

## LETTERS

### Why Ugandan enterprises fail at AI adoption

Artificial Intelligence is rapidly transforming how enterprises operate, make decisions, and deliver services.

From banks and telecoms to government institutions, enterprises around the world are investing heavily in AI tools such as machine learning, predictive analytics, and natural language processing. These technologies promise improved efficiency, automated processes, and better decision making.

Yet despite the hype, many enterprises struggle to realise meaningful value from AI. Often, the challenge is not the technology itself, but the lack of institutional foundations needed for successful adoption.

Research shows that innovation implementation depends on three critical factors: technological capacity, organisational readiness, and external environmental support.

The Technology Organisation Environment (TOE) framework captures this interaction, highlighting why enterprises fail when one or more of these pieces are missing.

The first missing piece is technological readiness. AI systems rely on strong digital infrastructure, reliable computing power, and high-quality data.

Enterprises need integrated information systems, secure storage, and interoperable databases to support advanced analytics.

However, many institutions, including those in Uganda, operate with fragmented legacy systems. According to the World Bank, digital transformation in developing economies is often constrained by outdated IT infrastructure and weak data management.

Since AI learns from historical data, poor quality or incomplete datasets can lead to unreliable predictions and flawed decisions.

Without a solid technological foundation, AI projects risk becoming expensive experiments rather than strategic tools.

The second missing piece is organisational readiness. AI adoption is not just a technical upgrade, it transforms workflows, decision making processes, and institutional culture.

Success requires leadership commitment, strategic alignment, and skilled employees who can interpret AI outputs and apply them to operations.

Yet workforce preparedness is often underestimated. The International Monetary Fund estimates that AI could affect up to 40 percent of global jobs, underscoring the need for reskilling and digital literacy.

Without proper training and change management, employees may resist AI systems or fail to use them effectively.

Enterprises that invest in continuous learning, digital training, and cross-functional collaboration are far more likely to integrate AI successfully.

The third missing piece is environmental support. AI adoption depends on national digital policies, regulatory frameworks, and the broader innovation ecosystem.

Clear regulations on data governance, algorithmic accountability, and ethical AI use give enterprises the confidence to deploy AI responsibly.

Countries like Kenya have developed national AI strategies to guide adoption, while Uganda is still shaping its AI governance frameworks.

Limited collaboration between governments, universities, and private technology firms slows the development of a supportive ecosystem for AI innovation.

A robust policy environment is essential to encourage investment, innovation, and trust in AI technologies.

AI adoption is more than acquiring technology; it requires investment in infrastructure, workforce skills, and supportive policies. Enterprises that ignore one or more of these elements risk stalled projects and unrealized returns.

By addressing technological readiness, organisational capability, and environmental support, Ugandan enterprises can unlock the full potential of AI and compete effectively in the digital economy.