, influences the overall climate and productivity of the institution by establishing clear goals, ensuring discipline, supervising instruction, and motivating staff. When principals engage in participatory decision-making, transparent communication, and sound financial management, teachers become more committed and students more motivated to learn, thereby improving internal efficiency.

Furthermore, findings corroborate the view of Leithwood, Harris, and Hopkins (2020), who emphasized that leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school. Effective principalship sets a vision, aligns school resources to instructional goals, and creates a conducive learning environment that fosters student success. This finding is also consistent with Bush (2011), who explained that principals who practice transformational and instructional leadership enhance school effectiveness by focusing on teaching quality, curriculum implementation, and the professional development of teachers.

In the context of Cameroon, where many public secondary schools face constraints such as limited resources and overcrowded classrooms, the role of the principal becomes even more critical. The data revealed that schools with dynamic, proactive, and well-organized principals demonstrated higher levels of internal efficiency compared to those led by passive or authoritarian administrators. This supports the view that effective school leadership is an indispensable element in improving educational efficiency, especially within resource-limited environments (Ndongko & Nyamnjoh, 2012).

The findings also revealed that principals who delegate responsibilities, encourage teamwork, and monitor teachers' instructional practices tend to record fewer cases of absenteeism, lateness, and student dropouts. This observation echoes the findings of Hallinger (2011), who argued that principals who exercise instructional supervision and provide feedback to teachers contribute significantly to the achievement of institutional goals. In such schools, teachers feel valued and supported, while students receive better guidance, which contributes to improved learning outcomes and overall efficiency.

Additionally, the results suggest that principals' administrative competencies—such as planning, organizing, coordinating, and evaluating school activities—directly influence the internal functioning of the school system. When these competencies are effectively applied, resources are better utilized, teaching is more effective, and students progress smoothly through the educational cycle. This confirms the position of Adeyemi (2010), who maintained that poor school management and leadership practices are among the major causes of inefficiency in educational institutions in developing countries.

Moreover, the study found that principals who maintain positive relationships with teachers, parents, and students create an environment conducive to collaboration and learning. This finding aligns with the work of Fullan (2014), who noted that successful school leaders build strong professional communities and foster trust and commitment among all stakeholders. By contrast, schools with weak administrative leadership were characterized by low teacher morale, indiscipline, and irregular instructional supervision, leading to inefficiencies such as high repetition rates and poor student performance.

In summary, the findings from this study demonstrate that principalship plays a decisive role in shaping the internal efficiency of secondary schools in Cameroon. The effectiveness of a principal's administrative and instructional leadership determines how well school resources are mobilized and utilized to achieve educational goals. The data strongly support the view that leadership quality at the school level is a critical determinant of internal efficiency, reinforcing the importance of capacity building and leadership development programs for school administrators in the country.

6.1.6 Discussion of Findings on Hypothesis 3

Hypothesis three sought to examine the relationship between the quality of principalship and school internal efficiency. The hypothesis was stated as follows:

- **H_{a3}**: The quality of principalship influences school internal efficiency.
- **H_{o3}**: The quality of principalship does not influence school internal efficiency.

The regression analysis presented in Table 33 indicates a very strong positive relationship between the quality of principalship and educational internal efficiency in secondary schools in Cameroon, as shown by a correlation coefficient (R) of 0.999. This suggests that improvements in principalship quality are closely associated with increases in internal school efficiency. The coefficient of determination ($R^2 = 0.998$) implies that 99.8% of the variance in school efficiency can be explained by variables related to principalship quality, including instructional leadership, organizational and community leadership, decision-making, communication, time management, and commitment to tasks. The Adjusted R^2 of 0.998 confirms the model's robustness even after accounting for the number of predictors, and the very low standard error of estimate (0.55489) indicates a high level of precision in the predictions (Field Work, 2024).

The ANOVA results in Table 34 further demonstrate the statistical significance of the regression model. The F-value of 18,897.568, with a p-value of 0.000, indicates that the independent variables collectively have a significant effect

on educational efficiency. The regression sum of squares (93,097.738) far exceeds the residual sum of squares (161.957), showing that the principalship-related factors included in the model account for the majority of variation in school internal efficiency. These results provide empirical evidence that the null hypothesis (H_{03}) should be rejected, while the alternative hypothesis (H_{a3}) is accepted, confirming that principalship quality significantly influences internal school efficiency (Field Work, 2024).

The Pearson Product-Moment Correlation in Table 35 supports these findings, revealing a strong and statistically significant positive correlation ($r = 0.989$, $p < 0.05$) between the quality of principalship and school internal efficiency. This indicates that schools led by principals with strong leadership skills—such as instructional supervision, effective communication, organizational management, planning, and commitment—experience higher levels of efficiency. Consequently, as the quality of principalship improves, internal school efficiency also increases significantly (Field Work, 2024).

The findings imply that the principal's leadership style, competence, and administrative strategies constitute vital organizational inputs that determine the effective utilization of resources, teacher motivation, student engagement, and overall school performance. Principals who demonstrate moral integrity, vision, participatory decision-making, and a commitment to fostering a positive learning environment create conditions that enhance educational efficiency. In contrast, weak leadership practices, poor planning, and ineffective instructional supervision are likely to reduce school performance and efficiency outcomes.

In conclusion, the analysis of regression, ANOVA, and correlation results provides strong empirical support for the assertion that the quality of principalship is a critical determinant of school internal efficiency in Cameroon's secondary educational system. Therefore, the study accepts H_{a3} , confirming that principalship quality significantly and positively influences school efficiency, while rejecting H_{03} . Effective leadership by principals ensures optimal coordination, motivation, and utilization of school resources, directly contributing to higher levels of educational performance and internal efficiency.

Implications for School Leadership and Principalship Competence

The findings confirmed that principalship has a significant influence on school internal efficiency. According to the analysis, principal competence in planning, organizing, supervising, and motivating teachers is central to promoting efficiency.

This supports the Managerial Efficiency Theory, which holds that managerial effectiveness determines the productivity and outcomes of any organization (Koontz & O'Donnell, 1976). In educational contexts, Leithwood and Sun (2018) argue that leadership is second only to teaching in influencing student outcomes.

The implication is that principal training programs must be intensified, focusing on instructional leadership, resource management, monitoring of teacher performance, and student welfare. The study suggests that weak principalship contributes to inefficiencies, meaning leadership audits, mentorship, and professional development for school heads must become central to policy reforms.

Principalship and Managerial Effectiveness

The findings reveal that effective principalship is essential in improving educational efficiency. Principals who demonstrated strong instructional leadership, transparent management practices, and participatory decision-making positively influenced teacher performance and overall school functioning. This conclusion resonates with the Managerial Efficiency Theory, which asserts that effective leadership increases operational efficiency through sound

planning, coordination, and supervision (Drucker, 2007). Schools with ineffective leadership exhibited greater inefficiencies, including misallocation of resources, low morale, and poor academic outcomes.

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