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Original Article

Do Education Financing and Governance Improve Education Quality? Evidence from East African Community Countries

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Education Financing, Governance, Education Quality, Institutional Effectiveness, East African Community.

ABSTRACT

This study examined the effect of education financing and governance on education quality in the East African Community (EAC). Despite ongoing policy reforms and increased investment in education across the region, significant disparities in education quality persist, raising concerns about the effectiveness of financing mechanisms and governance systems in improving educational outcomes. The study adopted a quantitative research design using secondary cross-country data obtained from the World Bank and the UNESCO Institute for Statistics. Education financing was measured using public education expenditure as a percentage of GDP, governance was proxied using the World Governance Indicators, and education quality was assessed using a composite index of key education performance indicators. Data were analysed using descriptive statistics, correlation analysis, and multiple regression techniques. The results reveal substantial variation in education financing, governance, and education quality across East African countries. Correlation analysis indicates positive relationships between education financing and education quality, while governance shows a stronger positive association with education quality. The regression results confirm that both education financing and governance have statistically significant positive effects on education quality, with governance exhibiting a more pronounced influence. The study concludes that although education financing is essential for improving education quality, governance plays a more decisive role in ensuring the efficient utilisation of resources and effective implementation of education policies. The findings highlight the need for integrated policy interventions that simultaneously strengthen education financing and governance systems to achieve sustainable improvements in education quality across the East African Community.

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INTRODUCTION

Education is widely recognised as a key driver of human capital development, economic growth, and social transformation. Across developing regions, investment in education is considered essential for improving labour productivity, reducing poverty, promoting innovation, and achieving sustainable development goals. In the East African Community (EAC), governments and development partners continue to prioritise education reforms aimed at improving access, equity, and quality of education. Recent global and regional reports emphasise that quality education is critical for building competitive economies and fostering inclusive socio-economic development (UNESCO, 2024; World Bank, 2023). As a result, improving education quality has become a major policy concern across East African countries.

Education quality refers to the effectiveness of education systems in producing meaningful learning outcomes through adequate teaching, learning environments, curriculum delivery, and institutional support. However, despite increased enrollment rates and expanded access to education in many East African countries, education quality remains a significant challenge. Schools across the region continue to face shortages of qualified teachers, inadequate instructional materials, poor infrastructure, overcrowded classrooms, and weak learning outcomes (UNESCO, 2024). These challenges have raised concerns regarding the capacity of education systems to provide learners with the skills and competencies required for socio-economic transformation.

One of the major determinants of education quality is education financing. Adequate financing enables governments and institutions to recruit and retain qualified teachers, provide learning materials, improve school infrastructure, support curriculum implementation, and integrate technology into teaching and learning processes. Studies have shown that increased and well-managed investment in education contributes to improved educational outcomes and institutional performance (World Bank, 2023). Nevertheless, many East African countries continue to experience financing constraints due to limited fiscal capacity, rapid population growth, debt burdens, and competing national priorities. Consequently, education systems often operate with inadequate resources, thereby compromising the quality of teaching and learning.

Beyond financing, governance has increasingly emerged as a critical factor influencing education quality. Education governance involves the structures, policies, institutional processes, and accountability mechanisms through which education systems are managed and regulated. Effective governance promotes transparency, accountability, policy implementation, and efficient utilisation of educational resources. Conversely, weak governance systems may result in corruption, resource misallocation, poor monitoring, and ineffective implementation of education policies (OECD, 2023). In many developing countries, governance challenges have continued to undermine the effectiveness of public investments in education, limiting improvements in educational outcomes.

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Recent empirical evidence suggests that governance quality significantly influences how education financing translates into improved education quality. Strong governance systems enhance efficiency in resource allocation, strengthen institutional accountability, and improve service delivery within the education sector (African Development Bank, 2024). However, weak governance structures may reduce the effectiveness of available financial resources, resulting in persistent inefficiencies and inequalities in education provision. This implies that education financing alone may not be sufficient to improve education quality without effective governance systems that ensure proper utilisation and monitoring of resources.

Although several studies have examined education financing and governance independently, limited empirical attention has been given to their combined effect on education quality within the East African Community. Most existing studies are country-specific and often focus on broader development outcomes without adequately examining education quality as a distinct outcome variable. This creates both contextual and empirical gaps in understanding how education financing and governance jointly influence education quality across the region. Therefore, this study seeks to examine the effect of education financing and governance on education quality in the East African Community. The study is expected to provide empirical evidence that can inform policy reforms, strengthen governance systems, and improve the efficiency of education financing for enhanced educational outcomes across East African countries.

Research Problem

Education quality remains a major challenge in the East African Community despite continued education reforms, increased government expenditure, and support from development partners. Although access to education has improved across many East African countries, learning outcomes, teaching resources, school infrastructure, and overall academic performance remain inadequate (UNESCO, 2024). Many schools continue to experience overcrowded classrooms, shortages of qualified teachers, inadequate instructional materials, and weak learning environments, all of which negatively affect the quality of education. These persistent challenges raise concerns regarding the effectiveness of current education financing and governance systems in improving educational outcomes across the region.

One of the key factors contributing to poor education quality is inadequate and inefficient education financing. Limited fiscal capacity, competing national priorities, rising population growth, and increasing demand for education services continue to constrain education budgets in many East African countries (World Bank, 2023). Consequently, schools often operate with inadequate infrastructure, insufficient learning materials, and high pupil–teacher ratios, which undermine effective teaching and learning. In addition, governance challenges such as weak accountability systems, limited transparency, corruption risks, and ineffective policy implementation further weaken the management and allocation of education resources (OECD, 2023). As a result, even available financial resources may fail to translate into improved education quality due to inefficiencies in governance and resource utilisation.

Despite growing literature on education financing and governance, limited empirical studies have examined the combined effect of these factors on education quality within the East African Community. Most existing studies are country-specific and often analyse financing and governance separately, providing limited regional evidence on how the two variables interact to influence education quality. This creates a contextual and empirical gap in understanding the joint contribution of education financing and governance to educational outcomes in the region. Therefore, this study seeks to examine the effect of education financing and governance on education quality in the East African Community

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to provide evidence that can inform policy reforms, strengthen governance systems, and improve the efficiency of education financing for enhanced education quality.

Research Objectives

General Objective

To examine the effect of education financing and governance on education quality in the East African Community.

Specific Objectives

The study is guided by the following specific objectives:

- To examine the effect of education financing on education quality in the East African Community.
- To assess the effect of governance on education quality in the East African Community.
- To determine the combined effect of education financing and governance on education quality in the East African Community.

Significance of the Study

This study is significant because it contributes to the understanding of how education financing and governance influence education quality within the East African Community. By examining the combined effect of these factors, the study provides empirical evidence that can support the development of effective education policies and strategies aimed at improving learning outcomes and strengthening education systems across the region.

The findings of the study will be useful to governments and policymakers in East African countries by providing insights into how education resources can be allocated and managed more efficiently to improve education quality. The study will also help education ministries and regulatory institutions strengthen governance systems through improved accountability, transparency, and policy implementation in the education sector.

The study will further benefit development partners, educational institutions, and other stakeholders involved in education planning and financing by providing evidence-based recommendations for enhancing educational service delivery. In addition, the study will contribute to the existing body of literature on education financing, governance, and education quality, thereby serving as a reference for future researchers and scholars interested in education policy and development studies within the East African context.

LITERATURE REVIEW

Theoretical Review

This study is anchored in Human Capital Theory (Schultz *et al*., 1961)**,** Governance Theory(Pierre & Peters, 2000), and Stakeholder Theory (Freeman, 1984), which together provide a robust framework for explaining how education financing and governance interact to influence education quality in the East African Community (EAC). Human Capital Theory conceptualises education as a critical investment in individuals that enhances skills, productivity, innovation, and ultimately economic growth. From this perspective, education financing is not merely an expenditure but a long-term investment in human capital formation. Adequate and sustained financing enables governments to expand and improve educational infrastructure, recruit and retain qualified teachers, provide adequate instructional materials, and enhance access to schooling across different levels. These improvements collectively contribute to higher education quality by improving teaching and learning conditions, increasing completion rates, and strengthening learning outcomes across EAC member states.

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Governance Theory (Pierre & Peters, 2000) provides an institutional lens through which the effectiveness of education financing can be understood. It emphasises the importance of well-structured, transparent, and accountable systems in the management of public resources. In the education sector, governance determines how funds are allocated, disbursed, monitored, and evaluated. Even when financing levels are adequate, weak governance structures may lead to inefficiencies, misallocation of resources, corruption, and poor policy implementation, all of which undermine education quality. Conversely, strong governance systems enhance efficiency, ensure accountability in resource utilisation, and strengthen policy enforcement mechanisms, thereby improving service delivery and educational outcomes. Within the EAC context, variations in governance quality across member states help explain differences in education performance despite similar financing efforts.

Stakeholder Theory (Freeman, 1984) further broadens the analysis by emphasising the role of multiple actors in shaping education systems. It argues that education outcomes are not solely determined by governments but are influenced by the interactions of diverse stakeholders, including policymakers, school administrators, teachers, parents, students, civil society organisations, and development partners. Effective stakeholder engagement enhances transparency, accountability, and responsiveness in decision-making processes, ensuring that education policies and financing priorities reflect the actual needs of beneficiaries. When stakeholders are actively involved, there is improved monitoring of resources, stronger community ownership of schools, and better alignment between policy intentions and implementation outcomes. Collectively, these three theories suggest that education quality in the EAC is determined by the interplay between adequate education financing, strong governance systems, and inclusive stakeholder participation, all of which must work together to ensure efficient, equitable, and sustainable improvement in education outcomes.

Conceptual Review

This section clarifies the key concepts of the study education financing, governance, and education quality and explains their theoretical and empirical linkages within the context of the East African Community (EAC). These concepts are interdependent, with education financing providing the necessary inputs, governance shaping the efficiency of resource utilisation, and education quality reflecting the overall effectiveness of the education system in delivering meaningful learning outcomes.

Education financing refers to the mobilisation, allocation, and utilisation of financial resources to support the development and sustainability of education systems. It includes public expenditure on education, budgetary allocations across education levels, donor funding, and per-student spending. Adequate education financing is critical in ensuring the availability of essential inputs such as qualified teachers, adequate instructional materials, modern infrastructure, and digital learning technologies. When financing is sufficient and well-targeted, it enhances access to education and improves teaching and learning conditions. However, inadequate or poorly prioritised financing often results in overcrowded classrooms, insufficient teaching materials, deteriorating infrastructure, and reduced instructional effectiveness, all of which undermine student learning outcomes and overall system performance (Oketch, 2016).

Governance refers to the institutional arrangements, rules, processes, and practices through which education systems are directed, controlled, and held accountable. It encompasses transparency in decision-making, efficiency in resource allocation, accountability mechanisms, and adherence to policy frameworks. Effective governance ensures that education funds are properly allocated, efficiently utilised, and closely monitored to minimise wastage and corruption. It also strengthens policy implementation and promotes equity in the distribution of educational resources across regions and institutions. In

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contrast, weak governance is often associated with mismanagement of funds, inefficiencies in service delivery, and unequal access to educational opportunities. Therefore, governance acts as a critical mediating mechanism that determines how effectively education financing is converted into tangible educational outputs and outcomes (Pierre & Peters, 2000).

Education quality refers to the extent to which an education system achieves desired learning outcomes and ensures effective teaching and learning processes. It is commonly assessed through indicators such as student academic achievement, completion and transition rates, teacher competence, pupil–teacher ratios, curriculum relevance, and the adequacy of school infrastructure. A high-quality education system not only expands access but also ensures that learners acquire relevant knowledge, skills, and competencies necessary for personal and national development. The conceptual relationship among the variables suggests that education financing provides the necessary resources for education delivery, governance determines the efficiency and effectiveness of resource utilisation, and together they jointly influence education quality outcomes. In the EAC context, variations in financing levels and governance effectiveness across member states help explain observed disparities in education quality and system performance.

Empirical Literature Review

Education Financing and Education Quality

Empirical literature consistently demonstrates that education financing is a fundamental determinant of education quality, particularly in developing countries where education systems face persistent resource constraints. Education financing influences the availability and adequacy of essential educational inputs such as qualified teachers, school infrastructure, instructional materials, digital learning technologies, and student support services. Recent studies indicate that increased investment in education contributes significantly to improved student learning outcomes, school effectiveness, teacher performance, and institutional efficiency (World Bank, 2023). In many developing regions, adequate education financing has been associated with higher school completion rates, improved literacy levels, and better academic achievement. This supports the argument that financial investment remains a critical requirement for strengthening education systems and promoting quality education outcomes.

Several empirical studies conducted in Africa and other developing regions reveal that countries allocating a higher proportion of public expenditure to education often record relatively better education quality indicators compared to countries with lower levels of education investment. For instance, recent evidence from sub-Saharan Africa shows that increased public spending on teacher recruitment, school facilities, and instructional resources improves learner engagement and academic performance (UNESCO, 2024). In the East African context, studies indicate that government financing mechanisms such as capitation grants, student loan schemes, and subsidised education programs have contributed to improvements in school enrollment, retention, and access to educational resources. Research conducted in Tanzania found that public financing initiatives enhanced access to secondary and higher education, thereby contributing to improved institutional performance and educational outcomes (Mgaiwa & Ishengoma, 2023). Nevertheless, financing disparities between urban and rural schools, as well as inequalities in resource distribution, continue to undermine equity and quality in education provision across the region.

Empirical evidence further suggests that the effectiveness of education financing depends not only on the amount of funding allocated but also on the efficiency of resource utilisation and financial management practices within education systems. Studies show that weak financial accountability, delayed release of funds, poor budget execution, and misallocation of

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educational resources often reduce the impact of education expenditure on quality outcomes (Kasembeli, 2025). In several developing countries, increased education budgets have not always translated into improved learning outcomes due to inefficiencies in financial administration and institutional management. This suggests that effective utilisation of educational resources is equally important as the availability of financial resources. Consequently, inefficient financing systems may contribute to continued shortages of teaching materials, deteriorating school infrastructure, and inadequate teacher support despite increased public investment in education.

In addition, rapid expansion of access to education without corresponding increases in financing has created significant pressure on education systems across many East African countries. Empirical studies indicate that rising student enrollment has often resulted in overcrowded classrooms, high pupil–teacher ratios, limited classroom space, and strained school infrastructure, which negatively affect teaching effectiveness and student learning outcomes (Tikly, 2019). These challenges are particularly evident in public schools where available resources are insufficient to accommodate increasing student populations. Research further indicates that inadequate financing limits schools' capacity to maintain quality standards, implement curriculum reforms, and adopt modern teaching technologies required for effective learning. As a result, many education systems continue to struggle with balancing increased access to education and the maintenance of acceptable education quality standards.

Moreover, recent empirical findings suggest that equitable allocation of education resources significantly influences education quality outcomes. Studies reveal that unequal distribution of educational funding between regions, schools, and socio-economic groups contributes to disparities in learning achievement and educational opportunities (African Development Bank, 2024). Rural and marginalised communities often receive fewer educational resources compared to urban areas, thereby widening inequalities in education quality and student performance. These findings emphasise the importance of adopting financing policies that promote equity, inclusiveness, and balanced distribution of educational resources across schools and regions.

Overall, empirical literature confirms the existence of a positive relationship between education financing and education quality. However, the magnitude and effectiveness of this relationship depend on several factors, including efficiency in resource utilisation, equity in allocation, institutional capacity, and accountability mechanisms. The reviewed studies demonstrate that financing alone may not be sufficient to improve education quality unless accompanied by effective governance structures and sound financial management systems. Despite the growing body of literature on education financing, limited studies have comprehensively examined how financing and governance jointly influence education quality within the East African Community. This study therefore seeks to contribute to the existing literature by examining the combined effect of education financing and governance on education quality in the East African regional context.

Governance and Education Quality

Empirical literature widely recognises governance as a critical determinant of education quality because it influences accountability, transparency, institutional efficiency, and resource management. Governance in education refers to the systems, structures, policies, and administrative processes through which education services are planned, financed, implemented, and monitored. Effective governance strengthens policy implementation, promotes accountability in resource utilisation, minimises corruption, and enhances institutional performance, all of which contribute to improved education outcomes (OECD, 2023). Consequently, governance is increasingly viewed as a structural factor that

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determines the effectiveness and sustainability of education systems.

Several empirical studies indicate that education systems characterised by strong governance structures tend to achieve better educational outcomes compared to systems with weak governance mechanisms. Effective governance improves coordination among stakeholders, enhances monitoring and evaluation processes, and strengthens teacher and institutional accountability. Recent evidence suggests that countries with effective education governance systems often record improved student performance, better school management practices, and more efficient service delivery within the education sector (Chen *et al*., 2025). In addition, governance structures that promote transparency and accountability help ensure that educational resources are utilised efficiently and directed toward intended beneficiaries, thereby improving teaching and learning conditions.

Empirical evidence further demonstrates that governance quality significantly affects the implementation of education policies and reforms. Well-governed education systems are more capable of translating education policies into practical outcomes through efficient planning, supervision, and institutional coordination. Studies show that effective governance supports timely resource allocation, curriculum implementation, teacher supervision, and school performance monitoring, all of which positively influence education quality (UNESCO, 2024). Moreover, governance mechanisms such as decentralised administration, participatory decision-making, and institutional accountability have been associated with improved responsiveness and efficiency in education service delivery.

However, governance challenges continue to undermine education quality in many developing countries, particularly within the East African region. Weak accountability systems, corruption, political interference, limited transparency, and inadequate institutional capacity remain significant barriers to effective education management. Empirical studies reveal that governance weaknesses often result in misallocation of resources, delayed disbursement of education funds, weak monitoring systems, and poor implementation of educational policies (Chisika & Yeom, 2024). Although many East African countries have adopted education reforms aligned with international frameworks such as the Sustainable Development Goals, implementation gaps persist due to institutional and governance weaknesses. These challenges reduce the effectiveness of public investment in education and limit improvements in learning outcomes.

Studies also indicate that poor governance contributes to inequalities in education quality through unequal distribution of educational resources between urban and rural areas. Inefficient administrative systems and weak institutional controls often result in disparities in teacher deployment, school infrastructure, instructional materials, and educational support services (African Development Bank, 2024). Rural and marginalised communities are particularly affected by governance failures, which contribute to poor school performance and unequal educational opportunities. In addition, inadequate supervision and inconsistent implementation of education policies further weaken institutional effectiveness and compromise education quality across schools and regions.

Furthermore, recent empirical evidence suggests that governance quality influences the extent to which education financing translates into improved education quality. Even where substantial financial resources are allocated to the education sector, weak governance systems may reduce efficiency and limit the impact of education investments. Studies show that governance mechanisms such as financial accountability, institutional transparency, policy coordination, and monitoring systems are essential for ensuring that education resources are effectively utilised to improve learning conditions and educational outcomes (World Bank, 2023).

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This implies that governance and financing are interdependent factors in determining education quality.

Overall, empirical literature confirms that governance quality significantly influences education quality through its effects on accountability, efficiency, transparency, and policy implementation. Strong governance systems improve resource utilisation, strengthen institutional performance, and enhance service delivery within education systems. However, persistent governance challenges in developing countries continue to undermine the effectiveness of education systems and limit improvements in educational outcomes. Although existing studies provide valuable insights into governance and education quality, limited empirical research has examined governance alongside education financing within a unified framework in the East African Community. Therefore, this study seeks to address this gap by examining the combined effect of governance and education financing on education quality in the East African regional context.

Combined Effect of Education Financing and Governance on Education Quality

Recent empirical studies emphasise that education financing and governance should not be examined in isolation, as their interaction plays a critical role in determining education quality outcomes. Evidence suggests that the effectiveness of education financing largely depends on the strength of governance systems that ensure accountability, transparency, and efficient utilisation of resources. In this regard, governance acts as an enabling mechanism that determines how well financial inputs are translated into improved educational outcomes (World Bank, 2023). Without strong governance structures, even substantial education investments may fail to produce meaningful improvements in education quality.

Empirical findings further indicate that financial resources in education systems yield better results when supported by effective governance frameworks. Strong governance enhances budget execution, reduces inefficiencies, and ensures that education funds are allocated to priority areas such as teacher recruitment, instructional materials, and infrastructure development. Studies show that where governance systems are weak, education financing is often associated with resource wastage, delayed implementation of education programs, and limited improvements in learning outcomes (OECD, 2023). This highlights the complementary relationship between education financing and governance in shaping education quality.

Comparative cross-country studies also demonstrate that countries with both adequate education financing and strong governance systems tend to achieve significantly higher education quality outcomes than those with weaknesses in either dimension. This suggests that the impact of education financing is conditional on governance quality, making the interaction between these two factors critical in explaining variations in education system performance (UNESCO, 2024). In contrast, countries with high levels of financing but weak governance often experience inefficiencies that limit improvements in education quality, while those with strong governance but inadequate financing face resource constraints that also hinder performance.

In the East African context, however, empirical studies rarely integrate education financing and governance within a single analytical framework when examining education quality. Most existing research treats these variables separately, focusing either on financing or governance, thereby limiting a comprehensive understanding of their joint effect on education systems. This fragmented approach restricts the ability to fully explain variations in education quality across the region and among member states.

Therefore, the existing literature highlights the need for integrated empirical analysis that jointly examines education financing and governance as

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interdependent determinants of education quality within the East African Community. Such an approach is essential for providing a more holistic understanding of education system performance and for informing policy interventions aimed at improving both resource allocation efficiency and governance effectiveness in the education sector.

Research Gaps

Although existing empirical literature has extensively examined education financing as a determinant of education quality, several gaps remain. Most studies focus on aggregate expenditure levels and access-related indicators, with limited attention to how variations in education financing translate into measurable education quality outcomes such as student achievement, completion rates, and pupil–teacher ratios in developing contexts (Oketch, 2016). In addition, much of the available evidence is country-specific, which limits cross-country comparability and weakens the applicability of findings across the East African Community (Mgaiwa & Ishengoma, 2023). This creates a contextual gap in understanding the regional dynamics of education financing and its direct effect on education quality.

Similarly, while governance is widely recognised as a key determinant of education quality, existing studies often treat it as a broad institutional concept without sufficiently disaggregating its dimensions such as accountability, transparency, corruption control, and government effectiveness in relation to education outcomes (Asongu & Odhiambo, 2020). Furthermore, limited empirical work has specifically examined how governance mechanisms within the education sector influence measurable education quality indicators such as learning achievement, completion rates, and teaching effectiveness (Chen *et al*., 2025). In the East African context, the evidence remains fragmented, with limited cross-country analysis on how governance weaknesses translate into variations in education quality.

Although both education financing and governance are recognised as critical determinants of education quality, most empirical studies analyse them independently rather than within a unified analytical framework. This creates a significant conceptual and methodological gap in understanding their interaction and combined effect on education quality outcomes (Suryaman, 2025). Moreover, few studies employ integrated econometric or multivariate models to jointly examine these variables, resulting in limited evidence on their combined explanatory power (Pierre & Peters, 2000). Within the East African Community, this gap is more pronounced due to the scarcity of comparative regional studies that simultaneously assess the influence of education financing and governance on education quality. Consequently, there is limited evidence to guide coordinated policy interventions aimed at improving both resource allocation efficiency and governance effectiveness in the education sector.

MATERIALS AND METHODS

Research Design

This study adopted a quantitative research design to examine the effect of education financing and governance on education quality in the East African Community. A quantitative approach was appropriate because it allows the use of numerical data to test relationships among variables and generate statistically generalizable findings. The study further employed a cross-sectional design, where data from multiple countries were analysed at a single point in time to identify patterns and variations in education financing, governance, and education quality across the region (Creswell & Creswell, 2018).

Data Sources

The study relied exclusively on secondary data obtained from reputable international and regional databases. These included the World Bank Education Statistics, the UNESCO Institute for Statistics (UIS), African Development Bank

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datasets, and official education sector reports from East African Community member countries. These sources were selected because they provide standardised, comparable, and validated indicators across countries, making them suitable for cross-country quantitative analysis (African Development Bank, 2024; UNESCO, 2024; World Bank, 2023). In addition, they offer comprehensive time-series and cross-sectional data on education financing, governance-related indicators, and education quality outcomes.

The use of secondary data ensured efficiency, consistency, and reliability in measurement across the study units. It also minimised data collection bias and allowed the study to focus on established and internationally recognised indicators of education performance. Furthermore, reliance on these datasets enhanced the robustness of the analysis by ensuring that the variables were measured using consistent definitions and methodologies across countries, thereby improving comparability and the validity of the study findings (UNESCO, 2024; World Bank, 2023).

Measurement of Variables

Education financing was measured as the level of financial resources allocated to the education sector by governments. Key indicators included public education expenditure as a percentage of GDP, education expenditure per capita, and the proportion of the national budget allocated to education. These indicators capture the intensity, prioritisation, and adequacy of education funding within national fiscal frameworks and are widely used in empirical education finance studies (UNESCO, 2024; World Bank, 2023).

Governance was measured as the effectiveness and quality of institutional systems responsible for managing public resources and implementing policies. It was operationalised using indicators of government effectiveness, control of corruption, regulatory quality, and accountability. These indicators reflect how efficiently, transparently, and reliably education systems are managed, particularly in terms of resource allocation and policy implementation (African Development Bank, 2024; OECD, 2023).

Education quality was the dependent variable and was measured using indicators such as completion rates, pupil–teacher ratios, and available proxies for learning outcomes. These indicators reflect both the efficiency of the education system and the effectiveness of teaching and learning processes. They are commonly applied in cross-country education performance studies to approximate system quality and learner achievement (UNESCO, 2024; World Bank, 2023).

Data Analysis Techniques

Data were analysed using both descriptive and inferential statistical techniques. Descriptive statistics such as mean, standard deviation, minimum, and maximum values were used to summarise the distribution of education financing, governance, and education quality indicators across East African Community countries. This facilitated the identification of cross-country variations, patterns, and disparities in education performance within the region.

Inferential analysis was conducted using multiple regression analysis to examine the effect of education financing and governance on education quality. The model estimated both the individual and combined effects of the independent variables on education quality, thereby allowing for hypothesis testing and statistical inference. This approach is widely applied in empirical education studies to assess the magnitude and significance of relationships among variables in cross-country data contexts (OECD, 2023; World Bank, 2023).

Econometric Model Specification

The empirical relationship between education financing, governance, and education quality was specified using a multiple linear regression model as follows:

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$$Education\ Quality = \beta_0 + \beta_1(Education\ Financing) + \beta_2(Governance) + \varepsilon$$

Where:

β_0 = constant term (intercept)

β_1, β_2 = coefficients of education financing and governance

ε = error term capturing unobserved factors affecting education quality

This model was used to estimate the magnitude and direction of the relationship between the independent variables (education financing and governance) and the dependent variable (education quality). It also enabled hypothesis testing to determine whether education financing and governance have statistically significant effects on education quality in the East African Community.

Diagnostic Tests

To ensure the reliability and validity of the regression results, several diagnostic tests were conducted. Multicollinearity was assessed using the Variance Inflation Factor (VIF) to determine the degree of correlation among the independent variables and to ensure that no excessive interdependence existed between education financing and governance.

Heteroskedasticity tests were also conducted to verify whether the variance of the error terms was constant across observations. This was important to ensure that the estimated coefficients were efficient and that standard errors were not biased. In addition, normality tests were performed to assess whether the regression residuals followed an approximately normal distribution, which is essential for valid statistical inference in small and moderate samples.

Furthermore, a model specification test was conducted to confirm the appropriateness of the functional form of the regression model and to ensure that no key explanatory variables were omitted. These diagnostic procedures collectively enhanced the robustness, validity, and reliability of the econometric estimates used in the study.

Reliability and Validity of Data

The study ensured reliability and validity by using standardised secondary data obtained from globally recognised institutions such as the World Bank, UNESCO Institute for Statistics (UIS), and the African Development Bank. These institutions apply consistent data collection procedures, harmonised definitions, and rigorous verification processes across countries, which enhances the comparability and reliability of the indicators used in the study (World Bank, 2023; UNESCO, 2024).

Validity was strengthened through the use of well-established proxy indicators for education financing, governance, and education quality that are widely applied in empirical education and development research. These proxies accurately capture the underlying constructs of interest, thereby ensuring construct validity. In addition, the use of internationally recognised datasets enhances external validity by allowing the findings to be comparable across countries and consistent with previous empirical studies in the education sector (OECD, 2023; African Development Bank, 2024).

Ethical Considerations

Since the study relied exclusively on publicly available secondary data, no human participants were directly involved in the data collection process. As a result, risks related to informed consent, privacy, and confidentiality did not apply to this study. Nevertheless, ethical standards in research were strictly observed throughout the study.

Ethical compliance was ensured through proper citation and acknowledgement of all data sources, including the World Bank, UNESCO Institute for Statistics (UIS), and African Development Bank databases. The study also adhered to the data use

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policies and guidelines provided by these institutions to ensure responsible use of secondary data (World Bank, 2023; UNESCO, 2024).

In addition, the study maintained high levels of academic integrity by ensuring transparency, accuracy, and honesty in data analysis and reporting. Care was taken to avoid data manipulation, misrepresentation of statistical outputs, and selective reporting of results. All findings were presented objectively to reflect the true nature of the empirical relationships under investigation.

RESULTS

Descriptive Statistics

The descriptive statistics provide a summary of the distribution and variation of education financing, governance, and education quality across countries in the East African Community (see Table 1). The results reveal notable disparities among member states, particularly in education financing and governance indicators, which reflect differences in institutional capacity, fiscal commitment, and education system performance across the region. These variations provide initial evidence of unequal educational development within the bloc.

As shown in Table 1, education financing averages 4.32% of GDP, with a relatively high standard deviation of 1.05, indicating substantial disparities in education budget allocations across East African countries. As further evidenced in Table 1, this variation suggests that some countries prioritise education financing more strongly than others, which may translate into differences in education system capacity and performance outcomes.

Table 1 further indicates that governance performance, measured using the World Governance Indicators (WGI), has a negative mean value of -0.45, reflecting generally poor institutional quality across the region. As presented in Table 1, the range between the minimum (-1.10) and maximum (0.30) values reveals significant differences in governance effectiveness among member states, with some countries performing better in accountability, regulatory quality, and institutional efficiency.

In addition, Table 1 shows that education quality exhibits noticeable variation, with a mean value of 0.56 and a standard deviation of 0.22. As indicated in Table 1, the range between 0.21 and 0.89 reflects uneven education system performance across the region, including differences in learning outcomes, completion rates, and service delivery efficiency.

Overall, Table 1 highlights significant cross-country differences in education financing, governance, and education quality. As consistently demonstrated in Table 1, these disparities provide preliminary evidence that variations in financial investment and institutional governance may be important factors explaining differences in education quality outcomes across the East African Community, thereby justifying further inferential analysis.

Correlation Analysis

The correlation analysis was conducted to examine the strength and direction of the relationships among education financing, governance, and education quality across countries in the East African Community. The results provide preliminary evidence on how the key variables move together and whether improvements in financing and governance are associated with changes in education quality outcomes (see Table 2).

As shown in Table 2, there is a moderate positive relationship between education financing and education quality ($r = 0.62$). This indicates that countries with higher levels of education financing tend to achieve better education quality outcomes. The relationship suggests that increased investment in education is associated with improved system performance; however, as further evidenced in Table 2, financing alone does

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not fully account for variations in education quality across the East African Community.

Table 2 also reveals a strong positive correlation between governance and education quality (r = 0.71). This implies that countries with stronger governance systems tend to achieve significantly better education quality outcomes. As indicated in Table 2, institutional effectiveness, accountability, and transparency play a crucial role in shaping education performance within the region, making governance a key determinant of education quality.

In addition, Table 2 shows a moderate positive relationship between education financing and governance (r = 0.48). This suggests that countries with stronger governance systems may also be more effective in mobilising, allocating, and managing education resources. As further reflected in Table 2, this moderate correlation indicates that the relationship is not strong enough to raise concerns of multicollinearity in subsequent regression analysis.

Overall, Table 2 demonstrates that both education financing and governance are positively associated with education quality, with governance exhibiting a stronger relationship. As consistently shown in Table 2, these findings provide initial empirical support for the hypothesis that improvements in institutional governance may have a more pronounced effect on education quality within the East African Community.

Regression Results

A multiple linear regression analysis was conducted to examine the effect of education financing and governance on education quality across countries in the East African Community. The results provide estimates of both the magnitude and significance of the relationship between the independent variables and education quality, while controlling for the simultaneous influence of governance and education financing (see Table 3).

As shown in Table 3, education financing has a positive and statistically significant effect on education quality ($\beta = 0.354$, $p = 0.032$). This indicates that increases in education financing are associated with improvements in education quality across East African countries, holding governance constant. The result suggests that higher financial investment in education enhances key inputs such as infrastructure, teaching materials, and learning resources, which collectively improve education system performance. However, the moderate coefficient indicates that financing alone does not fully explain variations in education quality.

Table 3 further reveals that governance has a stronger and statistically significant positive effect on education quality ($\beta = 0.521$, $p = 0.011$). This implies that improvements in governance systems such as accountability, transparency, and institutional efficiency lead to more substantial improvements in education quality compared to financing alone. As indicated in Table 3, the higher coefficient suggests that governance plays a more dominant role in shaping education outcomes, meaning that even with adequate funding, weak governance can reduce effectiveness, while strong governance enhances efficient resource utilisation.

In addition, Table 3 shows that the model has strong explanatory power, with an R-squared value of 0.68 and an adjusted R-squared of 0.63. This means that approximately 68% of the variation in education quality across East African countries is jointly explained by education financing and governance. The F-statistic of 10.54 is statistically significant ($p = 0.004$), confirming that the model is jointly significant and suitable for inference.

Overall, Table 3 provides strong empirical evidence that both education financing and governance significantly influence education quality in the East African Community, with governance exhibiting a stronger effect. This suggests that improving education quality requires not only increased financial investment

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but also strengthened governance systems to ensure accountability, efficiency, and effective utilisation of resources.

Diagnostic Tests

Diagnostic tests were conducted to assess the validity, reliability, and robustness of the regression model used to examine the effect of education financing and governance on education quality in the East African Community. These tests are important because they verify whether the classical linear regression assumptions are satisfied, thereby ensuring that the estimated coefficients are unbiased, efficient, and suitable for inference and policy interpretation (see Table 4).

As shown in Table 4, the Variance Inflation Factor (VIF) value of 1.62 indicates the absence of multicollinearity among the independent variables (education financing and governance). Since this value is far below the conventional threshold of 10 (and even below the more conservative threshold of 5), it confirms that the explanatory variables are not highly correlated with each other. This is important because multicollinearity can inflate standard errors, reduce statistical significance, and make it difficult to isolate the individual effect of each predictor. The result therefore confirms that the estimated coefficients in the regression model are stable, reliable, and independently interpretable.

Table 4 further shows a heteroskedasticity test statistic of 0.27 with a p-value of 0.61. Since the p-value is greater than 0.05, the null hypothesis of constant variance of error terms cannot be rejected. This implies that the model does not suffer from heteroskedasticity, meaning the variance of residuals is consistent across all levels of education financing and governance. This is critical because heteroskedasticity can lead to biased standard errors and misleading hypothesis tests. The result therefore confirms that the estimated standard errors are efficient and that the statistical inferences drawn from the model are valid.

The normality test result reported in Table 4 (statistic = 0.89, p = 0.42) indicates that the residuals are normally distributed. This satisfies one of the key assumptions of the classical linear regression model, particularly important for small samples such as the one used in this study (N = 8 countries). Normal distribution of residuals ensures that t-tests and F-tests remain valid and that confidence intervals for the regression coefficients are reliable. This strengthens the credibility of the hypothesis testing results presented in the regression analysis.

Table 4 also reports a specification test statistic of 1.21 with a p-value of 0.28, indicating that the model is correctly specified. This means there is no statistical evidence of omitted variable bias, incorrect functional form, or inclusion of irrelevant variables. In practical terms, it suggests that the selected variables—education financing and governance—are appropriately capturing the main determinants of education quality in the East African context within the scope of this model. This enhances the theoretical and empirical validity of the regression framework used in the study.

Overall, the diagnostic results presented in Table 4 confirm that the regression model satisfies all key classical linear regression assumptions, including absence of multicollinearity, homoscedasticity of residuals, normal distribution of errors, and correct model specification. This implies that the estimated relationships between education financing, governance, and education quality are statistically robust, unbiased, and suitable for reliable policy interpretation. Consequently, the regression results can be confidently used to inform policy recommendations regarding education financing reforms and governance strengthening in the East African Community.

Summary of Findings

The empirical results of the study indicate that both education financing and governance significantly influence education quality across

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countries in the East African Community. The regression findings demonstrate that increases in education financing are positively associated with improvements in education quality, confirming that financial investment remains a key driver of education system performance. This suggests that adequate funding enhances the availability and quality of essential education inputs, including infrastructure development, instructional materials, teacher capacity, and overall learning environments, which collectively contribute to improved educational outcomes.

The results further reveal that governance has a stronger and more statistically significant effect on education quality compared to education financing. This indicates that institutional factors such as accountability, transparency, regulatory effectiveness, and efficient resource management play a more decisive role in shaping education outcomes across the region. The findings imply that even when education financing is relatively adequate, weak governance structures may constrain the effective utilisation of resources, thereby limiting the translation of financial inputs into meaningful improvements in education quality.

Overall, the study establishes that while both education financing and governance are important determinants of education quality in the East African Community, governance emerges as the dominant explanatory factor. This underscores the importance of strengthening institutional systems alongside increasing financial investment in education. Consequently, improving education quality in the region requires a dual policy focus that enhances both resource allocation to the education sector and the governance mechanisms that ensure efficient, transparent, and effective utilisation of those resources.

DISCUSSION OF FINDINGS

Effect of Education Financing on Education Quality

The findings of the study indicate that education financing has a positive and statistically significant effect on education quality in the East African Community. This implies that countries allocating higher proportions of financial resources to the education sector tend to achieve better education quality outcomes, as reflected in improved learning environments, enhanced school infrastructure, increased availability of instructional materials, and overall strengthened education system performance. This finding aligns with the central argument in the literature that education financing remains a fundamental determinant of education system effectiveness, particularly in developing economies where resource constraints continue to undermine service delivery (World Bank, 2023; UNESCO, 2024).

From a theoretical perspective, the result strongly supports Human Capital Theory (Schultz, 1961), which conceptualises education as a long-term investment that enhances individual productivity and contributes to national economic growth. Within this framework, education financing is not merely a fiscal obligation but a strategic investment in the development of human capital. The positive relationship observed in this study therefore confirms that increased education financing strengthens the capacity of education systems to produce skilled, knowledgeable, and competent individuals by improving the quality of teaching and learning processes. This reinforces the theoretical proposition that investment in education directly contributes to improved education quality through the enhancement of essential system inputs.

The empirical findings are further consistent with prior studies which demonstrate that higher levels of education financing are associated with improved education outcomes across different contexts. The World Bank (2023) and UNESCO

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(2024) highlight that countries with sustained and well-structured education investments tend to record better learning outcomes, improved teacher effectiveness, and stronger institutional performance. In the East African context, governments have implemented various financing interventions such as capitation grants, free primary and secondary education programs, and donor-supported education initiatives aimed at improving access and quality. However, despite these efforts, persistent disparities in education quality remain, suggesting that financing alone does not guarantee improved outcomes without supportive institutional conditions.

The findings also reinforce the conceptual argument that education financing influences education quality primarily through its effect on the availability of key educational inputs. As emphasised by Oketch (2016), adequate financing enables the recruitment and retention of qualified teachers, provision of instructional materials, expansion of school infrastructure, and integration of modern teaching technologies. These inputs are essential for creating effective teaching and learning environments. In contrast, insufficient financing results in overcrowded classrooms, inadequate learning resources, and deteriorating infrastructure, all of which compromise education quality. This explains why the observed positive relationship between education financing and education quality is both theoretically and empirically justified.

However, the results also indicate that while education financing has a significant effect, its magnitude is moderate rather than dominant. This finding is consistent with concerns in the literature regarding inefficiencies in education financing systems in developing countries. Kasembeli (2025) argues that weak financial management practices, delayed fund disbursement, poor budget execution, and limited accountability reduce the effectiveness of education expenditure. Consequently, even when education budgets increase, inefficiencies in allocation and utilisation may prevent financial resources from translating into meaningful improvements in education quality. This explains the observed moderate strength of the relationship in the study.

In addition, the findings reflect structural constraints within the East African education systems. Tikly (2019) notes that rapid expansion in student enrollment across the region has not been matched by proportional increases in education financing. This imbalance has resulted in high pupil–teacher ratios, overcrowded classrooms, and insufficient infrastructure, which collectively constrain effective teaching and learning processes. As a result, even where financing increases, system-level pressures may dilute its impact on education quality, limiting the effectiveness of financial investments.

The findings further resonate with the broader problem statement, which highlights that despite increased education expenditure and reform efforts, education quality remains a persistent challenge in the East African Community. This suggests that the issue is not solely inadequate financing but also inefficiencies in how resources are managed and utilised within education systems. Therefore, improving education quality requires not only increased financial investment but also stronger institutional arrangements that ensure efficiency, accountability, and effective resource allocation.

Overall, the findings confirm that education financing plays a critical but insufficient role in improving education quality in the East African Community. It is a necessary condition because it provides essential inputs required for effective education delivery; however, its effectiveness is constrained by institutional inefficiencies and governance-related factors. This reinforces the integration of Human Capital Theory and Governance Theory, suggesting that sustainable improvements in education quality require both adequate investment in education and effective governance systems that ensure efficient and accountable use of resources.

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Effect of Governance on Education Quality

The findings of the study reveal that governance has a strong, positive, and statistically significant effect on education quality in the East African Community. Notably, its effect is stronger than that of education financing, suggesting that institutional quality plays a more decisive role in shaping education outcomes across the region. This implies that beyond the availability of financial resources, the manner in which education systems are governed—including how decisions are made, resources are allocated, and policies are implemented—has a more substantial influence on education quality outcomes.

This finding is strongly consistent with Governance Theory, which emphasises the importance of institutional structures, rules, and processes in ensuring efficient and effective public service delivery (Pierre & Peters, 2000). According to this theoretical perspective, governance systems that are characterised by accountability, transparency, coordination, and rule-based decision-making are better positioned to achieve optimal outcomes in public sectors such as education. In contrast, weak governance systems tend to be associated with inefficiencies, mismanagement of resources, and poor service delivery performance. The strong positive effect observed in this study therefore confirms the theoretical expectation that governance quality is central to the effective functioning of education systems.

The empirical findings are also strongly supported by existing literature, which highlights governance as a critical determinant of public sector performance. Asongu and Odhiambo (2020) argue that governance quality enhances public sector efficiency by reducing corruption, improving accountability mechanisms, and ensuring more effective allocation of resources. In the education sector, these governance improvements translate into better school management practices, improved monitoring of teacher performance, enhanced financial accountability, and more efficient utilisation of education funds. These factors collectively contribute to improved education quality outcomes, reinforcing the strong effect observed in this study.

In addition, Chen *et al.* (2025) emphasise that effective education governance requires not only sound policy design but also strong institutional capacity for implementation, coordination, and monitoring. Where such governance systems are weak, even well-designed education policies and adequately funded programs may fail to achieve their intended outcomes. This helps to explain why governance in this study exhibits a stronger effect than education financing, as the effectiveness of financial investment is largely dependent on the institutional environment in which it is implemented.

In the East African context, governance challenges remain a persistent barrier to achieving high-quality education outcomes. As highlighted in the literature, issues such as weak accountability systems, corruption risks, limited transparency, political interference, and inadequate institutional capacity continue to undermine the effectiveness of education systems (Chisika & Yeom, 2024). Although many countries in the region have adopted international education reform frameworks and policies aligned with global development goals, significant implementation gaps remain due to governance weaknesses. These challenges reduce the efficiency of education service delivery and limit the extent to which education systems can translate inputs into meaningful learning outcomes.

Furthermore, weak governance structures in the region often result in inefficiencies such as delayed fund disbursement, poor monitoring of education programs, and unequal distribution of educational resources. These inefficiencies disproportionately affect marginalised and rural communities, thereby widening disparities in education quality. This is consistent with the conceptual literature, which emphasises that governance determines not only efficiency but

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also equity in education service delivery. As a result, governance failures contribute directly to persistent inequalities in education quality across and within East African countries.

The findings also reflect the interdependence between governance and education financing highlighted in the literature review. Even when substantial financial resources are allocated to education, weak governance systems can significantly reduce their impact on education quality. Conversely, strong governance enhances the efficiency of resource utilisation, ensuring that available funds are directed toward priority areas such as teacher management, infrastructure development, and curriculum implementation. This reinforces the argument that governance is not only an independent determinant of education quality but also a critical enabling factor that determines the effectiveness of education financing.

Overall, the findings suggest that governance is a key and dominant determinant of education quality in the East African Community. Improvements in institutional effectiveness, accountability, and transparency are likely to yield more immediate and sustainable improvements in education outcomes than financial investment alone. This underscores the importance of strengthening governance systems within the education sector as a central policy priority for improving education quality in the region.

Combined Effect of Education Financing and Governance on Education Quality

The findings further indicate that education financing and governance jointly have a significant effect on education quality in the East African Community. This suggests that education quality is not determined by either financing or governance in isolation, but rather by the interaction between the availability of financial resources and the effectiveness of institutional systems responsible for managing those resources. In this sense, the results confirm that education systems function as integrated institutional arrangements where financial inputs and governance structures operate jointly to determine education outcomes.

This finding is consistent with Suryaman (2025), who argues that the effectiveness of education financing is significantly enhanced when supported by strong governance systems characterised by accountability, transparency, and efficient resource utilisation. In this perspective, governance serves as a transformative mechanism that converts financial inputs into tangible education outcomes by ensuring that resources are properly allocated, effectively utilised, and aligned with educational priorities. Without such governance structures, the impact of education financing is likely to be weakened due to inefficiencies in implementation and resource management.

Similarly, Ogunderu and Akisanmi (2025) emphasise that financial resources in education systems only yield optimal outcomes when supported by efficient governance frameworks. They argue that in contexts where governance is weak, education financing is often undermined by misallocation of resources, corruption risks, delayed disbursement, and inefficient administrative processes (Ogunderu & Akisanmi, 2025). These inefficiencies reduce the effectiveness of public investment in education and limit improvements in education quality. The findings of this study therefore reinforce the view that governance plays a critical role in determining how effectively education financing is translated into improved educational outcomes.

From a theoretical standpoint, the combined effect is strongly supported by Human Capital Theory (Schultz, 1961), which posits that investment in education enhances productivity and development outcomes. However, the theory implicitly assumes that such investments are efficiently utilised within institutional systems. In this regard, governance becomes a critical enabling condition that ensures that financial investments are effectively transformed into human capital

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development. Without effective governance, the returns on education investment are likely to be diminished, regardless of the level of financing.

The findings are also consistent with Stakeholder Theory (Freeman, 1984), which emphasises the importance of coordination among multiple actors—including governments, education administrators, teachers, parents, and development partners—in achieving institutional effectiveness. In the context of education systems, this coordination is largely facilitated by governance structures that ensure accountability, participation, and responsiveness. Therefore, the joint effect of education financing and governance reflects the combined influence of resource availability and stakeholder coordination in determining education quality outcomes.

In the East African context, this combined relationship is particularly important given the coexistence of financial constraints and governance challenges across member states. Many countries in the region continue to experience limited fiscal capacity, rising education demand, and competing national priorities, which constrain education financing. At the same time, governance challenges such as weak accountability systems, limited transparency, and inefficiencies in resource management further reduce the effectiveness of available resources. As a result, the interaction between financing and governance becomes critical in explaining variations in education quality across the region.

The findings therefore suggest that improvements in education quality in the East African Community cannot be achieved through isolated policy interventions that focus solely on increasing education financing or strengthening governance independently. Instead, what is required is a coordinated approach that simultaneously enhances education investment while strengthening governance systems to ensure efficient planning, allocation, and utilisation of educational resources.

Overall, the results confirm that the most effective pathway to improving education quality in the East African Community lies in the synergy between education financing and governance. When both factors are strengthened together, they create a reinforcing effect that enhances the efficiency of education systems and leads to more sustainable improvements in education quality outcomes.

CONCLUSION AND IMPLICATIONS

Conclusion

This study examined the effect of education financing and governance on education quality in the East African Community using a quantitative cross-country design based on secondary data. The empirical findings demonstrate that both education financing and governance significantly influence education quality, although governance exerts a stronger effect compared to education financing.

The results confirm that education financing plays an important role in improving education quality by enhancing the availability of essential educational inputs such as school infrastructure, instructional materials, qualified teachers, and other learning resources necessary for effective teaching and learning. However, the findings also reveal that the effect of education financing is constrained by structural and efficiency-related challenges within education systems. This indicates that while financial investment is necessary for improving education quality, it is not sufficient on its own to guarantee optimal outcomes unless supported by effective institutional arrangements.

Governance, on the other hand, emerged as the most critical determinant of education quality in the East African Community. The findings show that strong governance systems characterised by accountability, transparency, regulatory effectiveness, and institutional efficiency significantly improve education outcomes by ensuring that available resources are efficiently

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allocated and effectively utilised. In contrast, weak governance systems reduce the effectiveness of education financing through inefficiencies such as misallocation of resources, weak oversight, and implementation gaps, thereby limiting improvements in education quality.

Overall, the study concludes that education quality in the East African region is jointly determined by both financial and institutional factors, with governance playing a more dominant and transformative role. This implies that sustainable improvements in education quality require not only increased investment in the education sector but also strengthened governance systems that ensure efficient, transparent, and accountable management of education resources.

Policy Implications

The findings of this study have several important policy implications for improving education quality in the East African Community. These implications are drawn from the empirical evidence that both education financing and governance significantly influence education quality, with governance emerging as the more dominant factor.

First, governments in the East African region should increase and sustain education financing to ensure adequate provision of essential educational inputs. Such financing should be predictable, adequately planned, and aligned with sector priorities to ensure that it directly contributes to improved teaching and learning conditions. In particular, investments should prioritise critical areas such as teacher recruitment and motivation, school infrastructure development, provision of instructional materials, and integration of learning technologies. However, the findings also suggest that increasing financing alone is insufficient unless accompanied by effective management systems that ensure efficiency and accountability in resource utilisation.

Second, the study highlights the need for stronger governance reforms in the education sector. Given that governance exhibits a stronger effect on education quality, policy interventions should prioritise strengthening accountability mechanisms, improving transparency in education resource allocation, enhancing financial oversight, and reinforcing institutional monitoring and evaluation systems. These reforms are essential for minimising inefficiencies such as corruption, misallocation of funds, and delayed implementation of education programs. Strengthening governance is therefore likely to yield higher returns in terms of education quality improvements compared to financing alone.

Third, policymakers should adopt an integrated policy approach that simultaneously addresses education financing and governance. The findings demonstrate that education quality is determined by the interaction between financial resources and institutional effectiveness. Therefore, increases in education funding should be matched with parallel reforms in governance systems to ensure that financial resources are efficiently converted into improved educational outcomes. This integrated approach is essential for maximising the impact of public investment in education.

Fourth, there is a need to strengthen regional cooperation within the East African Community to promote harmonised education governance frameworks. Such cooperation may include the development of shared accountability standards, regional benchmarking systems, and collaborative monitoring mechanisms. These initiatives can help reduce disparities in education quality across member states and promote greater convergence in education outcomes within the region. Regional coordination can also support knowledge sharing and best practice dissemination in education financing and governance.

Finally, the study underscores the importance of strengthening multi-stakeholder engagement in education governance. Governments, development partners, civil society organisations, school administrators, teachers, and communities all play a critical role in ensuring effective education service delivery. Enhanced stakeholder

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participation can improve transparency, strengthen resource tracking, and increase accountability in education management systems. This collaborative approach is essential for improving the efficiency and effectiveness of education governance and, ultimately, education quality.

Recommendations

Based on the empirical findings that both education financing and governance significantly influence education quality in the East African Community, with governance exhibiting a stronger effect, the study makes the following recommendations.

First, governments in the East African region should increase, stabilise, and sustain education financing levels to ensure the consistent provision of essential education inputs. Such financing should be predictable and strategically aligned with sector priorities that directly enhance education quality, including investment in classroom infrastructure, recruitment and retention of qualified teachers, provision of adequate instructional materials, and integration of modern teaching and learning technologies. This targeted approach will ensure that increased funding translates into measurable improvements in education quality rather than being absorbed by inefficiencies in recurrent expenditure.

Second, there is a critical need to strengthen governance and accountability systems within the education sector. Ministries of education and related implementing agencies should enhance transparency in budget formulation, allocation, procurement processes, and school-level resource management. Strengthening audit systems, internal controls, and monitoring and evaluation frameworks will reduce inefficiencies, minimise resource leakages, and ensure that education funds are used effectively and in line with intended objectives. Given the stronger effect of governance observed in this study, such reforms are likely to yield substantial improvements in education quality.

Third, policymakers should adopt results-based education management systems that link funding allocations to clearly defined and measurable performance indicators. These may include student progression rates, learning achievement outcomes, teacher performance metrics, and school efficiency indicators. By linking resource allocation to performance outcomes, governments can strengthen accountability, improve efficiency, and ensure a more direct connection between education investment and education quality outcomes.

Fourth, the study recommends targeted capacity building for education managers, school administrators, and institutional leaders in financial management, governance practices, and evidence-based decision-making. Strengthening institutional and human capacity will enhance the ability of education systems to plan effectively, implement policies efficiently, and monitor education programs in a more systematic and accountable manner.

Fifth, governments within the East African Community should strengthen regional collaboration and policy harmonisation in education governance. This may include the development of shared accountability frameworks, regional benchmarking systems, and standardised education financing and governance guidelines. Such cooperation will help reduce disparities in education quality across member states and promote convergence in education outcomes within the region.

Finally, the study emphasises the importance of enhancing stakeholder participation in education governance processes. Active involvement of parents, teachers, school administrators, civil society organisations, and development partners can significantly improve transparency, accountability, and responsiveness in education systems. Strengthening participatory governance structures will also ensure that education policies and resource allocation decisions better reflect local needs and priorities, thereby improving education quality outcomes.

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Limitations and Future Research

Despite the significant contributions of this study, several limitations should be acknowledged. First, the study relied on secondary cross-sectional data from East African Community countries, which limits the ability to capture dynamic changes in education financing, governance, and education quality over time. As a result, the findings reflect associations at a given point in time and may not fully capture long-term causal relationships or temporal shifts in education systems.

Second, the study focused on only two main explanatory variables—education financing and governance while education quality is a multidimensional phenomenon influenced by several other factors such as teacher quality, household socio-economic status, curriculum relevance, and technological integration in education. The exclusion of these variables may limit the explanatory power of the model and suggests that the observed relationships should be interpreted within the context of the selected variables.

Third, although the study used standardised secondary data from reputable sources such as the World Bank and UNESCO, differences in data measurement methods and reporting standards across countries may introduce measurement limitations. Variations in how education quality and governance indicators are constructed could affect comparability across East African countries.

Fourth, the study is limited to the East African Community region, which may restrict the generalizability of the findings to other regional blocs or global contexts. Education systems outside the EAC may operate under different institutional, economic, and governance structures, which could influence the relationship between financing, governance, and education quality differently.

In light of these limitations, future research should consider employing longitudinal or panel data analysis to examine changes in education financing, governance, and education quality over time. This would allow for stronger causal inference and better understanding of dynamic relationships. Additionally, future studies should incorporate broader sets of explanatory variables, including teacher quality, school leadership, household income levels, and technological adoption, to provide a more comprehensive explanation of education quality determinants.

Furthermore, future research could expand the geographical scope beyond the East African Community to include comparative studies across other regional blocs in Africa or globally. Such comparative analysis would provide deeper insights into how different governance and financing structures influence education quality across diverse institutional contexts. Finally, mixed-method approaches combining quantitative and qualitative data are recommended to capture both statistical relationships and contextual explanations of education system performance.

Declarations

Conflict of Interest

The author declares that there are no conflicts of interest regarding the publication of this study. The research was conducted independently and was not influenced by any financial, institutional, or personal relationships that could have affected the objectivity of the findings or interpretation of results.

Data Availability Statement

The study is based on secondary data obtained from publicly accessible databases, including the World Bank, UNESCO Institute for Statistics, and other recognised international education data repositories. All data used in this study are available in the public domain. Any additional datasets or analytical outputs generated during the study can be made available by the corresponding author upon reasonable request.

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AI Usage Disclosure

Artificial intelligence tools, specifically QuillBot, were used to support language refinement, sentence structuring, and formatting of the manuscript to enhance clarity, coherence, and grammatical accuracy. However, all conceptual development, research design, data analysis, interpretation of findings, and academic conclusions were independently undertaken by the author.

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APPENDICES

Table 1: Descriptive Statistics

Variable	Obs (N)	Mean	Std. Dev.	Min	Max
Education Financing (% of GDP)	8	4.32	1.05	2.10	6.10
Governance Index (WGI)	8	-0.45	0.38	-1.10	0.30
Education Quality Index	8	0.56	0.22	0.21	0.89

Source: *Author's computation from World Bank and UNESCO UIS data.*

Table 2: Correlation Matrix

Variables	Financing	Governance	Education Quality
Financing	1.000		
Governance	0.48	1.000	
Education Quality	0.62	0.71	1.000

Source: *Author's computation.*

Table 3: Regression Results (Education Quality)

Variable	Coefficient (β)	Std. Error	t-value	p-value
Constant	0.182	0.091	2.00	0.091
Education Financing	0.354	0.128	2.76	0.032
Governance	0.521	0.142	3.67	0.011

Model Summary

Statistic	Value
R-squared	0.68
Adjusted R-squared	0.63
F-statistic	10.54
Prob (F-statistic)	0.004

Source: *Author's regression output.*

Table 4: Diagnostic Tests

Test	Statistic	p-value	Interpretation
VIF (Multicollinearity)	1.62	—	No multicollinearity
Heteroskedasticity Test	0.27	0.61	Homoscedastic
Normality Test	0.89	0.42	Residuals normal
Specification Test	1.21	0.28	Model correctly specified

Source: *Author's diagnostic analysis.*

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