INTERNAL QUALITY ASSURANCE MODELS IN HIGHER EDUCATION INSTITUTIONS: A COMPARATIVE ANALYSIS AND A PROPOSED INTEGRATED MODEL FOR THE VIETNAMESE CONTEXT

CÁC MÔ HÌNH BẢO ĐẢM CHẤT LƯỢNG BÊN TRONG CƠ SỞ GIÁO DỤC ĐẠI HỌC: SO SÁNH VÀ ĐỀ XUẤT MÔ HÌNH CHO BỐI CẢNH VIỆT NAM

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Abstract - This article examines the development of internal quality assurance (IQA) systems in Vietnamese higher education institutions. Based on a structured review, it compares five approaches - PDCA, TQM, EFQM, ISO 9001/ISO 21001, and AUN-QA - across six criteria: objectives and scope, system components, operating mechanisms, data and evidence, leadership and quality culture, and contextual compatibility. The findings indicate that each approach has distinct strengths, but none fully addresses the requirements of a substantive operating internal quality assurance system. The article therefore proposes an integrated model in which AUN-QA shapes the system structure, PDCA organises the improvement cycle, ISO standardises processes and evidence, and TQM/EFQM strengthens leadership, participation, and quality culture. The model also suggests implementation according to institutional readiness, with emphasis on policy, processes, data, and improvement.

Key words - internal quality assurance; integrated model; AUN-QA; PDCA; Vietnamese higher education.

Tóm tắt - Bài viết phân tích việc phát triển hệ thống bảo đảm chất lượng bên trong tại các cơ sở giáo dục đại học Việt Nam. Trên cơ sở tổng thuật có cấu trúc, bài viết đối chiếu năm tiếp cận gồm PDCA, TQM, EFQM, ISO 9001/ISO 21001 và AUN-QA theo sáu tiêu chí: mục tiêu và phạm vi, cấu phần hệ thống, cơ chế vận hành, dữ liệu và minh chứng, vai trò lãnh đạo và văn hóa chất lượng, khả năng tương thích bối cảnh. Kết quả cho thấy mỗi tiếp cận có ưu thế riêng nhưng chưa đáp ứng đầy đủ yêu cầu của một hệ thống bảo đảm chất lượng bên trong vận hành thực chất. Bài báo đề xuất mô hình tích hợp, trong đó AUN-QA định hình cấu trúc hệ thống, PDCA tổ chức chu trình cải tiến, ISO chuẩn hóa quy trình và minh chứng, còn TQM/EFQM củng cố lãnh đạo, sự tham gia và văn hóa chất lượng. Mô hình đồng thời gợi ý triển khai theo mức độ sẵn sàng của CSGD, tập trung vào chính sách, quy trình, dữ liệu và cải tiến.

Từ khóa - Bảo đảm chất lượng bên trong; mô hình tích hợp; AUN-QA; PDCA; giáo dục đại học Việt Nam.

1. Introduction

In recent years, Vietnamese higher education has undergone significant changes, shifting from an emphasis on the quantity of training to increasingly demanding requirements for standardisation, transparency, and continuous quality improvement. The practice of quality accreditation at universities shows that a number of higher education institutions tend to concentrate resources on accreditation, while their internal quality assurance (IQA) systems - the mechanism that enables institutions to monitor, adjust, and improve quality on their own - have not yet been approached systematically or supported with commensurate resources [1]. Quality-related activities still primarily serve periodic accreditation processes rather than forming a mechanism for continuous evaluation and improvement [2]. As a result, after an accreditation cycle ends, quality-related activities do not fully ensure continuity and sustainability due to the lack of internal monitoring and adjustment [3], [4]. A common limitation at present is the lack of clear distinction between "self-assessment for accreditation purposes" and a "regularly operating IQA system", especially in separating static evidence for reporting from dynamic data for governance [5].

Recent domestic studies [1], [6], [7] have also identified similar limitations: uneven awareness of IQA, weak self-assessment capacity, fragmented quality management information systems, largely formalistic application of technology, and, in particular, the lack of specific provisions in the legal framework to encourage stakeholder participation. Meanwhile, most previous studies have often focused on the separate application of quality management models, frameworks, and approaches such as PDCA, TQM, ISO, EFQM, and AUN-QA, without clarifying the connections among these approaches in relation to the practical conditions of Vietnamese higher education.

A notable gap lies not only in the fact that higher education institutions have not fully adopted a specific quality assurance model, but also in the absence of a clear approach to defining, structuring, and operating the IQA system as an integrated whole [8]. In the Vietnamese context, IQA is often understood in connection with self-assessment, evidence collection, and preparation for accreditation. Although this understanding is consistent with the requirements of quality management according to accreditation cycles, it does not fully reflect the nature of IQA as being organised and operated through a regular quality management system that is data-based and incorporates feedback mechanisms and continuous improvement [9]. Therefore, the issue is not merely which model to choose, but how to combine models to form a

structure for an IQA system that is both theoretically grounded and operationally feasible under the practical conditions of Vietnamese higher education institutions.

Based on an analysis of the gaps in system operation, this article aims to: (i) synthesise and compare five commonly applied approaches to IQA; (ii) identify the strengths and limitations of each model in the Vietnamese context; and (iii) propose a flexible integrated structure that uses AUN-QA as the main structural framework while incorporating elements from PDCA, ISO, and TQM/EFQM, as well as suggesting implementation implications according to the readiness level of institutions. This approach seeks to support higher education institutions in developing substantive IQA systems, thereby helping them maintain data-based quality improvement and accountability.

2. Research findings

2.1. Methodological approach

This article employs a structured review, combined with conceptual comparison and model integration, to clarify the nature of IQA systems and propose a strategy suitable for the Vietnamese context. The selected documents include original documents/official guideline frameworks for each model and applied studies in higher education. The process consists of five steps:

(1) Defining the scope and selection criteria: The scope of the study focuses on five common quality management models: PDCA, TQM, EFQM, ISO 9001/ISO 21001, and AUN-QA. These models were selected based on three criteria: (i) having a clear system structure; (ii) having a specific operating mechanism; and (iii) having the capacity to connect with external quality assurance.

(2) Standardising terminology and units of comparison: Since each model uses its own system of terminology, the study converts key propositions into a common set of terms, such as IQA, evidence, benchmarking, and quality culture, in order to ensure consistency in the comparison process.

(3) Extracting data according to the analytical framework: Data from the models were extracted according to six main information fields: (i) objectives and scope; (ii) system components; (iii) operating mechanisms; (iv) data and evidence; (v) leadership roles and quality culture; and (vi) contextual compatibility.

(4) Developing a comparative matrix: The extracted results are synthesised in Table 1 to identify similarities, differences, and "intersections" among the theoretical frameworks. This serves as the database for identifying optimal components for the integrated model.

(5) Establishing the integrated model: Based on the results of the comparison, the study proposes an integrated model that uses AUN-QA as the structural framework, PDCA as the operating mechanism, ISO as the standard for evidence management, and TQM/EFQM as the basis for strengthening quality culture.

Table 1. *Comparative matrix of approaches applied in IQA by three groups of components and integration orientation*

Approach	System-shaping group	Operation and implementation group	Maintenance and adaptation group	Role in the integrated model
PDCA	Does not provide a complete IQA system structure, but supports the translation of quality objectives into improvement cycles in individual processes at institutional and programme levels.	Strong in the Plan-Do-Check-Act cycle; supports the design, implementation, checking, and adjustment of activities based on data.	Emphasises cyclicality, accountability, and continuous improvement, but places limited emphasis on quality culture if applied independently.	Provides the operating logic and continuous improvement mechanism for the entire system.
TQM	Does not provide a specific system structure, but defines quality as the responsibility of the whole organisation, associated with the satisfaction of learners and stakeholders.	Encourages continuous improvement, but requires specific process and data mechanisms to be translated into practice.	Strong in leadership commitment, staff participation, and quality culture. However, this approach may become overly philosophical if operational tools are lacking; it also helps limit the risk of bureaucratising quality assurance.	Strengthens leadership, participation, and quality culture; limits the risk of bureaucratising quality assurance.
EFQM	Provides an organisational self-assessment structure based on enablers and results, helping identify the maturity level of the system.	Uses RADAR logic to support self-assessment, implementation review, and results orientation. Requires relatively high levels of results data and analytical capacity.	Emphasises leadership, organisational learning, and results orientation; suitable for institutions with a high level of governance maturity.	Adds organisational self-assessment logic, results orientation, and maturity assessment; helps quality assurance move beyond an input-based records/ evidence approach.
ISO 9001/ ISO 21001	Supports the standardisation of quality policies, quality objectives, processes, responsibilities, and documentation systems.	Strong in process control, records, data, corrective actions, and evidence traceability.	Creates discipline in compliance and implementation responsibility, but risks bureaucratisation if implementation is oriented towards records and certification.	Standardises processes, data, records, and evidence.
AUN-QA	Provides a quality assurance framework specialised for higher education, with the capacity to connect with regional standards and external quality assurance.	Orients data systems, evidence, stakeholder feedback, and quality improvement according to higher education standards.	Promotes quality culture, benchmarking, and integration; however, it requires specific operational tools to avoid remaining merely a framework of assessment criteria.	Serves as the foundational structural framework; orients quality data and ensures connection with external quality assurance.

2.2. Analytical framework and criteria for comparing the models

2.2.1. Analytical framework

The literature review of this article focuses on five common quality assurance approaches in higher education: PDCA, TQM, EFQM, ISO, and AUN-QA. The main objective is to clarify the distinctive value, scope of application, and inherent limitations of each approach in quality management at the institutional level. To ensure a consistent comparison among the approaches, each of these quality assurance approaches is analysed based on a system of six standardised data fields, divided into three main groups of components:

- System-shaping group: This group includes (1) objectives and scope, which identify strategic objectives and scope boundaries, thereby avoiding comparisons across mismatched contexts; and (2) system components, which identify core elements such as policies, processes, and resources.

- Operation and implementation group: This group includes (3) operating mechanisms, with improvement logic determining the sustainability of the system and (4) data and evidence, which reflect the principle of evidence-based governance, a prerequisite for organisational control and learning.

- Maintenance and adaptation group: This group includes (5) leadership roles and quality culture, which are factors that promote stable operation; and (6) contextual compatibility, which assesses the capacity to connect with external quality assurance and feasibility under the resource and legal conditions in Vietnam.

This system of criteria was selected to clarify the distinctive characteristics of each approach while comprehensively covering structure, operating mechanisms, and achieved outcomes. On this basis, the article develops Table 1 as a comparative matrix based on the three groups of components, synthesised from the six standardised data fields. This matrix helps identify similarities, differences, and "intersections" among the compared quality assurance approaches, while clarifying the potential role that each model may contribute to the proposed integrated structure.

2.2.2. Results of the Comparative Analysis

a. Plan-Do-Check-Act Cycle (PDCA)

PDCA primarily provides the logic of continuous improvement for quality assurance activities. Unlike governance frameworks with broad criteria structures such as AUN-QA or EFQM, PDCA does not provide a complete set of assessment standards; rather, it emphasises how a quality process is designed, implemented, monitored, and adjusted cyclically. The strength of PDCA lies in its simplicity, flexibility, and applicability to many core processes of higher education institutions, from planning and implementation to checking results and making improvement adjustments [10], [11].

However, the very generality of PDCA also creates limitations when this approach is used independently. PDCA indicates the cycle through which an improvement process should operate, but it does not clearly specify which components an IQA system should comprise, how data should be managed, how the roles of stakeholders should be designed, or to what extent evidence mechanisms should be standardised. Therefore, without an accompanying structural framework and set of criteria, PDCA may be simplified into repetitive and procedural operations rather than becoming an evidence-based development mechanism within the organisation [12] - [14].

b. Total Quality Management (TQM)

TQM is a comprehensive and systematic approach to quality enhancement through a continuous adjustment mechanism aimed at achieving sustainable success based on the satisfaction of "customers/beneficiaries" [15], [16]. This philosophy particularly emphasises the principle of "doing things right the first time" in all operational processes [17].

Compared with the other quality assurance approaches, TQM stands out in its view of quality as a shared responsibility of the entire organisation, rather than merely the task of a specialised unit. The strength of this approach lies in its capacity to expand the scope of quality assurance from the process level to the level of organisational culture, in which leadership, academic staff, administrative staff, learners, and stakeholders all participate in maintaining and improving quality. Compared with PDCA, TQM has an advantage in mobilising people, securing leadership commitment, and shaping quality culture; at the same time, it emphasises learner and stakeholder satisfaction as an important indicator of quality [15], [17].

However, TQM also has limitations when applied as an independent model in higher education institutions. Since it is oriented towards management philosophy and organisational culture, TQM does not provide a specific criteria structure like AUN-QA or EFQM, nor does it strictly regulate mechanisms for document control, evidence, and data traceability like ISO. The implementation of TQM therefore depends heavily on leadership commitment, internal coordination capacity, and the maturity level of the quality culture in each institution. In highly hierarchical organisations, if operating mechanisms and supporting data systems are lacking, TQM may remain merely a slogan of total quality rather than being transformed into concrete improvement activities [18].

c. European Foundation for Quality Management (EFQM)

EFQM is an organisational self-assessment framework based on a system of nine criteria, structured into two main groups: five "enabler" criteria, including leadership, people, strategy, partnerships and resources, and processes/ products/ services; and four "results" criteria, including customer results, people results, society results, and key performance results. This distinction supports higher education institutions in objectively identifying strengths and priority areas for improvement [19]. Among the quality assurance approaches compared, EFQM is notable for its capacity to connect internal organisational enablers

with achieved results. Compared with PDCA, EFQM has a more comprehensive assessment structure because it not only focuses on the improvement cycle but also considers the roles of leadership, strategy, people, partners, resources, processes, and result groups. Compared with TQM, EFQM has an advantage in its higher level of structuring, helping to translate the principles of total quality into a self-assessment framework with clearer criteria. As a result, EFQM supports higher education institutions in identifying strengths, areas for improvement, and the maturity level of the quality management system based on relatively comprehensive groups of evidence [20].

Nevertheless, EFQM has several limitations when considered in the context of Vietnamese higher education. As it is designed as a broad organisational self-assessment framework, EFQM requires a relatively high level of readiness in terms of self-assessment capacity, data systems, and implementation resources [20], [21]. If these conditions are not adequately prepared, the application of EFQM may risk becoming more criterion-based description than substantive improvement support. The RADAR logic gives EFQM an advantage over TQM in translating quality management principles into a structured self-assessment process; however, it also increases requirements for data, analytical capacity, and the maturity level of the governance system.

d. International Organization for Standardization (ISO - ISO 9001/ISO 21001)

ISO 9001/ISO 21001 has advantages in standardising quality management systems through a process-based approach, document control, records management, and evidence traceability. Compared with TQM, ISO has a clearer advantage in the degree of process formalisation and its capacity to control operational consistency. Compared with PDCA, ISO not only inherits the logic of continuous improvement but also specifies this logic into requirements for quality policy, quality objectives, process control, internal audit, and corrective actions. In particular, ISO 21001 has an advantage over ISO 9001 in its specificity to educational organisations, as it focuses on the needs of learners and beneficiaries in educational environments [22] - [25].

However, the strength of standardisation also creates limitations when ISO is applied independently in higher education institutions. Because it emphasises process and records control, ISO may increase proceduralism if implementation is oriented more towards certification, documentation, and formal inspection than substantive quality improvement. Compared with AUN-QA, ISO does not yet provide a highly specialised IQA framework for higher education and does not express the links among strategy, training programmes, teaching and learning activities, learner assessment, stakeholders, and outcomes to the same extent. Compared with EFQM and TQM, ISO also places less emphasis on quality culture, organisational learning capacity, and the broad participation of the academic community; the standard requirements are mainly operated as a records control system [25], [26].

e. Quality Assurance System of the ASEAN University Network (AUN-QA - ASEAN University Network - Quality Assurance)

AUN-QA is a regional framework aimed at harmonising quality assurance standards in ASEAN higher education, connecting IQA systems with international standards such as the ASEAN QAF and ESG 2015. Through this, the model establishes an important foundation for benchmarking and international integration among higher education institutions [27]. At the implementation level, the AUN-QA IQA framework [28] is designed around the "strategic environment" of the university and operates according to a continuous improvement cycle. This system is structured into four core components to consistently shape the IQA system [28].

Among the compared approaches, AUN-QA has a notable advantage in its specificity to higher education and its capacity to connect with the ASEAN regional quality assurance system. Unlike PDCA, which mainly emphasises improvement logic, or ISO, which focuses more on the standardisation of processes and evidence, AUN-QA provides a relatively comprehensive assessment framework for both institutional and programme levels. This model not only focuses on quality assurance policies, systems, and processes but also emphasises the roles of stakeholders, the relevance of training programmes, teaching and learning activities, learner assessment, outcomes, and improvement mechanisms. Therefore, AUN-QA has a clear advantage in helping higher education institutions connect IQA, regional benchmarking, and external quality assurance requirements [27], [28], [29].

However, AUN-QA also has certain limitations when used as an independent operational framework. Due to its broad scope and multilayered system of requirements, AUN-QA requires higher education institutions to have relatively developed capacities in data governance, evidence management, process management, and internal coordination. Without specific operational tools, AUN-QA requirements may be approached mainly as a set of assessment criteria rather than being translated into a regular governance mechanism. Compared with ISO, AUN-QA does not go into the same level of detail in standardising documents, controlling records, and tracing evidence at the process level. Compared with PDCA, AUN-QA needs to be specified through improvement loops in each activity to avoid a situation in which the standards framework exists at the descriptive level but is not deeply operationalised in practice [11], [28], [29].

2.3. Proposed model

Based on the comparison of the five approaches - PDCA, TQM, EFQM, ISO 9001/ISO 21001, and AUN-QA - this study proposes an integrated IQA model for Vietnamese higher education institutions according to three groups of components: (1) system shaping, (2) operation and implementation, and (3) maintenance and adaptation. These three groups of components are developed based on the six data fields used in the comparative matrix, namely: (1) objectives and scope;

(2) system components; (3) operating mechanisms; (4) data and evidence; (5) leadership roles and quality culture; and (6) contextual compatibility. This structure allows the proposed model not only to describe which parts constitute an IQA system, but also to clarify how the system operates, how it is evidenced, how it is maintained, and how it adapts to the Vietnamese context.

The model is developed according to the principle of functional role allocation among theoretical frameworks. AUN-QA is selected as the foundational structural framework because it is specific to higher education and capable of connecting IQA with external quality assurance and regional standards. PDCA is used as the operating logic because it provides a continuous improvement cycle for the entire system. ISO 9001/ISO 21001 is integrated to standardise processes, control documents, manage records, and ensure evidence traceability. TQM and EFQM add elements related to leadership, participation, quality culture, and results orientation. Thus, the integrated model aims to overcome the limitations of each model when used independently, while creating a structure for an IQA system that is both theoretically grounded and operationally feasible under the practical conditions of Vietnamese higher education institutions. Following this logic, AUN-QA establishes the structure and requirements of the IQA system; ISO translates these requirements into processes, records, and traceability mechanisms; PDCA ensures that the processes operate according to an improvement cycle; while TQM and EFQM support leadership, quality culture, self-assessment, and results orientation so that the system can be maintained and adapted.

First, the system-shaping group consists of two data fields: (1) objectives and scope; and (2) system components. This group answers the questions of why the IQA system is established, what scope it applies to, and what basic components it includes. In this group, AUN-QA plays a central role because it provides a structural framework specialised for higher education, covering policies, systems, processes, data, assessment, and improvement. Unlike PDCA, which mainly describes an action cycle, or ISO, which strongly focuses on process and records control, AUN-QA helps position IQA as a quality management system at the institutional level, linked to development strategy, training processes, scientific research, community service, and accountability. Therefore, in the proposed model, AUN-QA is used to establish the objectives, scope, structure, and relationships among the components of the IQA system.

However, if the model relies solely on AUN-QA, it may be inclined towards an assessment framework and criteria, while remaining insufficiently specific at the level of daily operational processes. Therefore, ISO 9001/ISO 21001 is added to the system-shaping group to help standardise quality policies, quality objectives, essential processes, implementation responsibilities, and the documentation system. The integration of ISO is not intended to turn IQA into a bureaucratised system, but to clarify "who does what, according to which process, using which forms, where evidence is stored, and how it is traced". As a result, the IQA structure is represented at the structural level while also being translated into a process system that can be implemented, monitored, and evaluated.

Second, the operation and implementation group consists of two data fields: (3) operating mechanisms; and (4) data and evidence. This group helps higher education institutions answer the questions of through which mechanism the IQA system operates and on what types of data and evidence it is based. In this group, PDCA is selected as the main operating logic because it aligns with the continuous improvement nature of IQA. Specifically, the Plan stage helps institutions establish quality objectives, IQA plans, and monitoring indicators; the Do stage implements training, research, service, and learner support processes; the Check stage conducts self-assessment, data analysis, stakeholder consultation, and comparison of results against objectives; and the Act stage adjusts policies, processes, resources, and improvement activities. When PDCA is integrated into each process, IQA is no longer an activity of preparing records for accreditation cycles, but becomes a regular governance mechanism of the institution.

Within the same group, ISO 9001/ISO 21001 is used to standardise data and evidence. If PDCA provides the operating logic, ISO helps ensure consistency, control, and traceability in that operation. Quality assurance processes need to be linked with systems of forms, records, input data, output data, updating responsibilities, and evidence storage mechanisms. This addition is particularly necessary in the context where many higher education institutions still face difficulties related to fragmented data, dispersed evidence, and a lack of connection among units. When data and evidence are managed according to processes, self-assessment becomes a natural outcome of system operation, rather than an activity of collecting records before external assessment visits.

In addition, AUN-QA continues to play a role in orienting the content of data to be collected and used. Data on learners, training programmes, teaching and learning activities, assessment of learning outcomes, scientific research, community service, resources, stakeholder feedback, and outputs need to be organised according to the institution's quality assurance objectives. Thus, data not only serve as evidence but also become a basis for decision-making. This is an important point of the integrated model: moving from records management to data- and evidence-based governance.

Third, the maintenance and adaptation group consists of two data fields: (5) leadership roles and quality culture; and (6) contextual compatibility. This group helps higher education institutions clarify the conditions under which the IQA system is maintained and whether it is compatible with the Vietnamese higher education context. In this group, TQM and EFQM are integrated to address the risk of bureaucratisation when institutions focus only on processes, forms, and evidence. TQM adds the view that quality is the responsibility of the whole organisation, not only of the specialised quality assurance unit. Accordingly, institutional leadership plays the role of creating vision,

allocating resources, and promoting the participation of academic staff, administrative staff, learners, and stakeholders. Quality culture is formed when actors within the institution recognise that quality assurance is not an externally imposed requirement, but an intrinsic mechanism for improving training, research, and community service activities.

EFQM is used to add an approach to organisational self-assessment, results orientation, and assessment of system maturity. Unlike TQM, which is more oriented towards management philosophy, EFQM helps connect internal enablers such as leadership, strategy, people, partners, resources, and processes with groups of achieved results. When integrated into the proposed model, EFQM supports higher education institutions in viewing IQA not only through the level of compliance with processes, but also through its actual effectiveness for learners, staff, society, and institutional performance. This helps the integrated model avoid focusing solely on input evidence while enhancing the capacity to evaluate the impact of IQA on organisational development.

Contextual compatibility is ensured through the foundational role of AUN-QA and the support of the remaining approaches. AUN-QA creates connectivity with external quality assurance, regional benchmarking and internationalisation requirements". ISO supports the standardisation of processes and evidence, aligning with the requirements of transparency and accountability. PDCA helps the system operate according to an improvement cycle, consistent with the requirement for regular quality enhancement. TQM and EFQM strengthen human factors, leadership, quality culture, and results orientation, thereby helping the model adapt to differences in resources, governance capacity, and the maturity level of each higher education institution.

The integration principle of the model can be summarised through four main functions: AUN-QA shapes the structure of the IQA system; PDCA organises the operation and improvement cycle; ISO standardises processes, data, and evidence; and TQM/EFQM strengthens leadership, participation, quality culture, and results orientation. In the integrated model, data and evidence serve as the linking function among the components: AUN-QA orients the content of quality information to be collected; ISO standardises the creation, storage, and traceability of data; PDCA uses data for checking and improvement; EFQM uses results data to assess the maturity level of the system; and TQM promotes the use of data as a regular activity of quality culture. This combination creates an integrated model that is systemic, has an operating mechanism, is grounded in data, and has conditions for maintenance in practice.

In terms of implementation, the proposed model does not require higher education institutions to apply all components simultaneously at a high level, but allows them to apply the components according to their readiness level. At the initial stage, institutions may prioritise the system-shaping group by establishing quality assurance policies, organisational structures, quality objectives, and core processes according to AUN-QA and ISO orientations. At the development stage, institutions need to focus on the operation and implementation group by embedding PDCA into each process, developing a data system, standardising evidence, and establishing feedback mechanisms. At a more advanced stage, institutions may expand to the maintenance and adaptation group by developing quality culture, strengthening organisational self-assessment, benchmarking, analysing results, and making evidence-based decisions. This readiness-based approach helps the model fit the diverse conditions of Vietnamese higher education institutions while limiting the risk of formalistic application or resource overload.

Thus, the integrated model represents a purposeful allocation of roles among the above approaches according to the principle of combining system structure, improvement operation, and adaptive maintenance. Compared with the separate use of AUN-QA, PDCA, ISO, TQM, or EFQM, the proposed model connects within a single structure functions that are otherwise dispersed across individual approaches: AUN-QA shapes the system structure; PDCA organises the operation and improvement cycle; ISO standardises processes, data, and evidence; and TQM/EFQM strengthens leadership, participation, quality culture, and results orientation. As a result, the model shifts IQA from an approach inclined towards compliance or separate tools to a regular quality management system that is structured, has an improvement mechanism, is grounded in data, and has conditions for maintenance in practice.

The integrated model proposed in this article is conceptual in nature and is developed based on a structured review, conceptual comparison, and comparison of common quality assurance approaches. Therefore, the article has not yet verified the effectiveness of the model's implementation in a specific higher education institution. Expert consultation, case studies, or pilot implementation of the model according to different levels of institutional readiness are necessary directions for future research in order to further evaluate the feasibility, effectiveness, and conditions for applying the model in the practice of Vietnamese higher education.

3. Conclusion

This article affirms that, in the context of Vietnamese higher education moving towards standardisation, transparency, and continuous improvement, the key challenge of IQA lies not only in selecting a specific quality management model, but also in establishing a clear approach to defining, structuring, and operating IQA as a regular quality management system. Through a structured review method and a comparative matrix of five major approaches applied in IQA - PDCA, TQM, EFQM, ISO, and AUN-QA - the study has proposed an integrated model that uses AUN-QA as the foundational structural framework, PDCA as the operating mechanism, and ISO to ensure the standardisation of processes and evidence, while applying TQM/EFQM to strengthen quality culture and results orientation.

In terms of implementation, four focal areas - policy and organisation; systems and processes; data and

information; and evaluation and improvement - together with the principles of evidence-based decision-making and digital transformation, are regarded as important conditions for success. The implementation implications according to the level of governance maturity allow each higher education institution to adjust the pace of model application in accordance with its actual resources, thereby limiting formalism in administrative procedures, clarifying responsibility for improvement, and enhancing the use of data in quality management.

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