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Governing innovation with evidence: Innovation governance, evidence-informed decision-making and public institutional performance in Nigeria

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ABSTRACT

Public institutions are expected to innovate while preserving legality, accountability and public value. Yet innovation governance and evidence-informed decision-making are often treated as separate reform agendas, leaving unclear how each contributes to organisational performance. This study develops an integrated organisational-capability perspective and examines the associations of innovation governance and evidence-informed decision-making with perceived public institutional performance in Nigeria. A cross-sectional questionnaire survey was conducted across selected ministries, departments and agencies, yielding 234 analysable responses. Multiple regression results indicate that the two capabilities jointly explained 29.9% of the variance in perceived institutional performance. Innovation governance was positively associated with performance ($B = .170$, $\beta = .156$, $p = .005$), while evidence-informed decision-making showed the stronger association ($B = .396$, $\beta = .397$, $p < .001$). The findings suggest that structures for directing, coordinating and learning from innovation are important and that evidence-informed decision-making has the stronger independent association with perceived performance in the estimated model. The article contributes by positioning innovation governance and evidence use as distinct, related and potentially complementary organisational capabilities and by extending institution-level evidence from an under-represented African administrative context. Because the design is cross-sectional and perception-based, the results support association rather than causal inference.

Keywords: *evidence-informed decision-making; innovation governance; Nigeria; public institutional performance; public sector innovation; public administration*

I. INTRODUCTION

Public institutions face a difficult dual mandate. They must innovate in response to technological change, fiscal pressure and increasingly complex social problems, while remaining lawful, accountable and oriented towards public value. Innovation in this setting is not

simply the adoption of a new technology or administrative technique. It involves the organised introduction, testing, adaptation and institutionalisation of new services, processes, policies or governance arrangements (de Vries et al. 2016; Hartley et al. 2013). The public character of the organisation changes the problem: experimentation must coexist with procedural fairness, political oversight and the responsible use of public resources.

Evidence-informed decision-making has emerged as a parallel reform priority. The term is preferable to the stronger language of evidence-based decision-making because public decisions are rarely determined by evidence alone. They involve legal mandates, political values, stakeholder interests, administrative feasibility and distributive choices. Evidence can nevertheless improve the diagnosis of problems, appraisal of options, monitoring of implementation and learning from results (Head 2016; OECD 2020). The central organisational question is therefore not whether evidence replaces judgement, but whether public institutions possess the capability to obtain, interrogate and apply credible information within legitimate decision processes.

These two reform agendas are closely connected but analytically distinct. Innovation governance determines who may initiate change, how experimentation is authorised, how risks and responsibilities are allocated, and how learning is incorporated into subsequent action. Evidence-informed decision-making concerns the routines through which research, administrative data, evaluation findings, professional knowledge and stakeholder information are assessed and used. An institution may possess formal innovation structures while making poorly informed choices. Conversely, it may have technically competent analysts but lack the authority, coordination and leadership needed to convert evidence into organisational change. Treating either capability in isolation therefore risks mistaking the presence of reform instruments for effective institutional capacity.

Existing scholarship provides strong foundations but leaves three gaps. First, reviews of public-sector innovation identify leadership, organisational capacity, collaboration and learning as important antecedents, yet many studies remain weakly connected to the literature on information use (de Vries et al. 2016). Second, research

on evidence use shows that access, organisational culture, time, expertise and information architecture shape whether evidence enters decisions, but it rarely examines the governance of innovation as a complementary capability (Cantarelli et al. 2023; Raymaekers et al. 2026). Third, institution-level quantitative evidence from African public administrations remains limited, despite administrative settings in which infrastructure constraints, fragmented data systems and strong political-administrative pressures may make capability conversion especially consequential.

Nigeria offers an important setting for examining these relationships. Public institutions are being asked to improve service delivery, expand digital government and use data more strategically, while operating within heterogeneous organisational and infrastructural conditions. National digital-policy frameworks emphasise institutional architecture, interoperability and the strategic use of information, but implementation capacity varies across agencies (Federal Ministry of Communications and Digital Economy 2019). Studying organisational perceptions within Nigerian ministries, departments and agencies therefore contributes both contextual evidence and a test of whether relationships established largely in higher-income administrative systems travel to a different institutional environment.

This article asks: To what extent are innovation governance and evidence-informed decision-making associated with perceived public institutional performance in Nigerian public institutions? It makes three contributions. Conceptually, it distinguishes governance architecture for innovation from organisational capability for evidence use. Theoretically, it integrates public-sector innovation research with an information-processing view of administrative decision-making. Empirically, it provides institution-level evidence from Nigeria and compares the relative associations of the two capabilities with perceived performance. The analysis does not claim causality; rather, it identifies organisational associations that can guide more demanding longitudinal and multi-level research.

II. THEORETICAL FRAMEWORK AND HYPOTHESES

An organisational-capability perspective provides the connecting logic for the study. Public institutions confront uncertainty because policy problems are ambiguous, information is incomplete and innovation outcomes cannot be fully specified in advance. They therefore require structures that coordinate experimentation and routines that process information. Innovation governance addresses the first requirement; evidence-informed decision-making capability addresses the second. Public institutional performance is expected to improve when institutions can both direct change and learn intelligently from evidence.

Innovation governance as an organisational capability

Innovation governance refers to the formal and informal arrangements through which innovation is initiated, authorised, coordinated, resourced, monitored and evaluated. It includes strategic priorities, leadership responsibility, rules for

experimentation, cross-unit coordination, accountability mechanisms and processes for learning from success and failure. Public-sector innovation is particularly dependent on governance because the consequences of failure extend beyond commercial loss to legitimacy, rights, equity and public trust (Ansell and Torfing 2014; Hartley et al. 2013).

Effective governance does not mean maximising control. Excessively rigid procedures can suppress exploration, while unconstrained experimentation can fragment resources and weaken accountability. The relevant capability is the ability to combine direction with adaptive learning. Strategic clarity helps officials connect local initiatives to institutional objectives; coordination reduces duplication and supports the mobilisation of complementary expertise; and evaluation allows institutions to stop, adapt or scale initiatives on the basis of learning. Studies of public innovation show that innovation type, organisational context and learning orientation influence whether new practices generate performance gains (Salge and Vera 2012; Walker 2006).

From a capability perspective, governance arrangements affect performance by shaping the conversion of ideas into legitimate and sustained organisational action. Clear authority reduces uncertainty about who can act. Accountability arrangements define acceptable risk and protect public value. Cross-functional coordination enables the integration of operational, legal, financial and technical knowledge. Learning mechanisms prevent innovation from remaining a succession of disconnected pilots. Institutions with stronger innovation governance should therefore be better able to improve operational effectiveness, responsiveness and service quality.

H1. Innovation governance is positively associated with perceived public institutional performance.

Evidence-informed decision-making as an organisational capability

Evidence-informed decision capability is the organisational capacity to identify relevant information, assess its quality, interpret its implications and incorporate it into choices. Evidence is understood broadly to include research, statistics, administrative records, programme evaluation, professional expertise and systematically gathered stakeholder information. The capability is organisational rather than merely individual: skilled analysts cannot compensate indefinitely for inaccessible data, weak knowledge-brokering arrangements or incentives that reward symbolic compliance rather than learning (OECD 2020; Oliver et al. 2014).

Information-processing research shows that decision quality depends both on information architecture and on the behavioural and organisational mechanisms through which information is interpreted (Cantarelli et al. 2023). Public organisations are especially reliant on formal structures, which determine where expertise is located, how information moves and which forms of advice reach decision-makers. Recent organisational scholarship on evidence use similarly argues that the horizontal and vertical

organisation of expertise conditions the influence of scientific knowledge on policy (Christensen 2026). Evidence use is therefore not a neutral technical act; it is produced by organisational design, culture, resources and authority.

Evidence capability can improve performance in several ways. It supports more accurate problem definition, makes trade-offs more visible, strengthens monitoring, and enables the comparison of expected and realised outcomes. Performance information is most likely to be used when measurement systems are mature, leadership is supportive, goals are clear and analytical support is available (Kroll 2015; Moynihan and Pandey 2010). Empirical work also shows that organisational culture, information access, time and personnel are associated with evidence-informed practice (Raymaekers et al. 2026). These mechanisms suggest a direct relationship between evidence-informed decision-making and institutional performance.

H2. Evidence-informed decision-making is positively associated with perceived public institutional performance.

Integrated capability model

The two capabilities are expected to make separate contributions. Innovation governance structures action; evidence-informed decision-making structures learning. Governance without evidence may produce coordinated but poorly targeted change. Evidence without governance may generate analysis that is not authorised, resourced or incorporated into implementation. The present regression model estimates their additive associations rather than a statistical interaction, so the study does not test complementarity in the strict econometric sense. The integrated framework nevertheless clarifies why both belong in the same explanatory model and provides a basis for future research on mediation, moderation and temporal sequencing.

Figure 1 presents the model tested in this study. Innovation governance capability and evidence-informed decision-making capability are specified as distinct predictors of perceived public institutional performance. Institutional context—including leadership, staff capability, data infrastructure and political-administrative incentives—forms the environment in which these capabilities are enacted, but these contextual features were not separately estimated in the available model.

Table 1. Construct definitions and analytical roles

Construct	Definition	Illustrative organisational indicators	Role in model
Innovation governance	Arrangements through which innovation is directed, authorised, coordinated, monitored and learned from.	Strategic priorities; leadership responsibility; cross-unit coordination; accountability; evaluation and learning.	Predictor (H1)
Evidence-informed decision-making	Organisational capability to access, assess, interpret and apply credible evidence in administrative choices.	Research and data access; analytical routines; evaluation; knowledge brokering; documented evidence use.	Predictor (H2)
Public institutional performance	Perceived effectiveness with which a public institution fulfils its mandate and creates public value.	Operational effectiveness; responsiveness; transparency; accountability; service quality.	Dependent variable

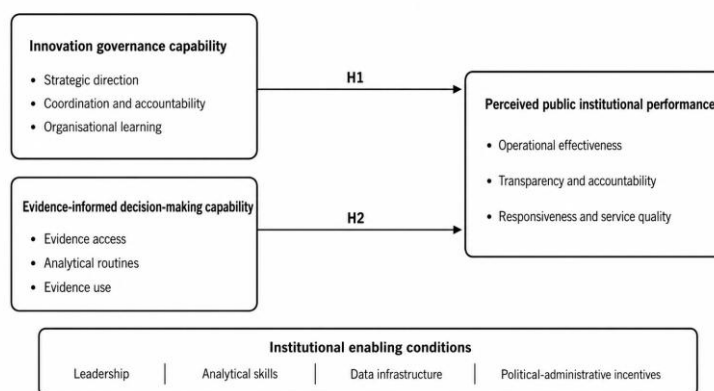


Figure 1. Integrated organisational-capability model. Innovation governance capability and evidence-informed decision-making capability are modelled as distinct, potentially complementary predictors of perceived public institutional performance. Solid arrows represent the direct relationships tested.

III. METHOD

Research design and setting

The study used a cross-sectional quantitative survey design. This design is appropriate for estimating associations among organisational constructs at a defined point in time, but it does not establish temporal order or causation. The empirical setting comprised selected Nigerian public institutions, including ministries, departments and agencies involved in administrative and service-delivery functions.

Institutions were selected purposively on the basis that they had identifiable innovation, digitalisation or administrative-reform activities. Within participating institutions, the sampling plan combined stratification across administrative units and job categories with purposive inclusion of respondents occupying strategically relevant roles. The final analysable sample comprised 234 responses.

Measures and instrument quality

Data were collected using a structured Likert-type questionnaire. The instrument covered three domains: innovation governance, evidence-informed decision-making and public institutional performance. Innovation governance items assessed the presence of structures and practices for directing, coordinating and evaluating innovation. Evidence-informed decision items assessed the use of research, data and evaluation in organisational choices. Public institutional performance captured respondents' assessments of effectiveness, responsiveness, transparency and service delivery. The instrument was reviewed by specialists in public administration and research methodology and was pilot-tested to improve clarity. Internal-consistency coefficients exceeded the conventional .70 threshold for all constructs.

Analytical strategy

Multiple linear regression was used to estimate the associations of innovation governance and evidence-informed decision-making with perceived public institutional performance. Diagnostic checks indicated acceptable independence of residuals (Durbin-Watson = 1.883) and no problematic multicollinearity (tolerance = .613; VIF = 1.301 for both predictors). Linearity, homoscedasticity and residual normality were also reported as satisfactory. Given the cross-sectional, self-report design, coefficients are interpreted as conditional associations rather than causal effects.

Model adequacy was evaluated using R^2 and adjusted R^2 , while predictor estimates were interpreted using unstandardised coefficients, standardised coefficients and p values. Durbin-Watson, tolerance and variance inflation factors were used as supplementary diagnostic indicators.

IV. RESULTS

The two-predictor model accounted for 29.9% of the variance in perceived public institutional performance ($R^2 = .299$; adjusted $R^2 = .293$; $F(2, 231) = 49.26$, $p < .001$). This represents a substantively

meaningful proportion for a cross-sectional organisational-perception model, while also indicating that most variation is attributable to factors outside the model.

Innovation governance was positively associated with perceived institutional performance ($B = .170$, $\beta = .156$, $p = .005$), supporting H1. Evidence-informed decision-making was also positively associated with performance ($B = .396$, $\beta = .397$, $p < .001$), supporting H2. The larger standardised coefficient for evidence-informed decision-making indicates a stronger association within this model. Multicollinearity diagnostics were within acceptable limits, suggesting that the predictors captured related but distinguishable organisational capabilities.

Table 2. Multiple regression results predicting perceived public institutional performance

Predictor	B	β	p	Tolerance	VIF
Innovation governance	.170	.156	.005	.613	1.301
Evidence-informed decision-making	.396	.397	< .001	.613	1.301

Note. $N = 234$. Model $R = .547$; $R^2 = .299$; adjusted $R^2 = .293$; $F(2, 231) = 49.26$, $p < .001$; Durbin-Watson = 1.883. B = unstandardised coefficient; VIF = variance inflation factor.

V. DISCUSSION

The results support the central argument that public institutional performance is associated with both the governance of innovation and the routine use of evidence. Innovation governance showed a positive relationship with performance after evidence-informed decision-making was included in the model. This finding is consistent with public-innovation research that emphasises strategic direction, coordination, learning and accountability as conditions for converting new ideas into durable improvements (de Vries et al. 2016; Hartley et al. 2013). It also reinforces the view that innovation should be understood as an organisational process rather than a collection of isolated projects.

Evidence-informed decision-making displayed the stronger association. This should not be interpreted to mean that evidence is mechanically decisive or that political judgement is undesirable. Instead, it suggests that institutions are more likely to be perceived as effective, transparent and responsive when research, administrative data and evaluation are routinely incorporated into decisions. The result aligns with evidence-use scholarship showing that information access, organisational culture, analytical support and time are central to evidence-informed practice (Head 2016; OECD 2020; Raymaekers et al. 2026).

Theoretically, the study contributes by separating two organisational problems that are often conflated. The first is an action-governance problem: how can public institutions authorise and coordinate experimentation while preserving accountability? The second is an information-processing problem: how can they distinguish credible signals from noise and incorporate learning into choices? Innovation governance addresses the architecture of

action; evidence-informed decision-making capability addresses the architecture of learning. Their simultaneous inclusion allows the study to estimate their independent associations within a common model.

The Nigerian setting adds contextual significance. Public-administration scholarship on evidence use and innovation is dominated by Europe, North America and other high-capacity administrative systems. In settings where data infrastructures, analytical staffing and inter-agency coordination are uneven, organisational capability may matter more because formal policy commitments do not automatically translate into implementation. The positive associations found here are consistent with the capability logic in this setting, but the mechanisms should not be assumed to be identical. Political-administrative incentives, resource constraints and informal practices may influence how governance structures and evidence routines operate.

The findings also caution against symbolic reform. Establishing an innovation unit, issuing a digital strategy or purchasing a data platform does not itself create capability. Governance instruments must be linked to authority, resources and learning. Similarly, data availability must be connected to quality assurance, interpretation and decision rights. The stronger coefficient for evidence-informed decision-making may reflect the immediate operational value of these routines, while innovation governance may exert more indirect or longer-term effects that a cross-sectional model underestimates.

VI. IMPLICATIONS FOR PUBLIC ADMINISTRATION

Public leaders should treat innovation governance as an institutional system. Clear sponsorship, criteria for selecting initiatives, cross-functional review, risk management and explicit stop-adapt-scale decisions can reduce fragmentation. Innovation portfolios should record not only outputs but also the evidence used, assumptions tested and lessons incorporated.

Evidence capability requires investment at several levels. Individually, officials need skills to obtain, assess and apply evidence. Organisationally, institutions need interoperable data, access to research, evaluation routines, knowledge brokers and protected time for analysis. Systemically, incentives should reward learning and transparent justification rather than the production of favourable statistics. These priorities are consistent with international guidance on evidence-informed policymaking and data-driven public sectors (OECD 2019, 2020).

For Nigerian reform programmes, the practical sequence is important. Institutions should first diagnose gaps in governance and evidence use separately. They can then align innovation mandates with data and evaluation capacity, create cross-unit evidence reviews for major initiatives, and publish learning summaries that distinguish successful outcomes from informative failure. TETFund and other public funders can reinforce this approach by requiring credible evaluation plans and reusable institutional learning as part of project accountability.

VII. LIMITATIONS AND FUTURE RESEARCH

Several limitations require a cautious interpretation. First, the study is cross-sectional and cannot establish whether stronger capabilities improve performance or whether better-performing institutions are more likely to develop those capabilities. Longitudinal and panel designs are needed to assess temporal order. Second, the variables are based on respondent perceptions collected through a common instrument, creating risks of common-method variance and social-desirability bias. Future studies should combine survey data with administrative indicators, audit evidence and independent service-performance measures.

Third, the sampling design and institutional coverage limit generalisability. The study concerns selected Nigerian public institutions rather than a probability sample of the entire public sector. Multi-site studies should report institutional type, level of government and policy sector and test whether relationships vary across service-delivery, regulatory and policy organisations. Fourth, item-level measurement information and complete disaggregated reliability statistics were unavailable for the present analysis. Future research should publish the full instrument, validate the constructs through factor analysis and test measurement invariance across organisational groups.

Finally, the current model estimates additive direct effects. It does not test whether evidence capability mediates the influence of innovation governance, whether the two capabilities interact, or whether leadership, data infrastructure and political support condition their effects. These are important next steps. A particularly promising design would follow innovation projects over time and examine how governance arrangements shape evidence generation, how evidence changes implementation choices and how both affect objective outcomes.

VIII. CONCLUSION

Public institutions cannot improve by innovation rhetoric or data accumulation alone. They require governance arrangements that authorise and discipline change and organisational routines that make credible evidence usable. This study finds that innovation governance and evidence-informed decision-making are each positively associated with perceived performance in Nigerian public institutions, with evidence-informed decision-making showing the stronger association.

The contribution is not a claim that evidence displaces politics or that formal governance guarantees innovation. It is a more modest and testable proposition: institutions perform better when they can organise change and learn systematically. Building those capabilities together offers a more credible route to adaptive, accountable and responsive public administration.

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