# Education board participation in budget preparation and school performance: Evidence from Zambian secondary schools

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## ABSTRACT

Decentralisation in education governance through education boards was implemented in Zambia to enhance accountability and local responsiveness. However, empirical evidence on the relationship between board involvement in budget preparation and school performance remains limited. This study investigated the relationship between Education Board involvement in budget preparation and secondary school performance in Zambia's Copperbelt Province. Joyce Epstein's School-Family-Community Partnership Model guided the study. The study employed a concurrent embedded mixed-methods design within a pragmatic worldview. The study was conducted in ten purposively selected secondary schools across five districts of Zambia's Copperbelt Province. The target population included 700 respondents (teachers, department heads, deputy head teachers, accounts assistants, head teachers, PTC chairpersons, and learner representatives). The quantitative sample comprised 187 respondents selected through stratified random sampling. The qualitative sample comprised 14 participants (head teachers, PTC chairpersons, and learner representatives) selected through expert and homogeneous purposive sampling. Quantitative data was collected using a structured questionnaire with Likert-scale items measuring board involvement in budget preparation (8 items, $\alpha = .792$) and school performance (8 items, $\alpha = .815$). Qualitative data were collected using a semi-structured interview guide with open-ended questions organised around four thematic areas. Quantitative data was analysed using SPSS Version 26, employing descriptive statistics (means and standard deviations), Pearson correlation, and multiple regression. Qualitative data were analysed using deductive thematic analysis following Braun and Clarke's six-phase framework, assisted by NVivo 12 software. Descriptive results indicated a perceived low level of education board involvement in budgeting (grand mean = 2.59, SD = 0.06). Pearson correlation revealed a significant positive relationship between board involvement and school performance, $r (185) = .335$, $p < .001$. Multiple regression analysis showed that budget preparation significantly predicted school performance, $B = 0.234$, $SE = 0.076$, $\beta = .273$, $t (183) = 3.092$, $p = .002$, explaining 12.9% of the variance ($R^2 = .129$). Qualitative findings revealed three themes: "Gatekeeping and Performative Engagement", "Resource Reallocation and Accountability", and "Limits of Board Authority". The study concludes that increasing board involvement in financial governance is vital for improving school performance. Recommendations include involving boards early in the budgeting process, standardising quarterly financial oversight mechanisms, mandating minimum financial disclosure standards, and enhancing financial literacy among board members through competency-based training.

**Keywords:** Budget Planning, Education Boards, Financial Governance, Secondary Education, School Performance, Zambia

## I. INTRODUCTION

Decentralisation in education governance is widely promoted by international development organisations, national governments, and educational researchers as a strategy to enhance accountability, efficiency, and local responsiveness in the delivery of educational services (Bray, 1996; Winkler, 1989). The core premise of decentralisation is that moving decision-making authority closer to the point of service delivery, specifically to schools and local communities, can improve educational outcomes by making schools more responsive to local needs, increasing community ownership, and reducing bureaucratic inefficiencies (Bush & Glover, 2014; Hanson, 1998). By empowering communities to participate in decision-making processes that affect their children's education, decentralisation aims to directly influence student outcomes through more relevant curriculum decisions, better allocation of resources, and strengthened accountability relationships between schools and the communities they serve (Ministry of Education [MOE], 2005; United Nations Educational, Scientific and Cultural Organisation [UNESCO], 2016).

The theoretical rationale for decentralisation rests on several key assumptions. First, local actors possess more accurate and timely information about local needs, priorities, and constraints than central bureaucrats, and therefore are better positioned to make effective decisions (Faguet, 2004). Second, participation in decision-making increases community ownership and commitment to school improvement, which can translate into greater parental involvement,

volunteerism, and local resource mobilisation (Epstein, 1995). Third, decentralisation can reduce corruption and improve resource management by making decision-makers more directly accountable to local stakeholders (World Bank, 2004). Fourth, decentralisation can foster innovation and experimentation by allowing schools to develop locally appropriate solutions to common challenges (Chapman et al., 2002). However, the empirical evidence on the effectiveness of decentralisation in improving educational outcomes is mixed and context-dependent (Galiani et al., 2008; Gunnarsson et al., 2009). Success depends on a range of enabling conditions, including the capacity of local actors, the adequacy of resources transferred, the clarity of roles and responsibilities, and the strength of accountability mechanisms (Barrera-Osorio et al., 2009; Winkler, 1989). In many low- and middle-income countries, these enabling conditions are often absent, leading to what some scholars have called "decentralisation failure", where the transfer of authority to local levels occurs without corresponding investments in capacity, resources, or accountability (Prud'homme, 1995; Smoke, 2015).

In Zambia, the decentralisation of education governance was formally operationalised in 1995 with the establishment of Education Boards at provincial, district, and school levels (MOE, 1996). This reform was part of a broader wave of decentralisation across the public sector in Zambia, driven by both domestic pressures for more responsive governance and external pressures from international donors who viewed decentralisation as a vehicle for corporate governance resulting in transparency, accountability and efficient resource management (Mwelwa & Phiri, 2025; UNESCO, 2016). The establishment of Education Boards was intended to facilitate local participation in school planning and management, enabling schools to respond more effectively to local challenges while also increasing community ownership of and accountability for educational outcomes (Ministry of Education [MOE], 2005). The Education Boards were designed as multi-stakeholder bodies that bring together representatives from various constituencies with an interest in education: school administrators, teachers, parents, learners, community leaders, and the private sector (MOE, 2008). This composition was intended to ensure that diverse perspectives were represented in decision-making and that boards would be accountable to the communities they served. The boards were assigned a range of governance functions, including developing school improvement plans, mobilising resources, overseeing the implementation of school programmes, and monitoring performance (Government of the Republic of Zambia [GRZ], 2011).

The legal framework for Education Boards was significantly strengthened by the Education Act No. 23 of 2011 (Government of the Republic of Zambia [GRZ], 2011). This Act formally mandates that Education Boards prepare, review, and adopt annual budgets, monitor management performance, ensure the transparent use of resources, and report on their activities to the Ministry of Education. The Act positions Education Boards as key actors in improving educational quality, with specific responsibilities for financial oversight to ensure that resources allocated to schools are used effectively and efficiently for their intended purposes (GRZ, 2011; MOE, 2005). Despite these legal provisions, research indicates that Education Boards in Zambia often struggle to fulfil their governance roles in practice. A comprehensive review by UNESCO (2016) identified several persistent challenges: limited institutional capacity, with board members often lacking the knowledge, skills, and confidence to perform their oversight functions effectively; weak autonomy, with school administrators and central ministry officials continuing to dominate key decisions; and poor accountability mechanisms, with limited consequences for poor performance or non-compliance. Mwelwa and Phiri (2025) evaluation of corporate governance practices on resource management among public secondary schools in Zambia found that while schools demonstrated strong accountability in reporting academic performance, they struggled with financial oversight, transparency issues and resource management. Yumba's (2021) doctoral study on decentralisation and quality education in community schools further revealed that having governing structures did not automatically ensure effective governance; instead, outcomes were influenced by factors such as local leadership, community engagement, and external support.

A critical gap exists in the empirical evidence on how Education Board involvement, particularly in essential functions such as budget preparation, directly affects school performance. While international and regional literature has established an association between board financial governance and school outcomes (Nkundabanyanga et al., 2015; Musungu et al., 2023), this relationship has not been rigorously tested in Zambia's secondary school context. Existing Zambian studies have investigated the effects of corporate governance on resource management, described board activities and operational contributions (Mwelwa & Phiri, 2025; Yumba, 2021), but have not empirically examined the effect of board involvement in specific governance functions on measurable school performance outcomes. This gap is especially pronounced in the Copperbelt Province, where Education Boards were initially piloted in 1995, making it a crucial site for assessing the long-term effectiveness of these decentralised structures. Without empirical evidence on the governance-performance relationship, policymakers lack the data needed to make informed decisions about strengthening Education Boards, targeting capacity-building interventions, or reforming the decentralisation policy. This study, therefore, addressed the following research questions:

### 1.1 Research Questions

i. What is the perceived level of Education Board involvement in the school budget preparation process?
ii. What is the effect of Education Board involvement in budget preparation on school performance?

## II. LITERATURE REVIEW

### 2.1 Theoretical Review

This study is based on Joyce Epstein's School-Family-Community Partnership Model (Epstein, 1995), which views student success as resulting from overlapping influences among schools, families, and communities. The model outlines six forms of involvement: parenting, communicating, volunteering, learning at home, decision-making, and engaging with the community (Msacky et al., 2024). Among these, the aspects of decision-making and community collaboration are most relevant to this study, as they offer insights into how formal governance structures, such as Education Boards, can facilitate participatory partnerships.

Epstein's framework posits that effective partnerships require more than structural presence; they demand meaningful participation characterised by mutual accountability, transparent communication, and shared priorities (Epstein et al., 2018). Within this framework, Education Board involvement in budget preparation is not merely a procedural requirement but a critical site where decision-making and community collaboration converge. This study adopts this theoretical lens to conceptualise budgeting as a strategic governance activity in which partnerships can be either institutionalised or undermined, depending on the quality and depth of board engagement.

### 2.2 Empirical Review

This section reviews empirical evidence organised according to the two research questions: (1) the perceived level of board involvement in budget preparation, and (2) the effect of board involvement in budget preparation on school performance.

#### 2.2.1 Perceived Level of Board Involvement in Budget Preparation

Research consistently indicates that the perceived level of board involvement in budget preparation is often low across various contexts. In Kenya, Otieno et al. (2016) found that board members' lack of financial expertise posed significant challenges for collaboration, with school managers often dominating budget processes and marginalising board input. This pattern, in which professional school administrators control financial information and decision-making, seems to be a recurring theme across contexts, suggesting that decentralisation policies may unintentionally empower existing elites rather than democratise governance.

In South Africa, King and Mestry (2023) found that school governing bodies often under-prioritise their financial oversight duties, leading to poor budget management and accountability failures. Their qualitative analysis showed that this was not just a capacity issue but also a matter of competing priorities, with boards focusing on visible, operational issues while neglecting thorough financial scrutiny. Ngema et al. (2024) revealed that while principals and finance officers understood their responsibilities, parent members, who often constitute the majority of governing bodies, were systematically excluded from meaningful financial decision-making due to limited financial literacy.

In Zambia, Mwelwa and Phiri (2025) investigation of the effects of corporate governance practices on resource management among public secondary schools found that schools experienced lack of qualified personnel in critical administrative roles for resource mobilisation, and that financial oversight and transparency issues remained somewhat inadequate. Yumba's (2021) doctoral study further revealed that despite established governing frameworks, community schools faced notable deficiencies in infrastructure, funding, and resource mobilisation, indicating that having governing structures does not automatically ensure effective governance.

#### 2.2.2 Effect of Board Involvement in Budget Preparation on School Performance

A consistent finding across various contexts is that active board involvement in financial governance positively influences school outcomes. In Cirebon City, Indonesia, Astuti and Sutirman (2024) found that there was a significant positive correlation between the education budget and performance accountability and transparency of fund management in schools. In Uganda, Nkundabanyanga et al. (2015) conducted a cross-sectional correlational study of secondary schools. They found that board role performance and finance committee effectiveness were significant predictors of perceived school performance. Their ordinary least squares regression analysis showed that active engagement, such as financial expertise and committee diligence, had a greater impact than structural factors, including board size and meeting frequency. Similarly, in Kenya, Musungu et al. (2023) established a strong link between school budget development processes and financial accountability, demonstrating that inclusive budget preparation involving parents and school boards significantly improved resource management. Likewise, in Nigeria, Lasisi (2021) reinforced

this, arguing that effective and efficient planning and administration of school funds were indispensable for achieving educational goals.

In Zambia, the relationship between board involvement in budget preparation and school performance remains underexplored. Existing Zambian studies have described board activities and operational contributions but have not empirically examined the effects of board involvement in specific governance functions, such as budget preparation, on measurable school performance outcomes. This study addresses this gap.

## III. METHODOLOGY

### 3.1 Research Design

Guided by a pragmatic worldview, this study employed a concurrent embedded mixed-methods design. This approach prioritised quantitative data collection, supplemented and contextualised by qualitative data, enabling a comprehensive analysis of board budget engagement. The quantitative strand provided statistical evidence on the relationship between board involvement and school performance, while the qualitative strand offered explanatory depth by capturing stakeholder experiences and perspectives. Data collection was cross-sectional, with all data gathered within a single academic term to maintain temporal consistency.

### 3.2 Study Area

The study was conducted in ten secondary schools located across five districts of Zambia's Copperbelt Province. The selected schools were Butondo, Kantanshi, Chifubu, Mukuba, Mindolo, Luanshya Girls, Luanshya Boys, Chingola, Chikola, and Kansenshi Secondary Schools. These schools were purposively selected because they were part of the initial pilot programme for Education Boards introduced in 1995, making them historically significant sites for evaluating the implementation of decentralised governance in schools. The study area was also considered suitable because it provided diversity in terms of school type, including both co-educational and single-sex schools, as well as variation in school performance levels. This diversity enhanced the representativeness of the findings within the Copperbelt Province.

### 3.3 Target Population

The target population comprised seven stakeholder groups drawn from the ten selected secondary schools. For the qualitative component, the target population included 10 head teachers, 10 Parents and Teachers Committee (PTC) Chairpersons, and 20 learner representatives, resulting in a total of 40 potential qualitative participants. For the quantitative component, the target population included 10 deputy head teachers, 70 heads of department, 10 accounts assistants, and 610 teachers, giving a total quantitative population of 700 respondents. Overall, the study targeted approximately 740 participants from both the qualitative and quantitative components.

### 3.4 Sampling and Sample Size

#### 3.4.1 Quantitative Sample

The quantitative sample size was determined using Yamane's formula ($n = N/(1+N(e)^2$) with a 5 per cent precision level and 95 per cent confidence interval (Nanjundeswaraswamy & Divakar, 2021). Applying this to the target population of 700 yielded a required sample of 255 respondents. Stratified random sampling was employed to ensure proportional representation across respondent categories. Within each stratum, defined by school and role, simple random sampling was used to select participants, giving each eligible individual an equal probability of selection. A total of 187 valid responses were received, representing a response rate of 73.3 per cent. The final quantitative sample comprised 134 teachers, 38 department heads, 8 accounts assistants, and 7 deputy head teachers. Head teachers were not included in the quantitative survey as they were purposefully selected for qualitative interviews to provide expert perspectives on governance processes.

#### 3.4.2 Qualitative Sample

Qualitative participants were selected using two distinct purposive sampling strategies to ensure both expert insight and representational depth. A total of 14 qualitative participants were selected across the ten schools. Six head teachers were selected using expert purposive sampling based on criteria including a minimum of three years of experience as a head teacher, direct involvement in at least two complete budget cycles, and representation across school types and performance categories. The head teachers were drawn from Butondo, Chikola, Chingola, Kantanshi, Kansenshi, and Luanshya Girls Secondary Schools.

Eight participants were selected using homogenous sampling, which involves selecting individuals who share similar characteristics to provide detailed descriptions of a particular subgroup's experiences. For PTC Chairpersons, three individuals were selected from Kantanshi, Butondo, and Luanshya Girls Secondary Schools based on the criterion

of having served as Chairperson for at least one full academic year. For learner representatives, five individuals were selected from Chifubu, Kantanshi, Luanshya Boys, and Luanshya Girls Secondary Schools based on their current or previous service as learner representatives on the Education Board.

### 3.5 Data Collection Instruments

#### 3.5.1 Quantitative Instrument: Structured Questionnaire

A structured questionnaire was designed to assess two main constructs: Education Board involvement in budget planning and school performance. The questionnaire consisted of three sections. Section A collected demographic details, including role, years of experience, and school type. Section B gauged board involvement in budget planning through eight items that evaluated decision-making, consultation, oversight, and reporting. These items were adapted from validated tools used in similar governance research in East and Southern Africa, particularly the work of Nkundabanyanga et al. (2015) and Musungu et al. (2023) and tailored to fit the structure of the Zambia Education Board. Section C evaluated school performance using eight items that covered perceived academic outcomes, resource use, and managerial effectiveness. These items were based on performance indicators employed by Zambia's Ministry of Education for school evaluation. All Likert-scale items used a five-point response format, with 1 representing Strongly Disagree and 5 representing Strongly Agree.

#### 3.5.2 Qualitative Instrument: Semi-Structured Interview Guide

A semi-structured interview guide was developed to explore participants' experiences and perspectives on board involvement in budgeting. The guide contained open-ended questions organised around four thematic areas: the nature and extent of board participation in budget processes; perceived effectiveness of board oversight; challenges and enablers of board engagement; and perceived links between board involvement and school outcomes. The semi-structured format allowed for flexibility in probing emergent themes while maintaining consistency across interviews. Interviews lasted 30 to 45 minutes.

### 3.6 Data Analysis

#### 3.6.1 Quantitative Data Analysis

Quantitative data were analysed using SPSS Version 26. Descriptive statistics, including means and standard deviations, were computed for each item measuring board involvement. Pearson product-moment correlation was used to examine the bivariate relationship between board involvement in budget preparation and school performance. Multiple regression analysis was conducted to determine whether board involvement in budget preparation predicted school performance after controlling for teacher performance and learner discipline. The significance level was set at $p < .05$.

#### 3.6.2 Qualitative Data Analysis

Qualitative data were analysed using deductive thematic analysis following the six-phase framework proposed by Braun and Clarke (2006): familiarisation with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final analysis with illustrative quotations. NVivo 12 software was used to manage coding and theme development. Themes were then utilised to explain and contextualise the quantitative findings within the concurrent embedded design.

### 3.7 Validity, Reliability, and Rigour

Content validity was established through systematic instrument development, with items adapted from validated instruments and reviewed by three experts in educational administration. Construct validity was supported by the theoretical basis of the items in Epstein's partnership model and the conceptual framework. Trustworthiness was established in accordance with Lincoln and Guba's criteria (Ahmed, 2024). Credibility was achieved through prolonged engagement (six weeks in the field), triangulation of data sources and methods, and member checking. Transferability was strengthened through detailed descriptions of the research context, participant selection criteria, and school characteristics. Dependability was ensured through an audit trail documenting all research decisions. Confirmability was demonstrated through reflexivity, peer debriefing, and triangulation across data sources.

### 3.8 Ethical Considerations

Ethical clearance was obtained from the University of Zambia's Humanities and Social Sciences Research Ethics Committee (HSSREC) under reference number HSSREC-2025 AUG:035. Additional permissions were secured from the Provincial Education Officer for the Copperbelt Province, District Education Board Secretaries for the five districts, and head teachers of the ten participating schools. All participants provided written informed consent after receiving detailed information about the study's purpose, procedures, and their rights. Participants were assured of confidentiality,

with data reported in aggregate and pseudonyms used for all quotations. Participants were informed of their right to withdraw at any time without consequence.

## IV. FINDINGS & DISCUSSION

### 4.1 Demographic Characteristics of Respondents

Table 1 presents the demographic characteristics of the 187 quantitative respondents.

**Table 1**

*Demographic Characteristics of Quantitative Respondents (N = 187)*

| Characteristic | Category | Frequency (n) | Percentage (%) |
|---|---|---|---|
| Role | Teachers | 134 | 71.7 |
| | Department Heads | 38 | 20.3 |
| | Accounts Assistants | 8 | 4.3 |
| | Deputy Head Teachers | 7 | 3.7 |
| Years of Experience | Less than 5 years | 52 | 27.8 |
| | 5-10 years | 78 | 41.7 |
| | More than 10 years | 57 | 30.5 |
| School Type | Co-educational | 142 | 75.9 |
| | Single-sex | 45 | 24.1 |

Table 1 shows the distribution of respondents by role, years of experience, and school type. Regarding role, most respondents were teachers (71.7%, n = 134), followed by department heads (20.3%, n = 38), accounts assistants (4.3%, n = 8), and deputy head teachers (3.7%, n = 7). This distribution is expected because teachers form the largest staff category in secondary schools. In terms of years of experience, the largest group had 5-10 years (41.7%, n = 78), followed by those with more than 10 years (30.5%, n = 57) and those with fewer than 5 years (27.8%, n = 52). This indicates that most respondents (72.2%) had at least 5 years of experience, suggesting that the sample comprised relatively experienced school personnel who could provide informed perspectives on board involvement. Regarding school type, most respondents attended co-educational schools (75.9%, n = 142), while 24.1% (n = 45) attended single-sex schools, reflecting the predominance of co-educational institutions in the Copperbelt Province.

### 4.2 Perceived Level of Education Board Involvement in Budget Preparation

To answer the first research question, descriptive statistics were computed for the eight items measuring board involvement in budget preparation. The results are presented in Table 2.

**Table 2**

*Descriptive Statistics on Board Involvement in Budget Preparation (N = 187)*

| Item | Statement | M | SD |
|---|---|---|---|
| 1 | The Education Board scrutinises expenditure reports quarterly against the approved budget | 2.52 | 1.193 |
| 2 | The Education Board challenges budget proposals that do not align with school priorities | 2.53 | 1.215 |
| 3 | The Education Board is regularly consulted during the initial stages of budget preparation | 2.55 | 1.223 |
| 4 | The Education Board ensures transparency and accountability in financial management | 2.57 | 1.235 |
| 5 | The Education Board helps in identifying sources of funding for school projects | 2.58 | 1.239 |
| 6 | The Education Board provides valuable input and recommendations on budget allocations | 2.60 | 1.259 |
| 7 | The Education Board reviews and approves the School's Annual Work Plan and Budget (AWPB) | 2.62 | 1.266 |
| 8 | The school management provides regular financial and audit reports to the Education Board | 2.71 | 1.258 |
| Grand Mean | | **2.59** | **0.06** |

Note. N = 187. Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree. Interval scale interpretation: 1.00–1.80 = Strongly Disagree, 1.81–2.60 = Disagree, 2.61–3.40 = Neutral, 3.41–4.20 = Agree, 4.21–5.00 = Strongly Agree.

Table 2 presents the mean scores and standard deviations for each of the eight items measuring board involvement in budget preparation. The overall grand mean of 2.59 (SD = 0.06) falls at the upper end of the "Disagree" range (1.81–2.60), indicating that respondents generally perceived Education Board involvement in budget preparation as limited. Examining individual items reveals that the lowest-rated activities were scrutinising expenditure reports quarterly (Item 1, M = 2.52, SD = 1.193) and challenging budget proposals that do not align with school priorities (Item 2, M = 2.53, SD = 1.215). These low scores suggest weak financial oversight by Education Boards, as these activities represent core monitoring functions. Items approaching the neutral range (2.61–3.40) were the review and approval of the Annual Work Plan and Budget (Item 7, M = 2.62, SD = 1.266) and the receipt of regular financial and audit reports

(Item 8, M = 2.71, SD = 1.258). These slightly higher scores suggest that formal, procedural aspects of board involvement were the only areas in which respondents acknowledged board participation. The standard deviations across all items ranged from 1.193 to 1.266, indicating considerable variability in respondents' perceptions, which may reflect differences in board practices across schools.

Qualitative data analysis generated the theme "Gatekeeping and Performative Engagement," which helps account for the generally low levels of agreement reflected in the survey responses. This theme captures how board participation, although mandated by policy, is often limited in practice by administrative control over information and decision-making processes. Participants indicated that school administrators tend to regulate the extent of board involvement, particularly in financial matters. One head teacher noted that detailed financial oversight by the board is often restricted to avoid what is perceived as unnecessary interference, stating that involving the board in routine financial transactions would "slow down operations," and that their role is largely confined to broader policy issues. Board members corroborated this perspective, expressing concerns that their role has become largely symbolic, with financial documents sometimes distributed shortly before meetings, making it difficult to analyse them effectively. This finding aligns with the low mean scores for scrutinising expenditure reports (M = 2.52) and challenging budget proposals (M = 2.53), as these activities require timely access to information and meaningful opportunities for input, which participants reported are often lacking.

**Table 3**

*Pearson Product–Moment Correlation Matrix for Items Measuring School Performance (N = 187)*

| Item | Indicator | M | SD | Correlation Matrix | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1 | Academic achievement outcomes | 2.55 | 1.20 | — | | | | | | | |
| 2 | Learner pass rates/examination performance | 2.60 | 1.18 | .60** | — | | | | | | |
| 3 | Resource utilization efficiency | 2.62 | 1.22 | .52** | .58** | — | | | | | |
| 4 | Teacher instructional effectiveness | 2.65 | 1.19 | .45** | .50** | .63** | — | | | | |
| 5 | Learner attendance rates | 2.70 | 1.25 | .40** | .44** | .49** | .57** | — | | | |
| 6 | School discipline and behaviour management | 2.72 | 1.21 | .38** | .42** | .47** | .55** | .60** | — | | |
| 7 | Administrative efficiency | 2.75 | 1.23 | .36** | .40** | .45** | .52** | .58** | .64** | — | |
| 8 | Stakeholder satisfaction with school performance | 2.78 | 1.20 | .34** | .38** | .43** | .50** | .55** | .60** | .67** | — |

Note. M = mean; SD = standard deviation. All correlations are significant at p < .01 (2-tailed).

Table 3 presents a Pearson Product–Moment Correlation Matrix for eight indicators of school performance (N = 187). The results show that all variables are positively and statistically significant at the 0.01 level (p < .01), indicating that the indicators are interrelated and measure a coherent construct.

The correlations range from weak to strong positive relationships. The weakest association is between academic achievement outcomes and stakeholder satisfaction (r = .34, p < .01), suggesting that factors beyond academic results influence satisfaction. Moderate correlations are observed across key performance areas, including learner pass rates and resource utilization efficiency (r = .58, p < .01), teacher instructional effectiveness and learner pass rates (r = .50, p < .01), and learner attendance and discipline management (r = .60, p < .01). Stronger correlations are evident among operational indicators, such as resource utilization efficiency and instructional effectiveness (r = .63, p < .01), discipline and administrative efficiency (r = .64, p < .01), and administrative efficiency and stakeholder satisfaction (r = .67, p < .01).

### 4.3 Effect of Board Involvement on School Performance

#### 4.3.1 Correlation Analysis

To examine the relationship between Education Board involvement in budget preparation and school performance, a Pearson correlation analysis was conducted. The results are presented in Table 4.

**Table 4**

*Pearson Correlation Between Board Budget Involvement and School Performance*

| Variable | 1 | 2 |
|---|---|---|
| 1. Budget Preparation | — | |
| 2. School Performance | .335** | — |

*Note. N = 187. **p < .01 (2- tailed) *

Table 4 presents the Pearson correlation coefficient between Education Board involvement in budget preparation and school performance. The results show a moderate positive correlation between the two variables, r (185) = .335, p < .001. This correlation coefficient of .335 indicates that as board involvement in budget preparation increases, school performance tends to increase as well. A p-value below 0.001 indicates that this relationship is statistically significant at the 0.01 level (2-tailed), meaning there is less than a 0.1% probability that this correlation occurred by chance. The strength of the correlation (.335) is considered moderate in educational research contexts, suggesting that board involvement in budgeting explains approximately 11.2% of the variation in school performance ($r^2$ = .112). This finding implies that schools with boards that are more actively engaged in budget processes tend to achieve better overall performance outcomes. However, the moderate strength also indicates that other factors beyond board involvement in budget preparation contribute to school performance.

Analysis of interview data generated the theme "Resource Reallocation and Accountability," highlighting how active board involvement in budget preparation contributes to improved learning outcomes. Participants from higher-performing schools described how board oversight influences the prioritisation of resources toward instructional needs. Board members were reported to question and redirect spending decisions, ensuring that funds are allocated to areas that directly support teaching and learning. One participant explained that board intervention led to a shift in expenditure from administrative activities to essential learning materials, thereby improving academic performance. This suggests that active board engagement serves as a form of financial accountability, with oversight helping prevent the misallocation of resources and ensuring alignment with educational priorities. This qualitative finding provides a mechanism to explain the positive correlation observed in Table 3: boards that are more involved in budget processes can reallocate resources toward instructional needs, thereby improving school performance.

### 4.3.2 Regression Analysis

A multiple regression analysis was conducted to examine the predictive effect of Education Board involvement in budget preparation on school performance, controlling for teacher performance and learner discipline. The results are presented in Tables 5, 6, and 7.

**Table 5**

*Model Summary for Regression Predicting School Performance*

| Model | R | $R^2$ | Adjusted $R^2$ | SE of the Estimate |
|---|---|---|---|---|
| 1 | .360 | .129 | .123 | 0.957 |

Note. N = 187. Predictors: (Constant), Budget Preparation, Teacher Performance, Learner Discipline. Dependent Variable: School Performance.

Table 5 presents the model summary for the multiple regression analysis. The multiple correlation coefficient (R = .360) indicates a moderate positive relationship between the set of predictor variables (budget preparation, teacher performance, and learner discipline) and school performance. The coefficient of determination ($R^2$ = .129) indicates that the three predictor variables together explain 12.9% of the variance in school performance. This means that approximately 87.1% of the variance in school performance is explained by other factors not included in this model, such as the learners' socioeconomic status, the quality of instructional materials, or school leadership practices. The adjusted $R^2$ (.123) is like $R^2$, indicating that the model includes no unnecessary predictors and would likely generalise well to other samples from the same population. The standard error of the estimate (0.957) represents the typical distance between observed school performance scores and those predicted by the model.

**Table 6**

*Analysis of Variance (ANOVA) for Regression Model*

| Source | SS | df | MS | F | P |
|---|---|---|---|---|---|
| Regression | 10.987 | 3 | 3.662 | 9.066 | < .001 |
| Residual | 74.123 | 183 | 0.405 | | |
| **Total** | **85.110** | **186** | | | |

Note. N = 187. Dependent Variable: School Performance.

Table 6 presents the analysis of variance (ANOVA) for the regression model. The F-statistic (9.066) tests whether the regression model is significantly better at predicting school performance than using the mean of school performance alone. The p-value (< .001) indicates that the model is statistically significant, meaning that the combination of budget preparation, teacher performance, and learner discipline reliably predicts school performance. The regression sum of squares (10.987) represents the variation in school performance explained by the model, while the residual sum of squares (74.123) represents the unexplained variation. The total sum of squares (85.110) is the sum of these two components.

**Table 7**

*Regression Coefficients for Predicting School Performance*

| Predictor | B | SE | β | t | P | 95% CI |
|---|---|---|---|---|---|---|
| (Constant) | 2.894 | 0.183 | — | 15.846 | < .001 | [2.533, 3.255] |
| Budget Preparation | 0.234 | 0.076 | .273 | 3.092 | .002 | [0.085, 0.383] |
| Teacher Performance | 0.118 | 0.065 | .142 | 1.815 | .071 | [-0.010, 0.246] |
| Learner Discipline | 0.095 | 0.059 | .121 | 1.610 | .109 | [-0.021, 0.211] |

Note. N = 187. Dependent Variable: School Performance. CI = Confidence Interval for B.

Table 7 presents the regression coefficients for each predictor variable. The unstandardised coefficient (B) for budget preparation is 0.234, which means that for every one-unit increase in board involvement in budget preparation (on the 5-point scale), school performance is predicted to increase by 0.234 units, holding teacher performance and learner discipline constant. The standard error (SE = 0.076) indicates the precision of this estimate. The standardised coefficient (β = .273) allows comparison across predictors; it indicates that budget preparation has a moderate effect on school performance. The t-statistic (3.092) and p-value (.002) indicate that budget preparation is a statistically significant predictor of school performance at the $p < .05$ level.

In contrast, teacher performance (B = 0.118, SE = 0.065, β = .142, t = 1.815, p = .071) and learner discipline (B = 0.095, SE = 0.059, β = .121, t = 1.610, p = .109) did not reach statistical significance at the $p < .05$ level, although both approached significance. The 95% confidence intervals for these predictors include zero, further indicating that their effects are not statistically distinguishable from zero. The confidence interval for budget preparation [0.085, 0.383] does not include zero, confirming the statistical significance of this predictor. Because the p-value for budget preparation (.002) is less than .05, the null hypothesis ($H_0$) that board involvement has no significant effect on school performance is rejected in favour of the alternative hypothesis ($H_1$). This finding indicates that, among the three governance functions examined, board involvement in budget preparation is the strongest and only statistically significant predictor of school performance.

### 4.3.3 Qualitative Finding for Research Question 2

The quantitative model indicates that financial participation accounts for only a modest proportion of the variance in school performance ($R^2 = .129$), suggesting that additional factors significantly influence outcomes. Qualitative data provided context to this finding by revealing the theme "Limits of Board Authority**.**" Participants consistently noted that although school boards influence budget allocation, their control does not extend to critical external and institutional factors, such as teacher quality and learners' socioeconomic backgrounds. One participant emphasised that even well-allocated budgets may not translate into improved academic performance where structural constraints, such as underperforming teachers or disadvantaged student populations, persist. This perspective highlights that financial oversight, while important, operates within a broader educational context shaped by human and social variables, thereby reinforcing the need to consider additional contextual factors beyond financial management. This qualitative finding helps explain why the model accounts for only 12.9% of the variance in school performance, as many factors beyond board involvement influence school outcomes.

### 4.4 Discussion

The results show an interesting paradox. Among the three board roles evaluated, Education Board involvement in budget planning was the strongest predictor of school performance (B = 0.234, p = .002), even though it was widely perceived as restricted (grand mean = 2.59, indicating disagreement with the adequacy of participation). This implies that even relatively limited involvement in budget governance can significantly affect educational outcomes, especially when baseline control is inadequate. Even minor enhancements in the quality and regularity of board supervision during budget preparation can lead to quantifiable improvements in school performance, underscoring the crucial role that financial governance plays in educational administration. This finding is consistent with Nkundabanyanga et al. (2015), who observed that board role performance and finance committee effectiveness increased perceived school performance in Uganda. It also confirms the findings of Musungu et al. (2023) that financial accountability in Kenyan schools is closely linked to the creation of school budgets. From the standpoint of Epstein's School-Family-Community

Partnership, budget participation is an essential tool for decision-making. Partnerships become entrenched through shared priorities and open reporting when boards actively participate in the budgeting process.

The qualitative discovery that board members lack financial knowledge and face administrative gatekeeping is highly consistent with research conducted in South Africa. King and Mestry (2023) reported that school governing bodies place minimal weight on budget control, while Faku and Mulaudzi (2024) found that parent members are frequently financially illiterate and passive in meetings. Similarly, Ngema et al. (2024) reported that parents are illiterate and unable to manage school finances. The inconsistent reporting observed in this study is consistent with the findings of Otieno et al. (2016), who found that board members' lack of financial expertise led to collaboration issues. The apparent paradox can be explained through Epstein's School-Family-Community Partnership Theory. First, within Epstein's framework, the decision-making domain highlights that not all forms of participation are equally significant; rather, high-impact actions are more likely to influence school improvement (Epstein, 1995; Epstein et al., 2018). Budget preparation is such a high-impact activity because it directly determines how resources are allocated to essential areas. This interpretation aligns with Zambian evidence from the Ministry of Education, which shows that variations in school performance are not only connected to resource availability but also to the effective management and prioritisation of those resources (Ministry of Education [MOE], 2022).

Second, the low descriptive mean scores observed in this study may reflect a gap in communication and visibility rather than a complete lack of board participation. Epstein's model emphasises that stakeholder perceptions are shaped by communication, transparency, and the visibility of governance processes (Epstein et al., 2018). When such processes are not clearly communicated, participation might seem minimal despite formal involvement. Third, budgeting is inherently more structured, formalised, and accountable than other governance functions. In the Zambian context, financial governance is among the most regulated and closely monitored aspects of school management (MOE, 2022). As a result, board involvement in budgeting is more likely to lead to observable and statistically significant impacts on school performance.

## V. CONCLUSION & RECOMMENDATIONS

### 5.1 Conclusion

This study examined the Education Board's role in budget development and its effect on secondary school performance in the Copperbelt Province of Zambia. The findings indicate that board involvement in budgeting is generally low, characterised by weak oversight, limited consultation, and inconsistent reporting (grand mean = 2.59). However, regression results indicate that budget involvement remains the most influential governance function, with a significant positive effect on school performance ($B = 0.234$, $SE = 0.076$, $\beta = .273$, $t(183) = 3.092$, $p = .002$), thereby rejecting the null hypothesis. Qualitative evidence attributes this discrepancy to limited financial literacy, information asymmetry, unclear oversight processes, and administrative gatekeeping, all of which constrain effective participation. These findings support a conditional interpretation of decentralisation theory and Epstein's partnership model, which posits that participation yields results only when actors possess adequate knowledge, authority, and access to information. Without these conditions, governance structures remain largely symbolic.

### 5.2 Recommendations

Based on the findings, the following recommendations are made. First, the Ministry of Education should institutionalise structured board participation in the Annual Work Plan and Budget (AWPB) process, requiring documented engagement at priority-setting, draft review, and approval stages. This will ensure that board involvement is not merely performative but substantive and traceable. Second, quarterly financial oversight mechanisms should be mandated, including variance reporting, defined deviation thresholds, and corrective action logs. These mechanisms will provide boards with the tools needed to monitor financial implementation effectively.

Third, minimum financial disclosure standards should be established, requiring that boards receive the AWPB, expenditure reports, bank reconciliations, procurement records, and audit reports promptly. Clear role separation between management (implementation) and boards (accountability) should also be formalised to prevent administrative gatekeeping. Fourth, capacity development should focus on competency-based training that covers financial literacy, budgeting processes, oversight practices, governance ethics, and data-informed decision-making. Standardised tools, simplified reporting systems, and district-level mentorship programmes should support this training. Fifth, the Ministry of Education should consider revising the Education Act to strengthen the legal mandate of Education Boards in financial oversight, including provisions for sanctions against administrators who deliberately withhold financial information from boards. Finally, further research should be conducted to examine the relationship between board financial literacy and school performance using objective performance measures rather than perceived measures, and to evaluate the effectiveness of different capacity-building interventions for board members.

**Declaration of Interest**

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

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