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ORIGINAL ARTICLE

Internal Quality Assurance (IQA) Tools and Processes Used by Vietnamese Universities: Implications for Continuous Improvement

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ABSTRACT
Based on Martin's and Parikh's (2017) model of quality assurance, this research investigated the extent to which higher education institutions in Vietnam developed Internal quality assurance (IQA) processes and tools in five aspects: teaching and learning, students' employability, research, governance, revenues and community services, and international affairs. This study surveyed university leaders, middle managers, faculty members, and support staff from 13 universities. These universities were recruited from 44 universities in a city in Vietnam using a stratified sampling technique. It was found that (a) these universities used two common IQA tools (student course experiences and students' satisfaction) to ensure and improve the quality of teaching and learning, (b) most universities developed and used all surveyed IQA tools to assure the quality of student services as well as to promote students' employability, (c) as regards governance-related IQA tools, most universities only focused on units' evaluation, and (d) the participating universities reported limited use of tools to assure revenues and community services and international affairs. Based on the findings of this study, the paper offers implications for universities in Vietnam to enhance quality and develop a management information system to analyze data collected from these tools for quality improvement.

1. INTRODUCTION

UNESCO in 2017 reported a project to examine the internal quality assurance (IQA) systems of eight universities worldwide (AlHamad, 2017; Daguang et al., 2017; Ganseuer & Pistor, 2017; Kuria & Marwa, 2017; Lamagna et al., 2017; Lange & Kriel, 2017; Vettori et al., 2017; Villalobos et al., 2017). All eight universities provided information about the structure of the internal QA system and internal QA tools and processes. For IQA tools and mechanisms, these institutions reported what tools and processes they employed to promote teaching and learning quality, management, and graduate employability. The UNESCO case studies show that course evaluations, program evaluations/monitoring, student satisfaction surveys, workload evaluations/recognitions, faculty members mentoring, teaching analytics research, institutional evaluations, goal-setting and performance agreements, monitoring student practicums, peer tutoring and teaching assistants, curriculum reviews, and program evaluations through student surveys are internal QA tools for teaching and learning. Employer surveys and in-depth interviews, labor market analysis, employer involvement in curriculum design and adjustments, student learning assessments, and employer satisfaction surveys are internal QA tools ensuring graduate employability. Goal-setting

agreements/contracts, internal and external evaluations of units, accreditations, unit evaluations, and institutional or unit self-evaluations are internal QA tools for management.

In Vietnam, Nguyen et al. (2024) conducted a similar study to examine the IQA systems of universities in a city in Vietnam. The study adopted the questionnaire used in the project by UNESCO. Figure 1 displays the entire theoretical framework of the UNESCO project.

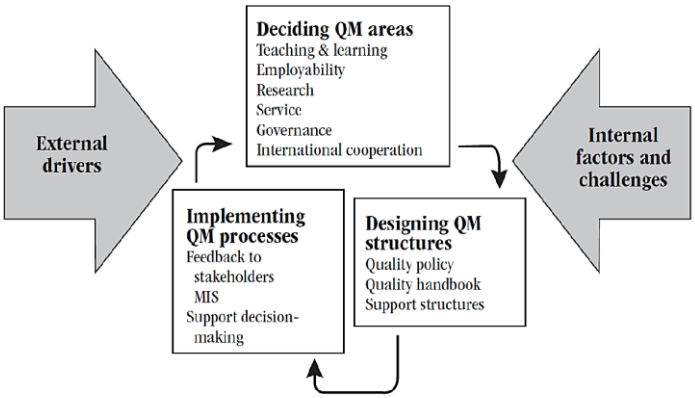

Figure 1. The IQA framework used in the UNESCO's project (Martin & Parikh, 2017, p.20)

This paper reports the findings of IQA tools and processes, which facilitates our understanding of how universities in Vietnam decide on areas for quality assurance or in the original project called quality management (QM). The paper also discusses the results in Vietnam in relation to international trends. Implications will be offered for IQA systems in Vietnam regarding tools and processes.

2. LITERATURE REVIEW

With permission to translate a questionnaire developed by Martin and Parikh (2017), the following section summarizes the theoretical foundations for designing the questionnaire relating to IQA tools and processes for teaching and learning and management.

IQA tools and processes for teaching and learning

The survey questionnaire deliberately focuses on the teaching aspect of higher education institutions (HEIs), expecting that external demands would drive their quality assurance (QA) efforts to primarily target this function. The questionnaire aims to capture the key elements of a QA system designed for teaching and learning, which include improving curriculum, staff performance, student support systems, and student support services (Martin & Parikh, 2017).

To enhance curriculum

The enhancement of academic programs is a crucial aspect of IQA in higher education institutions. Various tools have been developed to achieve this goal, including student course assessments, which involve students evaluating the quality of teaching and learning at the course level. Additionally, student satisfaction surveys assess the broader student experience, encompassing support services and extracurricular activities. Workload assessments, where students record their workload in each course, help estimate the adequacy of credits. Another tool is student progression studies, which are longitudinal assessments of selected students at key transition points within a study program. Program evaluation, which assesses the adequacy of learning objectives and how well the pedagogic system and resources serve those objectives, can involve faculty members, students, and external stakeholders. Lastly, program monitoring based on statistical indicators is a form of program evaluation that utilizes selected process indicators such as student-staff ratios, student progression, and completion.

To assure the quality of faculty members' performance

Faculty members assessment, a crucial component of IQA systems, evaluates the performance and productivity of faculty members through various methods. Peer assessment focuses on research performance and productivity, while annual performance appraisals by supervisors consider a broader range of activities, including teaching.

Mentoring arrangements help improve the teaching competence of early-career faculty members, and peer reviewing involves colleagues observing and providing feedback on each other's classes. Classroom supervision by academic authorities is not frequent due to professional autonomy. Internal evaluation (self-assessment) systematically evaluates existing practices for consistency with the institution's mission, and the information generated is used for decision-making processes. Students' evaluation of teachers assesses instructors based on preparedness, promotion of learning, use of suitable evaluation methods, and availability for help. These methods ensure the quality of teaching and research while supporting the professional development of faculty members.

To evaluate student support services

University students rely on a wide array of resources and assistance beyond the classroom to excel academically and prepare for their future careers. Critical elements of this support infrastructure include guidance on academic matters and career planning, streamlined processes for enrolling and registering for courses, access to computing equipment and digital tools, availability of research materials and library services, and hands-on training in well-equipped teaching labs. By empowering students with the sufficient resources they need to thrive, these support services play a vital role in enhancing educational quality, enriching the learning environment, and shaping a positive, holistic student experience.

IQA and management

In higher education, the scope of quality assurance is not limited to the realm of pedagogy and student learning. QA can encompass various other essential aspects of an institution's operations, including research activities, administrative governance, community outreach programs, and more. Moreover, quality assurance often emphasizes key areas that are closely tied to an institution's mission, such as graduate employability and global partnerships, both of which carry significant political importance in today's educational landscape (Martin & Parikh, 2017).

Quality assurance and employability

The connection between higher education (HE) and the job market has long been a top priority in HE policy, but the issue has gained even more attention due to rising graduate unemployment in many countries. HEIs are under growing pressure to ensure that students receive the best possible training and acquire the necessary skills to enter the workforce. There is an increasing expectation for HEIs to develop and implement tools and processes that involve employers in QA, such as through the design and review of academic programs and regular feedback from alumni and employers on the perceived readiness of graduates for the demands of the job market.

To explore how QA addresses graduate employability, a survey asked respondents about the tools and processes they use to measure and improve performance in this area. These tools include: (a) involving employers or alumni in committees responsible for developing and reviewing academic programs, (b) conducting tracer studies to survey graduates at specific intervals after graduation to gather feedback on their success in entering the job market and the relevance of their program, (c) administering employers' surveys to collect and analyze employers' assessments of graduates' preparedness for the workforce, (d) engaging employers in curriculum development and review to seek their opinions on the effectiveness of programs in relation to graduates' job readiness, (e) incorporating internships into academic programs and assessing their contribution to the overall pedagogical system (Martin & Parikh, 2017).

Quality assurance and research

HEIs vary in their focus on research, largely due to differences in access to funding and specialized human resources. In institutions where research is well-established, there are typically national or international research organizations or programs that provide competitive funding. These research bodies often evaluate research proposals using both external and internal peer review processes. Faculty members advancement is frequently tied to research performance, which is often dependent on successful grant applications. In recent years, it has become more common for HEIs to develop institutional research policies and implement QA processes to guide strategic decision-making and resource allocation in the research domain. Two key measures used in this context are (a) research productivity and impact, which considers the number of research outputs, such as publications and patents, produced by a researcher and their influence on the relevant field of study, and (b) internal reviews of research proposals, which means that institutions conduct these reviews to enhance the quality of research output and inform future research directions. By implementing these QA processes, HEIs aim to ensure the quality and relevance of their research activities and optimize the use of their resources (Martin & Parikh, 2017).

Quality assurance and governance

Universities have undergone significant changes in their governance structures and processes, often as a result of national reforms implemented under the new public management paradigm. These reforms involve the use of various tools and processes to enhance governance and management. They are tools to monitor strategic planning objectives through key performance indicators (KPIs), to evaluate administrative units, and to define internal target and service level agreements. Some universities apply for external certification of management processes such as ISO or EFQM to reform and standardize the work of their administrative units (Martin & Parikh, 2017).

Quality assurance and international cooperation

International cooperation has long been a feature of higher education, but in the context of globalization, competition among HEIs to attract international students, staff, and funds has intensified. This has elevated the importance of internationalization, which is expected to enhance the quality of academic programs and research, generate income, and boost the international standing and prestige of HEIs. Many governments strongly support their HEIs' engagement in international cooperation as a means of raising their global reputation, particularly in international rankings. Given the current significance of internationalization, it was anticipated that HEIs would incorporate international cooperation into their QA systems. To better understand the role of QA in enhancing international cooperation, participating institutions were asked about the tools and processes they employ, which include evaluation of the support structure for internationalization, use of performance indicators, and evaluation of potential partner institutions or organizations (Martin & Parikh, 2017).

Quality assurance and income generation and community services

Faced with increasing financial constraints, HEIs around the world have been focusing more on income-generating activities. One of the most prevalent income-generating activities is continuing professional development, which involves offering short and long-term training courses or enrolling fee-paying students. Other income-generating activities may include (a) Contract research: HEIs can leverage their academic expertise, human resources, and specialized equipment to research on behalf of external organizations; (b) Testing services: Institutions can provide commercial testing services, utilizing their facilities and expertise; and (c) Consultancy services: HEIs can offer consulting services based on their academic knowledge and experience. In addition to these income-generating activities, HEIs also engage in community services, which are provided to the surrounding environment. Although these services are often not explicitly aimed at generating income, they play a crucial role in many developing countries (Martin & Parikh, 2017).

3. MATERIALS AND METHODS

A survey method was used in this study. A questionnaire was designed to survey top and middle leaders of Vietnamese universities and faculty and support staff on IQA tools and processes. Out of 44 institutions, 13 universities (accounting for 30% of total institutions in a Vietnamese city) were selected to join this study using stratified sampling techniques. They represent both different public and private institutions in this city. They were accredited and recognized. Data was collected through a questionnaire to seek information discussed in the literature review. They are IQA tools and processes for teaching and learning and IQA for management purposes.

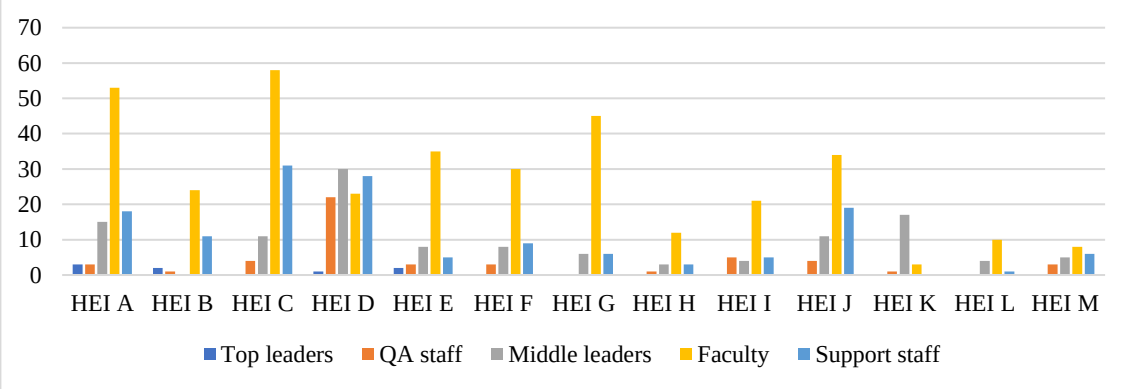

Figure 2. Participants - Their roles within a university

The questionnaire received a total of 769 responses from various stakeholder groups, as shown in Figure 2. The respondents represented a diverse range of positions within the university structure, which were categorized into five distinct groups: university top management, quality assurance personnel, heads of academic departments, teaching staff, and administrative support staff. This distribution of respondents across different roles aimed to provide a comprehensive representation of the university's organizational hierarchy.

Table 1. HEI's ownership (public or private), characteristics and orientation (research or application)

		HEI A	HEI B	HEI C	HEI D	HEI E	HEI F	HEI G	HEI H	HEI I	HEI J	HEI K	HEI L	HEI M
Ownership	Public	1	1	2		1	1			2	2	2	3	2
	Private				3			3	2					
Characteristics	Public, state funding	1	1	1			1			2	2		3	
	Public, autonomous financing	1				1						2		2
	Private, not for profit				2									
	Private, for profit				2			3	2					
Orientation	Research-oriented	1			2						2	2	3	2
	Teaching-oriented	1	1		2	2	1	3	2					
	Research + teaching			3	1		1		3	2				
	Others					1								

Universities were also asked for information related to student size. Out of 13 universities joining this study, 6 institutions recruited more than 20,000 students (HEI B, C, D, E, K, and M) and 7 with less than 20,000 students (the rest).

As regards data analysis, to display nominal information (yes, no, do not know/no ideas), the results are reported using two principles. Principle 1 states that the data will be reported with the percentage of participants choosing each option offered in the answer. The data were then converted to a scale of 4: if >80% chose yes/selecting an option 4; 80%..>60% 3; 60%..>40% 2; 40%..>20% 1; 20%..0% 0. Secondly, for questions asking participants about the level they agreed and the level of frequency, data were coded as relevant. For example: when asking about the level each activity contributed to faculty members' evaluation, 4 means very much, 3-much, 2-a little bit, 1-rarely, 0-not at all, and 6-no ideas.

4. RESULTS AND DISCUSSION

4.1. Results

IQA tools for curriculum review and improvements

For this aspect, the participants were asked about tools the HEIs in Vietnam used to review their study curricula. Table 2 shows that the two most widely used tools are student evaluation of courses and student satisfaction surveys, with mean scores of 4.0 and 3.9 respectively, for the purpose of curriculum improvement. On the other hand, the two least affirmed tools are student evaluation of the curriculum and monitoring of the program using statistical indicators, both with a mean score of 3.3. Although the differences in levels of agreement are not substantial, it can be observed that HEI M (4.0) and HEI E (3.9) employed the highest number of tools, while HEI F (3.1) and HEI H (3.3) rank at the bottom in terms of tool variety.

Table 2. IQA tools for curriculum review and improvements

IQA tools for curriculum	HEI A	HEI B	HEI C	HEI D	HEI E	HEI F	HEI G	HEI H	HEI I	HEI J	HEI K	HEI L	HEI M	**Mean**
Student course experiences	4	4	4	4	4	4	4	4	4	4	4	4	4	**4**
Curriculum evaluation by students	3	4	4	4	4	3	3	2	3	3	3	4	3	**3.3**
Curriculum evaluation by teachers	3	4	4	4	4	3	4	3	4	3	3	3	4	3.5
Monitoring curriculum with statistical indicators	3	4	3	4	4	3	3	3	2	4	3	3	4	**3.3**
Students' workload evaluation	4	3	4	2	4	3	4	3	4	3	3	4	4	3.5
Employers' satisfaction	3	4	4	4	4	3	3	4	4	4	4	3	4	3.7
Students' satisfaction	4	4	4	4	4	3	4	4	4	4	4	4	4	**3.9**
Assessment of SLOs	4	3	3	4	4	3	4	3	4	4	3	3	4	3.5
Total	3.5	3.8	3.8	3.8	**4**	**3.1**	3.6	**3.3**	3.6	3.6	3.4	3.5	**3.9**	3.6

The results in Vietnam are similar to what was found in the international survey. Most institutions regularly employed tools like course evaluations by students (90%), student satisfaction surveys (85%), program monitoring via statistics (80%), and program evaluations by faculty members (79%) and students (70%). However, newer and more technically demanding approaches like assessing student workloads (57%) and studying student progression (54%) had relatively lower adoption rates.

IQA tools for faculty members' performance

To gain insight into current trends in evaluating faculty members, participating universities were surveyed about the methods and instruments they employ to assess their teaching staff. The result shows that the HEIs employed a wide range of IQA tools with significant disparities in the extent of their utilization. The two most frequently used instruments are student evaluations of lecturers (4.0) and annual staff appraisals (3.8). Conversely, the least commonly employed one is peer evaluation (2.0), followed closely by faculty members' and students' assessments of various units within the HEI. However, there were substantial differences among HEIs regarding the use of these tools: HEI B (4.0) and HEI M (3.9) used the most tools, while HEI F (2.5) and HEI L (3.0) used the fewest.

Table 3. IQA tools for faculty members' performance

IQA tools for faculty members' performance	HEI A	HEI B	HEI C	HEI D	HEI E	HEI F	HEI G	HEI H	HEI I	HEI J	HEI K	HEI L	HEI M	**Mean**

Staff evaluation (annual)	4	4	4	4	4	3	4	4	4	4	4	3	4	**3.8**
Internal evaluation (by an internal committee) of staff performance for promotion decisions	3	4	4	4	4	3	4	3	3	3	4	4	4	3.6
Students' evaluation of faculty members	4	4	4	4	4	4	4	4	4	4	4	4	4	**4.0**
Peer review (i.e., review by fellow faculty members)	2	4	4	2	3	2	1	2	2	2	1	2	3	**2.3**
Faculty member (classroom) supervision by university authorities	4	4	4	3	4	2	4	2	4	4	3	2	4	3.4
Evaluation of functional units by students and staff	3	4	2	2	2	1	3	4	4	3	4	3	4	**3.0**
Total	3.3	**4.0**	3.7	3.2	3.5	**2.5**	3.3	3.2	3.5	3.3	3.3	**3.0**	**3.8**	3.4

IQA tools for students' support services

Regarding IQA tools used to assure the quality of student support services, Table 4 shows that the mean scores ranged from 3.2 (HEI G-lowest) to 4.0 (HEI A, C, K, and M-highest) for the various support services evaluated. Libraries and documentary resources received the highest mean (M=3.9), followed by academic/career advising and ICT facilities (both M=3.8). Admission/registration processes had a mean of 3.5 while teaching laboratories received the lowest mean of 3.7.

Table 4. IQA tools for students' support services

IQA tools for students' support	HEI A	HEI B	HEI C	HEI D	HEI E	HEI F	HEI G	HEI H	HEI I	HEI J	HEI K	HEI L	HEI M	**Mean**
Academic/ career advising	4	3	4	4	4	3	4	4	4	4	4	3	4	3.8
Admission/ registration	4	3	4	3	3	4	3	3	3	4	4	4	4	**3.5**
ICT facilities	4	4	4	4	4	4	3	3	4	4	4	4	4	3.8

Libraries and documentary resources	4	4	4	4	4	4	3	4	4	4	4	4	4	**3.9**
Teaching laboratories	4	4	4	4	4	4	3	3	3	3	4	4	4	3.7
Total	**4.0**	3.6	**4.0**	3.8	3.8	3.8	**3.2**	**3.4**	3.6	3.8	**4.0**	3.8	**4.0**	3.8

The results are aligned with what was found internationally (Martin & Parikh, 2017). The limited usage of these instruments might be attributed to a perceived incompatibility with the deeply ingrained ethos of professional autonomy that permeates the academic milieu. Nonetheless, mentoring emerged as one of the more widely implemented mechanisms for supporting and developing faculty members.

IQA tools for employability

An analysis of the data presented in Table 5 revealed moderate to high adoption levels for most IQA tools and processes related to employability across the 13 institutions surveyed. The tools with the highest mean scores were "employer surveys" and "curriculum development involving professions/employers" (both M=3.7), indicating a common practice of actively involving employers in curriculum design and seeking their feedback. In contrast, the tool with the lowest mean score was "evaluation of soft skills training" (M=3.2), suggesting potential areas for improvement in formally evaluating such programs. While most institutions demonstrated moderate to high adoption levels, there were significant outliers, with HEI E and K scoring the highest overall (M=4.0) and HEI G (M=2.7) and H (M=2.8) having relatively low scores. The similar mean scores for tools used to monitor the quality of internships (M=3.6), "curriculum review involving professions/employers" (M=3.6), and "curriculum review involving alumni" (M=3.6) suggest that institutions are trying to balance input from various stakeholders in their employability efforts.

Table 5. IQA tools and processes for employability

IQA tools for employability	HEI A	HEI B	HEI C	HEI D	HEI E	HEI F	HEI G	HEI H	HEI I	HEI J	HEI K	HEI L	HEI M	**Mean**
Evaluation of support quality	4	3	4	4	4	3	2	3	4	4	4	4	3	3.5
Employer surveys	3	4	4	4	4	4	2	3	4	4	4	4	4	**3.7**
Monitoring the quality of internships	3	3	4	3	4	4	3	3	4	4	4	4	4	3.6
Evaluation of soft skills training	3	3	3	3	4	2	3	2	4	3	4	4	4	**3.2**
Curriculum development involving professions/ employers	3	4	4	4	4	3	3	3	4	4	4	4	4	**3.7**
Curriculum review involving professions/ employers	3	4	3	4	4	4	3	3	4	3	4	4	4	3.6

Curriculum review involving alumni	3	4	4	4	4	3	3	3	4	3	4	4	4	3.6
Total	**3.2**	3.5	3.7	3.7	**4.0**	3.3	**2.7**	**2.8**	4.0	3.7	**4.0**	**4.0**	**3.8**	3.6

According to the results reported by UNESCO, the most commonly utilized tool to boost graduate employability is curriculum development that incorporates input from professionals (79%), followed by curriculum review (75%) and monitoring internship programs (72%). Fewer institutions, approximately two-thirds, conduct graduate tracer studies or employer surveys to inform their employability efforts. Notably, only half of the responding institutions involved alumni in the process of curriculum review.

IQA tools for research

For IQA tools for research, the results in Table 6 show that the use of performance monitoring through a set of indicators (2.8) was the least tool reported, followed by internal evaluation of ongoing research projects (3.2). The remaining instruments received relatively high levels of affirmation, ranging from 3.5 to 3.7. When comparing HEIs, strong affirmation was observed in HEI B and E (4.0), as well as HEI K and M (3.8), while the weakest affirmation was found in HEI H (2.2) and A (2.8).

Table 6. IQA tools for research

IQA tools for research	HEI A	HEI B	HEI C	HEI D	HEI E	HEI F	HEI G	HEI H	HEI I	HEI J	HEI K	HEI L	HEI M	**Mean**
Internal review of research proposals	3	4	4	3	4	3	3	3	4	3	4	4	4	**3.5**
Internal peer review of ongoing research projects	3	4	3	3	4	3	3	2	3	3	4	3	3	3.2
Review of current research by external peers invited by HEI	3	4	3	3	4	3	4	2	4	3	4	4	4	**3.5**
Monitoring research productivity/ impact based on indicators	2	4	2	3	4	2	3	2	3	2	3	3	4	**2.8**
Research policies	3	4	4	4	4	3	3	2	4	3	4	4	4	**3.5**
Evaluation criteria for research	3	4	4	4	4	3	4	2	4	4	4	4	4	**3.7**
Total	**2.8**	**4**	3.3	3.3	**4**	2.8	3.3	**2.2**	3.7	3	**3.8**	3.7	**3.8**	3.4

An international survey in 2017 found that an internal review of research proposals was the most common tool used by 77% of institutions to enhance research activities. Less than two-thirds of institutions utilized other methods

like monitoring research productivity through metrics (64%), internal peer review of ongoing projects (58%), and external peer review (51%). Some institutions offered incentives like dedicated research time and travel funding to encourage faculty research. Tracking publication outputs in both indexed and non-indexed journals was also a practice employed to assess research productivity.

IQA tools and processes for governance

Similarly, institutions were asked about tools and processes they used for governance (Table 7). Table 7 shows varying adoption of IQA tools for governance across 13 Vietnamese HEIs. "Evaluation of administrative units" had the highest mean (M = 3.3), while "certification of management processes" was the lowest (M = 2.0). However, there were significant institutional differences, with HEI K and M, exhibiting the highest affirmation level (total M = 4.0) and HEI F and J demonstrating relatively low adoption (total M = 1.3 and 1.5 respectively) of these governance IQA practices.

Table 7. IQA tools for governance in Vietnam

IQA tools for governance/ management	HEI A	HEI B	HEI C	HEI D	HEI E	HEI F	HEI G	HEI H	HEI I	HEI J	HEI K	HEI L	HEI M	**Mean**
Monitoring of performance indicators related to strategic planning objectives	1	3	2	2	4	1	3	2	3	1	4	1	4	2.4
Target-level agreements	2	2	4	4	4	1	3	2	4	2	4	2	4	2.9
Evaluation of administrative units	3	4	4	4	4	2	3	2	4	2	4	3	4	**3.3**
Certification of management processes	3		2	2	3	1		1	4	1	4	1	4	**2.0**
Total	2.3	2.3	3.0	3.0	**3.8**	**1.3**	2.3	**1.8**	**3.8**	**1.5**	**4.0**	**1.8**	**4.0**	2.7

The international data by UNESCO revealed that the most widely adopted practices among the responding institutions are monitoring performance indicators aligned with their strategic planning goals (82%) and the evaluation of administrative units (76%). Target and service-level agreements are practices implemented by a smaller majority, ranging from 55% to 60%. Notably, the certification of management processes appears to be the least prevalent approach, with less than 40% of institutions incorporating this practice into their IQA efforts.

IQA for income generation, and community services

Table 8 reveals moderate mean adoption levels ranging from 1.8 to 2.8 for IQA practices about income generation and community services across the surveyed HEIs. "Monitoring the quality of testing services" demonstrated the highest mean (M = 2.8), while "Monitoring the quality of community development programs" had the lowest (M = 1.8), potentially warranting increased institutional focus. However, the mean scores obscure significant institutional variations, with HEI C, K, and M demonstrating relatively comprehensive adoption across all practices (total M = 3.2, 3.8, and 3.8 respectively). In contrast, HEI B, F, G, and H had notably low overall adoption levels ranging from 1.4 to 1.6. The remaining institutions fell within a moderate range.

Table 8. IQA for income generation, and community services

IQA for income generation, and community services	HEI A	HEI B	HEI C	HEI D	HEI E	HEI F	HEI G	HEI H	HEI I	HEI J	HEI K	HEI L	HEI M	**Mean**
Monitoring the quality of continuous education programs	2	2	4	2	3	2	2	1	2	2	4	2	4	2.5
Monitoring the quality of consultancy services	1	1	3	2	3	1	2	2	2	2	4	2	4	2.2
Monitoring the quality of testing services	2	3	4	2	3	2	2	2	2	3	4	3	4	**2.8**
Monitoring the quality of contract research	2	1	3	2	3	2	1	1	2	2	4	3	4	2.3
Monitoring the quality of community development programs	1	1	2	2	3	1	1	1	2	1	3	2	3	**1.8**
Total	**1.6**	**1.6**	**3.2**	2.0	3.0	**1.6**	**1.6**	**1.4**	2.0	2.0	**3.8**	2.4	**3.8**	2.3

IQA tools for international cooperation

This section consists of five measurement items related to determining whether or not tools/processes are employed to improve international cooperation activities. The original questionnaire only asked institutions about three first practices. In this study, two more items were added asking about benchmarking the number of student and staff exchanges. The results show that the level of affirmation is low across all five tools and processes, with the highest being the evaluation of the International Cooperation Office (2.7), which has a considerable gap compared to the remaining four tools (ranging from 2.0 to 2.2). When comparing HEIs, strong affirmation is observed in HEI K and M (both at 3.8), as well as HEI I and E (both at 3.8). There is a significant disparity between these institutions and the HEIs with the lowest levels of affirmation, namely HEI F and A (both at 1.2), and HEI G (1.4).

Table 9. IQA tools for international cooperation

IQA tools for international cooperation	HEI A	HEI B	HEI C	HEI D	HEI E	HEI F	HEI G	HEI H	HEI I	HEI J	HEI K	HEI L	HEI M	**Mean**
Evaluation of the International Office, organized by the institution	1	3	3	3	3	2	1	2	3	2	4	4	4	**2.7**
Monitoring of performance indicators related to	1	3	2	2	3	1	1	1	3	1	4	2	3	2.1

internationalization policy/strategy														
Evaluation of partner institutions	2	1	2	2	3	1	1	1	2	1	3	3	4	2.0
Benchmark number of exchange students	1		2	3	3	1	3	2	2	2	4	2	4	2.2
Benchmark number of exchange staff	1	1	2	3	3	1	1	2	2	2	4	2	4	2.2
Total	**1.2**	1.6	2.2	2.6	3.0	**1.2**	**1.4**	1.6	2.4	1.6	**3.8**	2.6	**3.8**	2.2

As for the UNESCO report, the result indicates an unexpected trend - most of the institutions did not employ many of the suggested tools or processes for quality assurance of international cooperation activities. Among the tools that were utilized, monitoring performance indicators aligned with internationalization policies emerged as the most popular choice (63%), followed by institutional self-evaluations of international offices (58%) and evaluations of partner institutions (46%).

4.2. Discussion

As summarized in Table 10, this study surveyed 13 universities in a city in Vietnam to explore how they employed various IQA tools and processes to ensure and improve different aspects of operations within a university. It can be seen that HEIs in a city in Vietnam used most IQA tools and processes for teaching and learning, including curriculum review and improvement (3.6) staff performance evaluation (3.4), and student support services (3.8) and for employability (3.6) and research (3.4). IQA tools and processes for governance (2.7), income and community services (2.3), and international cooperation (2.2) were the least employed. There was significant variation in adoption levels across different areas and institutions: HEI E, K, and M demonstrated high adoption across most areas while HEI F, H, and J had lower adoption levels for several areas.

The comprehensive analysis results presented in Table 10 show that the large-scale autonomous public higher education institutions (M, K, E) affirm the role of quality assurance tools and processes and their implementation more significantly than other HEIs. The latter group comprises two small-scale private HEIs (G and H) and one small-scale public university that receives state funding (HEI F).

Table 10. A summary of the results of using IQA tools and processes surveyed

IQA tools for	HEI A	HEI B	HEP C	HEI D	HEI E	HEI F	HEI G	HEI H	HEI I	HEI J	HEI K	HEI L	HEI M	**Mean**
Teaching and learning														
Curriculum review and improvement	3.5	3.8	3.8	3.8	**4**	**3.1**	3.6	**3.3**	3.6	3.6	3.4	4	**3.9**	3.6
Staff performance	3.3	**4**	3.7	3.2	3.5	**2.5**	3.3	3.2	3.5	3.3	3.3	**3**	**3.8**	3.4
Students support services	**4**	3.6	**4**	3.8	3.8	3.8	**3.2**	**3.4**	3.6	3.8	**4**	4	**4**	3.8
Employability	**3.2**	3.5	3.7	3.7	**4**	3.3	**2.7**	**2.8**	4	3.7	**4**	**4**	**3.8**	3.6
Research	**2.8**	**4**	3.3	3.3	**4**	2.8	3.3	**2.2**	3.7	3	**3.8**	4	**3.8**	3.4
Governance	2.3	2.3	3	3	**3.8**	**1.3**	2.3	**1.8**	**3.8**	**1.5**	**4**	**2**	**4**	2.7

Income and community services	**1.6**	**1.6**	**3.2**	2	3	**1.6**	**1.6**	**1.4**	2	2	**3.8**	2	**3.8**	2.3
International cooperation	**1.2**	1.6	2.2	2.6	3	**1.2**	**1.4**	1.6	2.4	1.6	**3.8**	3	**3.8**	2.2
Ownership - Finance*	CN	CN	CN	TT	**CT**	**CN**	**TT**	**TT**	CN	CN	**CT**	CN	**CT**	
Size**	L	N	L	L	**L**	**n**	**n**	**N**	N	n	**L**	n	**L**	

Note:

** CN: Public-state funding; CT: Public-autonomous; TT: Private-for profit*

***: L: HEI with >20,000 sts, n: HEI with] <20,000 sts*

This is very much similar to what was found in an international survey (Martin & Parikh, 2017). They concluded that in the realm of teaching and learning, the predominant QA tools were associated with academic programs, with student course evaluations and student satisfaction surveys being the most frequently utilized methods. Curriculum development and review were the most commonly used methods to improve graduate employability. In the research domain, the most frequently employed tool was the internal review of research proposals. In governance and management, the monitoring of performance indicators related to strategic planning objectives was the most common practice. There was no distinct pattern in the tools and processes used to monitor quality in areas such as income generation, community services, and international cooperation, reinforcing the perception that these areas are less comprehensively covered by QA. Similar to what was discussed by Martin (2018) about UNESCO's case studies, IQA tools in teaching and learning were used by Vietnamese and other universities in the world to enhance the quality of the entire programs and individual courses. Challenges were also identified in the use of tools to evaluate courses and programs. No follow-up plans or actions were taken from the information obtained from program surveys. Regarding the tools used for graduate employability, although they were effective in providing information to improve employability for graduates, they were sometimes not highly reliable as a result of a low response rate, for example, from a tracer study. As for management, effective management is necessary for a successful institution (Martin, 2018). Common IQA tools in management (such as goal agreements, unit self-assessment, external assessment, and certification) support strategic planning in UNESCO's case studies (AlHamad, 2017; Daguang et al., 2017; Ganseuer & Pistor, 2017; Kuria & Marwa, 2017; Lamagna et al., 2017; Lange & Kriel, 2017; Vettori et al., 2017; Villalobos et al., 2017). These tools help increase the performance and effectiveness of administrative operations.

5. CONCLUSION

Based on the results of this study, the following implications for IQA systems in higher education in Vietnam are offered. First, actions should be taken to enhance comprehensive coverage of QA practices. There is a clear need to broaden the scope of IQA practices to ensure they encompass all facets of academic programs and student development. This includes not only the widely used tools like student course evaluations and satisfaction surveys but also the less common practices such as peer reviews of faculty members. Expanding the use of these tools can lead to a more thorough evaluation and improvement of teaching and learning processes. Second, several aspects can be further addressed. The relatively low usage of peer reviews of faculty members and classroom supervision indicates areas that require more attention. Enhancing these practices can provide valuable feedback for teaching staff, contributing to their professional development and improving overall teaching quality. Another area that also requires improvement is graduate employability. Continuous efforts are needed to support graduate employability. Given the importance of enhancing graduate employability, institutions should continue to prioritize curriculum development and review. However, there is also a need to increase the usage of more technically demanding tools like employer and graduate surveys. These surveys provide critical insights into the relevance and effectiveness of academic programs in meeting job market needs. Fourth, to strengthen IQA tools and processes for research, HE Institutions should continue to support and possibly expand the frequent use of internal reviews of research proposals

to ensure the quality and integrity of their research outputs. Fifth, to better monitor governance and management, the emphasis on monitoring performance indicators related to strategic planning objectives suggests that institutions recognize the importance of aligning their activities with their long-term goals. Strengthening these monitoring practices can help institutions remain focused on their strategic objectives and improve overall governance. Last but not least, implication goes for areas employing the least IQA tools and practices for income generation, community services, and international cooperation. Institutions should develop and implement more specific IQA tools and processes for these areas to ensure comprehensive quality management across all institutional activities. These efforts together will promote the continuous enhancement of educational quality offered by HEIs (Cardoso et al., 2019; Hsu, 2023).

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