Board of Management Financial Control and the Utilization of Educational Resources in Public Junior Schools in Tharaka Nithi County, Kenya

Doris Kathambi Njeru[1*] Dr. Luke Murithi Kathenya[2] Dr. Joseph M. Kirugua[3]

[1]Doctoral candidate and corresponding author, Department of Education, Tharaka University, Kenya

[2]Department of Education, Tharaka University, Kenya

[3] Department of Education, Tharaka University, Kenya

** E-mail of the corresponding author: doriskathambinjeru@gmail.com*

Abstract

Under Kenya's Basic Education Act (2013), Boards of Management (BoMs) oversee school finances, yet governance gaps and resource shortages persist in public junior schools. This study evaluated whether BoM financial control independently contributes to educational resource utilization in Tharaka Nithi County when accounting for other governance functions. Grounded in Governance and Systems theories, the descriptive survey collected quantitative data from 85 Heads of Institutions via questionnaires and qualitative data from six Curriculum Support Officers via interviews. Analysis included descriptive statistics, correlations, linear regression, and thematic analysis. Financial control rated high overall ($M = 4.19$, $SD = 0.44$), led by freedom from political influence (96.5%) and policy enforcement (95.2%), though financial-management skills lagged (55.3%). Although financial control correlated significantly with resource utilization at the bivariate level ($r = .344$, $p = .001$; $\rho = .322$, $p < .01$), it lost significance in regression ($\beta = .102$, $p = .446$). Overall, the model explained 20.2% of variance ($F = 5.069$, $p = .001$), with policy implementation as the sole significant predictor ($\beta = .355$, $p = .022$). Results confirmed financial control requires proactive monitoring and procurement verification to be effective. Financial literacy and procurement oversight must be integrated into broader governance frameworks.

Keywords: Board of Management; financial control; educational resource utilization; public junior schools; policy implementation; Tharaka Nithi County, Kenya

Introduction

Financial control is one of the central mechanisms through which school governing bodies translate statutory authority into day-to-day institutional accountability. It encompasses budgeting, expenditure monitoring, procurement oversight, and safeguarding of institutional assets, and it is the mechanism through which a Board of Management (BoM) is expected to demonstrate that public resources entrusted to a school are used for their intended purpose. In Kenya, the Basic Education Act (2013) assigns BoMs a broad governance mandate that spans financial management, infrastructure development, and human-resource oversight in public schools (Republic of Kenya, 2013). This mandate carries particular weight in public junior schools, which absorbed the transition to Competency-Based Education (CBE) while simultaneously contending with shortages of classrooms, specialized learning spaces, instructional materials, teaching personnel, and operational funding (Kawinzi, 2025; Okutu & Nyambane, 2024). Boards in these schools were therefore required to exercise financial oversight inside an operating environment where funding constraints and infrastructural deficits limited the practical payoff of even well-executed control practices.

The relationship between financial control and resource utilization is not self-evident, however. Governance Theory frames institutional oversight around accountability, transparency, and shared decision-making among governing actors (Kooiman, 2010), while Systems Theory treats an organization as an interdependent set of subsystems whose outputs depend on the interaction among components rather than on any single component acting alone (von Bertalanffy, 1968). Read together, these two perspectives suggest that a Board's financial-control activity does not act on resource utilization directly; rather, its influence is transmitted through, and conditioned by, other governance functions such as policy implementation, resource allocation, and monitoring. If that is correct, then a Board could exercise diligent financial oversight and yet see that oversight fail to register as an independent driver of resource utilization once the wider governance system within which it operates is taken into account. This theoretical positioning is the premise on which the present analysis rests, and it shaped the decision to examine financial control's contribution to resource utilization both on its own and net of the Board's other governance functions.

A body of Kenyan and regional scholarship has linked BoM financial practices to school-level outcomes, though mostly without separating financial control from the broader governance functions with which it typically travels. Mbii et al. (2020) found a positive association between BoM financial-resource practices and student academic performance in two Kenyan counties, and Rwanda (2023) reported that BoM competence in budgeting, financial planning, auditing, and procurement was associated with more effective school financial management in Meru South Sub-County. More recent county-level studies point in a similar direction: Musungu et al. (2023) found a strong positive correlation between school budget development and financial accountability in Khwisero Sub-County ($R = .827$), Kalume and Ng'ang'a (2024) linked specific financial-management practices to funds management outcomes in Kilifi County, and Sipenji et al. (2024) reported that digital financial-management systems improved accountability in Bungoma County schools by strengthening transparency and record-keeping. Kiprono (2024) further argued that corporate-governance practices function as a catalyst for effective financial management in Kenyan public secondary schools, while Kosgei and Lekhetho (2025) linked principals' budgeting

competencies to the performance of financial-management roles in Kajiado County schools. None of these studies, however, tested whether financial control retained an independent statistical effect on resource utilization once other Board functions, such as policy implementation and resource allocation, were entered into the same model. That gap left open the question of whether financial control operates as a distinct governance determinant of resource utilization or whether its apparent influence merely reflects its association with a wider bundle of governance capacities

The doctoral thesis underpinning this article investigated the influence of BoM resource allocation, policy implementation, financial control, and professional competency on educational resource utilization in public junior schools in Tharaka Nithi County. It established that policy implementation was the strongest predictor of resource utilization, whereas financial control was significant at the bivariate level but lost significance once the other predictors were included in the multivariate model. That divergence between the bivariate and multivariate results raised a question the thesis did not resolve in full: why would a governance function so clearly associated with resource utilization in isolation lose its independent explanatory power once considered alongside the Board's other functions? This article addresses that question directly. It isolates the financial-control dimension of the thesis, and it draws on both the quantitative and qualitative evidence generated by the study to explain the bivariate-multivariate divergence rather than simply reporting it.

Problem Statement

Public junior schools in Tharaka Nithi County have continued to report resource constraints despite the presence of BoMs charged with financial governance and oversight. The broader thesis identified shortages in instructional materials, infrastructure, teaching personnel, and operational financing, together with gaps in organizational capacity, oversight practice, and stakeholder engagement. These conditions raised a practical question: did the financial control that BoMs were formally responsible for actually translate into more effective utilization of the educational resources available to schools? The bivariate finding that financial control correlated with resource utilization suggested that it might, yet the same finding lost significance once other Board functions were statistically controlled, which suggested that financial control's apparent contribution may have been carried by its association with other governance activities rather than by an effect of its own. The problem this article addresses, then, is not simply whether financial control matters, but why a governance function that appeared influential in isolation stopped appearing influential once considered as part of a wider governance system

Objective

To assess the influence of Board of Management financial control on the utilization of educational resources in public junior schools in Tharaka Nithi County, Kenya, and to explain why this influence was significant at the bivariate level but not in a multivariate model that controlled for the Board's other governance functions.

Hypothesis

H_0: Board of Management financial control has no statistically significant influence on the utilization of educational resources in public junior schools in Tharaka Nithi County, Kenya.

Literature Review

Theoretical Framework

The study was anchored on Governance Theory and Systems Theory. Governance Theory directs attention to the structures through which institutional actors exercise authority, share decision-making, and remain accountable to the constituencies they serve (Kooiman, 2010). Applied to school governance, it frames financial control as one of several accountability mechanisms, alongside policy implementation, resource allocation, and stakeholder engagement, through which a BoM discharges its statutory mandate. Systems Theory complements this framing by treating the school as an open system composed of interdependent subsystems, in which the performance of any one subsystem, such as financial oversight, is conditioned by its interaction with the others rather than by its own operation in isolation (von Bertalanffy, 1968). Institutional theory offers a further, cautionary lens: Meyer and Rowan (1977) argued that formal organizational structures can be adopted partly to secure legitimacy, becoming decoupled from an organization's actual operating activities. Applied here, this raises the possibility that some BoM financial-control structures, such as budget-approval procedures or annual audits, may exist more as compliance rituals than as instruments that substantively shape how resources are used, a possibility the qualitative findings discussed below speak to directly.

Empirical Review

Cross-national evidence situates the Tharaka Nithi findings within a wider pattern. Baxter (2020) observed that school boards internationally are expected to balance compliance-oriented oversight with substantive engagement in resource decisions, a tension that mirrors the reactive-versus-proactive distinction that emerged in the present study's qualitative data. Bhutoria and Aljabri (2022), using data-envelopment analysis across OECD and MENA education systems, found that managerial practices at the school level were associated with efficiency gains independent of resourcing levels, suggesting that governance capacity, not funding alone, shapes how effectively resources already available to a school are converted into outcomes. At the sub-national government level, Adisa et al. (2024) similarly found that legislative budgetary control was significantly associated with financial accountability in Nairobi County, evidence that a formal control mandate

translates into accountability only where the body holding that mandate actively exercises it, a pattern that parallels the distinction this study draws between the presence of BoM financial-control structures and their substantive use.

Within Kenya, the empirical picture is similarly consistent. Keter (2019) found that BoM participation in strategic planning shaped how well schools implemented their institutional direction, again pointing toward implementation, rather than financial control alone, as a proximate driver of outcomes. Musungu et al. (2023) reported a strong positive correlation between school budget development and financial accountability in Khwisero Sub-County, while Kalume and Ng'ang'a (2024) found that specific financial-management practices, including budgetary control and internal audit, were associated with more effective funds management in Kilifi County schools. Sipenji et al. (2024) demonstrated that digital financial-management systems strengthened accountability in Bungoma County by improving transparency and reducing recording errors, evidence that resonates with the present study's finding that technology for transparency was only moderately endorsed (81.2%) and that digital tools were recommended as one avenue for strengthening financial control. Kiprono (2024) argued more directly that corporate-governance practices, board composition, oversight committees, and disclosure norms, function as a catalyst that makes financial management effective, implying that financial control's payoff is conditional on the governance architecture surrounding it rather than automatic. Kosgei and Lekhetho (2025) similarly linked principals' budgeting competencies, rather than the mere existence of budgeting procedures, to the performance of financial-management roles in Kajiado County schools, reinforcing the present study's finding that financial-management skill, not the presence of formal control mechanisms, was the weakest and most consequential indicator.

Beyond Kenya, Nachinguru and Mwila (2023) documented that financial-resource management in Tanzanian public secondary schools was constrained less by the absence of formal controls than by weak capacity to operationalize them, echoing the qualitative finding in the present study that some BoMs depended on principal-mediated financial summaries rather than independently interpreting financial statements. Olali and Uchendu (2025) reported that the management of educational resources in Nigerian junior secondary schools was most effective where financial decisions were explicitly linked to instructional priorities, a pattern also observed among the higher-performing boards described by Curriculum Support Officers in this study. Singal et al. (2021) found that resource-management gains in a comparable school setting in Indonesia were closely tied to monitoring systems rather than to financial control considered on its own. Taken together, this body of work supports the theoretical expectation that financial control's influence on resource utilization is best understood as embedded within, rather than separate from, a school's broader governance system, and it provides the empirical backdrop against which the present study's bivariate-multivariate divergence is interpreted.

Methodology

Research Design

The study adopted a descriptive survey design, which was appropriate for describing the perceived strength of BoM financial control across a defined population of schools while also permitting the statistical testing of relationships between financial control and resource utilization. The design combined structured quantitative measurement with qualitative interviews, allowing the numerical patterns in the data to be interpreted against the operational realities described by education officers working closely with the schools.

Study area and population

The research was conducted in public junior schools in Tharaka Nithi County, Kenya. The broader doctoral study examined the influence of BoM governance, comprising resource allocation, policy implementation, financial control, and professional competency, on the utilization of educational resources, and was anchored on Governance Theory and Systems Theory. The thesis reports a total doctoral sample of 287 respondents, comprising 93 Heads of Institutions, 93 BoM chairpersons, 8 Curriculum Support Officers, and 93 parent representatives. For the objective-specific quantitative analysis presented in this article, responses from the 85 Heads of Institutions with complete data on the financial-control indicators were used; the qualitative component draws on the six Curriculum Support Officers whose interview transcripts addressed financial oversight in the objective-specific analysis

Instrumentation

A structured questionnaire measured financial control through ten five-point Likert-scale indicators covering financial-management skills, timeliness of government funding, community participation, enforcement of resource-use policies, freedom from political influence, membership stability, monitoring systems, stakeholder collaboration, use of technology for transparency, and procurement timeliness. These ten indicators were developed for, and are reported in, the doctoral thesis instrument, and resource utilization was measured through a parallel set of indicators in the same questionnaire. An interview guide was used to collect qualitative data from Curriculum Support Officers, focusing on how financial-control practices were experienced in schools they supervised and on the factors that appeared to strengthen or weaken the link between financial oversight and actual resource deployment

Validity and reliability

The questionnaire was reviewed by supervisors and subject-matter experts for content validity before administration, and its indicators were aligned with the financial-oversight functions specified for BoMs under the Basic Education Act (2013). A pilot administration preceded the main

data collection to identify ambiguous items and to establish the internal consistency of the financial-control and resource-utilization scales, consistent with standard practice for Likert-type instruments in survey-based governance research

Data Collection and ethical consideration

Quantitative data were collected through self-administered questionnaires distributed to Heads of Institutions, while qualitative data were collected through face-to-face interviews with Curriculum Support Officers. Prior to data collection, the researcher obtained the requisite institutional research authorization and county-level approvals, and participation was voluntary and based on informed consent. Respondent confidentiality was maintained throughout data collection, analysis, and reporting, and no individually identifying information is reported in this article.

Data Analysis

Quantitative data were analyzed using descriptive statistics (means, standard deviations, and percentage distributions), Pearson product-moment correlation, Spearman's rank-order correlation, and multiple linear regression, with resource utilization regressed on financial control together with resource allocation, policy implementation, and professional competency. Qualitative data from the Curriculum Support Officer interviews were analyzed thematically to identify recurring patterns in how financial-control practices were experienced and to contextualize the quantitative results

Results

Descriptive findings on BoM financial control

The overall mean score for BoM financial control was 4.19 (SD = 0.44), indicating generally strong perceived financial-control mechanisms among the sampled schools. This aggregate figure, however, concealed a substantial gap between the strength of structural control mechanisms and the capacity of Board members to operationalize them.

Indicator	Agree (%)	Strongly agree (%)	Combined positive (%)	Non-affirmative (%)
Financial-management skills	29.4	25.9	55.3	44.7
Timely government funding	37.6	28.2	65.8	34.2
Community participation	37.6	51.8	89.4	10.6
Policy enforcement on resource use	24.7	70.6	95.2	4.8
Freedom from political influence	42.4	54.1	96.5	3.5

Membership stability	31.8	60	91.8	8.2
Monitoring systems	54.1	40	94.1	5.9
Stakeholder collaboration	36.5	50.6	87.1	12.9
Technology for transparency	47.1	34.1	81.2	18.8
Procurement timeliness	41.2	37.6	78.8	21.2

Note. Percentages are based on the 85 Heads of Institutions reported in the thesis. The combined percentages reproduce the thesis descriptive findings.

The strongest dimensions were freedom from political influence (96.5%), policy enforcement (95.2%), monitoring systems (94.1%), membership stability (91.8%), and community participation (89.4%). By contrast, only 55.3% of respondents affirmed that BoM members possessed adequate financial-management skills, making member competency the most pronounced weakness in the profile. Timely government funding was affirmed by 65.8% of respondents, procurement timeliness by 78.8%, and technology for transparency by 81.2%.

Bivariate Relationship between Financial Control and Resource Utilization

Pearson correlation showed a statistically significant positive association between BoM financial control and educational resource utilization, $r = .344$, $p = .001$. Spearman's rho likewise showed a statistically significant positive association, $\rho = .322$, $p < .01$, and both coefficients are reported to demonstrate the robustness of the bivariate relationship. At the bivariate level, then, stronger reported financial control was associated with better resource utilization, consistent with boards that exercised stronger expenditure oversight, monitoring, procurement control, and accountability mechanisms tending to report more effective use of educational resources. The magnitude of the association was moderate rather than strong, however, indicating that financial control alone could not fully account for variation in resource-utilization outcomes.

Multiple Regression and the Multivariate Result

The multiple regression model, in which resource utilization was regressed on financial control, resource allocation, policy implementation, and professional competency, was statistically significant overall, $F = 5.069$, $p = .001$, $R^2 = .202$. The four BoM variables jointly explained 20.2% of the variance in educational resource utilization. Financial control, however, did not make a statistically significant unique contribution once resource allocation, policy implementation, and professional competency were controlled: its unstandardized coefficient was $B = 0.139$, its standardized coefficient was $\beta = .102$, and $p = .446$.

Predictor	B	β	p	Decision
BoM financial control	0.139	0.102	0.446	Not significant
BoM policy implementation	—	0.355	0.022	Significant
BoM resource allocation	—	-0.011	0.942	Not significant
BoM professional competency	—	0.096	0.372	Not significant

The thesis further reported that financial control was strongly correlated with policy implementation ($r = .598$, $p < .01$), resource allocation ($r = .536$, $p < .01$), and professional competency ($r = .358$, $p = .001$). These interrelationships help explain why the apparent effect of financial control on resource utilization was attenuated once the four predictors were considered simultaneously: much of the variance that financial control appeared to explain at the bivariate level overlapped with variance already explained by policy implementation

Qualitative findings

The qualitative evidence helped explain the divergence between the bivariate and multivariate results. Curriculum Support Officers described financial control in many boards as reactive rather than proactive, with expenditures reviewed after they occurred rather than financial information being used to guide budgets and procurement decisions in advance. Some officers also reported that Board members lacked the technical capacity to interpret financial statements independently and instead relied on summaries prepared by school heads, a dependence that limited the extent to which financial oversight functioned as an independent check on how resources were deployed within schools.

Interviews further indicated that audit activities could be perfunctory in some schools, with boards certifying accounts without independent verification, suggesting that the presence of a formal control mechanism did not always translate into substantive oversight. By contrast, officers described exceptional boards that required multiple quotations for major purchases, verified deliveries before authorizing payment, and conducted physical inventories, practices that illustrated how financial control became more meaningful when it was linked to implementation and monitoring rather than exercised on its own. Systemic constraints beyond direct Board control further limited the reach of financial oversight: officers identified delayed government funding, overcrowding arising from junior schools being domiciled within primary-school facilities, and teacher shortages as conditions that could leave boards managing resources that were delayed, inadequate, or difficult to use effectively regardless of how diligently financial oversight was exercised

Discussion

The findings point to a clear distinction between the existence of financial-control structures and their independent effect on resource utilization. The significant Pearson and Spearman correlations indicated that stronger financial control was associated with better resource utilization when considered in isolation, while the non-significant regression coefficient indicated that financial control did not explain additional variance in resource utilization once the Board's other governance functions were taken into account. This pattern is consistent with the systems perspective that school-governance functions operate interdependently rather than as isolated components, each drawing part of its apparent influence from its association with the others (von Bertalanffy, 1968). The presence of formal financial-control mechanisms, such as budget-approval processes or expenditure reviews, did not by itself guarantee that resources were being used effectively within schools. Financial control's contribution to resource utilization therefore appeared to depend on the broader governance context in which it was exercised, including how consistently it was linked to implementation and oversight, rather than on the strength of financial-oversight practices considered independently. Meyer and Rowan's (1977) institutional perspective offers a plausible account of why: where boards certified accounts without independent verification, as some Curriculum Support Officers described, formal financial-control structures may have functioned more as symbols of compliance than as instruments that actively shaped resource deployment.

The strong correlation between financial control and policy implementation provides a further, complementary explanation. Financial oversight involves approving budgets, enforcing procurement requirements, monitoring expenditure, and responding to deviations, activities that are also constitutive of implementation, since financial decisions become consequential only once they are translated into operational action. The bivariate relationship between financial control and resource utilization can therefore be read as partly reflecting boards that were generally stronger across several governance dimensions at once, rather than reflecting financial control acting as an independent lever. The qualitative findings reinforce this reading. Where boards reviewed expenditure retrospectively, relied on principal-mediated financial information, or performed audits ceremonially, formal control did not appear to shape actual resource deployment in a meaningful way. Where boards instead verified purchases, required quotations, and linked financial decisions to instructional priorities, in a manner consistent with what Olali and Uchendu (2025) described among more effective Nigerian junior secondary schools, oversight was more substantive. These findings suggest that practical financial literacy and behavioral enforcement, of the kind emphasized by Kosgei and Lekhetho (2025) and by Kiprono (2024) in their respective studies of Kenyan school governance, may matter more for resource utilization than the mere presence of formal financial procedures.

These results also refine, rather than contradict, earlier findings linking financial-management practice to school performance. Mbii et al. (2020) reported a positive relationship between BoM financial practices and student performance, and Rwanda (2023) associated BoM financial-management competence with school-management effectiveness; more recent studies, including Musungu et al. (2023), Kalume and Ng'ang'a (2024), and Sipenji et al. (2024), have similarly

linked specific financial practices, budget development, funds-management practice, and digital financial systems, to stronger accountability outcomes in other Kenyan counties. The present study did not contradict this body of work. Rather, by examining resource utilization as the proximal outcome and statistically controlling for the Board's other governance functions, it showed that financial control did not retain an independent effect once considered alongside implementation, allocation, and competency. This distinction matters because prior studies have largely treated financial management as a broad governance capacity linked to distal outcomes such as academic performance, whereas the present study isolated financial control specifically as a predictor of a more immediate, resource-level outcome. The difference between these two framings, broad capacity versus specific predictor, helps explain why the present findings appear to diverge from earlier work despite examining a closely related governance function

Conclusion

The study established that BoM financial control was positively associated with educational resource utilization at the bivariate level but did not exert a statistically significant independent effect once other BoM governance functions were controlled in the multivariate model. The Pearson correlation was $r = .344$ ($p = .001$), while the standardized regression coefficient was $\beta = .102$ ($p = .446$). The overall regression model was significant and explained 20.2% of the variance in resource utilization, though policy implementation was the only BoM predictor that retained statistical significance once all governance functions were considered together. This pattern indicates that financial control should not be treated as an isolated governance intervention capable of improving resource utilization on its own. Its effectiveness instead depended on whether Boards possessed the capacity to interpret financial information, make timely decisions, verify procurement, monitor implementation, and connect expenditure to instructional priorities, capacities that extend beyond the formal exercise of financial oversight itself. Financial control was therefore most meaningful when embedded within broader policy-implementation and resource-governance systems rather than functioning as a standalone safeguard against resource mismanagement. Boards that exercised financial control without corresponding strength in implementation and monitoring were less likely to see that oversight translate into measurable improvements in how resources reached, and were used within, classrooms.

Recommendations

First, county and national education authorities should provide mandatory, practical financial-literacy training for BoM members, with emphasis on interpreting financial statements, analyzing budgets, evaluating procurement quotations, identifying expenditure anomalies, verifying assets, and linking budget decisions to instructional needs.

Second, financial monitoring should shift from being predominantly retrospective to being proactive, with Boards reviewing budgets at the start of each term, linking expenditure lines to

school action plans, and using periodic financial reviews to trigger corrective action before problems compound.

Third, schools should strengthen procurement verification through active procurement committees, comparison of quotations where required, verification of deliveries before payment, and maintenance of current asset inventories, practices that Curriculum Support Officers identified in this study as markers of substantive, rather than ceremonial, financial control.

Fourth, digital financial-management tools should be expanded to improve transparency, documentation, and access to financial information, consistent with the accountability gains Sipenji et al. (2024) documented in Bungoma County, but such tools should be paired with practical training and monitoring rather than adopted as a stand-alone solution.

Beyond strengthening practice, the findings also point to a need for more precise measurement of financial control itself, since the ten-indicator instrument used in this study, like similar instruments used elsewhere, may not distinguish substantive compliance from ceremonial compliance of the kind Meyer and Rowan (1977) described. Future studies should differentiate prospective budgeting from retrospective budgeting, independent financial information from principal-mediated financial information, and verified audits from merely certified audits, distinctions the present quantitative instrument did not capture. Treating these as equivalent instances of financial control risks obscuring genuine differences in oversight quality, since a board that certifies accounts without independent verification and a board that conducts substantive audits would appear identical under a measure that records only whether an audit occurred.

Differentiating these forms of financial control in future instruments would allow researchers to isolate the active components of financial oversight, rather than treating it as a single undifferentiated governance function, and would provide county and national education authorities with a more precise basis for targeting financial-governance reforms in public junior schools Because financial control proved meaningful primarily when embedded within broader governance practice, the recommendations below target the capacity Boards need in order to exercise it substantively rather than treating financial control as sufficient on its own.

References

Adisa, M., Maingi, M., & Lyani, M. N. (2024). Effect of legislative budgetary control on financial accountability in Nairobi County, Kenya. *Journal of Accounting and Finance in Emerging Economies*, *10*(2), 287–296. https://doi.org/10.26710/jafee.v10i2.3050

Baxter, J. (2020, April 30). School boards and their role in the governance of education. In *Oxford Research Encyclopedia of Education*. Oxford University Press. https://doi.org/10.1093/acrefore/9780190264093.013.704

Bhutoria, A., & Aljabri, N. (2022). Managerial practices and school efficiency: A data envelopment analysis across OECD and MENA countries using TIMSS 2019 data. *Large-Scale Assessments in Education*, *10*, Article 24. https://doi.org/10.1186/s40536-022-00147-3

Kalume, S. B., & Ng'ang'a, P. (2024). Financial management practices and funds management in public secondary schools in Kilifi County, Kenya. *International Academic Journal of Economics and Finance*, *4*(2), 306–323

Kawinzi, J. M. (2025). Challenges experienced in the implementation of the competence-based curriculum (CBC) in public junior secondary schools in Kenya. *International Journal of Research and Innovation in Social Science*, *9*(1), 2328–2332. https://doi.org/10.47772/IJRISS.2025.9010187

Keter, K. J. (2019). The Board of Management (BoM) participation in establishing institution direction and implementation of strategic plan in public secondary schools in Kenya. *IOSR Journal of Humanities and Social Science*, *24*(4), 12–21. https://doi.org/10.9790/0837-2404071221

Kiprono, P. (2024). Corporate governance practices: A catalyst for effective financial management in public secondary schools in Kenya. *Journal of Educational Leadership and Management*, *3*(1), 67–89.

Kooiman, J. (2010). Governance and governability. In S. P. Osborne (Ed.), *The new public governance? Emerging perspectives on the theory and practice of public governance* (pp. 88–102). Routledge.

Kosgei, P. K., & Lekhetho, M. (2025). The relationship between principals' competencies in budgeting and performance of financial management roles in public secondary schools in Kenya. *Journal of Social Sciences and Educational Research*, *12*(1), 131–144

Mbii, M., Waweru, S. N., & Magoma, C. M. (2020). School Board of Management's financial resource practices vis-a-vis student performance: A case of two counties in Kenya. *International Journal of Science and Research*, *9*(4), 914–919. https://doi.org/10.21275/SR20410115756

Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology, 83*(2), 340–363. https://doi.org/10.1086/226550

Musungu, I. D. G., Oseno, B., & Rutto, R. (2023). School budget development and financial accountability of public secondary schools in Khwisero Sub County, Kenya. *African Journal of Empirical Research, 4*(2), 837–844. https://doi.org/10.51867/ajernet.4.2.85

Nachinguru, G. A., & Mwila, P. M. (2023). Financial resource management: Status and challenges in public secondary schools in Kinondoni municipality, Tanzania. *International Journal of Social Science Management and Economics Research, 1*(1), 1–14. https://doi.org/10.61421/IJSSMER.2023.1101

Okutu, A. A., & Nyambane, A. K. (2024). Challenges of domiciling junior secondary schools in primary schools: A case of Migori County, Kenya. *Journal of Research Innovation and Implications in Education, 8*(4), 135–144. https://doi.org/10.59765/strz6429

Olali, C. F., & Uchendu, H. (2025). Managing educational resources for students' effective academic performance in public junior secondary schools in Obio/Akpor Local Government Area of Rivers State. *International Journal of Educational Management, Rivers State University, 1*(2), 181–196.

Republic of Kenya. (2013). *Basic Education Act, 2013*. Government Printer.

Rwanda, N. M. (2023). *Influence on effective BoM competence: Exploring dynamics in public secondary school management in Meru South Sub-County, Kenya* [Doctoral dissertation, University of Nairobi].

Singal, C. M., Lengkong, J. S. J., & Mogea, T. (2021). E-learning management in St. Nikolaus Tomohon junior high school. *International Journal of Applied Research, 7*(6), 247–252.

Sipenji, N. W., Tibbs, C. Y., & Sindani, M. N. (2024). Effect of digital financial management system on accountability of public secondary schools in Bungoma County, Kenya. *African Journal of Empirical Research, 5*(2), 832–842.

von Bertalanffy, L. (1968). *General system theory: Foundations, development, applications*. George Braziller.