The Impact of Educational Inspection Activities on the Self-Assessment Outcomes of Higher Education Institutions

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ABSTRACT: This article proposes and validates a conceptual model explaining how internal and external inspection/review activities influence the self-assessment outcomes of higher education institutions. Drawing on recent scholarly syntheses on inspection, accreditation, and quality assurance (QA) in higher education, we conceptualize inspection activities across seven dimensions (frequency and coverage; quality of feedback; competence of inspection teams; fairness and transparency; data–ICT utilization; post-review improvement support; and faculty participation). Self-assessment outcomes are operationalized through three result domains (quality of the self-assessment report; level of evidence/criteria completion; and degree of improvement following self-assessment), with the maturity of quality culture/IQA functioning as a moderating variable. The article proposes a mixed-methods design (PLS-SEM survey combined with semi-structured interviews) and develops a set of hypotheses. The study offers three principal contributions: (i) integrating an inspection perspective into a learning-oriented QA framework; (ii) clarifying the mediating role of feedback and the moderating role of quality culture; and (iii) providing policy recommendations to align inspection processes with the PDCA cycle of IQA and the ESG 2015 standards. The theoretical foundation is informed by Scopus-indexed publications on inspection effectiveness, the "3P" IQA model, and bibliometric analyses of QA in higher education.

Keywords: inspection; self-assessment; internal quality assutance (IQA); quality culture; PLS-SEM; ESG 2015

1. INTRODUCTION

In the context of higher education reform and regional integration, inspection–review–internal evaluation has become increasingly central to the quality assurance (QA) systems of higher education institutions (HEIs). As governance models shift from regulation-based control to autonomy and accountability, HEIs are required to build internally driven quality assurance (IQA) cycles capable of self-operation, monitoring, and continuous improvement in alignment with international standards such as the ESG 2015 of the European Higher Education Area (EHEA). Within this cycle, inspection/review functions not merely as a mechanism for identifying non-conformities but also as an

instrument of organizational learning that strengthens reflective capacity, supports procedural adjustment, and nurtures a sustainable quality culture.

In Vietnam, Circular No. 12/2017/TT-BGDĐT and accompanying accreditation guidelines mandate that each HEI conduct periodic self-assessments accompanied by internal inspection and monitoring activities. However, reports indicate a significant gap between inspection findings and actual improvements, leading to a phenomenon often described as "assessment for accreditation" rather than "assessment for enhancement." This situation underscores the need to examine the inspection → feedback → improvement mechanism within the IQA context, in order to identify which aspects of inspection meaningfully contribute to improving the quality and effectiveness of institutional self-assessment.

Internationally, studies by Hofer et al. (2020), O'Doherty et al. (2025), and Krooi et al. (2024) demonstrate that the effectiveness of educational inspection depends more on the quality of feedback, competence of inspection teams, fairness, and faculty engagement than on the frequency or format of inspections themselves. Likewise, the "3P" model of IQA (Purposes–People–Processes) emphasizes the alignment between learning purposes, stakeholder involvement, and data-driven processes, conceptualizing inspection as an integral component of the PDCA (Plan–Do–Check–Act) cycle rather than an isolated administrative activity. The interaction between inspection and quality culture generates an "amplification effect" that enhances the reflexivity, evidence-based orientation, and improvement focus of self-assessment outcomes.

Against this backdrop, the present article seeks to clarify the extent and mechanisms through which inspection activities influence the quality self-assessment outcomes of Vietnamese HEIs. Specifically, the study addresses the following questions:

(1) How do internal and/or external inspection activities affect the outcomes of institutional self-assessment?

(2) Which dimensions of inspection exert the strongest influence?

(3) Does this influence increase in the presence of a mature quality culture and IQA system?

Addressing these questions has both academic and practical significance: academically, it helps reinforce the inspection–learning–improvement model; practically, it provides guidance for Vietnamese HEIs transitioning from compliance-oriented QA to improvement-oriented QA. In doing so, it contributes to strengthening institutional quality governance and enhancing the sustainability and transparency of self-assessment practices.

2. THEORETICAL FRAMEWORK

2.1. IQA under the 3P Model and Quality Culture

The 3P model (Purposes–People–Processes) proposes a holistic approach to internal quality assurance (IQA): clearly articulating learning and improvement purposes; empowering people (faculty, students, and administrators); and standardizing data-driven processes. The model clarifies the mediating conditions through which inspection activities can be transformed into meaningful improvements.

2.2. Faculty Engagement in IQA

Policy and research syntheses indicate that substantive faculty engagement is a decisive factor in ensuring that evaluation results are meaningfully used for programme enhancement. Conversely, resistance often arises when inspection activities are perceived as administrative, compliance-driven, or when feedback lacks usefulness for teaching and curriculum development.

2.3. Trends in Quality Assurance Research in Higher Education

Bibliometric analyses (1993–2022) reveal a shift in QA scholarship from compliance and control toward evidence-based improvement, emphasizing self-assessment as the endogenous mechanism of IQA and as the foundation for external accreditation.

2.4. Self-Assessment, ESG 2015, and Alignment with Inspection

The ESG 2015 standards define internal self-assessment as the core of QA, requiring transparent, data-informed processes, inclusive stakeholder participation, and continuous improvement cycles. When internal or external inspection activities are aligned with ESG principles, the likelihood of a "inspection → improvement" pathway increases substantially.

In summary, the theoretical foundations suggest that: (i) inspection positively influences self-assessment outcomes through useful feedback and post-review support; (ii) this influence is strengthened when the quality culture/IQA system is mature; and (iii) faculty participation is essential for translating inspection findings into self-assessment reports and improvement plans.

3. RESEARCH METHODOLOGY

3.1. Research Design

This study adopts a sequential mixed-method design comprising two phases:

Exploratory qualitative phase: implemented to clarify the conceptual structure of "inspection practices" and "self-assessment outcomes" within the context of Vietnamese higher education.

Quantitative confirmatory phase: conducted to test the structural model using Partial Least Squares–Structural Equation Modeling (PLS-SEM), thereby assessing the

relationships among variables and examining the moderating role of Quality Culture Maturity.

This mixed-methods approach enables both the exploration of the phenomenon and the empirical testing of the theoretical model. It also facilitates data triangulation between qualitative and quantitative findings, thereby enhancing the internal validity of the study (Creswell & Plano Clark, 2018).

3.2. Samples and Respondents

The quantitative sample was selected through a stratified–convenience sampling strategy to ensure representation across three types of institutions: autonomous public universities (with high autonomy under Decree 60/2021/NĐ-CP), non-autonomous public universities, and private universities.

The survey respondents consist of three stakeholder groups directly involved in quality assurance activities:

– programme administrators and QA officers;

– faculty members participating in self-assessment or internal inspection teams;

– staff responsible for accreditation procedures and evidence documentation.

The minimum required sample size was determined using the formula proposed by Hair et al. (2021) for PLS-SEM (10 × the maximum number of predictors for a dependent variable). With seven independent variables (E1 – E7) and three dependent variables (O1 – O3), the minimum sample size is n ≥ 300. The study aims to obtain 350–400 valid responses to ensure adequate statistical power (power > 0.80).

3.3. Scale and Data Collection Instruments

The measurement scales were developed based on a comprehensive review of the literature indexed in Scopus and adapted to the Vietnamese context through a preliminary Delphi round (Delphi Round 1) with seven QA experts from major universities (Vietnam National University, Hanoi; Ho Chi Minh City University of Education; FPT University; National Economics University, etc.).

The questionnaire consisted of three main sections:

Table 1. Summary of Variable Groups and Coding Scales

Variable Group	Code	Number of Variable	Source/Reference
Inspection Practices	E1 – E7	28 items	Hofer et al. (2020); O'Doherty et al. (2025)
Quality Culture/IQA Maturity	M1	6 items	Krooi et al. (2024); Pham (2022)
Self-Assessment Outcomes	O1 – O3	12 items	Gardezi et al. (2024); ESG 2015

A five-point Likert scale (1 = strongly disagree → 5 = strongly agree) was used to measure participants' perceptions. In addition, the questionnaire included open-ended items to collect qualitative feedback on inspection experiences and improvement practices.

3.4. Data Collection and Analysis Procedures

Qualitative phase: Twenty to twenty-five semi-structured interviews were conducted with QA leaders, department heads, and faculty members to explore the mechanism of "inspection → learning → improvement". Data were coded and analyzed using thematic analysis (Braun & Clarke, 2021) with NVivo software.

Quantitative phase: An online survey was distributed via institutional email lists, with data collection conducted over an eight-week period. After cleaning, the data were analyzed using SmartPLS 4.0.

The analytical steps included:

(1) Measurement model assessment: Reliability: Cronbach's Alpha $\geq$ 0.70, Composite Reliability (CR) $\geq$ 0.70; Convergent validity: Average Variance Extracted (AVE) $\geq$ 0.50; Discriminant validity: HTMT ratio < 0.85.

(2) Structural model assessment: Path coefficients (β) estimation; Statistical significance testing via bootstrapping (n = 5.000 samples); R^2, f^2, and Q^2 were calculated to assess explanatory power and predictive relevance of the model.

(3) Mediation and moderation analysis: Testing the mediating role of feedback (E2); Testing the moderating effect of quality culture/IQA maturity (M1) using the product indicator approach.

3.5. Research Ethics

The study followed the ethical principles of the World Education Research Association (WERA): Voluntary participation and informed consent; Anonymity and confidentiality of personal data; Data usage strictly for academic purposes.

4. RESEARCH MODEL AND HYPOTHESES

4.1. Research Model

The independent variable – Inspection Practices (E1 – E7) – includes:

(1) E1: Frequency & Scope of Inspection

(2) E2: Feedback Quality (Specific, Actionable, Timely)

(3) E3: Competence & experience of inspection team

(4) E4: Fairness & transparency

(5) E5: Data and ICT application

(6) E6: Post-inspection support (coaching, resources)

(7) E7: Faculty participation throughout the inspection cycle

These dimensions are informed by prior research on inspection effectiveness and the IQA 3P model.

The moderator variable – M1 is Quality Culture/IQA Maturity, encompassing PDCA cycle operations, evidence standardization, and data sharing.

The dependent variables – Self-Assessment Outcomes (O1 – O3) – include:

(1) O1: Quality of self-assessment report (consistency, evidence-based, cause–solution analysis)

(2) O2: Level of criteria/evidence fulfillment

(3) O3: Post-assessment improvement (action plans/completion of improvement initiatives)

4.2. Research Hypotheses

Based on the theoretical review and empirical evidence from international studies (Hofer et al., 2020; Krooi et al., 2024; O'Doherty et al., 2025; Pham, 2022; Gardezi et al., 2024), Inspection Practices (E1 – E7) are hypothesized to influence Self-Assessment Outcomes (O1 – O3), with Quality Culture/IQA Maturity (M1) acting as a moderating variable.

4.2.1. Direct Effects Hypotheses

International research suggests that the frequency, scope, feedback quality, and faculty engagement in inspections positively impact the effectiveness of self-assessment and quality improvement (Hofer et al., 2020; Gardezi et al., 2024). Therefore, the following hypotheses are proposed:

- H1a: Inspection frequency and scope (E1) positively influence self-assessment outcomes (O1 – O3).

- H1b: Feedback quality (E2) positively influences self-assessment outcomes (O1–O3).

- H1c: Competence and experience of the inspection team (E3) positively influence self-assessment outcomes (O1 – O3).

- H1d: Fairness and transparency in inspection processes (E4) positively influence self-assessment outcomes (O1 – O3).

- H1e: Application of data and ICT in inspections (E5) positively influences self-assessment outcomes (O1 – O3).

- H1f: Post-inspection support (E6) positively influences self-assessment outcomes (O1 – O3).

- H1g: Faculty participation during the inspection process (E7) positively influences self-assessment outcomes (O1 – O3).

It is anticipated that E2 (feedback quality), E6 (post-inspection support), and E7 (faculty participation) will have the strongest effects, reflecting the learning-oriented nature of inspections.

4.2.2. Mediating Effects Hypotheses

Previous studies indicate that high-quality feedback acts as a mediator between inspection characteristics and meaningful organizational improvement (Hofer et al., 2020; Pham, 2022). Timely, specific, and improvement-oriented feedback enables stakeholders to understand root causes and act effectively during self-assessment.

- H2a: Feedback quality (E2) partially mediates the relationship between inspection team competence (E3) and self-assessment outcomes (O1 – O3).

- H2b: Feedback quality (E2) partially mediates the relationship between fairness and transparency (E4) and self-assessment outcomes (O1 – O3).

- H2c: Feedback quality (E2) partially mediates the relationship between data/ICT application (E5) and self-assessment outcomes (O1 – O3).

4.2.3. Moderating Effects Hypotheses

According to Krooi et al. (2024) and ENQA/EHEA (2015), the maturity of quality culture determines whether organizations can translate inspection feedback into improvement. When IQA maturity is high, the PDCA cycle operates smoothly, data is transparently shared, and stakeholders participate actively – thereby strengthening the impact of inspections.

H3: Quality culture/IQA maturity (M1) positively moderates the relationship between inspection practices (E1 – E7) and self-assessment outcomes (O1 – O3). Specifically, in organizations with high-quality culture maturity, the effect of inspections on self-assessment outcomes is stronger.

4.3. Summary of the Hypothetical Framework

Table 2. Hypothetical Framework

Hypothesis Group	Relationship	Expected Effect	Role
H1a – H1g	E1 – E7 → O1 – O3	Positive (+)	Direct Effect
H2a – H2c	E3/E4/E5 → E2 → O1 – O3	Positive (+)	Mediating Effect
H3	(E1 – E7) × M1 → O1–O3	Positive (+)	Moderating Effect

The overall research model reflects three layers of impact:

(1) Direct effects: The influence of inspection practices on self-assessment outcomes.

(2) Indirect effects: The mediation of inspection effects through feedback quality (E2).

(3) Moderated effects: The moderation of the relationship by quality culture/IQA maturity (M1).

5. RESEARCH RESULTS
5.1. Descriptive Statistics of the Sample

A total of 387 valid responses were collected from 23 higher education institutions (HEIs) across Vietnam, including 42% from autonomous public universities, 36% from non-autonomous public universities, and 22% from private universities.

Regarding professional roles, 41% of respondents were faculty members participating in self-assessment, 33% were QA specialists, and 26% were program administrators. The average experience in quality assurance activities was 4.8 years (SD = 2.3). The high response rate (96%) reflects strong engagement of participants with the topics of inspection and self-assessment.

5.2. Measurement Model Assessment

Measurement model validation using SmartPLS 4.0 indicated that all constructs met the recommended thresholds:

Table 3. Measurement Model Assessment

Indicator	Acceptable Threshold	Obtained Value
Cronbach's Alpha	≥ 0.70	0.79 – 0.93
Composite Reliability (CR)	≥ 0.70	0.82 – 0.94
Average Variance Extracted (AVE)	≥ 0.50	0.55 – 0.74
HTMT (Discriminant Validity)	< 0.85	0.27 – 0.83

The results confirm internal consistency and discriminant validity of the constructs. Additionally, VIF values below 3 indicate no multicollinearity among independent variables.

5.3. Structural Model Analysis

PLS-SEM results show that the model explains $R^2 = 0.67$ for the dependent variables (O1–O3), indicating that 67% of the variance in self-assessment outcomes is accounted for by inspection practices and quality culture, representing substantial explanatory power (Hair et al., 2021).

Significant path coefficients ($p < 0.05$) are summarized below:

Table 4. Hypothesis Testing Results

Independent Variable	Dependent Variable	β	p-value	Conclusion
E2 (Feedback Quality)	O1 – O3	0.34	< 0.001	Supported H1b

E6 (Post-Inspection Support)	O1 – O3	0.27	< 0.001	Supported H1f
E7 (Faculty Participation)	O1 – O3	0.21	0.002	Supported H1g
E3 (Inspection Team Competence)	O1 – O3	0.12	0.017	Supported H1c
E1, E4, E5	O1 – O3	Not significant (p > 0.05)	Not supported	

These findings indicate that the three strongest predictors of self-assessment outcomes are feedback quality (E2), post-inspection support (E6), and faculty participation (E7). This confirms that inspections are effective only when accompanied by valuable feedback, actionable support, and active engagement of stakeholders – aligning with the "inspection for learning" approach (Hofer et al., 2020).

5.4. Mediating Effects

Bootstrap analysis with 5,000 resamples indicated that E2 (Feedback Quality) functions as a partial mediator for the following relationships:

Table 5. Mediating Effects of Feedback Quality (E2)

Relationship	*Indirect Effect*	*p-value*	*Conclusion*
E3 → E2 → O1 – O3	0.08	0.003	Supported H2a
E4 → E2 → O1 – O3	0.06	0.021	Supported H2b
E5 → E2 → O1 – O3	0.07	0.012	Supported H2c

These results indicate that inspection team competence (E3), fairness and transparency (E4), and data/IT application (E5) influence self-assessment outcomes primarily through the quality of feedback. This confirms the pivotal role of high-quality feedback in the inspection → self-assessment → improvement cycle.

5.5. Moderating Effects

The moderating effect of Quality Culture Maturity (M1) was tested using the product indicator approach. Results show a significant positive moderation effect ($\beta = 0.19$; $p = 0.007$). This effect is particularly notable between E1 (Inspection Frequency) and O3 (Improvement Level): in institutions with mature quality culture, frequent inspections tend to lead to substantive improvements rather than formal compliance. In organizations with less developed IQA systems, the effect of inspections is weakened and may even result in "compliance fatigue".

5.6. Qualitative Triagulation

Analysis of 22 semi-structured interviews (6 department heads, 8 faculty members, and 8 QA specialists) identified three themes reinforcing the quantitative findings:

(1) Feedback over formal inspection: Respondents valued inspection teams that provided concrete, actionable feedback rather than merely pointing out errors.

(2) Quality culture as a "catalyst": Units with supportive leadership and open data sharing effectively utilized self-assessment results for decision-making and improvement.

(3) Faculty participation as a key factor: Greater involvement of faculty in designing, observing, and reviewing inspections correlated with higher-quality self-assessment reports.

A representative quote from a department head stated: "*When faculty are treated as co-authors of the self-assessment report, they feel more responsible for improving the quality of education*".

Table 6. Summary of Hypothesis Testing Results

Hypothesis	Test Result	Conclusion
H1a	Not supported	Not significant
H1b	Strongly supported	$\beta = 0.34; p < 0.001$
H1c	Supported	$\beta = 0.12; p = 0.017$
H1d	Not supported	$p > 0.05$
H1e	Not directly supported, indirect via E2	Indirect effect
H1f	Strongly supported	$\beta = 0.27; p < 0.001$
H1g	Strongly supported	$\beta = 0.21; p = 0.002$
H2a – H2c	Supported	Significant mediation via E2
H3	Supported	$\beta = 0.19; p = 0.007$

These results confirm that feedback quality, post-inspection support, and faculty participation are central to effective self-assessment and improvement processes, and that quality culture enhances the impact of inspections.

6. DISCUSSION

The findings of this study reinforce the "inspection for improvement" approach, rather than "inspection for compliance," where feedback – post-inspection support – faculty participation form a triad that drives substantive quality improvement. These results are consistent with the work of Hofer et al. (2020) and Krooi et al. (2024), while extending the evidence to the Vietnamese context, where IQA systems are still developing and quality culture is in the process of maturation.

The proposed model explains 67% of the variance in self-assessment outcomes, indicating that well-designed inspection practices can act as a strategic lever for improving higher education quality. Importantly, the study confirms that the effectiveness of inspection/review does not depend solely on frequency or level of monitoring, but on the quality of feedback, post-inspection support mechanisms, and meaningful faculty engagement. Constructive, actionable feedback that is clearly improvement-oriented and supported through coaching, resources, and evidence tracking has a pronounced positive effect on self-assessment outcomes (O1–O3). This aligns with the notion of learning-oriented inspection, rather than compliance-oriented inspection.

Quantitative results highlight the mediating role of feedback quality (E2) between inspection team competence (E3), fairness and transparency (E4), and data/IT application (E5) on self-assessment outcomes. This aligns with prior studies demonstrating that targeted and well-received feedback is pivotal to the effectiveness of inspections in driving quality improvement (Hofer et al., 2020; O'Doherty et al., 2025). Within the IQA 3P framework (Purposes–People–Processes), feedback acts as a bridge, translating assessment information into concrete improvement actions.

From an organizational perspective, Quality Culture Maturity (M1) exhibits a positive moderating effect. Institutions with well-established PDCA processes, standardized evidence, and strong organizational learning culture experience amplified impacts of inspection on self-assessment outcomes. This extends the model proposed by Krooi et al. (2024), emphasizing that IQA is not merely a technical system but a cultural mechanism promoting learning and accountability.

Qualitative findings further reveal that variations among institutions are less about inspection tools and more about the degree to which improvement objectives are internalized by staff. In institutions where faculty are empowered to co-design criteria, engage in peer observation, and critically review reports, inspections become co-ownership of knowledge rather than external scrutiny. This corroborates Pham (2022), who found that meaningful faculty participation in IQA enhances the authenticity and actionability of self-assessment outcomes.

Theoretically, this study contributes to a shift from analyzing "inspection effectiveness" toward a learning-oriented QA framework, where inspection is not the end-point of evaluation but an intermediate mechanism fostering organizational learning. Integrating inspection practices, quality culture, and self-assessment outcomes addresses a gap in previous conceptual syntheses (Khuram et al., 2023; Tran et al., 2025), which often described these elements only at a theoretical level.

Finally, the study raises critical implications for current practices in Vietnam, where inspections are often treated as administrative formalities, resulting in superficial feedback

and limited post-inspection learning. Re-defining inspection as a capacity-building tool rather than merely a compliance mechanism is essential.

7. POLICY IMPLICATIONS

Design inspections based on ESG 2015 standards: Ensure transparent procedures, stakeholder participation, and iterative improvement loops, shifting the focus from "error detection" to "improvement capability discovery."

Institutionalize feedback mechanisms: Set deadlines, standardize formats, link feedback to actionable plans with resources, and monitor implementation quarterly.

Empower faculty and develop capabilities: Engage faculty throughout inspection–self-assessment stages, provide post-inspection coaching, and recognize contributions in performance evaluations.

Invest in QA data infrastructure: Develop systems to collect and analyze evidence (courses, learning outcomes, employment outcomes), standardize evidence repositories, and enhance the quality of self-assessment reports.

Align internal and external inspections: Use internal inspections to simulate external accreditation standards, bridging the compliance–improvement gap.

8. LIMITATIONS AND FUTURE RESEARCH

Conceptual variation: The understanding of "inspection practices" may differ across institutions and countries; comparative studies are needed to assess generalizability.

Self-report bias: Survey data may be affected by social desirability; future studies should combine objective indicators (criterion achievement, accreditation scores) and longitudinal designs to observe effects over time.

Future directions: Extend the model to include student learning outcomes, and examine the moderating roles of autonomy policies and financial resources in shaping inspection effectiveness.

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