

RESPONSIBLE GOVERNANCE OF GENERATIVE AI IN HIGHER EDUCATION: ORGANISATIONAL READINESS, FACULTY TRUST, AND ADMINISTRATIVE PERFORMANCE

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ABSTRACT

Generation AI is being introduced in higher education via teaching, assessment, research, student services, communication, admissions, quality assurance, and administration. The institution-level approaches are centred around the concerns about academic malpractice or the adoption of tools. However, the management of GenAI use requires a more comprehensive approach, as universities need to establish a legitimate framework for the selection, regulation, oversight, and modification of its use. The proposed integrative conceptual review seeks to develop a responsible governance framework for GenAI that includes governance maturity, organisational readiness, faculty trust, responsible adoption, and administrative effectiveness. Based on the technology-organisation-environment framework, the literature on the development of institutions' AI policy, and theories of trust, six governance domains are identified: purpose of governance, decision-making, data and privacy, academic and research integrity, capability and inclusion, and assurance and accountability. Governance is seen as a means of fostering innovation by minimising uncertainty and coordinating resources; however, overly restrictive or fragmented governance may prevent learning and encourage the use of GenAI behind the scenes. The faculty trust is interpreted as balanced trust in the technology and institutional management. Five propositions describe the impacts of governance maturity, readiness, involvement in governance, role clarity, and environmental pressure. Mixed-methods research, including policy content analysis, surveys, interviews, and administrative indicators in universities, is proposed. The paper makes a contribution to the area of higher education management by considering GenAI adoption beyond the classroom and treating it as an institutional problem of capability and accountability.

Keywords:

generative artificial intelligence; higher-education management; AI governance; organisational readiness; faculty trust; administrative performance

1.INTRODUCTION

Generative artificial intelligence can create text, images, code, summaries, translations, and conversational interactions. At universities, these capabilities affect not just students and faculty, but

also university management. University staff may use GenAI for drafting correspondence, classifying queries, academic advising, report preparation, feedback analysis, developing materials, document

review, and research administration. Vendors may incorporate GenAI capabilities in learning management systems, productivity tools, libraries, and student information systems (Abbass et al., 2022; Iqbal et al., 2020).

Rapid and decentralised adoption poses challenges for governance. Individuals can employ public GenAI tools without any formal procurement process or integration into institutional systems, while institutions can incorporate AI without user awareness. Inputs include personal, sensitive, unpublished, or proprietary data (Khattak et al., 2017; Iqbal et al., 2024). Outputs may be inaccurate, biased, false, or inappropriate to local conditions. Decisions about students or staff may be affected by tools, the data they use, and the logic behind them that are unknown (A-barrow et al., 2021; Ali et al., 2024). Many initial policy responses focused on plagiarism and assessment. Academic integrity is vital, but a narrow framework for misconduct overlooks other concerns, such as strategy, data governance, accessibility, procurement, research ethics, workforce capabilities, and administrative accountability. Chan (2023) suggests an ecological approach to AI policy involving pedagogical, governance, and operational dimensions. Wu et al. (2024) demonstrate that top universities practice multiunit and role-specific governance, implying that a general policy will not address all institutional uses.

There is also a global variety in the level of adoption. Jin et al. (2025) provide a comparative policy analysis of 40 universities that demonstrate different institutional strategies, communication, roles, and support. These differences matter, as ambiguous policy results in loss of trust and inconsistent local rules. Faculty may ban tools due to uncertainties, while staff may privately employ them to complete their workload. Thus, a governance vacuum is not neutral but favours individuals and vendors (Brandon et al., 2014; Bushra et al., 2022).

In this paper, responsible GenAI governance is considered as an organisational capability. Governance must address legitimate purposes, decision-making rights, risk categories, data governance, review procedures, capability

development, and accountability. Governance must also preserve experimentation and academic freedom in appropriate constraints. Excessive restrictions prevent productive innovation and make compliant users vulnerable to those who continue to use unreported. On the other hand, unreflective encouragement may expose students, faculty, and the institution to harm.

This paper answers three key questions: What does mature institutional governance of GenAI look like? How does governance affect the readiness and trust of organisational members? Under what conditions does responsible adoption improve administrative performance without undermining academic values? The proposed framework is intended for universities operating in different institutional settings, including those in developing countries, where technology infrastructure, policy capacity, language support, and access vary.

2. METHODOLOGY

The research employs an integrative literature review design to synthesise knowledge from research on AI in higher education, technology adoption, institutional governance, trust, ethics, and organisational readiness. An integrative literature review is suitable for topics under development with evidence of policy studies, surveys, cases, conceptual models, and international guidance (Snyder, 2019; Torraco, 2005; Iqbal et al., 2025 ab).

Conceptual search terms included "generative AI," "higher education," "university policy," "AI governance," "organisational readiness," "faculty trust," "administrative performance," "academic integrity," "data governance," and "responsible AI." Prioritising peer-reviewed research, international guidance was added where it articulates governance principles. Research was coded based on institutional type, level of governance, stakeholder, risk, organisational capability, trust mechanisms, and outcomes (Khattak et al., 2018 ab).

Synthesis adopts the concept-centred approach (Webster & Watson, 2002; Khattak et al., 2019). This approach makes no claims about comprehensive systematic coverage or calculation

of effect sizes or causal outcomes from policy documents. Rather, it develops a framework and propositions for empirical research.

3. Theoretical Foundation: Technology-Organisation-Environment

The technology-organisation-environment (TOE) framework explains adoption through technological, organisational, and environmental factors (Tornatzky & Fleischer, 1990). The technological factors include usefulness, complexity, compatibility, explainability, reliability, and security. The organisational factors include strategy, leadership, resources, skills, culture, structure, and data governance. The environmental factors include regulation, professional standards, competition, vendors, accreditation, and stakeholder expectations (Ivanov & Dolgui et al., 2020; Ibrahim et al., 2024).

TOE is relevant because faculty members' attitudes cannot fully explain adoption. A lecturer may find GenAI useful but lack authorised tools, tracing, or clarity over the data usage. A university may have good technical infrastructure but poor governance and fragmented decision-making rights. External pressure could foster adoption before readiness develops.

This framework is adopted here as a guiding theory rather than a checklist. Governance maturity is part of the organisational factor and determines the interpretation of technological and environmental factors. Organisational readiness and faculty trust, in turn, affect responsible adoption and performance.

4. From Policy Statements to Governance Maturity

The term governance extends beyond a policy statement. While a university may state governance principles, it might not have processes, responsible individuals, authorised software, training, incident reporting and review. Governance maturity refers to the degree of integration of rules, roles, resources, assurance, and learning across the institution.

According to Wu et al. (2024), multi-unit governance and role-based governance are found

in the major universities. Multi-unit governance acknowledges that different risks apply to different stakeholders. However, decentralisation leads to inconsistencies. Governance maturity involves a combination of principles applicable across the entire institution, local implementation, and a dispute resolution mechanism.

Governance maturity must not be equated with restrictiveness. The former may permit wide-ranging use with safeguards, while the latter bans it widely due to an inability to assess the risk. Maturity is indicated by clarity, proportionality, participation, support, auditability, and revision.

5. Six Domains of Responsible GenAI Governance

5.1 Strategic purpose and use-case selection

Universities should establish the strategic purpose for considering GenAI and the institutional values informing its use. Possible purposes include improving teaching quality, enabling research, enhancing accessibility, responding promptly, using multilingual communication, or increasing administrative efficiency. Adoption of technology should never depend on competition or marketing alone.

Uses should be categorised by risk. Low-risk drafting and brainstorming should be separated from high-risk activities such as automated grading, admissions, disciplinary proceedings, or medical or health advice. Uses at higher risk will always demand greater evidence, explanation, human review, and approval. The strategic purpose will also reduce the fragmentation of tool selection and purchasing.

5.2 Decision rights and role clarity

The governance framework must specify who is authorised to approve a tool, who owns the data used with that tool, who is accountable for monitoring the system's performance, who may suspend the system, and who will handle complaints. Universities should retain academic units' discretion regarding pedagogical matters, while also maintaining institution-wide requirements for privacy, security, accessibility, procurement, and legal compliance.

Unclear roles result in delays and uneven enforcement. Faculty members may receive conflicting guidance from departments, university administration, and technology services. Students are likely to face varying disclosure rules across courses. Well-developed governance enables universities to establish minimum standards and allow documented deviations for disciplinary grounds.

5.3 Data, privacy, and intellectual property

The university community will place student records, research data, examination papers, personal details of staff members, and their own unpublished work into GenAI systems. The university must set rules governing which GenAI tools are approved for use, how data should be categorised and retained, how providers should manage intellectual property and training, and what should occur to data when it crosses borders. Data minimisation should be the default.

Procurement should evaluate the reliability of the vendor's statements regarding security, accessibility, model updates, data ownership, and exit plans. Free public tools may transfer costs into data exposure. By contrast, university-licensed tools may foster an unwarranted sense of confidence if contracts and configurations are not properly understood.

5.4 Academic and research integrity

Integrity governance will have to address what constitutes legitimate assistance, necessary disclosure, forbidden substitution, and special practices of some disciplines. While a universal prohibition may be impossible given the authenticity of professional education, free use may undermine learning and assessment processes. Faculty will need assistance in developing assessment tasks and explaining expectations.

Research governance must address authorship, disclosure, confidentiality, fabricated citations, image manipulation, code verification, and responsibility for outputs. GenAI cannot be responsible for any scholarly claims; responsibility is with human authors and institutions.

5.5 Capability, participation, and inclusion

Adoption of GenAI requires that leadership, faculty, students, and professional staff are literate in AI technology. AI literacy includes the capability to use AI, critical evaluation, understanding of the risks of bias, privacy considerations, verification of outputs, and ethical judgment. The training should be provided in a role-specific manner, with illustrative examples.

Participation enhances the legitimacy and relevance of policymaking. Faculty, students, librarians, IT specialists, staff working with students with disabilities, research officers, and administration bring different knowledge. Inclusive governance will also have to address issues of differential access to resources, language ability, disability, cost, and digital infrastructure. UNESCO (2023) speaks of human-centredness to protect agency, equity, cultural diversity, and privacy.

5.6 Assurance, accountability, and review

GenAI systems and GenAI policies are fast-changing. Governance should include monitoring, incident reporting, audit, feedback, and periodic reviews. Assurance will assess performance, risk of bias, privacy, accessibility, security, and impact on users. Accountability is about identifying who will fix the harm and provide remediation.

Static policy is insufficient, as model capabilities, vendors' terms, and educational practices change. Universities need adaptive governance that can adjust policies when necessary without constantly introducing uncertainty.

6. Organisational Readiness

Organisational readiness involves infrastructure, skills, leadership commitment, process clarity, data governance, and change capacity. A university could have technological infrastructure, but no assessment support or legal expertise. Another university could have strong policy leadership but lack access to approved tools.

Governance maturity could enhance readiness by aligning responsibilities, reducing ambiguity, and allocating resources. Risk classification can assist units in understanding when local approval is

sufficient and when central approval is needed. Approved tool lists and support services can enable responsible behaviour.

Proposition 1: Governance maturity in relation to GenAI will be positively associated with organisational readiness through better role clarity, resource coordination, and institutional learning.

7. Faculty Trust as Calibrated Institutional Confidence

Faculty trust is about two objects: technology itself and the institution controlling it. Technological trust deals with reliability, transparency, usefulness, and controllability. Institutional trust refers to whether leaders protect the institution's academic mission, consult stakeholders, provide necessary support, and resolve emerging issues. Faculty may distrust a particular technology but believe in the institution's process. Alternatively, faculty may like the technology but not the centralised policy.

Trust should be calibrated rather than maximised. The former means that unconditional trust may lead to reliance on technology and neglect of verification procedures. Excessive distrust hinders effective application and leads to fragmented private experiments. Governance provides calibrated trust when it articulates uncertainty, allows questioning, and shows the possibility of changing the policy.

Proposition 2: Governance maturity will be positively associated with calibrated faculty trust when the policy-making process is participatory, transparent, and supported by credible and effective assistance and remedy.

Proposition 3: Faculty trust will be the mediator between governance maturity and responsible GenAI adoption.

8. Responsible Adoption and Administrative Performance

GenAI can improve administrative performance by enabling faster drafting, summarising, translating, classifying, and preparing responses. GenAI can help administrators navigate policy documents or draft an initial report. Performance should be measured in terms of time, quality,

accessibility, consistency, user satisfaction, and error rate, rather than just the number of adoptions.

The performance improvement is conditional. Hallucinated information may cause rework. Generic output may weaken the institution's voice. Automation may shift verification efforts to the staff. The sensitive decisions need human judgment. The productivity measures should include verification time and correction cost in addition to time savings.

Responsible adoption occurs when the user understands the purpose, limitations, rules of the game, disclosure requirements, and accountability. The human verification efforts should be proportionate to risk. The high-stakes output that affects rights, opportunities, or academic judgment should not be generated using GenAI alone.

Proposition 4: Responsible GenAI adoption will be positively associated with administrative performance when use cases are task-compatible, verification is proportionate to risk, and performance measures include quality and correction cost.

9. Environmental Pressures and Institutional Isomorphism

Universities adopt GenAI due to competitors' advertising of innovative capabilities, vendor-added features, student demands, and expectations from regulators and accreditors. All those environmental pressures can expedite beneficial learning, but at the same time, can result in symbolic adoption. The institution publishes the principles without creating the necessary operational capacity or purchasing systems without use cases.

Environmental pressure is most productive when complemented with internal readiness. Low readiness may lead to policy copying, vendor dependence, and inconsistent application. Universities in developing countries should adapt the global framework to their environment, language, infrastructure, and academic practices.

Proposition 5: Environmental pressure will enhance responsible adoption when organisational readiness is high, but it will lead to

symbolic or fragmented adoption when readiness is low.

10. Governance Tensions

Responsible governance must address several tensions. The central policy and consistency conflict with the discipline's autonomy. The speed of innovation conflicts with assurance. Transparency conflicts with security and intellectual property. Personalisation conflicts with privacy. Efficiency conflicts with human development and the quality of employment. Standardisation conflicts with linguistic and cultural diversity.

A single rule can permanently resolve none of these tensions. They call for decision principles, stakeholder participation, differentiated risk approaches, and ongoing revisions. For example, the central policy may set the minimum requirements for data and disclosure, while faculties will determine specific practices for each assessment. The sandboxes may enable controlled experiments before full institutional adoption.

11. Proposed Mixed-Method Study

The conceptual framework can be evaluated empirically through a sequential mixed-methods design. The first stage would involve collecting and coding institutional documents related to policies, guidelines, the approved tool list, training, procurement practices, and governance structures. The coding scheme would cover six governance domains: stakeholder inclusion, risk distinctions, and implementation mechanisms. The second stage would consist of a survey of faculty and professional staff addressing governance clarity, readiness, trust, responsible adoption, workload, and administrative performance. Sampling should be representative of public and private universities across multiple disciplines. Since governance maturity functions as a nuanced, higher-order formative construct, building measures may call for both exploratory and confirmatory factor analyses. The third stage would include interviews with academic leaders, IT and data officers, research administrators, quality-assurance staff, librarians, and faculty. The interviews would examine how the policy is carried out and where

responsibility becomes unclear. Administrative performance indicators may show response speed, corrections, service satisfaction, training attendance, incident occurrences, and uptake of approved utilisation. Triangulation is essential.

Policy content does not demonstrate implementation; self-reported productivity does not establish improvement; and adoption rate does not verify responsible behaviour. We must obtain ethical clearance, secure informed consent, use protected data handling, and apply de-identification.

12. Managerial Implications

A governing group for AI must be created at universities, involving connections with departments, research ethics, data protection, information security, libraries, quality assurance, legal services, and students. The group should develop clear language principles, a categorisation of risks associated with use cases, tool selection guidelines, and escalation procedures.

Governance should create the enabling environment. If the institution does not allow the use of open source tools in sensitive projects, it needs to look for viable alternatives. Training should be conducted through verification practices, as training people to write prompts alone is not enough. Staff should be taught how to verify sources, protect confidentiality, and acknowledge AI assistance.

Performance Management should not emphasise quantity at the expense of quality. Pilots need to capture baseline time, verification effort, errors, accessibility impact, and user experience. The procurement process needs an exit plan given evolving vendor characteristics and conditions.

12.1 A maturity pathway

A university can apply the framework via four stages of maturity. The reactive stage comprises an incident-driven approach and fuzzy roles. The defined stage encompasses the adoption of university-wide guiding principles, the assignment of ownership, and the setting of data and integrity standards. Integrated stage means that governance becomes integrated into procurement, curriculum support, research ethics, staff development,

accessibility, and quality assurance. The adaptive stage entails revising policies and allocating resources, informed by monitoring, incidents, and stakeholder feedback.

The maturity stage is not a ranking instrument. Each university is unique in its mission, scale, and capabilities. Maturity is associated with consistency and the capability to learn, not just with the number of tools. The university that intentionally limits the use of technology based on its own transparent, evidence-based assessment process might be more mature than an institution with numerous poorly governed tools.

12.2 Academic freedom and institutional responsibility

Academic freedom enables academic units to make disciplinary judgments and innovate. However, it does not mean the institution is not responsible for issues such as privacy, non-discrimination, security, accessibility, and fair assessment. The task of governance is to delineate the domains where common rules should apply and those where academic units have discretion. Consultation is necessary since the poor design of the central policy may inadvertently affect the pedagogical practice.

Disclosures need to be appropriate. The excessive documentation of each minor language revision may cause compliance fatigue, while the absence of disclosure of AI-generated analysis may mislead regarding authorship. Institutions should provide discipline-specific guidance and distinguish between assistance, collaboration and substitution.

12.3 Administrative work and employee well-being

AI is sold as a solution to administrative workload. While time savings can take place, they are contingent on task design. Employees will have to spend additional time verifying AI output, adjusting tone, referencing, and using AI usage documentation. If time savings lead to additional output requirements, then technology will make the problem even worse.

Pilot project evaluation should thus take into account employees' welfare, autonomy, competencies, and surveillance concerns. Employees need to be involved in selecting the

tasks to be assisted. The objective is not only to remove low-value, repetitive tasks but also to preserve professional judgement and personal interaction, thereby improving the quality of services.

13. Policy Implications

The national authorities in higher education can develop minimum standards while allowing for customisation by institutions. These can include research integrity, student data protection, assessment transparency, procurement, accessibility, and staff development. Policy should refrain from overly general rules that equate AI use with misconduct or assert that any innovation is good.

Developing guidance and capacity building in collaboration with institutions can save effort and avoid duplication, particularly for small institutions. The development of national capacities in local language models, infrastructure, and AI literacy may reduce dependencies and inequalities. Nevertheless, institution-level responsibility is necessary given the diversity of use cases and associated risks.

14. Limitations and Future Research

The conceptual model should be validated through longitudinal research, as GenAI technologies and institutional policies change rapidly. Trust and performance will depend on the academic discipline, role within the organisation, contract status, age, and experience. The potential negative effects, such as deskilling, work reconfiguration, surveillance, uniformity of writing, and unequal access, should be investigated further.

The measures of policy use should distinguish between their existence and their implementation. Policy presence, clarity, support for implementation, assurance, and remedy are separate concepts. The faculty's measures of trust in GenAI technology should distinguish among trust in the technology itself, in the institutional leadership, and in the possibility of verifying the outputs. The administrative performance metrics should cover both error correction and user outcomes, not just time savings.

Multi-source evidence should be used to avoid taking institutional narratives as evidence of good governance. The policy process itself should be studied. The universities might shift from banning to permitting GenAI technologies, from decentralised experimentation to centralised standards, or vice versa, and from excitement to caution after GenAI incidents. The longitudinal study of documents and interviews could reveal the reasons behind these changes and the interests driving them.

The comparative research should cover governance mechanisms, not just the policies. Experiments could help identify the most effective methods for disclosing results, verification interventions, and learning from incidents and pilots. The students' point of view should be considered; however, this paper concentrates on organisational management. Further research should consider the costs and opportunity costs of GenAI governance in multilingual institutions. They include staff time, correction work, reputational risks, and unequal model performance across languages and disciplines.

Conclusion

Generative AI governance in higher education is an institutional-management responsibility, not just an academic integrity issue. Mature GenAI governance aligns purpose, decision rights, data protection, integrity, capability, inclusion, and assurance. It builds readiness and calibrated trust, allowing responsible adoption and performance improvement. Neither prohibitions nor technology-driven enthusiasm are sufficient. Universities need adaptive, participatory, and risk-proportionate governance that preserves human agency and academic values.

Declarations

Ethical Considerations and Declarations

This study was reviewed and approved by the Research Committee of the NUST Business School (NBS). This study was conducted in accordance with the ethical standards of the approving institution.

Declaration of Generative AI and AI-Assisted Technologies

During the preparation and revision of this manuscript, the authors used ChatGPT and Paperpal to support language editing, grammatical correction, and improvements in clarity and readability. These tools were not used to generate or modify research data, conduct statistical analyses, fabricate references, or make substantive research decisions. The authors critically reviewed and verified all AI-assisted content and accept full responsibility for the accuracy, originality, and integrity of the published work.

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