

Governing Digital Transformation in Non-Governmental Organisations: How Board Governance and Leadership Behaviours Shape Sustainable Digital Transformation in Nigerian NGOs

Adoyi, Mathias Apochi (PhD, DBA)^{1*}, Etuk, Asukwo Okon², Ameh, Solomon (M. Sc, MAFI)³, Ovansa, Anthony Ohiani (MAFI)⁴, Ekene, Christopher (ACA)⁵

Anan University, Nigeria

DOI: <https://doi.org/10.51584/IJRIAS.2026.11080188>

Received: 09 September 2026; Accepted: 14 September 2026; Published: 24 September 2026

ABSTRACT

Digital transformation is increasingly reshaping how non-governmental organisations (NGOs) mobilises resources, deliver programmes, manage employees, report to donors, protect data and demonstrate organisational impact. However, digital transformation is frequently approached as a technology acquisition exercise rather than as a strategic governance and organisational-development challenge. This article examines how board governance and leadership behaviours shape the successful implementation of digital transformation frameworks in Nigerian NGOs. The study builds on empirical evidence from 317 respondents drawn from NGOs in South-South Nigeria. The underlying quantitative study examined transformational, transactional, visionary and collaborative leadership, corporate governance practices and financial sustainability using structured questionnaire data, multiple regression and moderation analysis. The findings demonstrated significant positive effects of transformational leadership ($\beta = 0.449$, $p = .048$), transactional leadership ($\beta = 1.290$, $p < .001$) and corporate governance ($\beta = 1.452$, $p < .001$) on financial sustainability, with the overall model explaining 77% of the variance. Corporate governance also significantly constrained the effect of transactional leadership under highly regulated conditions, suggesting that governance can simultaneously enable accountability and restrict managerial flexibility.

Building on these findings and contemporary digital-governance literature, the article develops a Board–Leadership Digital Transformation Governance Framework (BL-DTGF) comprising board digital oversight, strategic alignment, leadership behaviour, digital capability, change management, data governance, cybersecurity, performance accountability and continuous organisational learning. The article argues that successful digital transformation in NGOs depends less on technology acquisition than on the ability of boards and executives to establish strategic clarity, appropriate governance, leadership commitment, organisational readiness and mechanisms for learning and adaptation. The framework provides actionable guidance for NGO boards and senior management seeking to convert digital investments into sustainable organisational capability and measurable development impact.

Keywords: Digital Transformation, NGO governance, Board Governance, Leadership Behaviour, Organisational Development, Digital Strategy, Sustainability, Nigeria, Nonprofit Organisations, strategic management.

INTRODUCTION

Digital Transformation as a Governance Issue

Digital transformation is no longer simply an information-technology project. It represents a fundamental organisational change involving processes, people, structures, culture, decision-making and stakeholder relationships.

For NGOs, this transformation can involve electronic financial-management systems, digital procurement, cloud-based document management, electronic human-resource systems, mobile data collection, dashboards, digital monitoring and evaluation, automated donor reporting, cybersecurity systems, artificial intelligence and digital communication platforms.

The strategic challenge is that these systems rarely operate independently. A new financial system changes finance workflows; a digital M&E platform changes programme processes; cloud technology changes information governance; digital HR systems change employee practices; and AI changes decision-making.

Consequently, digital transformation can create substantial organisational value only when technology, leadership, governance and organisational capabilities evolve together.

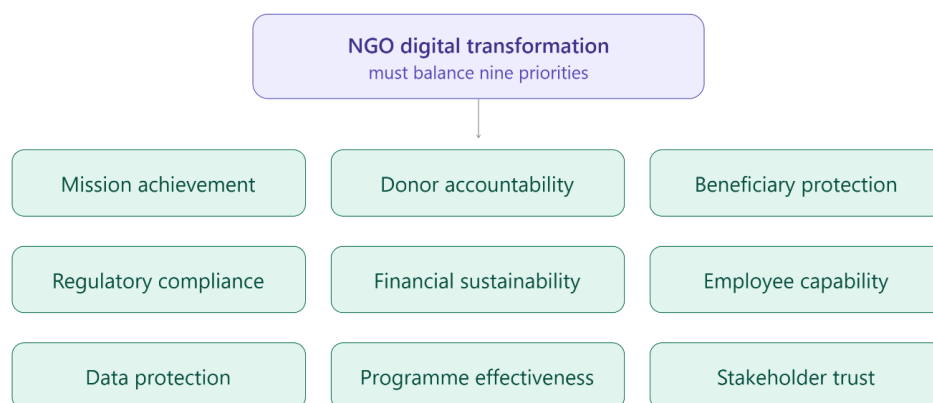
This makes digital transformation a boardroom issue.

The board does not need to manage software implementation. However, it should determine whether digital investments are aligned with organisational strategy, whether risks are adequately managed, whether management has the necessary capability, whether resources are being used responsibly and whether digital transformation is improving mission delivery.

The USA National Institute of Standard and Technology (NIST's) contemporary risk-management approach provides a useful illustration of this governance shift. Its AI Risk Management Framework emphasises organisational governance and the functions of Govern, Map, Measure and Manage rather than treating technology risk as solely an IT concern (NIST).

The NGO Digital Transformation Challenge

NGOs face a distinctive digital transformation environment.



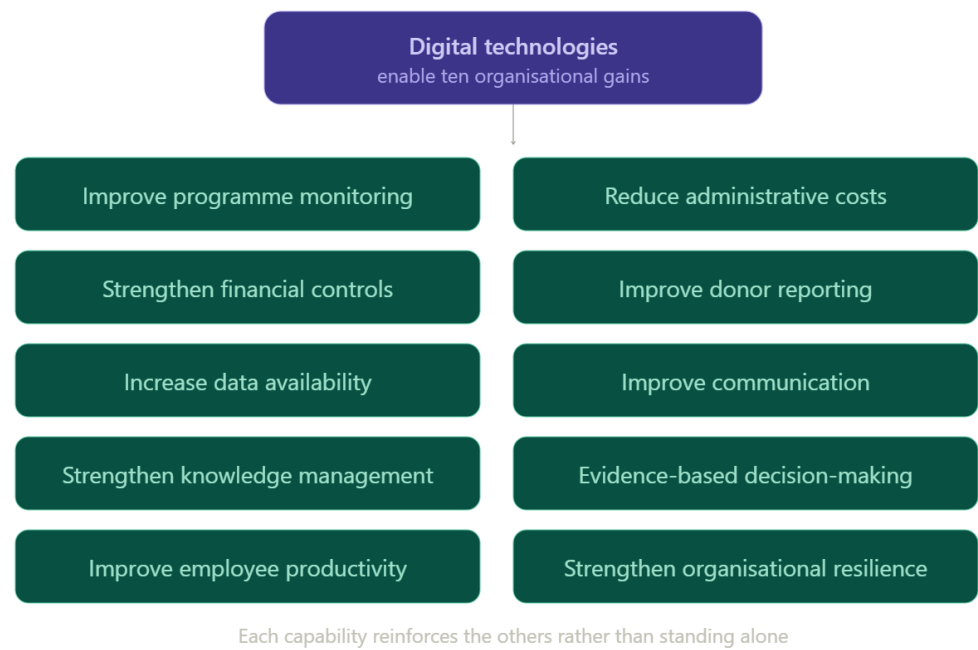
Unlike most private-sector organisations, NGOs must hold all nine in balance at once

Digital transformation therefore creates both opportunities and risks.

NGOs face unique digital transformation challenges because they must simultaneously balance mission achievement, programme effectiveness, financial sustainability, donor accountability, beneficiary protection, employee capability, regulatory compliance, stakeholder trust, and technological adaptation. Unlike profit-driven organisations, success cannot be measured by a single KPI (Moaz, & Awany, 2025). Digital investments must therefore according to Xia, et. al., (2025), strengthen organisational performance without compromising financial sustainability, data protection, employee readiness or regulatory obligations. Limited resources, skills gaps and compliance demands can constrain adoption. Consequently, NGO digital transformation requires an integrated governance framework that advances these interconnected priorities simultaneously while protecting stakeholder trust and sustaining long-term organisational and programme outcomes (Cordery, et. al., 2023).

Opportunities

Digital technologies can help NGOs:



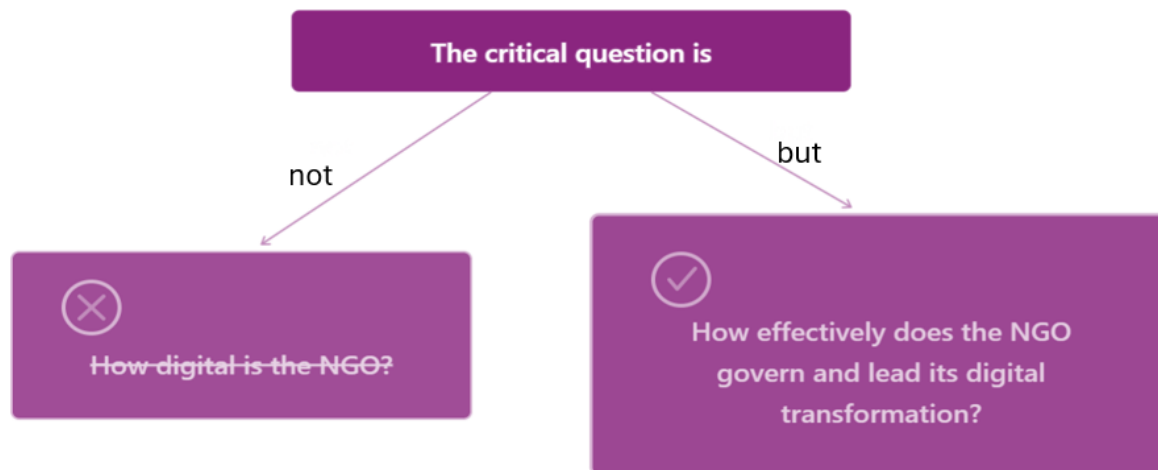
NGO digital transformation benefits are interconnected as shared data strengthens oversight, financial controls and donor reporting; automation improves efficiency and productivity; better data and knowledge enable evidence-based decisions; while communication and organisational resilience sustain operations during crises. Therefore, NGOs need not pursue separate initiatives for every benefit. A few integrated systems such as shared data, communication and knowledge platforms can deliver multiple strategic gains simultaneously (Obiakor, & Oruonyeije, 2025).

Risks

At the same time, poorly governed digital transformation can produce:



These risks are interconnected and largely reflect governance weaknesses rather than technology failures. Fragmented systems create interoperability problems and technical debt; cybersecurity and privacy failures undermine trust and adoption; vendor dependence increases costs; unreliable data weakens reporting and decisions; and technology spending without measurable value ultimately threatens organisational credibility and sustainability. Strong ownership, standards, coordination and oversight are therefore essential to achieving digital transformation benefits.



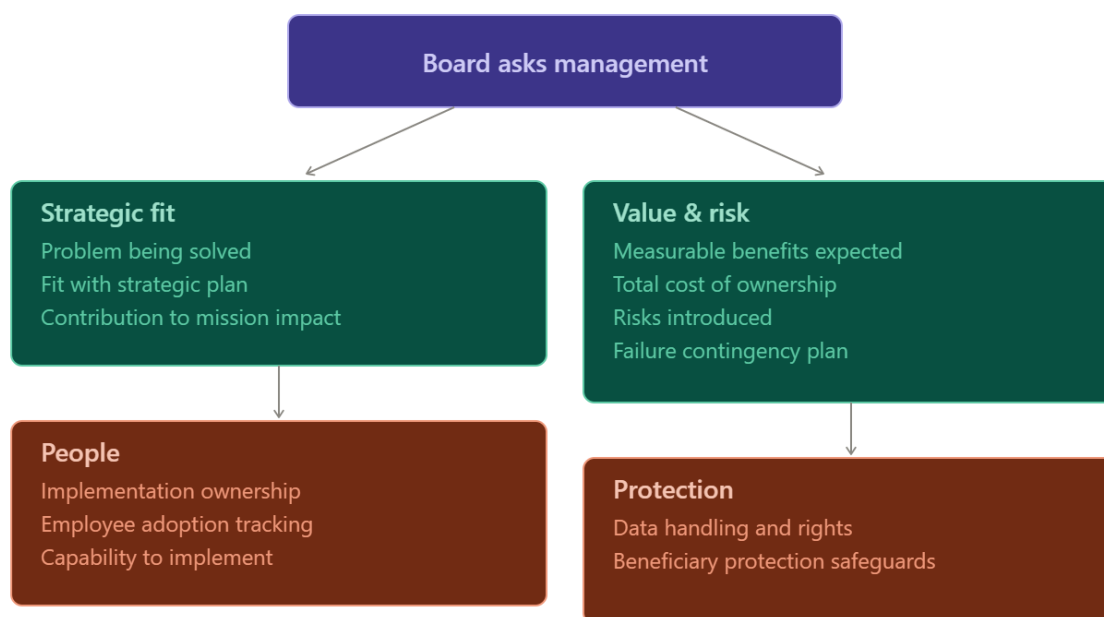
Digital maturity is a proxy; governance and leadership are the real driver

Digital maturity should not be measured by the number of technologies adopted, but by how effectively the NGO governs and leads transformation. Clear ownership, strategic alignment, staff capability, stakeholder buy-in, and adaptive leadership determine whether technology creates sustainable value or organisational risk.

The Board's Changing Role

The traditional NGO board often concentrates on financial oversight, regulatory compliance, fundraising, executive supervision and organisational accountability.

Digital transformation requires the board to add another dimension: digital strategic stewardship.



Twelve questions, four lenses: strategy, value, people, protection

The Leadership Problem

Digital transformation also changes the nature of leadership.

A technology implementation may fail even when the technology itself is technically sound because leaders fail to:

- Communicate The Purpose of Change;
- Involve Employees;
- Provide Training;
- Redesign Processes;
- Allocate Resources;
- Address Resistance;
- Establish Accountability; or
- Sustain Executive Attention.

The underlying empirical evidence from South-South Nigerian NGOs is highly relevant here.

Transformational leadership demonstrated a significant relationship with financial sustainability, while transactional leadership produced an even stronger coefficient.



Successful NGO digital transformation requires transformational leadership for vision, innovation and change, combined with transactional leadership for targets, accountability, monitoring and performance control.

Research Problem and Knowledge Gap

Existing digital-transformation discussions often emphasise technology, digital maturity, IT infrastructure and innovation. Governance and leadership are sometimes treated as supporting variables rather than as central determinants of transformation success.

This creates a significant research and practice gap.

An NGO may possess computers, cloud platforms, dashboards, digital finance systems, electronic HR systems, mobile applications, and AI tools, yet remain digitally immature if its board and leadership do not provide strategic direction, accountability and organisational alignment.

The empirical foundation for this article provides an important starting point. The underlying NGO study found strong relationships between corporate governance and financial sustainability, with corporate governance correlating at $r = .725$ with financial sustainability.

However, the study also found that governance could constrain transactional leadership when regulatory controls became excessive.

This creates an important insight for digital transformation:

Too little governance creates digital risk; too much bureaucracy can create digital paralysis.

The strategic challenge is therefore to establish adaptive governance.

Research Objectives

The main objective of this study is to examine how board governance and leadership behaviours shape successful digital transformation in Nigerian NGOs.

Specifically, the study seeks to:

- examine the role of board governance in digital transformation;
- determine how leadership behaviours influence digital transformation implementation;
- examine how strategic alignment affects digital transformation outcomes;
- identify organisational capabilities required for successful digital transformation;
- examine the role of employee engagement and change management;
- develop a practical governance framework for NGO digital transformation; and
- provide actionable guidance for boards and senior management of Nigerian NGOs.

Research Questions

- How does board governance influence successful digital transformation in NGOs?
- How do transformational and transactional leadership behaviours influence digital transformation implementation?
- How does strategic alignment affect the success of NGO digital transformation initiatives?
- What governance mechanisms are required to manage digital transformation risks?
- How does leadership behaviour influence employee acceptance and adoption of digital systems?
- How can boards balance digital innovation with accountability, cybersecurity, data protection and financial sustainability?
- What governance framework can guide sustainable digital transformation in Nigerian NGOs?

LITERATURE REVIEW

Concept of Digital Transformation

Digital transformation refers to the strategic use of digital technologies to produce significant changes in organisational processes, capabilities, structures, culture and value-creation activities (Vial, 2019; Nadkarni & Prügl, 2021). It therefore extends beyond simply acquiring or implementing technology and requires organisations to reconsider how they operate and deliver value to stakeholders.

Digitization

Digitization involves converting analogue information into digital formats, such as transforming paper records into electronic files (Jarvis, 2026).

Digitalization

Digitalisation involves applying digital technologies to improve or automate existing organisational processes, such as using electronic financial-management systems (Abera, 2025).

Digital Transformation

Digital transformation goes further by fundamentally changing organisational processes, capabilities, structures and culture through digital technologies (Mergel et al., 2019).

This distinction is particularly important for NGO boards. Buying a new accounting system is not, by itself, digital transformation. Redesigning the NGO's financial-management model around integrated, real-time, secure and decision-oriented information represents a deeper transformation of organisational capability and governance.

Board Governance and Digital Transformation

Board governance refers to the structures, responsibilities and processes through which an organisation is directed, monitored and held accountable to its stakeholders. Effective governance provides strategic oversight, risk management and accountability, while ensuring that organisational resources are used responsibly to achieve institutional objectives (Ortega-Rodríguez et al., 2024). Digital transformation consequently expands the board's responsibilities beyond traditional financial and operational oversight to include digital strategy, technology investment, cybersecurity, data governance, digital ethics, digital risk, organisational capability, vendor dependence, technology resilience and digital performance.

Contemporary governance literature emphasises the need for boards to understand emerging technologies and ensure that digital initiatives remain aligned with organisational objectives, stakeholder interests and risk-management requirements (Wessel et al., 2021). For NGOs, this responsibility is particularly important because digital systems increasingly process sensitive beneficiary, employee, donor and financial information. The board's responsibility is therefore not to choose software, but to ensure that digital investments create strategic value, manage emerging risks and strengthen organisational resilience, accountability and mission delivery.

Its responsibility is to ensure that management has answered:

Why this technology? Why now? What value? What risks? Who is accountable? How will success be measured?

Leadership Behaviours

The empirical study examined four leadership styles:

- transformational;
- transactional;
- visionary; and
- collaborative.

The study found that transformational and transactional leadership were particularly important predictors of financial sustainability. For digital transformation, these leadership behaviours can be translated into practical capabilities.

Leadership behaviour	Digital transformation application
Transformational	Creates digital vision

Transactional	Establishes accountability
Visionary	Anticipates future digital needs
Collaborative	Builds stakeholder participation

The strongest digital organisations are therefore unlikely to depend on a single leadership style.

They require a **leadership portfolio**.

Organisational Readiness

Digital transformation requires organisational readiness across five dimensions (Sheriffdeen, 2026):

Strategic readiness

Does digital transformation support the strategic plan?

Technological readiness

Does the organisation possess appropriate infrastructure?

Human readiness

Do employees have the skills and confidence required?

Financial readiness

Can the organisation sustain the investment?

Governance readiness

Can the organisation manage risk, accountability and compliance?

The last dimension is frequently underestimated.

Digital Culture

Technology adoption is ultimately a human process.

Employees may resist transformation because they fear:

- job displacement;
- increased monitoring;
- unfamiliar systems;
- increased workload;
- loss of autonomy;
- lack of competence; or
- poorly communicated change.

Leadership therefore needs to create a culture where digital transformation is understood as organisational improvement rather than technological imposition.

Theoretical Foundation

Three theories provide a strong foundation.

Agency Theory

Agency Theory explains the board's responsibility to monitor management and ensure that organisational resources are used appropriately. Digital transformation increases the importance of this relationship because technology investments may be complex and difficult for non-technical board members to evaluate.

Resource-Based View

Digital capability can become a strategic organisational resource when combined with skilled employees, effective leadership, reliable data and strong governance. The original NGO study also used the Resource-Based View to explain how leadership capability and governance structures contribute to sustainable performance.

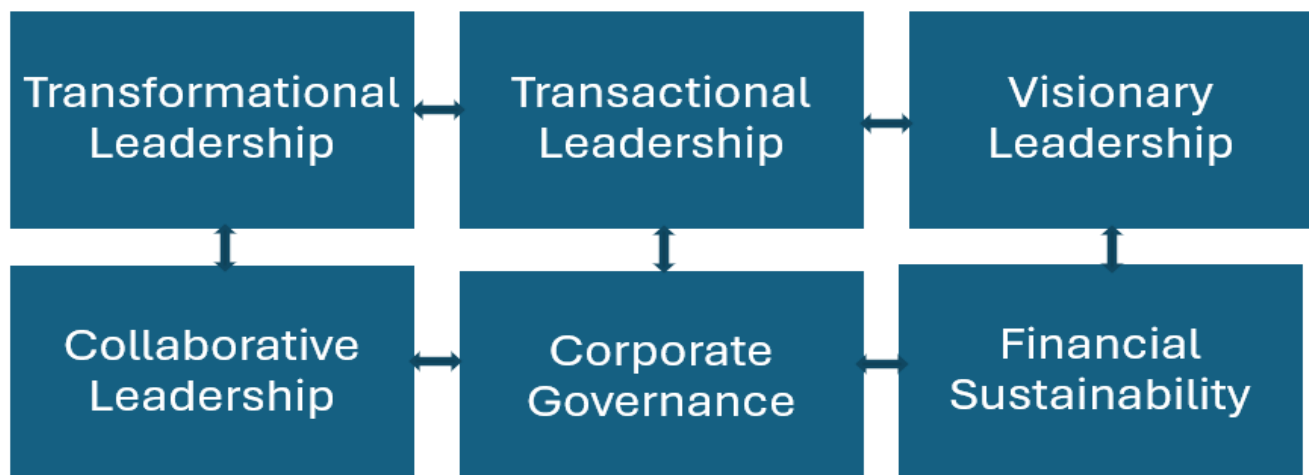
Dynamic Capabilities Theory

Dynamic Capabilities Theory provides a strong theoretical foundation for understanding digital transformation as an organisational-development process (Morgado & Gomes, 2024). The theory suggests that organisations must continuously adapt their resources and capabilities in response to changing technological and environmental conditions. First, organisations must sense emerging technological opportunities and threats by monitoring digital trends, stakeholder expectations, regulatory developments and operational challenges. Second, they must seize these opportunities by investing strategically in appropriate digital technologies, employee capabilities and organisational resources. Finally, organisations must transform by redesigning processes, structures, routines and organisational culture to embed digital capabilities sustainably. For NGOs, this means that digital transformation should extend beyond acquiring new technologies to developing the organisational capacity to use them effectively (Martínez-Peláez, et. Al., 2023; Cordery, et. al., 2023). Dynamic Capabilities Theory therefore explains why successful digital transformation requires continuous learning, strategic leadership, organisational flexibility and cultural adaptation rather than a one-time technology investment.

Empirical Foundation

The article's empirical foundation comes from the original NGO study involving 317 respondents in South-South Nigeria. The study adopted a quantitative survey design and used structured questionnaire data.

The study measured:



The model explained 77% of the variance in financial sustainability, with an F-statistic of 117.25 ($p < .01$).

Key Empirical Finding

Corporate governance had a strong positive association with financial sustainability ($r = .725$).

Strategic Interpretation

This provides a strong basis for arguing that digital transformation should be governed through the same institutional mechanisms that protect NGO sustainability such as accountability, oversight, leadership, controls and strategic resource management (Okafor, 2024). However, Okonkwo & Anele, (2026) stressed that because digital transformation was not directly measured in the original instrument, the article should describe the digital-transformation model as an empirically grounded framework derived from the evidence, rather than presenting digital transformation as a statistically tested variable.

Proposed Board–Leadership Digital Transformation Governance Framework

The Board Leadership - Digital Transformation Governance Framework (BL-DTGF) is the article's signature contribution, positioning digital transformation as an integrated governance and organisational-capability process rather than a technology project. The framework comprises eight interconnected pillars.

Pillar 1. Board Digital Stewardship establishes transformation priorities, governance responsibilities, risk appetite, investment boundaries and reporting requirements.

Pillar 2. Executive Digital Leadership translates board directions into coordinated implementation.

Pillar 3. Strategic Alignment requires every digital investment to address a clearly defined organisational problem and strategic objective.

Pillar 4. Digital Capability assesses employee skills, infrastructure, data quality, interoperability and vendor capability.

Pillar 5. Change Leadership ensures employees understand why change is necessary, what will change and how they will be supported (Vial, 2019; Hanelt et al., 2021).

Pillar 6. Data and Cyber Governance safeguards ownership, access, privacy, cybersecurity, backup, continuity and incident response.

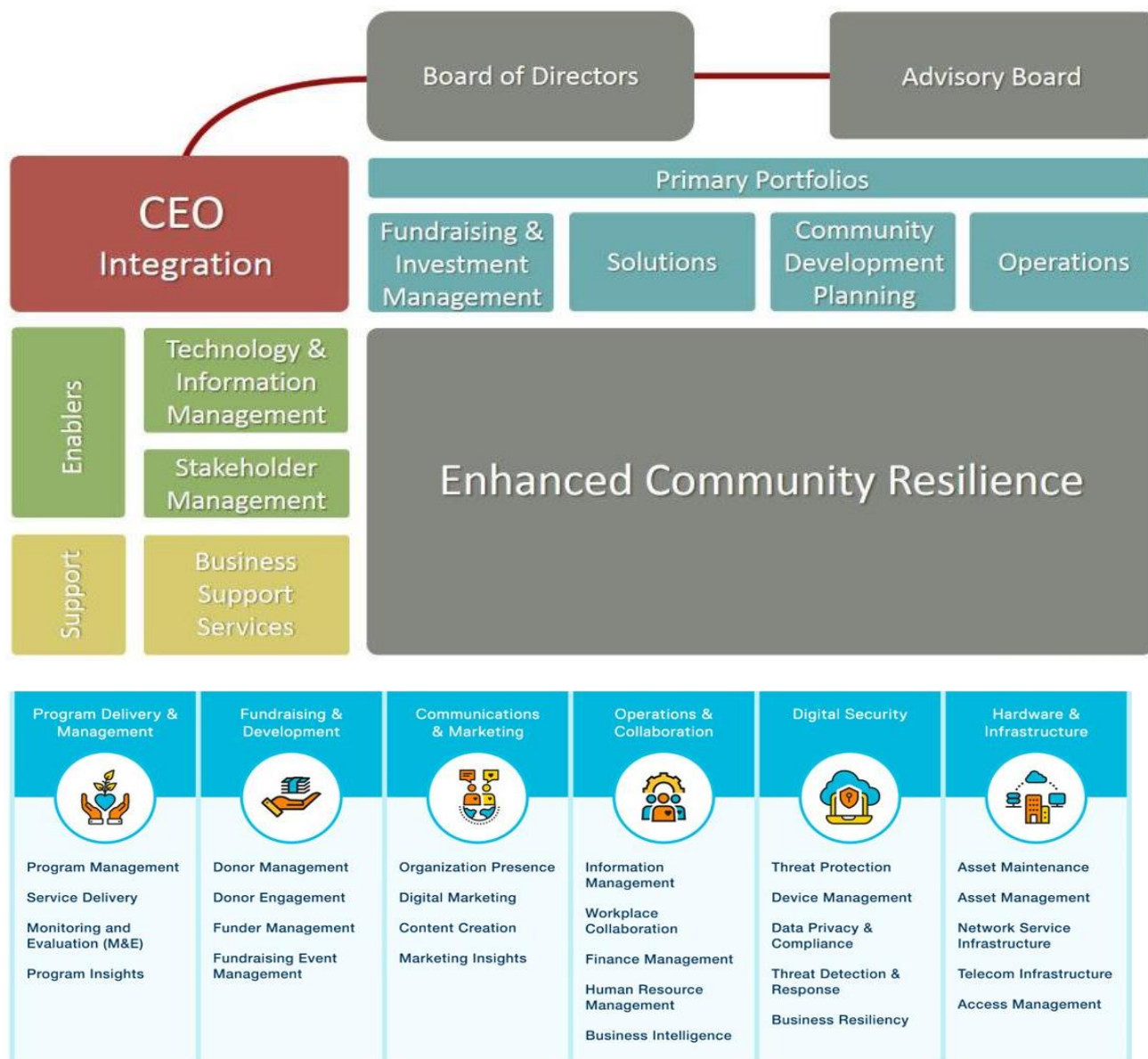
Pillar 7. Performance Accountability establishes measurable KPIs for value realisation. Finally,

Pillar 8. Continuous Learning institutionalises adaptation, ensuring transformation becomes an enduring organisational capability rather than a one-time project (Teece, 2007; Wessel et al., 2021).

5. The Framework in Practice

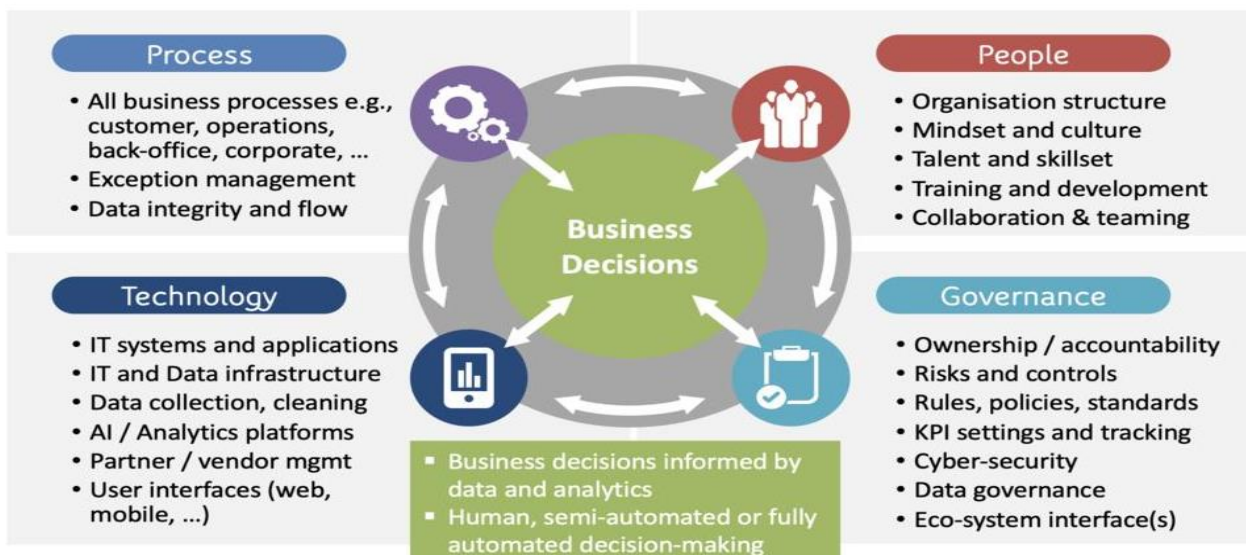
Governance model to implement our digital transformation strategy

Key Forums	Stakeholders	Focus	Required Deliverables	Meeting frequency	Meeting duration
Program Update to the Executive Committee	- Executive Director/CEO - Directors (Programs, Finance, HR, M&E, Operations) - Digital Transformation Lead - Communications Lead - Secretariat (for documentation)	Update the Executive Committee on progress made	- Strategic objectives dashboard - Digital transformation roadmap dashboard	Monthly	1 hour
Program Steering Committee	- Executive Director/CEO - Program Directors - Digital Transformation Lead - Finance Manager - M&E Manager - IT/Data Lead - HR Manager	Successful implementation of the program	- Strategic objectives dashboard - Digital transformation roadmap dashboard - Program dashboard	Bi-Weekly	1 hour
Project Steering Committee	- Project Manager - Project Team Leads - IT/Systems Specialist - M&E Officer - Finance Officer - Procurement Officer - Change Management Champion	Successful implementation of the project	- Project dashboard - Project plan	Weekly	45 min



Digital Transformations must be business-led

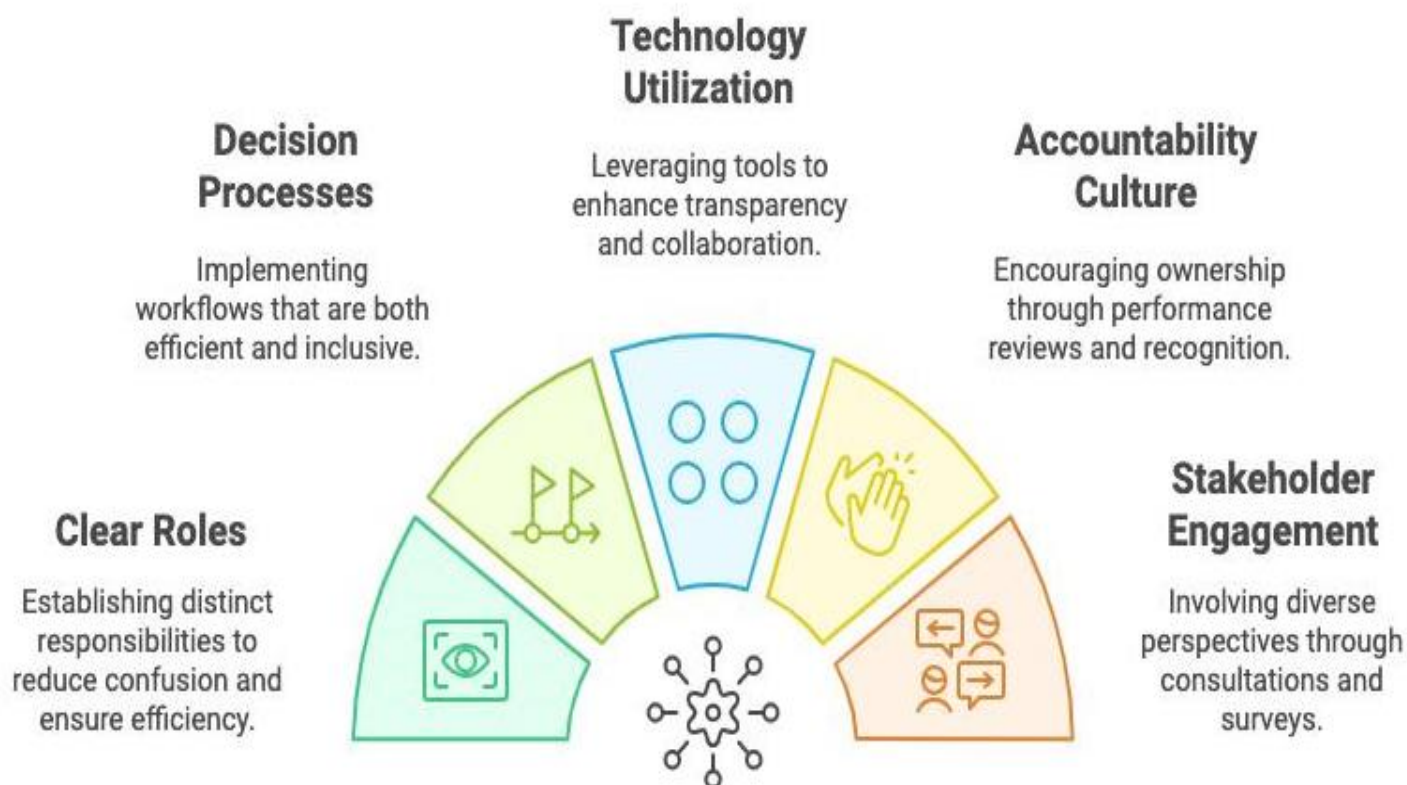
An integrated approach supports embedding technology long-term



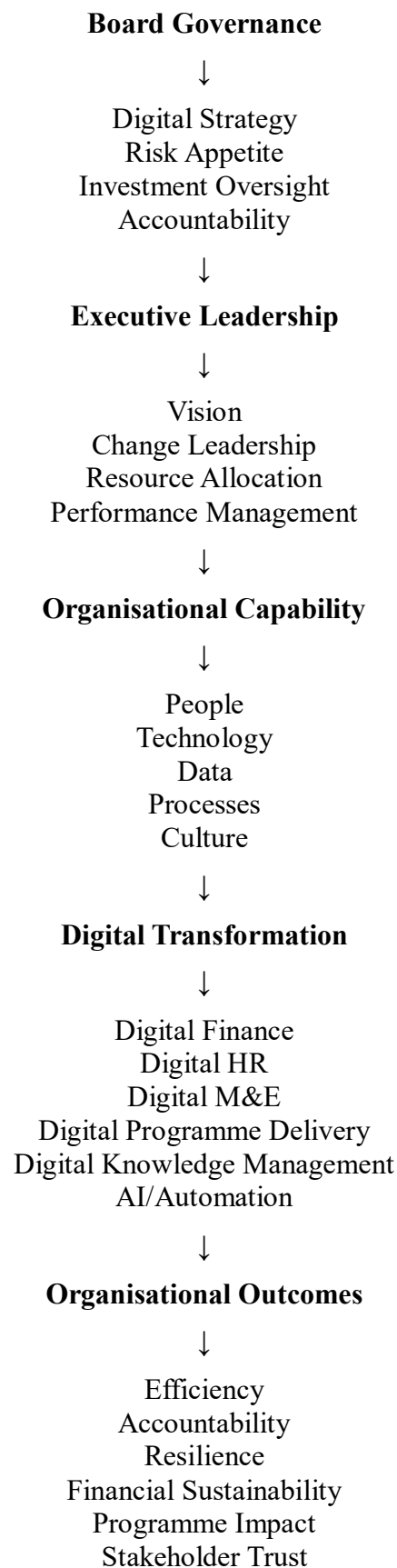
Organizational / Digital Transformation Framework



Enhancing Governance Through Technology



The framework can be represented as:



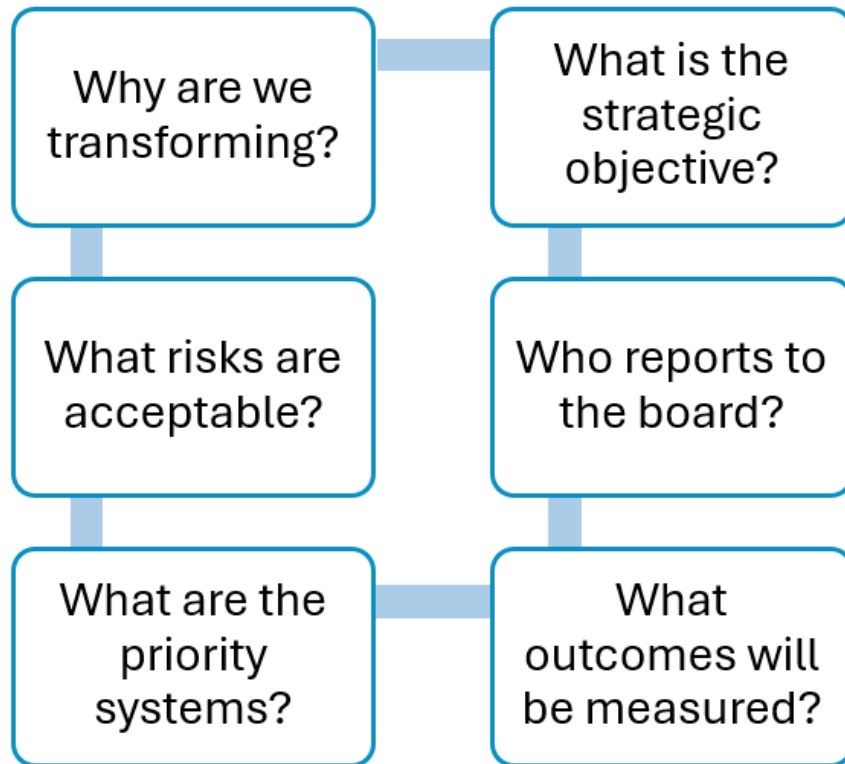
An Actionable Governance Model for an NGO Such as ECEWS

This is where I would make the article particularly valuable to practitioners.

What the Board Should Do

Approve a Digital Transformation Charter

The board should approve a short document answering:



Establish Board Digital Oversight

Digital transformation should become a standing agenda item within the relevant board committee.

The board should receive a **quarterly Digital Transformation Dashboard**.

Require Business Cases

No major technology expenditure should be approved solely because:

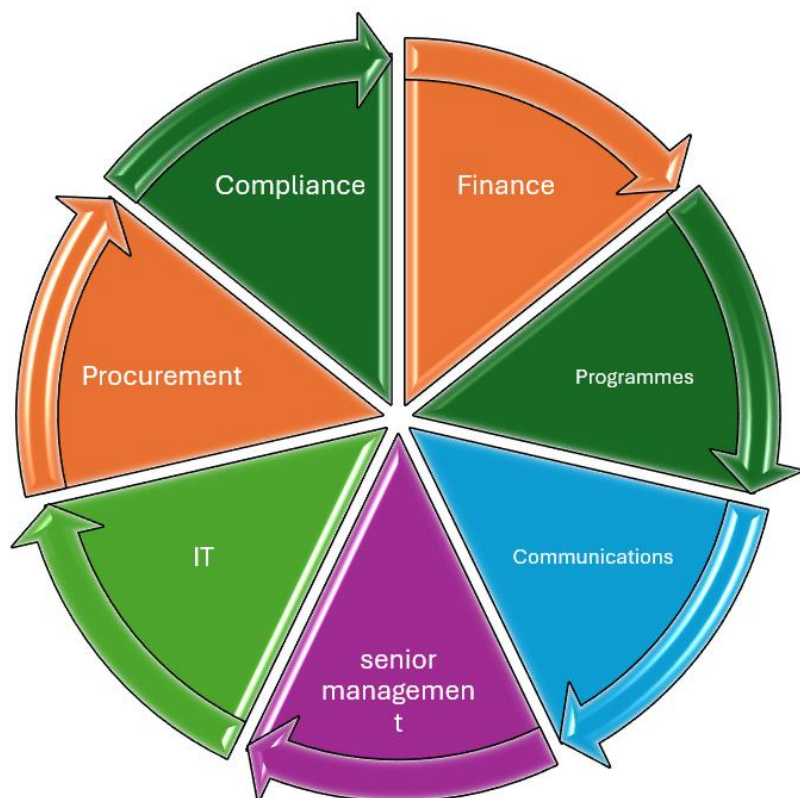
"Other organisations are using it."

Every proposal should demonstrate:



What the CEO/Executive Director Should Do

The CEO should establish a Digital Transformation Steering Team comprising representatives from:

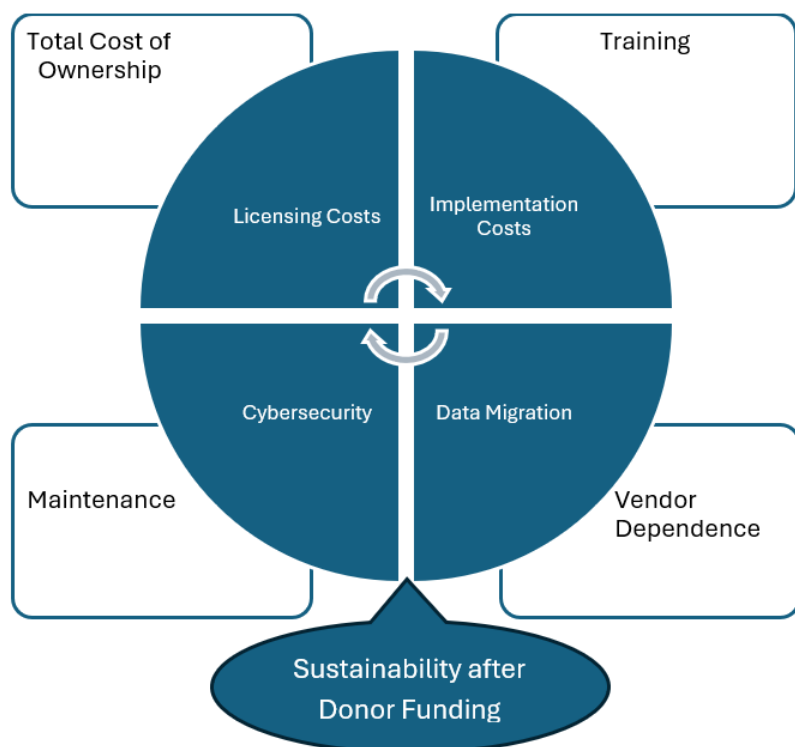


This prevents digital transformation from becoming an IT-only initiative.

What the CFO/Finance Director Should Do

Finance should not simply process technology expenditure.

The finance function should assess:



This is particularly important for NGOs because donor-funded technology can become an unfunded recurrent cost after a project closes.

What HR Should Do

HR should develop a Digital Capability Matrix.

Competency	Current Level	Required Level	Gap	Intervention
Digital literacy	2	4	2	Training
Data literacy	2	4	2	Coaching
Cybersecurity awareness	2	5	3	Mandatory training
Digital collaboration	3	4	1	Practice
AI literacy	1	3	2	Executive workshop

This turns digital transformation into a people-development programme.

What Programme Directors Should Do

Programme leaders should identify where technology can improve:

- Beneficiary Registration
- Service Delivery
- Programme Monitoring
- Field Reporting
- Data Quality
- Outcome Measurement
- Partner Management
- Donor Reporting.

The guiding principle should be that technology to simplify programme delivery, not create additional administrative burdens for programme teams.

What the Board Should Measure

I recommend a **Digital Transformation Board Scorecard**.

Dimension	KPI	Board Question
Strategy	% initiatives aligned to strategy	Are we investing strategically?
Adoption	% active users	Are staff actually using the systems?
Efficiency	Processing-time reduction	Is technology creating efficiency?
Financial	Cost savings/ROI	Are investments sustainable?
Data	Data-quality score	Can management trust the data?
Cybersecurity	Critical incidents	Are organisational assets protected?
People	Training completion	Are employees ready?
Change	User satisfaction	Is the transformation accepted?
Programme	Digital contribution to outcomes	Is technology improving impact?
Governance	Risk issues resolved	Is management controlling digital risk?

A 12-Month Implementation Roadmap

Phase 1: Months 1–2 — Board Readiness

Actions



Phase 2: Months 3–4 — Strategy

Develop:

NGO Digital Transformation Strategy 2027–2030

Covering:



Phase 3: Months 5–7 — Pilot

Select **2–3 high-value transformation projects**.

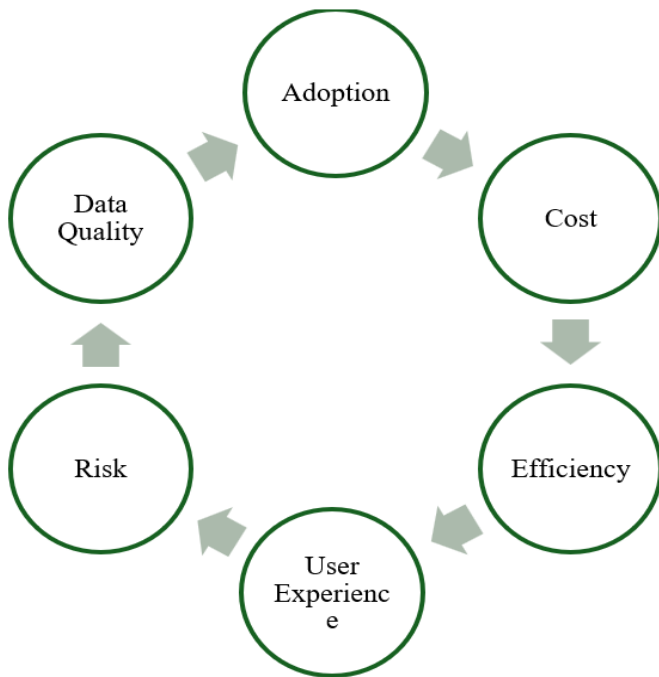
For example:

1. Integrated Digital Financial Management;
2. Digital Programme/M&E Dashboard;
3. Electronic Document/Knowledge Management.

Do not transform everything simultaneously.

Phase 4: Months 8–10 — Scale

Evaluate:



Scale only successful initiatives.

Phase 5: Months 11–12 — Institutionalisation

Integrate digital transformation into:

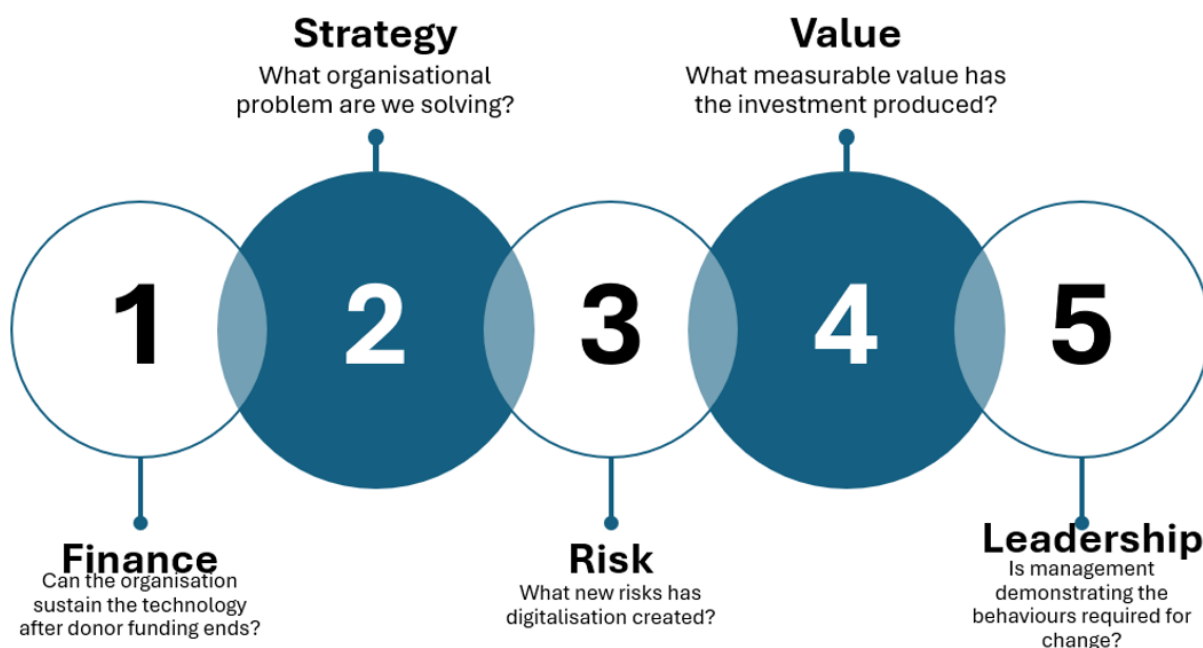


At this stage, digital transformation moves from project to organisational capability.

The Board's Digital Transformation Questions

At every board meeting, directors should ask the following:

This could become one of the most useful practical contributions of the paper.



DISCUSSION

The central finding from the empirical foundation is that leadership and governance are not peripheral organisational variables; they are closely connected to NGO sustainability. Transformational leadership was positively associated with financial sustainability, while transactional leadership demonstrated a stronger direct effect. Corporate governance was also strongly associated with financial sustainability. These findings provide an important foundation for understanding digital transformation, which requires both strategic direction and disciplined implementation. Contemporary NGO research similarly emphasises that digital transformation creates significant governance, accountability and resource challenges because NGOs must respond to diverse stakeholders, funders and regulatory expectations (Cordery et al., 2023).

The implication is that digital transformation should not be delegated exclusively to IT. The Board owns transformation governance; the CEO owns executive mobilisation; management owns implementation; employees' own adoption; while the Board and management jointly own organisational outcomes. Effective governance must therefore provide accountability without suppressing innovation. The significant negative moderation between transactional leadership and governance further cautions against excessive bureaucracy. Accordingly, NGOs should govern enough to protect the organisation, but not so much that innovation, responsiveness and organisational learning become impossible.

Practical Contribution to NGO Board Governance

The article's principal practical contribution is a shift from technology governance to transformation governance. Technology governance asks, "Is the system secure and compliant?" whereas transformation governance asks whether the organisation is changing in the right direction, for appropriate strategic reasons, with the right people, controls, resources and measurable outcomes. This distinction is particularly important for NGOs because digital transformation must balance organisational effectiveness, accountability, stakeholder expectations and resource constraints (Cordery et al., 2023).

A technically successful project can nevertheless become an organisational failure when employees do not use it, processes remain unchanged, training is inadequate, data quality is poor, costs become unsustainable, systems cannot integrate, leadership commitment declines, or beneficiaries experience no meaningful improvement. Therefore, boards should govern outcomes, organisational capability and mission value not

merely technology implementation. This requires continuous oversight of adoption, value realisation, risk, capability, sustainability and beneficiary impact.

CONCLUSION

Digital transformation represents one of the most significant strategic opportunities and governance challenges facing Nigerian NGOs.

For organisations such as ECEWS, digital transformation can strengthen financial management, programme delivery, M&E, knowledge management, donor reporting and organisational resilience. However, technology alone cannot deliver these outcomes.

The empirical evidence underlying this article demonstrates that leadership and governance are already important determinants of NGO sustainability. The strong explanatory power of the original model and the significant effects of transformational leadership, transactional leadership and corporate governance provide an important institutional foundation for extending the discussion into digital transformation.

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