

# Advancing Higher Education through Quality Assurance Processes at Technical Universities

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## ABSTRACT

This study examined the contribution of Quality Assurance (QA) processes to the enhancement of academic standards at Technical Universities in Ghana. It specifically investigated the nature of the Quality Assurance and Control Unit (QACU) at Sunyani Technical University; the nature of quality assurance processes at technical universities, the role of students in maintaining quality assurance, and the challenges affecting the effectiveness of QA systems. A case study design was adopted, using questionnaires to collect data from a sample of 100 respondents comprising students, lecturers, and QA officials. Descriptive statistics, including frequencies, means, and standard deviations, were used for analysis, alongside regression techniques to examine the influence of identified challenges on QACU effectiveness. Findings revealed that the QACU plays a significant role in promoting academic quality, ensuring policy compliance, and supporting continuous improvement in teaching and learning. Students were also found to contribute meaningfully through feedback mechanisms, promotion of academic integrity, and involvement in institutional improvement processes, although their participation in formal governance structures remains limited. However, the effectiveness of the QA system is constrained by challenges such as inadequate funding, limited human resource capacity, weak institutional support, and poor coordination among QA bodies. The study concludes that strengthening institutional resources, enhancing stakeholder participation, and improving coordination mechanisms are essential for sustaining effective quality assurance in higher education.

**Keywords:** Quality Assurance; Higher Education; Quality Assurance and Control Unit; Student Participation; Academic Quality

## INTRODUCTION

Quality Assurance (QA) has emerged as a critical mechanism for sustaining and enhancing standards in higher education worldwide (Sart, 2024). It encompasses processes and practices designed to maintain minimum standards, identify areas for improvement, and ensure that students receive a high-quality learning experience (Jafarov, 2024; Javed and Alenezi, 2023). In Ghana, QA has become a focal point of tertiary education reform, with the Ministry of Education establishing Quality Assurance and Control Units to monitor institutional performance and promote accountability (Adusei, 2025; Asamoah et al., 2025).

Historically, concerns about quality in higher education are not new. Evidence from medieval universities such as Bologna and Paris shows that mechanisms were in place to ensure teachers delivered value for student fees (Lemaitre and Karakhanyan, 2020; Tsedzah, 2022). Modern QA frameworks build on these principles, adapting them to the contemporary challenges of expanding access, increasing student populations, and the growing demand for graduates equipped to meet the demands of information-based, globalized economies. External Quality Agencies (EQAs) now play a central role in evaluating institutional and program performance through structured peer review processes (Anyidoho, 2023).

Quality Assurance differs from quality control in its focus on process rather than outcomes. By systematically improving planning, design, development, and service delivery, QA ensures that institutions meet high standards, exceed stakeholder expectations, and foster continuous improvement (Steiner and Camp, 2021; Sturtevant et al., 2021). Effective QA requires detailed planning, measurable objectives, and iterative adjustments, enabling higher education institutions to deliver academic programs efficiently, reliably, and at consistently high quality (Greere, 2023; Steiner et al., 2020). This study explores the contribution of Quality Assurance to higher education in Ghana, with a focus on Sunyani Technical University. It examines how QA practices influence academic standards, institutional accountability, and the overall student experience, providing insights that can inform policy and practice within similar tertiary institutions.

## **Problem Statement**

Despite the growing emphasis on Quality Assurance (QA) in higher education, challenges persist in effectively implementing QA practices that consistently enhance academic standards and the overall student experience. In Ghana, while the Ministry of Education has established Quality Assurance and Control Units and External Quality Agencies (EQAs) provide oversight in all tertiary institutions, gaps remain in understanding how these mechanisms translate into measurable improvements at individual institutional levels (Awaah et al., 2023; Nkrumah and Gyamfi, 2022).

Sunyani Technical University, like many tertiary institutions, operates under the guiding principles as enshrined by the Ministry of Education and in line with best QA principles and practises, faces pressures to expand access, maintain academic rigor, and meet stakeholder expectations. However, there is limited empirical evidence on how QA practices within such institutions contribute to academic quality, institutional accountability, and student outcomes. Most studies focus broadly on national policy or tertiary education as a whole, with few examining the practical implementation and effectiveness of QA at the institutional level (Aldhobaib, 2024). This gap underscores the need to explore the direct contributions of QA processes to enhancing teaching, learning, and institutional performance. By focusing on Sunyani Technical University, this study aims to provide evidence-based insights into the effectiveness of QA practices in a Ghanaian higher education context, highlighting areas of strength and opportunities for improvement. The findings are intended to inform both institutional strategies and national policy on QA in higher education, contributing to the ongoing discourse on quality enhancement and accountability in tertiary institutions.

The study addressed the following objectives: (1) Identify the nature of the Quality Assurance and Control Unit in the assurance of academic quality, (2) Discuss the contribution of students in the maintenance of quality assurance, and (3) Examine the major challenges that affect the Quality Assurance and Control Unit.

## **LITERATURE REVIEW**

### **Theories Supporting the Study**

The study is grounded in two theoretical frameworks that explain how quality assurance can enhance performance in higher education institutions such as Sunyani Technical University.

#### **Total Quality Management (TQM) Theory**

One of the foundational theories of quality assurance is Total Quality Management (TQM), which was first brought forward by W. Edwards Deming in the mid-20th century, and subsequently developed by various other authors, such as Joseph Juran and Philip Crosby (Deming, 1986; Juran, 1992; Crosby, 1979). TQM focuses on constant enhancement, participation of stakeholders, and overall responsibility of the institution towards quality. It encourages a holistic view in which the quality is not the task assigned to a particular department but is incorporated in all activities of the institution, curriculum development and teaching, as well as administration and support services.

TQM in the education sector can help in creating systems that will facilitate efficient teaching, learning, and administration. Dahlgaard-Park et al. (2018) cite that TQM within universities fosters a participatory culture

where students, faculty, and administration can work together to improve the quality of education. On the same note, Militaru et al. (2013) point out that TQM is such that institutions react in a proper manner to internal and external demands and align processes to the needs of the stakeholders.

TQM is a guideline on how to incorporate quality in every process in the institutions. Engaging the stakeholders, such as faculty, students, and administrators, will help the university to make sure that the programs are pertinent, teaching standards are high, and the operational process is efficient. The principle of continuous improvement of TQM is associated with the purpose of the study to investigate the ways in which internal mechanisms can perpetuate and improve the practices of quality assurance.

### **Deming Cycle's Plan-Do-Check-Act (PDCA Theory)**

The Plan-Do-Check-Act (PDCA) cycle, also known as the Deming Cycle, was developed by Walter A. Shewhart and made famous by W. Edwards Deming (Deming, 1986; Shewhart, 1939, cited in Fu and Liu, 2022). The PDCA model focuses on continuous improvement with four repetitive steps:

Plan - formulate goals and identify the processes necessary to accomplish the same.

Do - Apply tests to the processes on a small scale.

Check - Compare findings and compare the outcomes with the goals.

Act - Introduce improvements and make the successful operations standard.

It is this cyclical model that continues to affirm the fact that quality assurance is not a singular process but a continuous process that helps institutions to review and improve programs over time. Dudin et al. (2015) and Wang and Chen (2023) pointed out that the PDCA cycle offers a realistic methodology of introducing systematic appraisal and evidence-based additions to organizational operations.

The PDCA cycle, in this case, can be used in curriculum development, teaching quality, and administration processes at the Sunyani Technical University. By way of an illustration, academic programs can be periodically checked (Check) and reformed (Act) to suit the industry requirements and student demands (Dudin et al., 2017). The iterative process makes the quality assurance practices of the university adaptive, responsive, and sustainable, which directly promotes the focus of the study on developing higher education by setting up systematic quality improvement.

### **Quality Assurance**

Quality Assurance in higher education is a process for ensuring that procedures are in place to ensure quality, integrity, and standards of provision and outcomes (Suleiman, 2023). This study provides an insider view of quality in HEIs by exploring how a university or college can maintain quality internally. Although quality assurance is now pervasive in higher education policy and discourse, the concept itself is relatively recent. Understanding its context highlights that quality development goes beyond formal assurance processes, encompassing institutional practices such as competitive hiring, appropriate funding, interdisciplinary communication, and innovation support (Kayyali, 2023). Various QA tools guide organizations in ensuring efficient and productive processes. A widely used tool is the Shewhart cycle, developed by Dr. W. Edward Deming and named after Walter A. Shewhart. Also known as the Deming or PDCA cycle, it consists of four steps: Plan, Do, Check, and Act, which are repeated continuously to evaluate and improve processes.

In the Plan stage, objectives are established, and necessary processes or changes are identified (Deming 1988, cited in Asiyai, 2022). The Do stage involves implementing and testing these processes. In the Check stage, outcomes are monitored and evaluated against objectives. Finally, the Act stage involves implementing necessary improvements before restarting the cycle with new objectives. The Shewhart cycle is effective for quality assurance as it analyses existing conditions and methods to ensure excellence in every process component. It also helps determine whether procedures remain suitable for current conditions (Iliichuk, 2021). Continuous application of the cycle enhances efficiency by ensuring ongoing refinement and improvement.

## External Quality Assurance

The external QA is organized by the independent council or the Council of Universities of professional education (Silaeva et al., 2018). A review committee visits every eight years each study programme at all the different universities to form a judgment about various aspects of the quality of the study programme (the visitation system). The main objectives of the QA are, first of all, quality guarding, quality improvement, and establishing accountability. These objectives are translated into four tasks for the review committees: to assess, to advise, to compare, and to inform. The system of external QA consists of the following elements: the visitations are related to a study programme or a group of inter-university, based on a self-evaluation, executed by a committee of independent external experts, including a student, published in a final and public report, and an implementation of the recommendations as described in the report by the members of the review committee (Storozheva et al., 2019).

## Internal Quality Assurance

The self-evaluation report is the cornerstone of the whole QA system. It should stimulate the internal QA by a strengths/weakness-analysis, be a preparation for the external visitation, and give information to the review committee about the internal QA (Piniás et al., 2023). The better this report, the better the review committee will be able to perform its tasks (Okae-Adjei, 2016). The form and the content are set out in a protocol to make sure only relevant information is brought together. A standard self-evaluation report contains several quality aspects like objectives, structure, and content of the study programme, learning and teaching environment, and curriculum organisation.

## Academic Quality

Academic quality is the degree to which an educational institution meets certain standards in teaching, learning, research, curriculum delivery, student achievement and educational outcomes (Sadler, 2017). It is a measure of its capacity to deliver relevant, effective and efficient education to meet the needs of students, employers, regulators and the community. Academic quality may be measured in terms of curriculum relevance, teacher quality, student outcomes, employability of graduates, and institutional and national standards (Sadler, 2017).

## Quality Assurance (QA) Effectiveness

The effectiveness of Quality Assurance is a measure of the success of quality assurance systems, policies and processes to maintain, monitor, review and enhance quality and performance (Kibaliwandu, 2023). Effective QA systems maintain compliance with standards, drive improvement, identify areas for development, facilitate accountability and improve teaching and learning outcomes in an institution. QA effectiveness is often measured by indicators such as institutional performance, stakeholder satisfaction, effective monitoring and quality education (Kibaliwandu, 2023).

## Nature of the Quality Assurance and Control Unit in the Assurance of Academic Quality

The literature conceptualises the Quality Assurance and Control Unit (QACU) in the institutions of higher learning as a key institutional unit that runs the maintenance, monitoring, and improvement of the academic standards (Aleksandrova et al., 2019; Cuttance, 2020). The concept of quality assurance (QA) is broadly understood as a well-organized system that guarantees that institutions achieve certain standards in teaching, learning, research, and administration and foster the ongoing improvement (Arthur and Kuranchie, 2022; Dei, 2019). Recent research underlines that the QA units are functioning both inside and outside the institutional frameworks and adjusting the institutional processes to the accreditation demands and the expectations of the stakeholders (Lemaire et al., 2022; Ekpoh and Asuquo, 2020). Asamoah et al. (2025) define QA as a framework that defines benchmarks, the production of qualified graduates, and accountability and competitiveness in higher education systems.

On the same note, Serrano et al. (2025) posit that QA systems are part of the institutional governance, which connects academic quality to other wider results like student achievements, relevance of curriculum, and the

impact on society. It is in this context that the QACU becomes the working arm that implements these principles in the form of institutional practices. Formally, the QACU is generally incorporated into the university governance structures, and operates via committees, policies, and regulatory compliance procedures (Oware and Mokoena, 2025). Experience at Ghanaian institutions of higher learning indicates that QACUs are involved in the coordination of activities like programme accreditation, review of curriculum, institutional audits, and performance evaluation. In his analysis of the quality assurance pathway at KNUST, Adusei (2025) notes that the governance structures, decentralised system, and policy frameworks have been supporting institutional QA units in ensuring that the academic standards are monitored in a consistent way, but issues like bureaucratic delays and resource constraints remain. Moreover, the research shows that QACUs combine internal self-evaluation and external quality control measures to guarantee conformity to the national regulatory authorities and international standards. This dualism supports their significance as mediators between institutional accountability and institutional autonomy systems.

The QACU is important in the assurance of academic quality by keeping track of academic quality by monitoring, reviewing, and improving teaching and learning processes. The literature determines the core functions such as curriculum validation, assessment of teaching quality, analysis of student feedback, and staff performance evaluation (Serrano et al., 2025). Nyadzi et al. (2024) prove that quality assurance (QACU) mechanisms are especially crucial in the context of curriculum development, as QACUs guarantee that programmes can achieve their learning outcomes and be industry/society-relevant. In addition, QA units also contribute to the development of a quality culture through the involvement of academic staff and encouraging their involvement in the assessment procedures; it is experimentally proven that the QA-unit-led interventions can substantially increase the staff engagement in the institutional surveys and feedback mechanisms (Meléndez-Jiménez et al., 2022).

### **Contribution of Students in the Maintenance of Quality Assurance**

Students are also being identified in the literature as key stakeholders in the sustenance of quality assurance (QA) in higher learning, as agents of quality improvement processes rather than as receivers of educational services (Merabishvili et al., 2017). Recent research highlights that the involvement of students enhances accountability, transparency, and responsiveness in institutions (Serrano et al., 2025). By using the course evaluations, surveys, and feedback systems, students can give firsthand information about the effectiveness of teaching, the relevancy of the curriculum, and the learning environments. Asamoah et al. (2025) note that student feedback is an essential part of internal QA systems, as it helps to inform institutional decision-making and provides opportunities to enhance the ongoing improvement of academic delivery. This is in line with the world QA models that make students agents of quality improvement and not spectators.

In addition to the feedback mechanisms, students are also involved in QA by being represented in institutional governance systems like academic boards, faculty committees, and quality assurance committees (Abebe and Ford, 2019). Their engagement means that the perspectives of the students would be incorporated in the policy formulation, programme design, and reviews of the institutions. According to Midhal et al. (2024), inclusive QA systems that are actively involved in students are likely to show increased effectiveness and institutional performance. Student representatives in most universities are part of accreditation and institutional audits where they offer direct experience on teaching, learning resources, and support services quality. This participatory strategy increases the credibility and holiness of the QA procedures.

The students also have a great role to play in instilling a culture of quality within institutions. Culture of quality is defined as the common values, attitudes, and dedication to continuous improvement by all stakeholders (Gilbert and Thelma, 2024). Students contribute to maintaining academic integrity and excellence through active engagement in academic endeavors, following the standards of an institution, and through peer-learning programs. According to Beerkens and Udam (2017), when students participate in discussions about curriculum content and reviews of academic material, it leads to the adjustment of programmes to labour market requirements and societal expectations. Also, student organisations and academic associations tend to lobby and campaign against poor teaching standards, facilities, and support services, thus enhancing institutional accountability (Muhsin et al., 2025).

## Major Challenges of Quality Assurance

The composition of the Quality Assurance (QA) Units or Department remains a critical challenge affecting its effectiveness and legitimacy within higher education institutions. While units are often formed from readily available staff who can easily collaborate, such an approach may limit representativeness and reduce the credibility of the unit among broader stakeholders (Fan and Wang, 2021).

The lack of proper financing is still among the biggest obstacles to successful quality assurance in higher education, especially in developing states. The availability of modern infrastructure, teaching and learning resources, research facilities, and student support facilities is limited by financial resources (Mochtar and San, 2020). The high population in lecture rooms, outdated equipment, and poor ICT infrastructure undermine the overall learning experience and reduce the capacity of institutions to achieve the set standards of quality. World Bank (2017) states that institutional performance and graduate outcomes are directly related to underinvestment in higher education. On the same note, UNESCO (2015) also points out that sustainable financing is vital in ensuring that teaching, research, and innovation in universities remain of a quality. In the absence of proper resources, the QA mechanisms may turn out to be more procedural than transformative.

Quality assurance entails proper institutional systems, good human resources, and good governance systems. Nevertheless, most institutions of higher learning do not have established internal QA units, and do not have sufficiently well-trained personnel to establish and check quality standards. QA processes are further compromised by weak leadership, bureaucratic inefficiencies and sometimes political interference. Asamoah et al. (2025) believe that quality is multidimensional and needs institutional dedication and transparency in governance. Also, Illés et al. (2017) points out that capacity constraints in African universities do not favour the emergence of a sound QA system. These governance issues decrease accountability and curtail continuous improvement activities.

The worldwide advocacy of more people receiving higher education has been caused by the fast growth and sometimes without a commensurate growth in resources and institutional capacity (Mensah, 2016). Such massification puts a lot of pressure on faculty, facilities and administration systems, and it is hard to sustain quality standards. According to Suleiman (2023), when systems shift towards mass as opposed to elite education, the aspects of quality maintenance become even more complicated. Increased enrolment in most developing countries has led to increased classroom size, less student-teacher contact, and worse assessment (Montgomery, 2020). Therefore, QA systems are unable to match with institutional expansions.

Strong QA systems rely on high-quality data, regular monitoring, and regular assessment systems. Nonetheless, a number of institutions are challenged by issues of inadequate data management, absence of performance measures and ineffective monitoring and evaluation systems. This restricts decision-making and ongoing quality improvement that are evidence-based (Ademola et al., 2021). Ajadi (2020) indicates that successful QA systems must have clear standards, quantifiable indicators and frequent institutional reviews. Conversely, some institutions do not have sound data systems, creating isolated and inconsistent QA practices (Obidike, 2016).

The lack of participation of key stakeholders in the process, including employers, industry players, students, and alumni, is a challenge to relevance in higher education curricula (Agormedah, 2020). The absence of a consistent contribution of the labour market to academic programmes can result in the outdatedness and non-alignment of the academic programmes with the current needs of the industry and technological progress. Awaah et al. (2023) emphasize the role of the stakeholders in making sure that graduates have the appropriate skills to fit into the workforce. Besides, Beerkens and Udam (2017) observe that the involvement of stakeholders increases accountability and responsiveness of institutions. Poor engagement will therefore compromise the quality of the curriculum and the employability of graduates.

## METHODOLOGY

The study adopted a case study research design to examine the contribution of the Quality Assurance and Control process within a higher education institution, specifically Sunyani Technical University. A research

design, as explained by Crosby (2006), provides the overall strategy for addressing research questions, and in this case, a quantitative approach was employed. Data were collected using questionnaires. The study utilised both primary and secondary data sources: primary data were obtained directly from respondents for the specific purpose of the study, while secondary data were gathered from existing materials such as books, reports, and online sources to provide contextual understanding. To ensure accuracy and validity, careful procedures were followed in the data collection process, and the analysis was conducted using descriptive statistical techniques, including percentages, means, and standard deviation.

The population of the study comprised students and key stakeholders within Sunyani Technical University, including the Head and staff of the Quality Assurance and Control Unit, the Dean of Students, lecturers, and students from various departments. Given the impracticality of studying the entire population, a sample size of 100 respondents was selected using a combination of purposive and simple random sampling techniques. Purposive sampling was used to select key informants such as QA officials, while simple random sampling ensured fair representation of students and lecturers across departments. The data collected were processed and analysed using Statistical Package for Social Science (SPSS v. 25).

## RESULTS AND DISCUSSION

From Table 1, more than half (56%) of the respondents were male, and 44% were female. This suggests that the study captures perspectives from both genders, although male views may be somewhat more dominant. In terms of age distribution, the respondents are predominantly young adults. Majority of the respondents fall within the 20-29 age group (58%), followed by those aged 30-39 (39%), while only a very small proportion (3%) are between 40-49 years. This indicates that the study largely reflects the opinions and experiences of younger individuals, with limited representation from older age groups.

Table 1: Demographic Characteristics of Respondents (n=100)

Variable	Frequency	Percentage
<b>Gender</b>		
Male	56	56
Female	44	44
<b>Age (Years)</b>		
20-29	58	58
30-39	39	39
40-49	3	3

Source: Field Survey (2025)

The findings regarding the nature of the Quality Assurance and Control Unit (QACU) in ensuring academic quality reflect that its perception is generally high in the institution. The average scores of most of the questions are above 3.5, which indicates that the respondents agree that the QACU contributes a lot towards the QACU sustaining and enhancing academic standards. In particular, high mean scores for the Unit's role in enhancing overall academic quality ( $M = 4.25$ ,  $SD = 0.68$ ), promoting continuous improvement in teaching and learning ( $M = 4.22$ ,  $SD = 0.70$ ), and ensuring compliance with institutional and national quality assurance policies ( $M = 4.18$ ,  $SD = 0.74$ ) demonstrate strong consensus on its importance. Such results can be compared to Asamoah et al. (2025) who underline the importance of effective internal quality assurance systems to guarantee adherence to academic standards and enhance institutional performance. In the same way, Lemaire et al. (2022) believe that properly working QA systems have a direct impact on institutional effectiveness through increased accountability, better teaching quality, and better student outcomes.

The results also show that the QACU is seen as a significant tool of academic standards control ( $M = 4.10$ ,  $SD = 0.78$ ) and the existence of a clear institutional structure ( $M = 4.02$ ,  $SD = 0.84$ ). This is in line with the opinion of Ekpoh and Asuquo (2020), who note that quality assurance units are important governance tools that tie institutional policies and academic delivery processes together. Moreover, the contribution that the QACU has on curriculum development and programme accreditation ( $M = 3.90$ ,  $SD = 0.88$ ) and on carrying

out academic audits and reviews ( $M = 3.85$ ,  $SD = 0.92$ ) indicates its operational role in academic quality processes. Similarly, Adusei (2025) believes QA units are at the heart of curriculum review and accreditation, making sure that academic programmes are up-to-date, relevant, and in line with labour market needs and institutional objectives. Dei (2019) further supports the idea that systematic academic audit and evaluation are important mechanisms that QA units employ to maintain academic excellence and institutional credibility.

Nevertheless, the findings indicate a relatively lower average of the sufficiency of resources accessible to the QACU ( $M = 3.40$ ,  $SD = 1.05$ ), which means that there is a perceived limitation that might be restricting the complete efficacy of the unit. This observation resonates with the findings of Meléndez-Jiménez et al. (2022), who highlight that most of the quality assurance units of postsecondary institutions are not well-funded, staffed, and logistically constrained, which impacts their capacity to implement their mandates. The same applies to Aleksandrova et al. (2019) and Cuttance (2020), who point out that even well-structured and well-intentioned QA bodies do not have much influence in promoting quality improvement in institutions when they are under-resourced. To further highlight the point that QA systems might fail to be effective in the long term, Oware and Mokoena (2025) state that in the absence of proper institutional support, these systems are going to be procedural instead of transformative.

Table 2: Nature of Quality Assurance and Control Unit in assuring academic quality

Statement	Mean	Std. Dev.
The Quality Assurance and Control Unit has a clearly defined structure within the institution.	4.02	0.84
The Quality Assurance and Control Unit effectively monitors academic standards.	4.10	0.78
The Unit ensures compliance with institutional and national quality assurance policies.	4.18	0.74
The Quality Assurance and Control Unit regularly conducts academic audits and reviews.	3.85	0.92
The Unit plays a key role in curriculum development and programme accreditation.	3.90	0.88
The activities of the Quality Assurance and Control Unit promote continuous improvement in teaching and learning.	4.22	0.70
The Unit collaborates effectively with academic departments and staff.	3.95	0.86
The Quality Assurance and Control Unit has adequate resources to perform its functions.	3.40	1.05
The Unit provides timely feedback and reports on quality assurance activities.	3.88	0.90
The presence of the Quality Assurance and Control Unit enhances overall academic quality in the institution.	4.25	0.68

Source: Field Survey (2025)

The analysis of responses on the contribution of students to the maintenance of quality assurance in higher education indicates a generally positive perception among respondents, which aligns with existing literature. The mean scores for most statements exceeded 3.5, suggesting agreement that students play a vital role in supporting quality assurance processes. High mean values for items such as students promoting academic integrity ( $M = 4.15$ ,  $SD = 0.79$ ), actively providing feedback ( $M = 4.12$ ,  $SD = 0.82$ ), and contributing to continuous institutional improvement ( $M = 4.10$ ,  $SD = 0.83$ ) reflect strong consensus on the importance of student engagement. These results are in line with those of Midhal et al. (2024), which highlight that the student feedback mechanism is at the heart of internal quality assurance mechanisms because it will offer institutions important insights to enhance the teaching and learning outcomes. Accordingly, Abebe and Ford (2019) posit that institutions that are keen on engaging students in quality processes are more likely to exhibit greater accountability and academic achievement. Moreover, Serrano et al. (2025) continue to support the idea that the active involvement of students enhances the quality of governance in institutions by connecting academic processes of quality to the achievement of desirable learning outcomes and responsiveness of the institution to the student, making students important stakeholders in the quality assurance systems.

Despite these positive perceptions, the results reveal moderate engagement in more formal quality assurance structures. For example, student participation in quality assurance committees ( $M = 3.48$ ,  $SD = 1.02$ ) and the

availability of adequate platforms for expressing concerns ( $M = 3.55$ ,  $SD = 1.00$ ) recorded relatively lower mean scores and higher variability, indicating mixed experiences among respondents. This implies that although students actively participate in the informal quality assurance policies like feedback provision, their participation in governance and decision-making is minimal. This finding is in line with the observation of Arthur and Kuranchie (2022), who reported that in most institutions, student participation is usually confined and not institutionalised, thus limiting its effect on policy and programme formulation. Moreover, Nyadzi et al. (2024) emphasize that teacher involvement in curriculum review and academic decision-making (as understood by students) increases the relevance and quality of the programmes, but in most cases, this remains a developing issue in many institutions of higher learning.

Table 3: Contribution of Students in the Maintenance of Quality Assurance in Higher Education

Statement	Mean	Std. Dev.
Students actively provide feedback on teaching and learning processes.	4.12	0.82
Student evaluations contribute to improving the quality of instruction.	4.05	0.88
Students participate in quality assurance committees or decision-making bodies.	3.48	1.02
Student feedback is taken seriously by university management.	3.76	0.95
Students contribute to curriculum review and programme improvement.	3.69	0.91
Student involvement enhances accountability in academic processes.	4.08	0.85
Students promote academic integrity and adherence to institutional standards.	4.15	0.79
Student-led initiatives help improve the overall quality of education.	3.88	0.87
There are adequate platforms for students to express concerns about quality.	3.55	1.00
Student participation contributes to continuous improvement in the institution.	4.10	0.83

Source: Field Survey (2025)

The findings on the major challenges affecting the Quality Assurance and Control Unit (QACU) indicate that respondents generally perceive these constraints as significant barriers to the effective implementation of quality assurance processes. This is evidenced by the high mean scores across most items, particularly inadequate funding ( $M = 4.30$ ,  $SD = 0.72$ ), lack of modern tools and technology ( $M = 4.20$ ,  $SD = 0.76$ ), and weak institutional support ( $M = 4.15$ ,  $SD = 0.78$ ). These results suggest strong agreement among respondents that resource-related challenges are the most critical factors limiting the performance of QACUs. The relatively low standard deviations further indicate consistency in respondents' views. These findings are consistent with the broader literature, which highlights that weak institutional arrangements and poorly structured systems can undermine the effectiveness and legitimacy of quality assurance mechanisms. For instance, issues related to the composition and structure of QA committees can reduce their credibility and acceptance, particularly when they fail to adequately represent key stakeholders within the academic community (Fan and Wang, 2021; Mochtar and San, 2020).

The study also reveals that human resource challenges, including lack of qualified personnel ( $M = 4.12$ ,  $SD = 0.80$ ) and insufficient training and capacity building ( $M = 4.05$ ,  $SD = 0.85$ ), are perceived as key obstacles to the effectiveness of the QACU. These findings highlight the importance of building staff competence and expertise to ensure the successful implementation of quality assurance activities. This is supported by Ademola et al. (2021), who identify low teacher capacity, inadequate pedagogical skills, and limited subject mastery as major contributors to declining academic standards and poor student outcomes. Furthermore, Ajadi (2020) and Obidike (2016) emphasise that insufficient training opportunities, weak motivation, and poor working conditions discourage professional commitment and reduce the effectiveness of quality assurance systems. The findings, therefore, suggest that without sustained investment in staff development and incentives, QACUs may struggle to effectively monitor and enhance academic quality.

In addition, organisational and operational challenges were identified, including delays in implementing quality assurance recommendations ( $M = 4.08$ ,  $SD = 0.83$ ), poor communication between the unit and academic departments ( $M = 3.90$ ,  $SD = 0.89$ ), and inadequate stakeholder involvement ( $M = 3.95$ ,  $SD = 0.86$ ). These findings indicate that inefficiencies in internal processes and weak collaboration among stakeholders can hinder the impact of quality assurance initiatives. This aligns with the argument that poor coordination within

and across institutions reduces the effectiveness of QA systems and weakens the link between policy and practice. Moreover, the lack of inclusive and representative participation in QA processes can limit stakeholder trust and reduce the implementation of recommendations, particularly when committees are not perceived as legitimate or representative (Fan and Wang, 2021).

Finally, the study identifies systemic and structural challenges such as poor cooperation among quality assurance agencies ( $M = 3.88, SD = 0.92$ ) and resistance to change among staff ( $M = 3.85, SD = 0.94$ ), which also affect the performance of the QACU. Although these factors recorded slightly lower mean scores compared to resource and capacity challenges, they still indicate moderate agreement among respondents. These findings are consistent with Asamoah et al. (2025), who note that weak coordination among QA bodies, particularly in contexts with high demand for higher education, undermines the maintenance of academic standards. Similarly, Illés et al. (2017) highlight that increased pressure on institutions, including issues such as credential falsification, places additional strain on QA systems. The expansion of private higher education further necessitates harmonised and standardised QA frameworks, yet poor collaboration among regulatory bodies continues to limit effectiveness (Montgomery, 2020; Suleiman, 2023). Overall, the findings suggest that while QACUs play a crucial role in maintaining academic quality, their effectiveness is constrained by a combination of structural, human resource, organisational, and systemic challenges, all of which must be addressed to strengthen quality assurance systems in higher education.

Table 4: Major Challenges Affecting the Quality Assurance and Control Unit

Statement	Mean	Std. Dev.
Inadequate funding limits the effectiveness of the Quality Assurance and Control Unit.	4.30	0.72
Lack of qualified and skilled personnel affects the performance of the Unit.	4.12	0.80
Insufficient training and capacity building hinder the activities of the Unit.	4.05	0.85
Poor cooperation among quality assurance agencies affects the Unit's operations.	3.88	0.92
Weak institutional support limits the effectiveness of quality assurance processes.	4.15	0.78
Inadequate stakeholder involvement affects the success of quality assurance activities.	3.95	0.86
Delays in implementing quality assurance recommendations reduce their impact.	4.08	0.83
Poor communication between the Unit and academic departments affects quality assurance processes.	3.90	0.89
Lack of modern tools and technology hinders effective quality monitoring and evaluation.	4.20	0.76
Resistance to change among staff affects the implementation of quality assurance initiatives.	3.85	0.94

Source: Field Survey (2025)

The Analysis of Variance (ANOVA) results indicate that the regression model used to examine the effect of the identified challenges on the effectiveness of the Quality Assurance and Control Unit (QACU) is statistically significant. The model produced an F-value of 19.50 with a significance level of  $p < 0.001$ , which is well below the conventional threshold of 0.05. This implies that the set of independent variables, representing the various challenges, collectively has a significant impact on the effectiveness of the QACU. In other words, the model provides sufficient evidence to reject the null hypothesis that the predictors have no joint effect, confirming that the challenges included in the study are important determinants of quality assurance performance in higher education institutions. This finding confirms the Total Quality Management (TQM) principles that institutional quality is related to all institutional processes and stakeholders in pursuit of continuous improvement (Deming, 1986; Dahlgaard-Park et al., 2018). Thus, the regression results show that a lack of adequate funding, staffing, communication, and institutional support affects the capacity of the QACU to maintain academic quality.

Furthermore, the ANOVA results demonstrate that the variation explained by the regression model (Sum of Squares = 43.10) is substantially higher than the unexplained variation captured by the residual (Sum of Squares = 19.64), indicating that the model has strong explanatory power. This suggests that the challenges identified, ranging from resource constraints to institutional and operational issues, meaningfully contribute to

differences in the effectiveness of the QACU. The relatively low residual mean square (0.221) also indicates that the model fits the data reasonably well, with limited unexplained variance. These findings are consistent with existing literature, which highlights that systemic challenges such as inadequate funding, weak coordination, and limited capacity significantly influence the performance of quality assurance systems (Asamoah et al., 2025; Montgomery, 2020). The results can also be explained within the paradigm of the Deming Cycle and Plan-Do-Check-Act (PDCA) Theory, which considers quality assurance as a cyclical improvement process. The challenges identified impact the PDCA cycle by restricting the planning of quality assurance activities, restricting the implementation of such activities, impacting the monitoring and evaluation of activities, and the subsequent institutional improvements and corrective actions. As a result, the regression findings support the interpretation that, as long as these challenges persist, the continuous improvement process promoted by the PDCA cycle is not effective, which in turn affects the effectiveness and responsiveness of the QACU in sustaining academic quality.

Table 5: ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	43.10	10	4.310	19.50	0.000
Residual	19.64	89	0.221		
Total	62.74	99			

## CONCLUSION

The results show that although quality assurance structures are typically viewed as effective in fostering academic standards and ongoing improvement opportunities, the potential of the structures is limited by a number of systemic constraints. QACU has been identified as a key tool in ensuring compliance, tracking academic tasks, and improving institutional performance. Students have a significant supportive role through feedback, involvement, and facilitating academic integrity. Nonetheless, some fundamental challenges that reduce the efficacy of these contributions include insufficient funding, insufficient human resource capacity, low stakeholder engagement, and a lack of proper coordination among quality assurance bodies. These results indicate that, despite the good foundation of quality assurance, there is an urgent requirement for more institutional support, better resource mobilization, better stakeholder involvement, and more coordination processes to provide a more robust, inclusive, and sustainable quality assurance system in higher education.

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