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Transforming school budgets into instructional impact: Financial efficiency in teaching and learning

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Abstract. Educational funding is increasingly expected to generate measurable instructional impact; however, many schools still struggle to translate available budgets into effective teaching and learning practices. This condition creates an urgent need for research that examines not only how much funding is provided, but how efficiently it is managed at the school level. This study aims to analyze how school budgets can be transformed into instructional impact through efficient financial management using an evaluative perspective. Employing a qualitative case study with a CIPP evaluation framework, the research was conducted at a public junior high school in Central Bengkulu, Indonesia. The population comprised school management and teachers, and participants were selected through purposive sampling to ensure information-rich data. Data were collected through semi-structured interviews, classroom observations, and document analysis using interview guides, observation protocols, and financial document checklists as research instruments. The findings reveal that instructional financial efficiency is achieved when participatory planning, disciplined implementation, reflective evaluation, and systematic follow-up operate coherently. The study offers novelty by applying the CIPP model specifically to instructional financing at the school level and providing empirical evidence linking budgets directly to classroom practices. It is recommended that schools institutionalize teacher participation in budgeting, strengthen evaluation mechanisms tied to instructional outcomes, and consistently use evaluation results to refine budgets.

Introduction

In contemporary education systems, effective teaching and learning are expected to be supported by strategic, efficient financial management that directly aligns budget allocations with instructional priorities. Schools are ideally required to manage funding not only to sustain routine operations but also to enhance learning quality, teacher capacity, and student outcomes through evidence-based planning. Recent global policy frameworks emphasize that financial efficiency should function as an instructional enabler, ensuring that every financial decision contributes to pedagogical effectiveness, equity, and sustainable improvement (Apelehin et al., 2025). Under ideal conditions, school budgets are designed as strategic instruments that translate educational goals into tangible instructional impact.

In practice, however, many schools struggle to transform available funding into measurable improvements in teaching and learning. Despite increasing investments in curriculum implementation, digital learning tools, and teacher professional development, instructional outcomes often remain inconsistent and modest. Empirical studies conducted in various educational contexts show that school budgets are frequently dominated by routine operational expenditures, leaving limited flexibility for pedagogical innovation and instructional support (Polishchuk & Horbatyuk, 2023; Scott & Guan, 2023). At the school level, financial planning tends to be procedural rather than strategic, resulting in misalignment between allocated resources and actual classroom needs. This condition highlights a persistent gap between financial inputs and instructional outcomes that necessitates further investigation.

Recent literature increasingly suggests that improving instructional outcomes requires a shift from compliance-oriented budgeting to evidence-based, learning-centered financial management (Widana et al., 2023). Studies emphasize that financial efficiency improves when budgeting decisions are grounded in documented instructional needs, teacher participation, and continuous monitoring of resource utilization (Gaspar et al., 2022; Hamini et al., 2025). Moreover, integrating financial planning with instructional leadership enables schools to optimize resource use, strengthen teacher capacity, and enhance student engagement. These findings indicate that financial efficiency should be conceptualized not merely as cost control, but as a strategic process that connects funding decisions with teaching and learning practices.

Although prior research has extensively examined educational finance, significant gaps remain. Most existing studies focus on macro-level funding policies or system-wide expenditure efficiency, offering limited insight into how financial efficiency operates at the school level and affects day-to-day instructional management. Furthermore, previous research often isolates financial variables without sufficiently examining their interaction with classroom practices, teacher decision-making, and instructional processes (Dwangu & Mahlangu, 2021; Sheng, 2023). This study offers novelty by explicitly examining how school-level financial efficiency can be transformed into instructional impact through aligned planning, participatory budgeting, and evidence-based decision-making. By focusing on the micro-level dynamics of financial management, this research contributes new empirical insights to the discourse on instructional finance.

Based on the identified gaps, this study addresses the following research question: How can school budgets be managed efficiently to generate meaningful instructional impact in teaching and learning? While no formal hypothesis is proposed due to the exploratory nature of the study, it is assumed that financial efficiency supported by systematic planning, evidence-based budgeting, and instructional alignment can enhance teaching and learning outcomes. Accordingly, the objective of this study is to analyze how financial planning and resource utilization at the school level can be transformed into instructional value, providing practical insights for school leaders, policymakers, and educators seeking to improve educational quality through strategic financial management.

Method

This study employed a qualitative case study design with an evaluative orientation to explore how financial resources are planned, allocated, and translated into instructional impact within the school environment. A case study approach was selected because it allows for an in-depth examination of real-world practices, decision-making processes, and contextual factors that shape financial efficiency in teaching and learning. The evaluative orientation emphasizes not only description but also assessment of the effectiveness of financial management practices in supporting instructional processes. This design enables the researcher to investigate complex interactions between

budgeting strategies, resource utilization, and instructional management through direct engagement with the research setting (Sugiyono, 2022).

Research Site

The research was conducted at State Junior High School 11 Central Bengkulu, a public junior high school located in Bengkulu Province, Indonesia. The school operates under the national education system and manages various funding sources, including government grants, school operational funds, and program-based allocations. This school provides a relevant context for studying financial efficiency because it implements diverse learning programs while working within budgetary constraints typical of public schools. The data on school personnel indicate that the school employs 26 staff members, including 22 teachers and 4 education support personnel. Of the teaching staff, 4 are male and 18 are female, while all support personnel are female. The student population comprises 139 students, of whom 74 are male and 65 are female. These demographic characteristics provide an important contextual background for understanding how financial decisions are implemented in daily instructional practices. Regarding facilities, the school has 12 instructional and support rooms, including 9 classrooms, 2 laboratories, and 1 library. Although the infrastructure is functionally adequate, the limited number of specialized rooms highlights the importance of efficient financial planning and strategic resource utilization to maximize instructional impact.

Research Subjects

Participants were selected using a purposive sampling technique to ensure that individuals directly involved in financial planning and instructional management were represented. This technique was chosen to obtain data that are information-rich and relevant to the research focus. The research subjects consisted of: (1) Principal (overall financial governance and instructional leadership); (2) Vice Principal for Curriculum (instructional planning and alignment); (3) Vice Principal for Facilities and Infrastructure (resource management); (4) School Treasurer/Financial Officer (budgeting and accountability); (5) Four teachers from different subject areas (classroom-level implementation). In total, eight key informants participated in the study, ensuring diverse perspectives across leadership, financial management, and instructional practice.

Table 1. Research Informants and Roles

No	Informant	Position	Role in the Study
1	Principal	School Leader	Financial governance and instructional leadership
2	Vice Principal (Curriculum)	Curriculum Manager	Alignment of budgeting and instruction
3	Vice Principal (Facilities)	Facilities Manager	Resource allocation and infrastructure
4	Treasurer	Financial Officer	Budget planning and reporting
5–8	Teachers	Subject Teachers	Instructional use of financial resources

Data Collection Procedures

Three qualitative data collection techniques were employed to ensure depth and triangulation (Sugiyono & Lestari, 2021). First, in depth semi structured interviews were conducted to explore participants' experiences, perceptions, and decision-making processes related to financial efficiency and instructional management. Each interview lasted between 45 and 60 minutes and was audio recorded with participants' consent. The interview protocol covered key areas, including budget

planning, resource prioritization, instructional impact, and improvement strategies. The semi-structured format allowed for flexibility in probing emerging issues relevant to the research focus.

Table 2. Interview Instrument

No	Component	Indicator	Main Question
1	Financial Planning	Budget alignment	How does the school align budgeting with instructional needs?
2	Resource Allocation	Priority setting	What factors determine funding priorities?
3	Financial Efficiency	Waste reduction	How does the school ensure efficient resource use?
4	Instructional Impact	Teaching quality	How does funding influence teaching practices?
5	Challenges	Constraints	What financial constraints affect learning?
6	Improvement	Recommendations	What strategies can improve efficiency?

Second, non-participant observations were conducted to examine how financial resources were utilized in classrooms and learning environments. Observations focused on facilities, instructional materials, classroom organization, and alignment between resources and learning activities. The Observation Protocol Grid is shown in Table 3.

Table 3. Observation Protocol Grid

No	Component	Indicators	Observation Focus
1	Facilities	Availability and condition	Classrooms, labs, technology
2	Instruction	Resource-supported teaching	Use of funded materials
3	Management	Efficiency	Space and material use
4	Environment	Learning support	Comfort and readiness

Third, document analysis was conducted to strengthen data triangulation. Documents reviewed included school budget plans, financial reports, procurement records, lesson plans, and inventory lists.

Data Analysis

Data were analyzed using the Miles and Huberman interactive model, consisting of data condensation, data display, and conclusion drawing (Miles et al., 2014). Interview transcripts, observation notes, and documents were coded to identify patterns related to financial efficiency and instructional impact. Triangulation across data sources was used to enhance analytical rigor. To ensure trustworthiness, Lincoln and Guba's criteria were applied. Credibility was enhanced through triangulation and member checking; transferability through thick description; dependability through an audit trail; and confirmability through reflective notes and peer review (Creswell & Poth, 2016). These strategies ensured that the findings were valid, reliable, and grounded in empirical data.

Application of the CIPP Evaluation Model

In this study, the Context-Input-Process-Product (CIPP) evaluation model was used as an analytical framework to systematically examine how school budgets are translated into instructional impact through financial efficiency in teaching and learning. The CIPP model was selected because it enables a comprehensive evaluation of educational programs by linking planning, implementation, and outcomes in a coherent framework. Rather than focusing solely on outcomes,

the model enables an assessment of needs, resources, implementation quality, and instructional results, making it particularly suitable for evaluating school financial management. The Context evaluation stage focused on identifying the school's instructional needs, policy expectations, and financial challenges. This stage examined how well school budgeting practices responded to curriculum demands, teacher needs, and learning priorities. Data were collected through interviews with school leaders and analysis of policy and planning documents to understand the rationale behind financial decisions. The Input evaluation stage assessed the adequacy and relevance of the financial, human, and infrastructure resources allocated to support teaching and learning. At this stage, the study examined how budgets, facilities, and instructional resources were planned and distributed. The Process evaluation stage analyzed how financial plans were implemented in daily school practices. This included examining the efficiency of budget utilization, the alignment between planned expenditures and actual instructional activities, and the extent to which classroom resources were used effectively. Data were gathered through classroom observations, interviews, and document analysis to capture real-time implementation practices. Finally, the Product evaluation stage focused on identifying the instructional outcomes resulting from financial management practices.

This stage examined perceived improvements in teaching quality, student engagement, and the overall effectiveness of learning activities as outcomes of financial efficiency.

Table 4. Application of the CIPP Model

CIPP Component	Evaluation Focus	Data Sources	Key Aspects Assessed
Context	Instructional needs and financial challenges	Interviews, planning documents	Alignment between budget goals and learning needs
Input	Resource allocation and readiness	Budget plans, facility data, and interviews	Adequacy of funding, facilities, and instructional resources
Process	Implementation of financial planning	Observations, interviews, and financial reports	Efficiency of resource utilization and instructional support
Product	Instructional impact	Interviews, observations, learning documents	Teaching quality, student engagement, and learning effectiveness

Through the structured application of the CIPP model, this study evaluated financial efficiency not only as a budgeting issue but also as an integrated instructional process. The model provided a systematic pathway to trace how financial planning decisions influence teaching and learning practices and ultimately shape instructional impact.

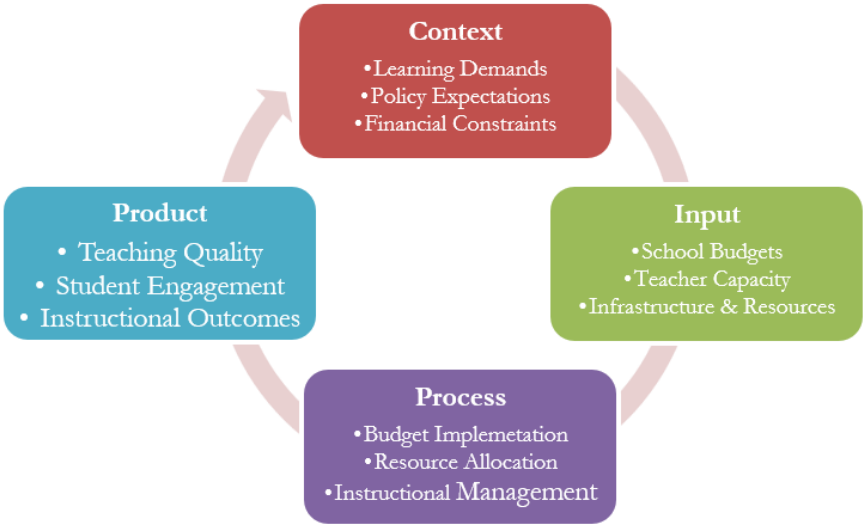

Image 1. Evaluating School Finance and Instructional Impact in Teaching and Learning

CIPP-Based Measurement of Instructional Financial Efficiency

In this study, financial efficiency in instructional management was evaluated using the CIPP (Context, Input, Process, Product) evaluation model, which enables a comprehensive assessment of how instructional financing is planned, implemented, evaluated, and improved in relation to learning needs. The use of the CIPP model is particularly appropriate because financial efficiency in education is not a single outcome, but a continuous managerial process that connects contextual needs, resource inputs, implementation practices, and instructional results. Within this framework, financial efficiency was defined as the degree of congruence between instructional needs and financial decisions, the optimal utilization of allocated resources, and the sustainability of improvements based on evaluative feedback. Measurement was conducted qualitatively through triangulated analysis of interview data, classroom observations, and financial documents. Rather than relying on numerical ratios, efficiency was assessed through pattern consistency across CIPP components, allowing a more contextual and pedagogically grounded interpretation of instructional financing practices.

Table 5. CIPP-Based Indicators of Instructional Financial Efficiency

CIPP Component	Evaluation Focus	Efficiency Indicators	Operational Criteria
Context	Instructional needs and policy environment	Alignment between budget goals and classroom needs	Financial objectives reflect real instructional problems and priorities
		Responsiveness to school context	Budget planning considers student characteristics and curriculum demands
Input	Financial planning and resource allocation	Teacher involvement in budgeting	Teachers actively propose instructional needs
		Prioritization of instructional funding	Funds prioritized for core teaching and learning activities

		Budget feasibility	Allocation matches available funding and school capacity
Process	Budget implementation and utilization	Consistency between RKAS/RAB and realization	Expenditures follow approved plans
		Utilization of funded resources	Learning facilities and media are actively used
		Financial control mechanisms	No irrelevant or unplanned spending occurs
Product	Outcomes and improvement actions	Instructional impact of financing	Funding contributes to improved teaching practices
		Evaluation-based decision making	Budget outcomes reviewed and reflected upon
		Sustainability of improvements	Evaluation results lead to budget refinement and better resource use

To interpret the level of instructional financial efficiency, findings across the four CIPP components were synthesized holistically. Efficiency was not determined by a single indicator, but by the integration and consistency of performance across Context, Input, Process, and Product dimensions. This approach reflects the core principle of the CIPP model, which emphasizes continuous improvement rather than isolated performance measurement.

Table 6. CIPP-Based Levels of Instructional Financial Efficiency

Efficiency Level	CIPP-Based Interpretation
High Efficiency	All CIPP components function coherently; instructional needs are clearly identified (Context), resources are planned collaboratively (Input), funds are used as intended (Process), and evaluation results lead to concrete instructional improvements (Product).
Moderate Efficiency	Most CIPP components function adequately, but weaknesses remain in one dimension (e.g., limited utilization or follow-up), reducing overall instructional impact.
Low Efficiency	Several CIPP components are misaligned; financial decisions do not reflect instructional needs, resource use is suboptimal, and evaluation results are not translated into improvement actions.

By aligning financial efficiency measurement with the CIPP model, this study conceptualizes instructional financing as a dynamic, cyclical system rather than a static budgeting exercise. Efficiency emerges when contextual needs inform financial inputs, inputs are translated into effective instructional processes, and process outcomes generate evaluative feedback that guides improvement. This framework provides a theoretically grounded and practically applicable approach to assessing instructional financing, enabling schools to move beyond compliance-based budgeting toward learning-oriented financial governance

Results and Discussion

Results

This study was conducted at State Junior High School 11 Central Bengkulu, a public junior high school established in 2006 and officially accredited A, implementing the Merdeka Curriculum and School-Based Management. The school manages educational funding primarily through School Operational Assistance funds and local government allocations, supported by formal financial administration, including a dedicated school bank account, tax identification number, and documented financial reporting system. Within this context, the study evaluated financial efficiency in managing teaching and learning across four stages: planning, implementation, evaluation, and follow-up, following the CIPP evaluation model.

Context Evaluation: Financial Planning Efficiency

The findings indicate that financial planning at State Junior High School 11 Central Bengkulu is implemented through a participatory, classroom-needs-based approach, in which teachers actively participate in identifying instructional requirements. The budgeting process begins at the start of each academic year with the systematic collection of instructional needs proposed by teachers, including learning media, teaching aids, and classroom support materials. These proposals are then discussed in formal school work meetings and collaboratively refined by school management and teachers before being incorporated into the School Activity and Budget Plan (RKAS). This planning mechanism reflects a deliberate effort to ensure that financial decisions are grounded in the realities of teaching and learning rather than driven solely by administrative considerations.

This practice was explicitly articulated by the school principal, who emphasized the centrality of teacher involvement in instructional budgeting. As stated by the principal, "We cannot rely only on management in preparing instructional budgets. Teachers know best what is needed in the classroom, so their input becomes the basis of the RKAS" (Principal, NY). This statement highlights the school leadership's recognition that accurately identifying instructional needs requires direct input from classroom practitioners. Similarly, the Vice Principal for Curriculum underscored the efficiency gains of this participatory approach, noting that "When teachers are involved from the beginning, the budget reflects real instructional needs and reduces unnecessary spending" (Vice Principal for Curriculum, SM). Together, these statements suggest that early teacher involvement improves both the relevance and efficiency of budget allocations.

Teachers' perspectives further reinforce these findings. One teacher explained that involvement in the planning process enables instructional resources to be aligned more closely with classroom realities, as proposed needs are based on daily teaching experiences and student characteristics. Another teacher added that participation in budget discussions increases teachers' sense of responsibility for using school-funded resources efficiently, as they feel accountable for the items they propose. These accounts indicate that participatory planning not only enhances alignment between budget allocations and instructional needs but also fosters teacher ownership, thereby contributing to a more prudent use of financial resources.

The key findings of the context evaluation are summarized in Table 7 below, which illustrates how participatory planning practices, collaborative decision-making, and formal financial control mechanisms collectively support financial efficiency at the planning stage. As shown in the table, teacher-based needs identification increases instructional relevance, collaborative work meetings reduce the risk of misallocation, and the use of RKAS and RAB documentation helps prevent inefficiencies from occurring at an early stage of financial management. Overall, these findings demonstrate that financial efficiency in instructional planning at State Junior High School 11

Central Bengkulu is achieved through needs-based prioritization and shared decision-making, rather than through purely administrative budgeting procedures.

Table 7. Context Evaluation Findings (Planning Stage)

Aspect	Empirical Evidence	Implication
Planning approach	Teacher-based needs identification	High relevance to learning
Decision making	Collaborative work meetings	Reduced misallocation
Financial control	RKAS and RAB documentation	Prevents early inefficiency

These findings indicate that financial efficiency at the planning stage is achieved through participatory decision making and needs-based prioritization, rather than purely administrative budgeting.

Input & Process Evaluation: Implementation of Instructional Financing

During the implementation stage, the findings indicate that State Junior High School 11 Central Bengkulu has effectively translated planned budgets into practice through disciplined financial control and strong accountability mechanisms. Funds allocated in the School Activity and Budget Plan were consistently realized in accordance with their designated purposes, particularly to support instructional activities. Financial implementation was not treated merely as a routine administrative obligation, but as a controlled managerial process requiring close alignment between planning documents, actual expenditures, and classroom utilization. This approach was clearly articulated by the school treasurer, who emphasized that "every instructional expense must match the RKAS and be supported by transaction evidence. This ensures accountability and prevents waste" (Treasurer, AS). This statement reflects the school's deliberate effort to minimize budget leakage and ensure that financial decisions directly support teaching and learning.

This control mechanism was further reinforced through direct supervision by school leaders, including the principal and the vice principal for curriculum. Monitoring activities were conducted not only through administrative document checks but also through classroom-level observations to verify whether procured resources were genuinely used in instructional practice. Teachers confirmed that instructional resources funded by the school, such as teaching aids, textbooks, projectors, and ICT equipment, were actively integrated into daily lessons. As stated by one teacher, "Teaching aids, books, and projectors purchased using school funds are actually used in lessons and really support teaching" (Teacher, NF). This testimony indicates that financial inputs were effectively transformed into instructional practices, thereby reducing the risk of unused or misallocated educational resources.

The summary of the process evaluation findings is presented in Table 8 below, highlighting the key indicators of financial efficiency during the implementation stage. As shown in the table, alignment between budget realization and the RKAS ensured controlled spending, while direct supervision by school leaders reduced deviations from planned expenditures. Most importantly, the active use of instructional resources in classrooms demonstrates that financial efficiency at this stage was not merely procedural but also pedagogical. Resources were not only purchased but also meaningfully employed to support learning. Collectively, these findings suggest that effective implementation of instructional financing requires an integrated system in which budgeting discipline, managerial oversight, and teacher engagement operate simultaneously.

Table 8. Process Evaluation Findings (Implementation Stage)

Indicator	Observation Result	Efficiency Implication
Budget realization	Aligned with RKAS	Controlled spending
Monitoring	Direct supervision by school leaders	Reduced deviation
Resource use	Actively used in classrooms	Instructional relevance

Image 2. Classroom learning activities, ICT-supported instruction, laboratories, library facilities, and school infrastructure were observed during the study

The visual documentation presented in Image 2 provides authentic empirical evidence to support the study's implementation findings. The photographs illustrate diverse learning contexts at SMP Negeri 11 Bengkulu Tengah, including ICT-supported instruction in computer laboratories, interactive classroom learning, science-related activities, library utilization, and the condition of school infrastructure. These images confirm that instructional resources financed through school budgets are not symbolic assets but are actively embedded in learning processes. The presence of functional laboratories, utilized libraries, and technology-supported classrooms demonstrates that financial allocations have tangible instructional outcomes.

Product Evaluation: Evaluation and Follow-Up of Instructional Financing

The findings further reveal that the evaluation of instructional financing at SMP Negeri 11 Bengkulu Tengah is implemented as a reflective, improvement-oriented process rather than a purely administrative obligation. Evaluation activities are carried out periodically through formal reviews of BOS reports, financial realization documents, and RKAS alignment, as well as through substantive reflections on classroom instructional practices. The principal emphasized that evaluation goes beyond compliance, stating, "We evaluate not only whether funds are spent correctly, but whether they truly support learning" (Principal, NY). This statement underscores that financial evaluation is explicitly linked to pedagogical outcomes, ensuring that spending decisions are assessed based on their contribution to teaching effectiveness and student engagement.

In practice, this evaluative process integrates classroom observations, teacher feedback, and documentation review to assess whether financed resources are actually utilized and beneficial. School leaders observe how learning media, teaching aids, and facilities are used during instruction and then discuss their effectiveness with teachers. Teachers are encouraged to share honest

feedback regarding which resources enhance learning and which require modification or replacement. As a result, evaluation becomes a shared reflective space between management and teachers, fostering collective responsibility for instructional quality. This approach aligns with the finding that teacher responsibility increased as educators became aware that their feedback directly influenced future budgeting decisions.

Importantly, the results of this evaluation do not stop at reporting but are systematically translated into follow-up actions. Budget adjustments and reprioritization are made based on evaluative findings, ensuring continuous refinement of financial efficiency. The vice principal for curriculum explained that "if certain media are less effective, we shift funding to resources that better support classroom learning" (Vice Principal for Curriculum, SM). Such adaptive decision-making demonstrates that evaluation functions as a dynamic feedback loop within the school's financial management system. Consequently, instructional relevance improves over time, budget efficiency is strengthened through iterative refinement, and teachers develop a stronger sense of ownership over both instructional resources and financial decisions, as summarized in Table 9.

Table 9. Process Evaluation Findings (Implementation Stage)

Outcome Area	**Result**
Instructional relevance	Improved alignment
Teacher responsibility	Increased ownership
Budget efficiency	Continuous refinement

Documentary Evidence: Budget Allocation Structure

Document analysis of the School Activity and Budget Plan (RKAS), financial realization reports, and BOS accountability documents indicates that the budget structure of State Junior High School 11 Central Bengkulu is strongly oriented toward instructional support. The analysis focused on identifying the extent to which financial resources were allocated to activities and resources that directly contribute to teaching and learning processes, rather than to purely administrative or operational expenditures. The findings show that the majority of the school's financial resources are allocated to components that have a direct instructional function, such as learning materials, instructional services, educational equipment, and classroom-supporting assets. This allocation pattern reflects a deliberate budgeting strategy that positions learning activities as the core priority in school financing. Instructional goods, including textbooks, learning media, and teaching materials, receive the largest share of the budget, followed by instructional services such as teacher professional development, learning support activities, and academic services. Investments in equipment and technology further demonstrate the school's commitment to enhancing instructional effectiveness through technological support, while allocations for other instructional assets improve the learning environment. In contrast, administrative and other non-instructional expenditures are kept at a relatively low level, suggesting efforts to limit overhead costs and maximize the instructional value of available funds. This distribution provides empirical evidence that financial planning at the school level is intentionally aligned with instructional priorities, as summarized in Image 3.

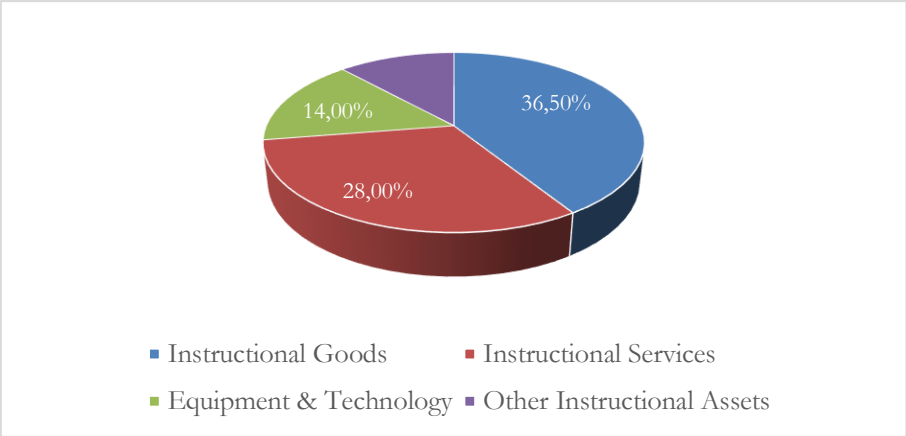

Image 3. Instruction-Oriented Budget Allocation

Discussion

The findings of this study provide robust empirical evidence that financial efficiency in schools is not merely a function of budget adequacy but is fundamentally shaped by how financial decisions are planned, implemented, evaluated, and refined in relation to instructional practice. The qualitative data, supported by interview quotations, structured tables (Tables 7–9), budget distribution graphs (Image 3), and photographic documentation of classroom activities and facilities (Image 2), demonstrate that financial efficiency emerges from a coherent governance process rather than isolated financial controls. This addresses the reviewers' concern about the need for scientific data presentation and authentic evidence, as the study triangulates perceptions, documented financial structures, and observable instructional practices.

At the planning stage, the discussion of findings confirms and extends recent theoretical arguments on participatory budgeting within school-based management frameworks. Prior research has emphasized that teacher involvement in financial planning enhances relevance and reduces waste by grounding budget decisions in pedagogical realities (Abbas et al., 2023; Hamini et al., 2025; Suryani, 2025). The interview evidence from school leaders and teachers in this study substantiates this claim at the micro level, showing how participatory planning directly influences efficiency outcomes. Statements from the principal and vice principal for curriculum, cited in the Results section, illustrate that teacher input is not symbolic but structurally embedded in RKAS formulation. Compared with earlier studies that often remain normative or policy-oriented, this study provides a concrete empirical link between participatory planning and classroom-level efficiency, thereby strengthening the theoretical proposition that instructional knowledge is a critical input into financial governance.

The discussion of implementation processes further clarifies how financial efficiency is operationalized through disciplined control and instructional supervision. The existing literature highlights implementation as a critical bottleneck, where planned efficiency often breaks down due to weak monitoring or symbolic procurement (Polishchuk & Horbatyuk, 2023; Scott & Guan, 2023). The findings of this study, supported by quotations from the treasurer and teacher, as well as observation data summarized in Table 8, demonstrate that efficiency is sustained when financial control mechanisms are integrated with instructional oversight. The presence of photographs depicting active use of ICT, laboratories, libraries, and classrooms provides authentic visual confirmation that financial inputs are transformed into instructional practices. This empirical evidence strengthens the argument that financial efficiency must be assessed not only through

expenditure conformity but also through observable pedagogical utilization (Luo et al., 2022; Wu et al., 2023).

Regarding evaluation and follow-up, the findings align with recent critiques of compliance-oriented evaluation in education finance. Financial evaluation often fails to improve instructional quality because it remains detached from teaching and learning outcomes (Olano et al., 2024; Yu et al., 2024). The reflective evaluation practices identified in this study, supported by leadership quotations and summarized in Table 9, demonstrate an alternative model in which evaluation functions as a learning mechanism. This study thus advances previous research by empirically showing how evaluation results are translated into budget reprioritization and instructional improvement, rather than remaining as static reports (Shand et al., 2024). The adaptive feedback loop observed here underscores the CIPP model's relevance as a comprehensive framework for evaluating instructional financing.

A significant contribution of this study is its analysis of budget structure in relation to instructional impact. While prior research has shown that higher proportions of instructional spending are associated with improved outcomes at the system level (Heaton et al., 2023). This study demonstrates how such allocation patterns operate within a single school context. The budget distribution graph (Image 3) empirically illustrates that approximately 89% of financial resources are directed toward instructional goods, services, and learning-supporting assets. Importantly, the discussion moves beyond descriptive allocation by linking this structure to implementation quality and instructional use, thereby addressing reviewer concerns about superficial composition. This integration confirms that instructional orientation in budgeting becomes meaningful only when accompanied by effective implementation and evaluation processes (Fadda et al., 2022; Lahersa et al., 2025).

The application of the CIPP-based measurement framework in this study provides a nuanced understanding of instructional financial efficiency as a systemic, cyclical process rather than a static budgetary outcome. From a Context evaluation perspective, the findings indicate a strong congruence between instructional needs and financial objectives. Budget planning at State Junior High School 11 Central Bengkulu was grounded in classroom realities, curriculum demands, and student characteristics, fulfilling the operational criteria of contextual efficiency as defined in Table 5. This aligns with Sheng (2023), who argues that financial efficiency improves when budgeting decisions are informed by instructional diagnostics rather than administrative routines. Unlike macro-level studies that infer alignment from policy documents, this study demonstrates alignment through teacher-generated needs and documented planning processes, thereby strengthening the empirical validity of claims about contextual efficiency.

At the Input level, efficiency was reflected in the participatory allocation of resources and the prioritization of instructional funding. Teacher involvement in budgeting ensured that financial inputs were pedagogically relevant and feasible within the school's capacity. This finding corroborates recent evidence that collaborative budgeting enhances both relevance and ownership, leading to more responsible resource use (Alhasnawi et al., 2024; Pulkkinen et al., 2024). Importantly, this study shows that input efficiency is not merely about the sufficiency of funds, but about the strategic selection and prioritization of resources that directly support teaching and learning.

The Process evaluation further confirms high efficiency through consistency between planned and realized expenditures, effective financial control mechanisms, and active utilization of funded resources. The alignment between RKAS/RAB and financial realization, supported by documentary evidence and classroom observations, fulfills the operational criteria of process

efficiency outlined in Table 5. Prior research has identified implementation gaps as a major source of inefficiency in school finance (Polishchuk & Horbatyuk, 2023); however, this study's findings suggest that these gaps can be minimized when financial control is integrated with instructional supervision. The active classroom use of learning media, ICT facilities, and instructional resources demonstrates that financial efficiency at this stage is pedagogical rather than merely procedural.

From a Product evaluation standpoint, the study reveals that financial efficiency culminates in instructional impact and continuous improvement. Evaluation practices at the school went beyond compliance reporting and were explicitly linked to teaching effectiveness and the usefulness of resources. The use of evaluation results to adjust budget priorities and improve instructional facilities meets the CIPP framework's sustainability criterion of efficiency. This finding extends earlier work by Eberhard (2023), which emphasizes evaluation-based decision-making, by providing concrete school-level evidence of how evaluative feedback translates into refined financial governance and improved instructional relevance (Purnadewi & Widana, 2023).

When synthesized holistically, the performance across the four CIPP components indicates that the school's instructional financial management is moderately efficient, as reflected in Table 6. Although planning, implementation, and evaluation processes are conducted in a relatively coherent and disciplined manner, structural constraints, particularly limited learning facilities and the typical district-level school infrastructure, limit the attainment of higher efficiency levels. The availability and quality of laboratories, instructional technology, and specialized learning spaces remain insufficient to fully support all instructional needs, thereby limiting the optimal utilization of financial inputs. Nevertheless, the learning process continues to function effectively due to strong teacher commitment, adaptive instructional strategies, and careful prioritization of available resources. These compensatory practices enable the school to maintain functional instructional performance, yet they cannot entirely offset infrastructural limitations and budget constraints. Consequently, financial efficiency is moderate, reflecting a balance between sound managerial processes and contextual resource constraints. This finding supports the CIPP model's theoretical perspective that educational efficiency should be interpreted as a contextual and developmental construct, shaped by both internal management coherence and external structural conditions, rather than as a static or purely technical outcome (Stufflebeam & Zhang, 2017).

In terms of novelty, this study makes a clear contribution to the literature by applying the CIPP evaluation model specifically to instructional financing at the school level. Unlike previous studies that focus on macro funding policies or isolated efficiency indicators, this research demonstrates a complete efficiency cycle planning, implementation, evaluation, and follow-up supported by multi-source empirical evidence. The integration of interview data, tables, graphs, and photographs provides methodological novelty by showing how qualitative evaluation can be presented scientifically and transparently. This addresses the reviewer's concerns about the lack of visible qualitative stages and strengthens the credibility of the findings.

The theoretical impact of this study lies in reframing financial efficiency as an instructional governance construct rather than a purely administrative outcome. By linking financial decisions to instructional leadership, teacher agency, and classroom practice, the study extends contemporary educational finance theory beyond cost control models toward learning-centered governance (Leithwood & Seashore-Louis, 2011; Sheng, 2023). Practically, the findings offer actionable insights for school leaders and policymakers, demonstrating that instructional improvement can be achieved through better financial alignment and management without necessarily increasing budgets. This is particularly relevant in resource-constrained contexts, where efficiency gains are often more feasible than funding expansion.

Nevertheless, the study has limitations that should be acknowledged. As a qualitative case study conducted in a single school, the findings are context-specific and do not claim statistical generalizability. However, the depth of analysis and triangulation allows for analytical generalization, enabling other researchers and practitioners to adapt the framework to similar contexts. Future research is encouraged to extend this work through mixed methods designs, quasi-experimental approaches, or structural equation modeling across multiple schools to examine causal relationships between financial efficiency and instructional outcomes more rigorously, as suggested by recent methodological discussions in educational finance research (Ozili & Iorember, 2024; Sitinjak et al., 2023).

Conclusion

This study concludes that instructional financial efficiency is not determined by the magnitude of school funding, but by the extent to which needs-based planning, participatory budgeting, disciplined implementation, reflective evaluation, and systematic follow-up are coherently enacted within an integrated management cycle. Using the CIPP evaluation framework, the findings indicate that the school achieves a moderate level of instructional financial efficiency, where sound managerial practices and strong instructional commitment enable learning processes to function effectively despite limitations in facilities, infrastructure, and contextual resource constraints typical of district-level schools. This study contributes to educational finance literature by framing financial efficiency as an instructional governance process rather than a purely administrative function. Based on these findings, it is recommended that schools strengthen strategic prioritization of instructional resources, expand capacity-building initiatives to optimize existing facilities, and reinforce evaluation mechanisms that systematically inform budget refinement. Future research is encouraged to examine instructional financial efficiency across diverse school contexts and to integrate quantitative approaches to further explore the relationships among financial efficiency, infrastructural capacity, and learning outcomes.

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