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School Leadership Practices and Internal Efficiency in Secondary Education under Armed Conflict Conditions

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ABSTRACT: The main objective of this study was to explore secondary school leadership practices as determinants of internal efficiency in armed conflict areas in selected schools in Bamenda centre, Cameroon. Internal efficiency is a salient aspect in the education production function which if not carefully enhanced by school leadership will engender wastage of scarce available resources. Within the context of this research, school internal efficiency was studied ascertaining a link to leadership practices such as instructional supervision, teacher motivation and financial management. The quantitative approach was adopted for research design. Using the proportionate and purposive sampling techniques, 187 teachers and 80 school administrators were selected for the study. The questionnaire was the instrument used in data collection. The data collected was analysed using regression analysis and the following results were found. It was found that instructional supervision, teachers' motivation, and financial management of the school principal significantly predict school internal efficiency in secondary schools in armed conflict zones. From this it was concluded that school leadership practices are determinants of internal efficiency in armed conflict areas in selected schools in Bamenda centre. Recommendations were made to stakeholders concerned.

Keywords: armed conflict areas, determinants, internal efficiency, leadership practices, secondary school.

ABSTRAK: Tujuan utama penelitian ini adalah untuk mengkaji praktik kepemimpinan sekolah menengah sebagai determinan efisiensi internal di wilayah terdampak konflik bersenjata pada sekolah-sekolah terpilih di Bamenda Centre, Kamerun. Efisiensi internal merupakan aspek penting dalam fungsi produksi pendidikan yang apabila tidak ditingkatkan secara optimal oleh kepemimpinan sekolah dapat menyebabkan pemborosan sumber daya yang terbatas. Dalam konteks penelitian ini, efisiensi internal sekolah dikaji dengan

menelusuri keterkaitannya dengan praktik kepemimpinan, yaitu supervisi pembelajaran, motivasi guru, dan manajemen keuangan. Penelitian ini menggunakan pendekatan kuantitatif. Dengan menerapkan teknik sampling proporsional dan purposif, sebanyak 187 guru dan 80 administrator sekolah dipilih sebagai responden. Instrumen pengumpulan data yang digunakan adalah kuesioner. Data yang diperoleh dianalisis menggunakan analisis regresi. Hasil penelitian menunjukkan bahwa supervisi pembelajaran, motivasi guru, dan manajemen keuangan kepala sekolah secara signifikan memprediksi efisiensi internal sekolah menengah di wilayah konflik bersenjata. Berdasarkan temuan tersebut, disimpulkan bahwa praktik kepemimpinan sekolah merupakan determinan efisiensi internal di wilayah terdampak konflik bersenjata pada sekolah-sekolah menengah di Bamenda Centre. Rekomendasi diajukan kepada para pemangku kepentingan terkait.

Kata kunci: determinan, efisiensi internal, praktik kepemimpinan, sekolah menengah wilayah konflik bersenjata.

INTRODUCTION

The socio-political context of schools in the Anglophone regions of Cameroon has been typified since 2016 by an intensifying civil-rights and secessionist armed conflict. Burning and shutdown of schools by armed groups, government clampdowns, precipitous declines in student enrolment, and increased dropout rates-all these conditions directly disrupt the rhythms of teaching and learning, impede resource allocation, and place administrative operations under stress, increasing inefficiency. Despite these difficulties, some schools have proved resilient where leadership have been more effective in collaborating with salient stakeholders to ensure continuous schooling. In the face of all odds like the kidnapping, imprisonment, and killing of teachers and students, many still see formal education as a vital tool not only in communicating for peace but also one which can contribute to sustainable development.

The leadership in schools within conflict-stricken areas has been very instrumental towards ensuring continued education amidst gunshots and all forms of exactions. This study sets out to look at those practices of leadership that in one way or another influence school internal efficiency in secondary schools within conflict-stricken zones. Findings from this study will provide insights and clarifications into how these various leadership practices, such as instructional supervision during conflict times, motivating the teachers, and managing finance in times of crisis, exert influence on school internal efficiency.

Problem statement

Education remains a fundamental pillar of societal development, as it permeates all spheres of life, including formal, informal, and non-formal learning systems. Despite substantial growth in student enrolment and the implementation of national education reforms, many secondary schools continue to experience challenges such as low completion rates, high dropout rates, and grade repetition. According to Alonge and Iwerebor (2023), school principals perform multiple roles that encompass both administrative and instructional responsibilities. These include

policy implementation, the pursuit of high academic standards through classroom observation, evaluation of teaching and learning materials, teacher appraisal, and effective communication with schools and surrounding communities. Within this context, financial management constitutes a critical dimension of school leadership that directly supports instructional and administrative functions.

Weak instructional supervision, limited participatory decision-making, low levels of teacher motivation, and inadequately institutionalized financial management practices can undermine a school's capacity to efficiently transform inputs—such as human resources, financial allocations, and infrastructure—into timely and high-quality educational outcomes. Such inefficiencies may result in the wastage of already scarce resources and restrict students' ability to contribute meaningfully to national development and sustainable growth. Consequently, there is a compelling need to examine the relationship between school leadership practices and internal efficiency in secondary education.

Research Questions

1. To what extent does instructional supervision influence internal efficiency in secondary schools?
2. How does teacher motivation affect internal efficiency in secondary schools?
3. What is the effect of principals' financial management practices on internal efficiency in secondary schools?

Literature Review

Leadership practices in areas of armed conflict

Leadership has been conceptualized by Nwankwo (2014) as a process of influence through which individuals are motivated and communicated with in order to achieve specific goals. Similarly, Nusche and Moorman, as cited in Dabesa and Cheramlak (2021), argue that school leadership has demonstrated substantial potential over time in improving school outcomes by mobilizing teachers, parents, communities, and other stakeholders toward shared objectives. Bush (2018) further observes that in many countries, particularly developing contexts, experience measured by years of teaching is often considered sufficient qualification for assuming school leadership roles. However, leadership in armed conflict settings extends beyond influence, motivation, and communication, as school leaders must also demonstrate resilience and adaptive capacity in response to persistent insecurity and safety challenges. Consequently, school leadership in conflict-affected areas is inherently complex and requires broader competencies that address both educational and security-related constraints.

Empirical evidence underscores the importance of leadership effectiveness in enhancing school outcomes. Alonge and Iwerebor (2023), in their study of public secondary schools in less developed communities in South-South Nigeria, found that although principals generally performed their leadership roles effectively, schools remained internally inefficient. Based on these findings, the authors recommended

continuous training and retraining of principals to strengthen leadership strategies capable of sustaining internal efficiency despite systemic challenges. Similarly, Umar, Kenayathulla, and Hoque (2021) examined leadership practices in secondary schools in Niger State, Nigeria, and reported significant positive relationships between school effectiveness and distributed leadership, community engagement, trained leadership, and school effectiveness activities. Their findings further revealed that distributed leadership exerted the strongest influence on school effectiveness, followed by community engagement, while trained leadership showed the least impact among the significant predictors.

Other studies have emphasized the role of leadership styles in enhancing academic outcomes. Calimlim et al. (2025) investigated the relationship between school leadership and students' academic achievement and found that transformational leadership practices were positively and significantly associated with improved academic performance. The study concluded that effective school leadership—characterized by goal setting, instructional support, and teacher motivation—constitutes a critical factor in enhancing student achievement at the secondary school level. However, the study did not examine financial management practices nor was it conducted within an armed conflict context. Likewise, Obed and Claire (2023) reported a strong positive relationship between school leadership practices and students' academic competence in TVET secondary schools in Rwanda. Despite these contributions, empirical studies focusing specifically on leadership effectiveness during periods of armed conflict remain limited.

In the Cameroonian context, Etomes (2022) examined transformational leadership in higher education institutions and found that all four dimensions—idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration—significantly predicted institutional productivity, a proxy for internal efficiency. Inspirational motivation emerged as the most influential dimension. Nevertheless, the study did not focus on secondary education, did not disaggregate leadership practices, and relied on broad productivity indicators rather than standard measures of internal efficiency such as graduation rates, dropout rates, and repetition rates. These limitations highlight a gap in understanding leadership practices and internal efficiency within conflict-affected secondary schools.

Addressing this gap, the present study focuses exclusively on secondary schools located in armed conflict zones and examines how leadership practices—specifically instructional supervision, teacher motivation, and financial management—relate to internal efficiency, as reflected in students' academic performance, dropout rates, repetition rates, and time taken to complete schooling. This focus is further supported by Guru's (2023) study on leadership styles and support staff performance at the University of Bamenda, which demonstrated that transformational, ethical, and demonstration-oriented leadership styles positively influenced performance, whereas laissez-faire and autocratic styles did not. Although conducted in a higher education context, the study reinforces the broader relevance of leadership practices in shaping institutional outcomes.

Leadership practices play a critical role in fostering internal efficiency within schools. Effective instructional supervision helps teachers remain aligned with curriculum standards, provide timely feedback, and adopt appropriate pedagogical strategies, thereby reducing repetition rates and enhancing course completion. Similarly, teacher motivation through incentives, professional development, and recognition contributes to improved classroom engagement, reduced dropout rates, and enhanced learning quality. These leadership mechanisms are equally vital in conflict settings, where educational continuity can mitigate the psychological and social impacts of insecurity (GCPEA, 2021).

For the purpose of this study, leadership practices are conceptualized in terms of instructional supervision, teacher motivation, and financial management. Instructional supervision is defined as a professional, continuous, and collaborative process aimed at improving teaching and learning through classroom observation, feedback, and reflective dialogue (Basilio & Bueno, 2021). Effective supervisors foster professional learning communities, encourage democratic problem-solving, and use observation data to inform targeted professional development. Best practices in instructional supervision include regular and unannounced classroom observations, lesson monitoring, collaborative feedback sessions, co-teaching, and the provision of instructional materials (Allida et al., 2018).

Teacher motivation remains central to sustaining education in conflict-affected contexts. Drawing on self-determination theory, Eyal and Roth (2011) demonstrated that autonomy-supportive leadership—characterized by choice, recognition, and constructive feedback—positively influences teachers' intrinsic motivation. Given that teachers serve as the backbone of educational delivery in crisis environments (GPE, 2024), they require adequate social, economic, psychological, and pedagogical support to function effectively. Challenges associated with teacher management in emergencies often mirror those in stable contexts but are considerably intensified (Mendenhall et al., 2018), underscoring the need for well-trained school administrators.

Finally, financial management constitutes a crucial leadership responsibility in ensuring internal efficiency. School financial management refers to the systematic planning, organization, direction, and control of financial resources to achieve optimal utilization and fiscal sustainability (Bacatan, 2023). Effective financial management is grounded in accountability, transparency, and integrity, and requires alignment between budgetary decisions and institutional goals, stakeholder participation in budgeting processes, and transparent financial reporting (Bacatan, 2023; Azzahra & Safira, 2022). In conflict settings, these practices are particularly critical given the scarcity of resources and heightened risk of mismanagement.

Educational efficiency

Galabawa (2003) conceptualizes internal efficiency within the school system as the optimal maximization of the relationship between educational inputs and outputs. Similarly, Haq and Haq (1998) define internal efficiency as the linkage

between educational inputs—such as teachers and instructional materials—and learning achievements. Educational inputs comprise physical infrastructure, teaching personnel, textbooks, and other learning resources, which may be aggregated and expressed in terms of expenditure per learner per year (UNESCO, 1998). Abagi and Odipo (1997), as well as Lerotholi (2001), emphasize that internal efficiency is commonly assessed through indicators such as promotion, repetition, and dropout rates. According to Lerotholi (2001), higher promotion and completion rates signify a more efficient education system.

UNESCO (2000) further characterizes efficient schools as those that achieve strong academic outcomes, demonstrate effective internal management, and deliver quality results at a reasonable and socially affordable cost. These perspectives collectively highlight four interrelated dimensions of school efficiency: outcome orientation, effective internal management, cost-effectiveness, and equity. Kumar and Gulati (2010) reinforce this view by framing efficiency as the optimal allocation of resources across competing uses. Chiuri and Kiumi (2005) define internal efficiency more operationally as the ability of an education system to educate the maximum number of learners within the shortest possible time and with minimal financial and human resource expenditure.

In contrast, external efficiency refers to the broader socio-economic returns of education. Lockheed and Hanushek (1987) associate external efficiency with cost-benefit analyses, particularly the ratio of educational outcomes to monetary inputs, reflecting the extent to which school graduates become socially and economically productive. Psacharopoulos and Woodhall (1985) clarify the distinction between educational output and outcome, noting that outputs relate to learners' academic achievements—knowledge, skills, attitudes, and behaviours—measured through assessments and examinations, whereas outcomes denote the external benefits of education, including employability and societal productivity (World Bank, 1980).

Within the framework of the present study, internal efficiency is operationally defined as the school's capacity to utilize available inputs economically in order to achieve expected academic outcomes while minimizing student stagnation, repetition, and dropout. External efficiency, by contrast, refers to the positive societal externalities generated by students' educational attainment. Consistent with Kiveu and Mayio (2009), internal efficiency is conceptualized using key indicators such as graduation rates, dropout rates, repetition rates, and average time to completion, all of which reflect the extent to which an institution minimizes wastage and maximizes student progression.

High dropout rates often signal deficiencies in academic support systems, student engagement, or the presence of external constraints (Kiveu & Mayio, 2009). The dropout rate represents the proportion of students who discontinue their studies within a given period relative to total enrolment at the beginning of that period. Elevated dropout levels may be linked to inadequate instructional supervision, low teacher motivation, or insufficient learning resources, which collectively reduce students' sense of support and increase their vulnerability to withdrawal. Monitoring

dropout trends enables school leaders to identify critical intervention points, including enhanced counselling services, improved instructional quality, and revised retention policies.

Similarly, repetition rates serve as important indicators of internal inefficiency. Course repetition refers to the proportion of students required to retake courses or academic years and often reflects learning difficulties, curriculum misalignment, or ineffective assessment practices. High repetition rates strain institutional resources, increase educational costs, and delay student completion (Kiveu & Mayio, 2009). Targeted instructional support—such as continuous classroom monitoring, formative assessment, and structured feedback mechanisms—can help reduce repetition by aligning teaching strategies with curricular objectives and learner needs.

In conflict-affected contexts, internal efficiency is further threatened by psychological, social, and environmental barriers that impede both teaching and learning. Armed conflict often disrupts help-seeking behaviours due to fear, mistrust, self-reliance, and hopelessness. Under such conditions, school leaders play a critical role in breaking down these barriers by providing psychosocial support to both teachers and students. Souza (2024) demonstrates that social support significantly mitigates the negative effects of violence on learners across diverse demographic groups, with family support emerging as a particularly strong moderator of adolescent mental health. Accordingly, schools in conflict zones must adopt proactive psychological intervention strategies, including early warning systems and preventive support mechanisms, to address trauma before it escalates.

Providing psychosocial, emotional, and institutional support not only enhances student retention but also strengthens teachers' intrinsic motivation, thereby reducing attrition and sustaining educational continuity. In this sense, internal efficiency in conflict-affected schools extends beyond technical resource utilization to encompass leadership-driven support systems that enable resilience, stability, and sustained academic progress despite pervasive insecurity.

Theoretical Framework

Contingency Leadership Theory

Contingency leadership theory argues that there is no universally effective leadership style; rather, leadership effectiveness is contingent upon the context in which leadership is exercised. According to this theory, a leader's ability to achieve desired outcomes depends on how well leadership behaviours align with situational demands. Key situational factors include the nature of the task, the leader's positional authority, power relationships, and the quality of leader–member relations. Effective leadership, therefore, requires adaptability and the strategic selection of leadership approaches that best fit prevailing circumstances, particularly in complex and unstable environments.

Transformational Leadership Theory

Transformational leadership theory emphasizes the central role of followership and the leader's capacity to inspire and motivate followers to transcend personal interests in pursuit of a shared vision. Through strong interpersonal relationships, transformational leaders promote growth, innovation, and high levels of performance within organizations. This leadership approach is characterized by four core dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Collectively, these components enable leaders to cultivate commitment, creativity, and sustained improvement among followers.

Equity Theory

Equity theory posits that individuals are motivated to maintain a sense of fairness and psychological balance in social and organizational exchanges (Adams, 1965). When individuals perceive inequity—arising from unequal ratios between their inputs and outcomes compared to those of others—they are motivated to restore balance. Also referred to as social comparison or inequity theory, equity theory highlights the role of perceived fairness in shaping motivation, attitudes, and behaviour (Gogia, 2010). Developed by Stacey Adams in the early 1960s, the theory suggests that employees evaluate fairness by comparing the relationship between their contributions and rewards with those of their peers. Equity is achieved when these ratios are perceived as equal, thereby enhancing motivation and organizational commitment (Baxamusa, 2012).

RESEARCH METHODOLOGY

Research Design and Sampling Procedures

This study employed a quantitative research design and was conducted in selected secondary schools in the North West Region of Cameroon. The target population comprised teachers and school administrators working in secondary schools within conflict-affected areas. Given the complexity of the study context and the need to obtain both representative institutional data and informed leadership perspectives, a mixed sampling approach combining probability and non-probability techniques was adopted.

Simple random sampling, a probability sampling technique, was used to select the participating secondary schools. This approach ensured that each school within the sampling frame had an equal chance of selection, thereby enhancing the representativeness of the sample and minimizing selection bias at the institutional level. To complement this, purposive sampling, a non-probability technique, was employed to select respondents who possessed direct experience and relevant knowledge of school leadership practices and internal efficiency. Accordingly, 187 teachers and 80 school administrators were purposively selected based on their roles, professional experience, and involvement in instructional supervision, teacher motivation, and financial management processes.

Data Collection Instrument and Validation

Data were collected using a structured questionnaire designed to capture information on leadership practices and indicators of internal efficiency. The content validity of the instrument was established through expert review and quantified using the Content Validity Index (CVI), ensuring that all questionnaire items were relevant and aligned with the study objectives. Reliability of the instrument was assessed using the test-retest method, which confirmed the stability and consistency of the responses over time.

Data Analysis

The data collected were analysed using Spearman's rank-order correlation coefficient. This non-parametric statistical technique was considered appropriate due to the ordinal nature of the data and its suitability for examining the strength and direction of relationships between leadership practices and internal efficiency indicators.

RESULTS

Table 1. Respondents' background information

Items	Modalities	Teacher		Administrators	
		Frequency	Percentage	Frequency	Percentage
Gender	Male	72	38.50	45	56.25
	Female	115	61.49	35	43.75
Age range	20-30years	76	40.64	20	25
	31-40 years	44	23.52	28	35
Working experience	41 years and above	67	35.82	32	40
	1-5 years	66	35.29	28	35
Educational qualification	6-10 years	97	51.87	32	40
	11 years and above	24	12.83	20	25
Educational qualification	Advanced level	97	51.87	25	31.25
	Bachelors	64	34.22	36	45
	Masters	26	13.90	19	23.75

Table 1 presents information of respondents' background. The study population was made up of 185 teachers and 80 school administrators selected from 10 operating schools in the Northwest Region. Majority of the teachers were females while majority of the administrators were males. Most of the respondents fall within the age range of 20 to 30. The highest working experience is range between 6 to 10 years while most of them had advanced level certificates with less than 30 having masters' degrees.

Table 2. Instructional supervision

Items	Teachers' perception		Students' perception		Sum	
	Means	Std dev.	Means	Std dev.	Means	Std dev.
Regular supervision of teachers' instructional activities.	3.1013	1.5941	3.3025	0.1398	3.2019	0.86695
Teacher evaluation is carried out by the school administrator periodically.	3.3331	0.2257	3.1244	0.2221	3.22875	0.2239
Support for teachers to adapt to changing circumstances.	3.2242	0.2242	3.3319	0.2334	3.27805	0.2288
Feedback is provided to lecturers after classroom observation.	2.1542	0.0588	2.1532	1.7119	2.1537	0.88535
Adaptation of curriculum to accommodate conflict-related disruptions	3.3365	0.1453	3.2443	0.2144	3.2904	0.17985
Regular assessment of student learning despite conflict-related challenges.	2.3254	1.1016	2.2541	1.8568	2.28975	1.4792
Regular communication between teachers and parents.	3.0101	0.2715	2.3115	0.0913	2.6608	0.1814

The table above presents respondents data on instructional supervision of the school principal. Most of the respondents disagreed (mean= 3.2019) that regular supervision of teachers' instructional activities is carried out by the school administration. This means that school administration would not be able to say whether there is effective curriculum implementation or not. In the second item, respondents indicated that school leaders do not carry out Teacher evaluation periodically. This means that instructional supervision is really wanting to a certain extend. The teacher is the life wire of the educational system and as such he should not only be motivated to do work, but he equally must be checked and frequently evaluated to assess whether he is meeting pedagogic objectives or not. In school were leadership approach is laissez faire oriented may end up not meeting institutional objectives. Most of the equally disagreed that (mean=3.27805) in the third item that Support for teachers to adapt to changing circumstances. When teachers are not supported in all its forms, teacher resilience becomes a far fetch idea. Many would only desire to leave the conflict zone for safer areas. In the fifth item respondents disagreed (Mean=3.2904) with the statements that the school curriculum has not been adapted to accommodate conflict-related disruptions. This means that the curriculum

implementation is not flexible at all and as such students would not be able to learner what they are supposed to learn.

Table 3. Teacher motivation in armed conflict zones

Items	Teachers' perception		Students' perception		Total	
	Means	Std dev.	Means	Std dev.	Means	Std dev.
Teachers are given risk allowances	3.3319	0.51187	3.4587	0.21101	3.3954	0.36144
Effectiveness of school leadership in managing crises.	3.6024	0.50021	3.1147	0.22221	3.35855	0.36121
Workload is commensurate to teachers income	2.2411	0.31476	3.2222	0.22101	2.73165	0.267885
There are cases of work overload	2.1245	1.18915	2.4588	1.20278	2.29165	1.195965
Security is provided to teachers.	3.1296	0.87369	3.2541	0.92697	3.19185	0.90033
Didactic materials are available	1.3796	0.54034	1.1475	1.01208	1.26355	0.77621
Teachers receive psychological support frequently	3.2211	1.37122	2.6331	1.48412	2.9271	1.42767

Teacher motivation is a fundamental factor as far as the education production function is concerned. When teaching as a key aspect of pedagogy becomes a problem, and when teachers fail to work as required, the educational industry will only keep wasting resources there by leading to both internal and external inefficiency. The mean of 3.598 in the first item falls in the disagreement area indicating that teachers do not receive risk allowances while teaching in very risky armed conflict zones. In the third item, respondents disagreed (mean=2.73165) that workload is commensurate to teachers' income. This means that in the lens of the equity theory, there is no balance between teacher inputs and outputs and as such teachers must not be motivated to do their job because salient motivation elements are wanting. In a job situation characterised by work overload and insecurity, teachers need to develop professional resilience and external motivation can be one of those things that can optimise their capacities to building resilience. Job security as indicated is only provided to the teachers on campus in rare cases while the teacher. This security is insufficient to enhance motivation because teachers need also financial, social, and physical security even out of the school compound. In the last item respondents disagreed (mean =2.9271) that teachers receive psychological support frequently. The absence psychosocial services both for teachers and students constitute a major obstacle for continued education in challenging moments.

Table 4. Financial management in armed conflict zones

Items	Teachers' perception	Students'	Sum
School Leadership Practices and Internal Efficiency in Secondary Education under Armed Conflict Conditions			
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	perception					
	Means	Std dev.	Means	Std dev.	Means	Std dev.
Funds are allocated based on departmental needs.	3.2541	0.10117	3.1111	0.12871	3.1826	0.22988
Financial resources are used transparently.	3.2145	0.10033	3.7233	0.22357	3.4689	0.3239
Budget decisions are well communicated.	2.8581	0.20043	3.2221	0.15511	3.0401	0.35554
There is proper monitoring of financial spending.	3.2365	0.11887	3.3737	0.01195	3.3051	0.13082

This means financial management appears to be one of the key aspects of leadership in that any other resource needed by the school could be purchased with finance. So, if financial resources are not well utilized to engage other resources in the education production function, institutional inefficiency obviously take place. The reaction of respondents to all the items on the table above fall around disagreement indication that funds are not properly distributed and allocated to address needs, available resources are not managed transparently, budgeting decisions are not properly communicated and that there is a lack of proper monitoring of the financial spending made by school leadership. This means that financial management of leadership could lead to inefficiency if it is not properly channelled to adequately address institutional needs of the institution.

Table 5. School internal efficiency in armed conflict zones

Items	Teachers' perception		Students' perception		Sum	
	Means	Std dev.	Means	Std dev.	Means	Std dev.
Existence and implementation of safety protocols for students and staff.	3.3019	0.20887	3.4315	0.32871	3.3667	0.26879
Regular assessment and mitigation of potential risks.	3.5185	0.10033	3.3849	0.82257	3.4517	0.46145
Availability of support services for students and staff affected by conflict.	3.4135	0.20213	3.4039	0.12211	3.4087	0.16212
Measures taken to secure school infrastructure	3.2012	0.30887	3.4297	0.21195	3.3154	0.26041
Collaboration with donors and NGOs to secure resources	2.8012	0.10331	3.8897	0.10005	3.3454	0.10168

School internal efficiency is that ability of an institution to use available scarce resources to produce expected results within the expected timeframe. Internal

efficiency avoids wastage and advocates optimal utilisation of resources in the education production function. There is no doubt that enhancing internal efficiency in armed conflict areas can never be an easy issue. However, school leadership and relevant stakeholders are expected to build resilience and ensure efficiency in schools operating in conflict zones. Effective internal efficiency would certainly reduce students' failures, repetition, and dropout. In the first item, the respondents agreed that there are existence safety protocols for students and staff, but the main question that can be asked relates to the level of implementation of the protocols. Without the implementation of the protocols, insecurity in the work environment would be created and effective processes will not occur in the use of resources. The regular assessment and mitigation of the potential risks in the use of resources would prevent the occurrence of wastages as well. Support services would be available for students and staff who have been affected by the conflict. This would provide students and staff with the mental stamina needed to build resilience that will optimize their productivity.

Table 6. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.490 ^a	.240	.235	.42580

a. *Predictors: (Constant), Instructional supervision, financial management, teacher motivation*

The R value 49.0% shows a good level of prediction. The R square value (24.0%) is coefficient of determination. It can be deduced that the value of 0.240 that our independent variables explain 24.0% of the variability of School internal efficiency.

Table 7. ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.991	3	7.997	44.109	.000 ^b
	Residual	75.966	419	.181		
	Total	99.957	422			

a. *Dependent Variable: School internal efficiency*

b. *Predictors: (Constant), Instructional supervision, financial management, Teacher motivation*

Looking at the *F*-ratio in the **ANOVA** table, the overall regression model is a good fit for the data. The table shows that Instructional supervision, financial management and Teacher motivation statistically significantly predict School internal efficiency, $F(3, 419) = 44.109, p < .000$.

Table 8. Coefficients^a

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
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		B	Std. Error	Beta	
1	(Constant)	.786	.057		13.850 .000
	Financial management	.189	.020	.402	9.372 .000
	Teacher motivation	.088	.028	.229	3.159 .002
	Instructional supervision	.136	.020	.297	6.873 .000

a. Dependent Variable: School internal efficiency

All predictors variables' (Instructional supervision, financial management, and Teacher motivation) coefficients are statistically significantly different from 0 (zero). A multiple regression was run to predict School internal efficiency from Instructional supervision, financial management, and Teacher motivation. These variables statistically significantly predicted School internal efficiency, $F (3, 149) = 44.109, p < .0005, R^2 = .240$. All three variables added statistically significantly to the prediction, $p < .05$.

DISCUSSIONS AND CONCLUSIONS

The first major finding of this study indicates that instructional supervision significantly predicts internal efficiency in secondary schools operating under emergency conditions. This result is consistent with the work of Nwafukwa and Odey (2018), who emphasized that improved teacher productivity can be achieved through the retraining of instructional supervisors, adequate staffing, and the establishment of functional supervision units within schools. Similarly, Kazi, Husaina, and Reazul (2020) reported that directive supervision is positively and significantly associated with teachers' performance and professional attitudes, underscoring the importance of structured supervisory practices in enhancing school efficiency during crises.

The second finding reveals that teacher motivation is a significant predictor of internal efficiency in secondary schools affected by emergency situations. This finding aligns with Mbabazi et al. (2025), who noted that financial incentives and opportunities for professional development play a crucial role in strengthening teacher motivation. Zafarullah, Mazen, and Abdulaziz (2025) further identified key motivational drivers, including competitive salaries, financial incentives, autonomy, professional growth, effective working conditions, performance management systems, and positive student engagement. Conversely, unfavourable teaching policies, low remuneration, limited resources, and excessive workloads were identified as major demotivating factors that negatively affect teachers' psychological well-being and performance. From an equity perspective, teachers are more likely to remain motivated when a fair balance exists between their inputs and outputs relative to their colleagues. Although Adams' equity theory was not originally developed within conflict settings, its principles remain applicable for fostering motivated behaviour across diverse educational contexts, including emergency environments.

The third finding demonstrates that principals' financial management practices significantly contribute to internal efficiency in secondary schools during

emergency conditions. This result is supported by Sisca et al. (2024), who found that principals' competence is a strong predictor of effective budget management. This reinforces the view that school leaders play a critical role in financial decision-making and resource allocation. Principals with strong leadership and financial management skills are better positioned to align financial decisions with instructional priorities, thereby enhancing operational efficiency. Furthermore, the positive influence of financial transparency on budget effectiveness highlights the importance of openness and clarity in financial practices. Transparent financial management enables stakeholders to monitor the use of limited resources, reducing the risks of mismanagement and corruption. This finding is consistent with Bush and Glover (2014), who argue that transparency strengthens accountability and stakeholder trust. Although previous studies have not explicitly examined leadership practices and internal efficiency in armed conflict contexts, the present findings suggest that effective instructional supervision, teacher motivation, and financial management are essential leadership practices that positively influence the education production function in conflict-affected schools.

Recommendations

The government should strengthen instructional supervision among school heads by providing continuous in-service training aimed at enhancing supervisory competencies. School administrators are encouraged to prioritize instructional supervision to ensure that teachers consistently apply effective and learner-centred pedagogical strategies in classroom practice. In addition, school leadership should adopt flexible instructional approaches, including e-learning and other digital modalities, to facilitate hybrid teaching and learning in situations where access to school premises is constrained due to insecurity.

Education stakeholders are urged to accord high priority to teacher motivation in secondary schools located in armed conflict zones. Schools may adopt targeted strategies to enhance teacher motivation, such as the provision of risk allowances, initiatives aimed at building teacher resilience, the reduction of excessive workloads, and the provision of adequate psychosocial support services. These measures are essential for sustaining teacher commitment, well-being, and instructional effectiveness under emergency conditions.

With regard to financial management, inclusive financial governance should be promoted by involving teachers in budgeting and financial decision-making processes. School managers are expected to uphold ethical standards by avoiding the misuse of school funds for personal benefit. Schools should ensure that financial resources are managed efficiently, transparently, and accountably to support teaching and learning activities. Furthermore, the government should conduct periodic financial audits of secondary school principals to strengthen accountability mechanisms and enhance the effective utilization of public educational resources.

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