

POLICY BRIEF

Smart Systems, Smarter Rollout: Three Things Ministries of Education Should Do for Successful EMIS Implementation

OVERVIEW

Education Management Information Systems (EMIS) are essential for evidence-informed planning, resource allocation, and improving education quality. Yet many governments invest heavily in digital education systems that fail to achieve their intended impact due to implementation challenges rather than technological limitations. This policy brief synthesises evidence from a systematic review of 15 empirical studies conducted between 2000 and 2025 across low-, middle-, and high-income countries. The review found that successful EMIS implementation consistently depends on three interconnected factors: strong leadership, phased implementation, and sustainable financing.

BACKGROUND

Reliable education data are critical for effective planning, equitable resource allocation, monitoring learner outcomes, and improving accountability. Consequently, governments worldwide have invested substantially in EMIS and other digital data management systems.

However, implementation outcomes remain uneven. While some systems become indispensable tools for decision-making, others experience poor user adoption, declining data quality, or are abandoned altogether. Understanding the factors that determine implementation success is essential for ensuring that future investments deliver sustainable improvements in education management. While the review draws on evidence from diverse country contexts, the relatively small and heterogeneous evidence base suggests that these findings should be interpreted as broad implementation lessons rather than universal conclusions.



15

Empirical studies reviewed

7

Countries examined

2000–2025

Period covered

3

Interconnected success factors

Countries studied: Kenya · Nigeria · Pakistan · Romania · Saudi Arabia · United States · Micronesia

KEY FINDINGS

Strong leadership, supported by phased implementation and sustainable financing, provides the foundation for successful and sustainable EMIS implementation.

1. Strong Leadership

Provides strategic direction, coordinates implementation, and mobilises resources.

14 out of 15 studies

2. Sustainable Financing

Ensures infrastructure, maintenance, technical support, and long-term system sustainability.

3 out of 15 studies

3. Phased Implementation

Allows gradual learning, testing, and refinement before national scale-up.

5 out of 15 studies

POLICY IMPLICATIONS

Failure to prioritise the key success factors for EMIS implementation will result in:

- Continued underutilisation of education data systems despite substantial investments, alongside weak accountability and inefficient allocation of education resources.
- Increased implementation failures and costly system redesigns due to inadequate testing and refinement before scale-up.
- Poor-quality and unreliable education data for planning and decision-making, resulting in unsustainable EMIS initiatives that fail to deliver long-term value.

RECOMMENDATIONS

1.

Establish a national EMIS implementation framework

The Ministry of Education (State Department for Basic Education) should develop and operationalise a national EMIS implementation framework that clearly defines governance, leadership roles, stakeholder engagement, and capacity-building priorities, beginning in the next financial year.

2.

Roll out EMIS through a phased approach

The Ministry of Education, in collaboration with County Education Offices, should implement EMIS through a phased rollout, beginning with pilot counties and supported by continuous monitoring and user feedback over the next 2–3 years.

3.

Secure sustainable, multi-year financing

The Ministry of Education, in collaboration with the National Treasury and development partners, should secure sustainable, multi-year financing for EMIS infrastructure, maintenance, technical support, and capacity building over the next 3–5 years.

CONCLUSION

Strong leadership, phased implementation, and sustainable financing are the three most critical conditions for successful EMIS implementation. Prioritising these actions will enable Kenya to maximise returns on digital education investments, strengthen evidence-informed planning, and build a resilient EMIS that supports better education outcomes for all learners

SOURCE: This policy brief is based on a systematic review of 15 empirical studies examining the implementation of Education Management Information Systems (EMIS) in basic education across multiple countries between 2000 and 2025.

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