Quality Assurance Practices in the Time of COVID 19: What Works in Tertiary Institutions in Tanzania

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Abstract

Despite natural disasters like COVID-19, tertiary institutions around the world should be more responsive and use a proactive approach to quality assurance. The COVID-19 eruption halted the operation of normal classrooms. Teaching was done from home, although many teachers were not aware of online facilitation. The current study examined the practice of quality assurance in Tanzanian tertiary institutions following COVID-19 eruption from 2020 to 2021. To achieve this, the study adopted a mixed-methods approach with the help of a sequential explanatory research design. The study involved 113 respondents, obtained randomly from four tertiary institutions. The study adopted an automated questionnaire and semi-structured interviews for collecting data from the respondents. The two methods of data collection enabled the gathering of voluminous information with little bias. The data were analysed descriptively and by using content analysis for qualitative data. Results from this study revealed that both external and internal mechanisms were adapted to varying degrees in the practice of quality assurance amid COVID-19. They also reveal that some tertiary institutions have adopted a blended online mode of teaching and learning. However, it was not successfully implemented because most tertiary institutions lacked the necessary resources and personnel to use digitalisation in teaching and learning. According to the study, digitalisation quality assurance systems should be improved further to overcome the current situation and the future effects of unpredictable disasters. Furthermore, higher education institutions must improve open and remote e-communication between tutors and students.

1. Introduction and Background of the study

Education is the key determinant of human life and development, both globally and locally. Governments all over the world are striving to provide quality education to the people, considering that education is the catalyst for development. In light of these efforts, the government of Tanzania is making steadfast efforts for different people to obtain basic, quality education. Education is one of the basics of human rights, as manifested in the constitution of the United Republic of Tanzania (URT, 1977), the Education and Training Policy (MoEVT, 2014), and the Education Act, Cap. 353 (MoEVT, 2002). The need for quality education is a sector-wide demand in higher education institutions. Demands for quality education activated the governments, specifically in Tanzania, to establish quality assurance systems at all levels (MoEST, 2018).

The major function of the quality assurance system is to monitor the quality of resources, curriculum materials, and instructional processes at all levels of the education system. Therefore, the government established a quality assurance management system from the national to the school level for monitoring quality education provision (URT, 2018). In Tanzania, the Tanzania Commission for Universities (TCU) is vested with the mandate for quality assurance in higher learning, while the National Council for Technical and Vocational Education and Training (NACTVET) is responsible for tertiary institutions. The major task of these quality assurance management systems is to monitor and evaluate the whole process of education service provision. Quality assurance activities are on-going in order to inform concerned parties about alternative quality practices.

Quality education has become a global agenda, and it is accommodated in the 2030 Sustainable Development Goals (SDGs). Goal number four commits individual nations to ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all. All education stakeholders are called upon to assure the provision of quality education throughout the education system. However, in 2020–2021, the world experienced the COVID-19 pandemic, which affected all sectors, including education. The pandemic raises questions about the quality assurance practices during COVID-19 in the provision of quality education in tertiary institutions.

Quality is the degree of excellence at an acceptable price and the control of variability (resulting in uniformity) at an acceptable cost (Mukherjee, 2019). It refers to commonly accepted products and services that meet the established criteria and requirements. Quality assurance is viewed as the adherence to policies, guidelines, procedures, systems, and good practises in the provision of education

services. Quality assurance is one of the core processes used by education institutions for quality management in teaching, community service, and research (Musa, 2019). The practises are done internally and externally, whereby all stakeholders are responsible for ensuring that the service provided fits the purpose.

External and internal quality assurance mechanisms in tertiary education have become an important indicator of a nation's growth and development in the 21st century. The success rate of tertiary institutions depends on quality in every aspect and practise being followed and adopted. The overall quality of the tertiary institutions relies on institutional practices, processes, procedures, and standards set by the regulatory authorities. These accredited institutions are knowingly or unknowingly involved in adopting good practises that result in value addition in their processes and outcomes. It is hoped that investing in tertiary institutions that produce competent, skilled, and knowledgeable manpower to serve society will lead to a country's socioeconomic and political transformation (Michubu, 2019).

Thus, tertiary institutions all over the world have the task of producing competent human resources. Quality assurance practises in tertiary institutions intend to ensure that education services produce skilled manpower and meet customers' needs and wants as specified by the authorities responsible for tertiary education quality management (Dei, 2019). Quality management in tertiary institutions can be measured from three main perspectives: institutional, program, and accreditation. Broadly, the institutional quality performance has been assured by different key stakeholders within and outside the institution, including staff, students, parents, and national regulatory bodies such as NACTVET in the case of Tanzania.

At the tertiary level, students' involvement in quality management can be evident in the department, at the faculty level, and through their representation in a council meeting. Staff, students, and external quality assurance officers play key roles in institutional performance and accreditation. Tsevi (2014) measured QA from both institutional and accreditation viewpoints and concluded that QA has truly brought the quality of academic work to accreditation.

It is well documented in literature all over the world that the quality of services provided is compromised; for instance, in China during the Cultural Revolution, the quality of graduates from universities was compromised because the graduates produced had inadequate competencies expected on the market (Michubu, 2019). The demands for competent graduates in the labour market have forced tertiary institutions all over the world to strive for provision of quality services that aligns with the SDGs. However, the eruption of the COVID-19 pandemic has become a challenge all over the world in the provision of quality education.

In response to the COVID-19 pandemic and to continuously improve the quality of education services, academic institutions around the world adopted and adjusted their activities to address emergencies. The online mechanisms for learning were adopted as the nation's safety measures for COVID-19. Despite the pandemic, society and nations as a whole continued to demand quality education at all levels, particularly in tertiary institutions. However, the eruption of COVID-19 halted the operation of normal classrooms. Teaching was done from home, although many teachers were not aware of online facilitation, and even some had never used the internet for instruction (Abel, 2021). This sudden shift due to the continued spread of COVID-19 has impacted curriculum materials, facilitation methods, student learning, assessment, and research (Gamage et al., 2020). This calls to questioning the performance, effectiveness, relevance, and flexibility of internal and external quality assurance approaches in ensuring quality practicum in tertiary institutions. As a result, the scale of the impact of COVID-19 on tertiary institutions for conducting internal and external quality assurance practises is questionable for assuring tertiary institutions' quality performance. Thus, this study generally examined quality assurance practises in tertiary institutions during the COVID-19 pandemic. Specifically, this study attempted to answer the following questions: (i) What were the external strategies adopted in conducting quality assurance in tertiary institutions during the COVID-19 pandemic? (ii) What were the internal strategies adopted in conducting quality assurance in tertiary institutions during the COVID-19 pandemic? (iii) What are the challenges encountered during quality assurance practicum during the COVID-19 pandemic in tertiary institutions?

2. Methodology

This study adopted a mixed research approach with the integration of quantitative and qualitative research; with a sequential explanatory research design. The design involves collecting quantitative data in the first phase, analysing the data, and then following up with qualitative data in the second phase to supplement the quantitative data. Triangulation was used to integrate the two phases, and this helped interpretation of the combined findings. The study opted for online methods for data collection because the study was conducted during the COVID-19 pandemic; therefore, it was appropriate to avoid physical contact with many participants as the measure against the spread of COVID-19. The design helped in wider understanding of the general quality assurance practices in tertiary institutions during the emergency time.

2.1 Participants of the study

The study involved a total of 113 participants from tertiary institutions in Tanzania. Specifically, the data were collected from quality assurance practitioners in tertiary

institutions, including the head of the quality assurance unit, tutors and students from four randomly selected tertiary institutions. Therefore, to ensure that the sample size was appropriate to represent the target population, this study employed a formula developed by Yamane (1973), as cited by Sospeter (2017).

$$n = \frac{N}{1 + N(\ell)^2} ....eqtn1$$

Where, $n =$ Sample size, $N =$ Population size with certain characteristics and $\ell =$ Precision factor coefficient (5%). This is also termed as the desired margin of error (ME) expressed as a proportion. The moderate sample was used as the study employed a mixed-methods approach based on an explanatory research design (Creswell, 2013).

2.2 Sampling Techniques and Procedures
Simple random sampling was used to select tertiary institutions. Rotary technique was used to select tutors and students who were involved in the study. From a statistical perspective, randomisation is the best way of ruling all alternative explanations for the observed effects of the participants (Kisa, 2014). Purposive sampling technique was used in selecting the head of Quality Assurance unit from each tertiary institution. This enabled the researcher to work with participants with relevant information on quality assurance practices (Sospeter, 2020; Kumar, 2011).

2.3 Measurements and Instrumentation
A quality assurance practice in tertiary institutions was assessed using internal and external quality assurance mechanisms. The external quality assurance mechanism scale by Endut (2014) was adapted to assess external quality assurance practices in tertiary institutions. The external quality assurance mechanism comprised the following measures (Programme accreditation, Institutional Accreditation, Quality audits and Peer-reviewed). Comprising one item each, for example, "peer-reviewed were carried out during Covid-19". The internal quality assurance practices were assessed using an internal quality assurance mechanism. The mechanism had the following measures (Online self-evaluation, Manual internal Self-evaluation, Student's/Staff feedback, Internal self-assessment and Site Visit and survey). The measures had one question per each for example, "Site visit was rarely conducted during covid-19". The questions were formatted via the options with a total of 10 questions on a Likert type scale of 1 to 5: Always, 4 = almost always, 3 = Often, 2 = Seldom and 1 = Never. Quantitative data were analysed descriptively after being subjected to SPSS version 23; means and standard deviations were calculated, and qualitative data were analysed using content analysis.

2.4 Validity and reliability of the instruments

Reliability analysis was conducted to determine Cronbach's Alpha (CA) values of the instruments used which were rated on a 5-point scale ranging from 1 to 5: 5 =Always, 4 = Almost always, 3 = Often, 2 = Seldom and 1 = Never (see Table 1). The mean correlation of the items in the external and internal mechanism revealed many bivariate correlation coefficients which ranged from 3.57 to 4.18 with CA of the inter-items correlation of 0.25 at the sig value of .000. This suggests that the items which form the scale had reasonable internal consistency reliability. The CA for external and internal strategies for quality assurance was computed to measure the reliability of each item in the scale. The Cronbach's alpha of the computed scales ranged from 0.74 to 0.83 which made maintaining of the items in the questionnaire. Thus, the CA for external and internal mechanisms used for quality assurance was $\alpha = 0.817$ and $\alpha = 0.838$ respectively. Cohen et al (2007) as cited in Sospeter (2021) argue that the acceptable level of reliability is 0.8, however, 0.67 or above is acceptable reliability.

Table 1: Descriptive Statistics on external and internal mechanisms with Cronbach's Alpha (n = 94)

External mechanisms	Mean	Std. Deviation	Corrected Item-Total Correlation	CA if Item Deleted
Programme accreditation	4.11	0.926	.572	0.799
Institutional accreditation	4.12	0.87	0.659	0.765
The external team	3.84	1.014	0.699	0.74
Peer-reviewed	3.91	1.12	0.642	0.773
Internal mechanisms				
Online self-evaluation	3.57	1.181	0.572	0.826
Manual internal Self-evaluation	3.84	1.121	0.658	0.8
Quality assurance unit seeks Student's feedback	4.00	1.039	0.691	0.792
Internal self-assessment	3.92	1.073	0.61	0.814
Site Visit and survey	3.87	1.073	0.681	0.794

2.5 Data analysis

The data were coded and entered into a statistical package for social sciences (SPSS version 23). Descriptive statistics such as mean, percentage, and standard deviation were calculated because they were used to report quality assurance practices and mechanisms used during the COVID-19 pandemic mayhem. Qualitative data were subjected to content analysis for understanding the text as a whole and its context using both theoretical and pre-understanding perspectives (Sospeter, 2017).

Content analysis was employed, as many scholars argue that it is an alternative for numerical analysis of qualitative data (Cohen et al., 2007).

2.6 Ethical issues
Ethical issues were considered by the researcher seeking an approved research permit for data collection from a working post, which was used to introduce the researchers to the field study. Moreover, the researcher obtained consent from the participants and protected them from harm. They were allowed to withdraw from the study when they wished to do so. Also, participants were assured that their responses would be treated with confidentiality remain anonymous throughout the research process.

3. Results and Discussion
3.1 External Mechanisms Adapted in Conducting Quality Assurance
The results show that external mechanisms were almost always adapted to assure quality in tertiary institutions. It was found that about 75.5% of the programmes' accreditation was always practised to assure that the programme offered to the clients was accredited by the authority responsible. The analysis identified higher scores of 82.8% for the institution's accreditation adaptation in tertiary institutions during COVID-19. For example, Figure 1 indicates that institutional accreditation was almost always carried out (47.3%). This shows that the authorities responsible for quality control at the tertiary level adapted the mechanisms to assure that institutions were accredited. Other studies (Perris, 2020; Ramirez & Christensen, 2013; Shattock, 2010) have found that tertiary education sectors are subject to both internal and external pressure to comply with government requirements in services provided in order to produce competent products to meet market demands in both national and international markets. Quality service provision is driven by internal pressures with high consideration for external motives. For example, it is the obligation of tutors, the quality assurance unit, and students to observe education regulations, policies, and circulars guiding tertiary institutions, especially during the COVID-19 mayhem, because many institutions opted for various mechanisms for quality assurance as a means to avoid the spread of the pandemic. Considering these requirements serves as a basis for maintaining standards in tertiary institutions. Quality assurance, therefore, assures not only accountability but can also be used as a means to encourage compliance with policy benchmarking (Hodges et al., 2020). In the case of COVID-19 mayhem, tertiary institutions undergoing rapid online transformation due to lockdown may compromise service quality, necessitating a critical examination of quality assurance practices to ensure that standards are not jeopardized.

Furthermore, in conducting quality assurance in tertiary institutions, medium scores of 67%-72.1% were revealed in adapting external teams and conducting peer-reviewed assessments, respectively. The findings indicate that external experts or teams were rarely used to conduct institution peer review activities for quality assurance. This indicated that in the first phase of the crisis, people were shocked by the mayhem, hence postponing quality assurance activities. Similarly, studies indicate that in the first phase of the crisis, the majority of the external quality assurance agencies opted to postpone their procedures in the hope of conducting them in a face-to-face mode in the autumn (Gamage et al., 2020; Sankar et al., 2020). However, in most cases, these procedures were ultimately conducted at least partly online (Cirlan & Loukkola, 2021).
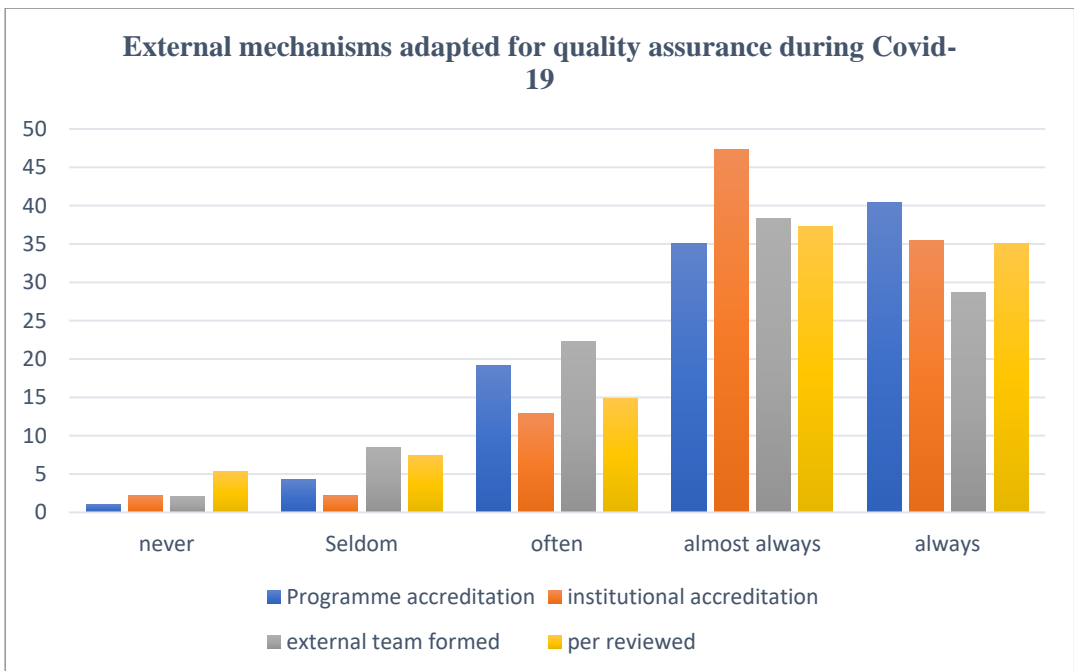

Figure 1: External quality assurance mechanisms used during covid-19

Moreover, there were slight differences between what was reported during the interview with tutors and quality assurance representatives from a tertiary institution and what was described in the report. It was reported that quality assurance activities were rarely conducted by both external and internal quality assurers, and if they were, there was high precaution among the practitioners as they were forced to wear facial masks. About this, one of the tutors from institution A said:

> "Institutional and programme accreditation was conducted very rarely during the COVID-19 pandemic time because the practitioners were scared of the situation." (A male tutor from institution A)

Another participant added that during the COVID-19 time, quality assurance was rarely conducted by external experts. One of the tutors was quoted as saying:

> "If quality assurance was to be performed, it would have to be done with extreme caution, such as keeping a safe distance to avoid close contact and wearing a facial mask."(A male tutor from institution B)

This study shows that the pandemic compromised quality as it limited the effective and objective conduct of quality assurance activities in tertiary institutions. This is due to the fact that the COVID-19 pandemic limited regular movement of people from one institution to another, as physical contact was found to be among the means for transmission of the coronavirus. Thus, external mechanisms were rarely opted for in assuring the quality of education delivery. Remarkably, strengthening quality assurance mechanisms during a pandemic is paramount. It is important to note that programme and institution accreditation assures the quality of tertiary education. Thus, the practice should be continuous regardless of the situation in place for the delivery of quality services to customers. The findings are consistent with those by Said (2021) and Yunusa et al. (2021) who stated that during the pandemic, most institutions, including tertiary institutions, ceased operations. This implies that quality assurance activities were suspended. Similarly, the external quality assurance agencies opted to postpone their activities, hoping to conduct them by face-to-face methods in the future after COVID-19 (Cirlan & Loukkola, 2021).

3.2 Internal mechanisms adapted in conducting quality assurance

The findings on internal mechanisms, as reported in Figure 2, show that over 71% of the participants agreed that internal self-assessment was adapted during COVID-19 for assuring the quality of service delivery. This indicates that tertiary institutions had rapid internal policy amendments to suit the crisis; in this case, in Tanzania, some institutions adjusted their normal sessions by splitting normal lectures and tutorials as a means of avoiding students' congestion in one venue. The study findings are in line with findings by Cirlan & Loukkola (2021) and Okoche (2017), who also found that in some countries where the regulatory framework did not allow for courses to be delivered online, new laws allowing for such provision and its accreditation were approved. Also, regulations were brought in to allow for more flexible organisation of teaching and examination. In some cases, institutions

revised and implemented new internal policies, such as those governing student progression, assessment, and academic integrity.

The result also indicates that the quality assurance unit seeks students' feedback concerning the quality delivery of education during COVID-19. Over 70.6% of participants agreed that during COVID-19, quality assurance activities were carried out by filling out evaluation forms distributed to students. Moderately, manual internal self-evaluation and site visits were adapted for quality assurance activities during COVID-19, as shown in Figure 2. However, 19.1% of participants said that online self-evaluation was rarely used. The data show that, regardless of the pandemic, online evaluation mechanisms were the least adapted, where physical and face-to-face contact was discouraged to prevent pandemic spread. The evidence of the quality assurance unit seeking feedback from students and the highly adaptable manual self-evaluation mechanisms may be evidence that educators continue meeting face-to-face and having physical contact regardless of the World Health Organization's discouragement of frequent direct contact as a measure to avoid the spread of the pandemic.
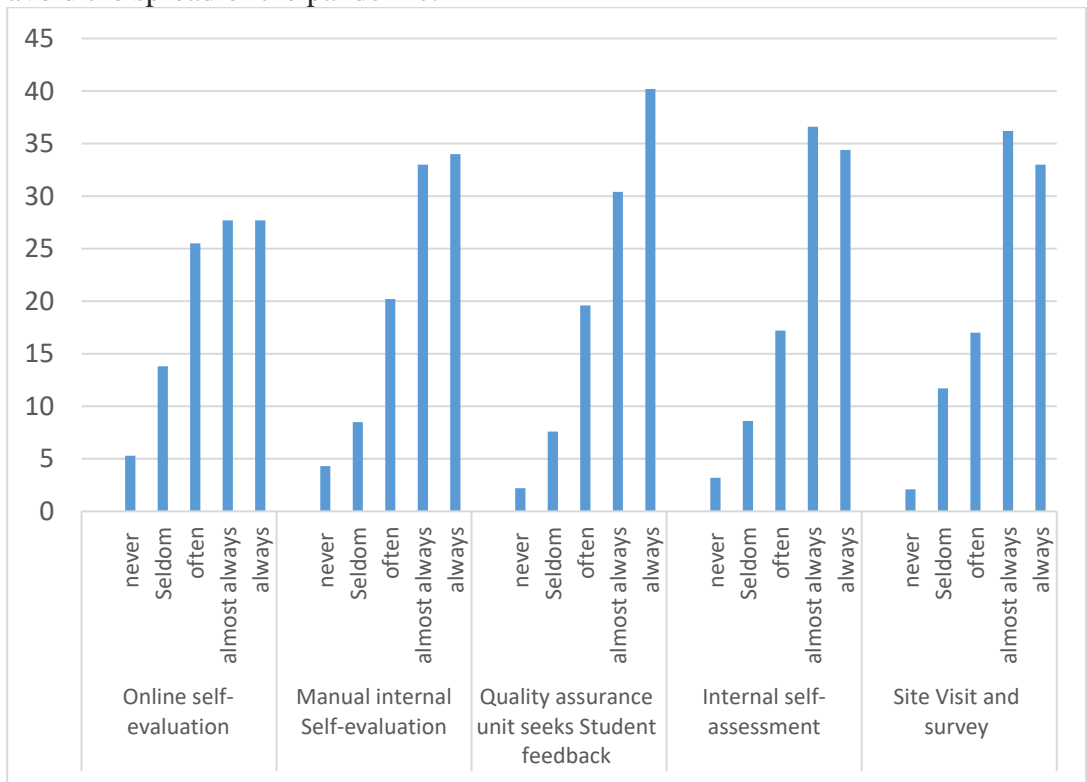

Figure 2: Internal Mechanisms adopted for Quality assurance

3.3 Challenges facing quality assurance operations during Covid-19 in Tertiary level

The researcher also examined the challenges facing quality assurance practices in tertiary institutions during the COVID-19 mayhem. The idea behind this was that the COVID-19 pandemic distorted the learning climate in tertiary institutions. The results showed challenges which were highly experienced in the conduct of face-to-face interviews, lockdown of tertiary institutions, and limited human resources during the COVID-19 mayhem for about 69.9%, 65.9%, and 70%, respectively (see Table 3). The pandemic limited physical and frequent face-to-face contact with students and staff during work to avoid the spread of COVID-19; hence, it was difficult to conduct face-to-face quality assurance activities in the tertiary institutions. The serious spread of COVID-19 across the globe resulted in many countries, including Tanzania, opting for lockdown by postponing studies. These findings concur with findings of other studies that pointed out that tertiary institutions across the world shut down and started conducting online classes (UNIDO, 2020; UNESCO, 2020a). COVID-19 has changed the complete delivery mode of the education sector. Institutions have adopted virtual classroom applications such as Zoom, Google Classroom, and Moodle.

Moderately, the finding shows that learner-centred approaches were seldom used during COVID-19. Other challenges observed were inadequate lecture halls and inadequate facilities for preventing the spread of COVID-19, including facial masks. When the participants were asked about wearing a facial mask during COVID-19, regardless of the emergency, 63.8% of them said that they wore facial masks, while 35.2% replied negatively. Inherently, the use of a learner-centred approach is conceived to be the means to the spread the mayhem, as the approach frequent emphasises on physical and face-to-face contact among the students and staff. Thus, to avoid the spread of the pandemic, tertiary institutions opted mostly for a lecture approach rather than a learner-centred approach.

Table 3: Challenges encountered tertiary institutions during Covid-19

Challenges Facing Tertiary Institutions During Covid-19	Per cent (%)				
	Never	Seldom	Often	Almost always	Always
Lockdown of education institutions	10.6	5.3	18.1	34	31.9
Difficult to travel to conduct physical verification	25.5	11.7	16	30.9	16
Limited fund to handle the mayhem pandemic	19.1	8.5	18.1	41.5	12.5
Inadequate facilities such as facial masks	19.1	6.4	8.5	38.3	27.7

Inadequate lecture halls to split the students	14.9	10.9	11.7	33	29
Limited lecturers	12.8	11.7	9.6	24.5	41.5
Difficult to conduct face to face interviews	7.5	9.7	11.8	33.3	36.6
The learner-centred approach was seldom applied	13.8	9.6	12.8	22.3	41.5

4. Conclusion and recommendations

The study established that both external and internal quality assurance mechanisms were adapted to various degrees to assure the quality of the services in tertiary institutions during the COVID-19 mayhem in Tanzania. The restriction of physical and face-to-face contacts among students and staff resulted in the adaptation of e-learning as a measure to avoid the spread of COVID-19. Although, online systems became a challenge to many institutions as few adapted the approach quickly, while some suspended studies until lockdown was over because they were not well prepared for e-learning.

It is high time for educationists, policymakers, and/or curriculum developers to invest more in the digital/e-learning system. Both external and internal mechanisms must be improved to create a real-time online platform for conducting quality assurance activities during pandemics such as COVID-19. This calls for a closer investigation of how the digitalization of quality assurance processes could contribute to faster monitoring, more efficient communication, and improved online assessment. Notably, the study recommends the following:

  ➢ Strengthening external and internal quality assurance mechanisms through enhancing distance e-communication among education stakeholders;

  ➢ Tertiary institutions need to strengthen the e-distance training mode by placing all educational and methodological documentation, information, and training materials online to enable continuation of studies during the eruption of a pandemic disease like Covid-19;

  ➢ Quality assurance authorities need to introduce an e-quality assurance mode by placing all educational data and training materials online; and
  ➢ Tertiary institutions should implement peer teaching observation of online teaching to assist tutors in redesigning their teaching methods.

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