

Service Quality of the Technical Education Service at the Tanzania Institute of Accountancy: Gaps and Recommendations

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Abstract

In this article, the service standard of Tanzania's higher education is examined, particularly with regard to the five SERVQUAL arrangement aspects (tangibility, reliability, responsiveness, assurance, and empathy). The validity and dependability of SERVQUAL in evaluating higher education in Tanzania are also examined in the research. The study on which this paper is founded involved 125 TIA students. According to the research, Tanzania's technical education services are up to the standards set in the opinions of TIA students in terms of tangibility, reliability, and assurance. Two dimensions, responsiveness and empathy (under the item of student best interest as objective (-0.08)), did not meet the expectation ($p < 0.05$). The researcher observed a gap between TIA students' perceptions and expectations: reliability 0.100, responsiveness -0.0075, assurance 0.1675, empathy 0.03, and tangibility 0.240. The gap analysis between service perceptions and expectations showed that all scores for perceptions were higher than their expectations, except on the dimension of responsiveness, indicating that service quality was satisfactory. TIA management should increase efforts to enhance service quality under the responsiveness dimension. To close the gap between TIA students' perceptions and expectations, the institution must offer academic advice, respond to various students' questions, and provide timely feedback. This might benefit Tanzanian technical education.

Keywords: Service Quality, student satisfaction, technical education, higher learning institutions

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1. Introduction

Technical and Vocational Education and Training (TVET) is a crucial component of the educational system in the majority of developing nations, and the nations anticipate it to perform dual roles in national sustainable development (Mason et al., 2018). The first role is to provide training opportunities and career advancement avenues for school leavers. The second is to develop skills and knowledge of those working in different industry sectors as developing countries move towards increased industrialisation and strengthening their market-led economies. The United Republic of Tanzania's (URT) Ministry of Science, Technology, and High Education (2021) claims that as the demand for a professional technical workforce grows, so do the needs for training facilities and new programmes to address emerging technologies, and undertaking staff development initiatives. Many African countries, including Tanzania, have realised the need for a shift in thinking from education for employment to employability (Mgaiwa, 2021; Munishi, 2016; Odo et al., 2017).

The government offers technical education at the tertiary level to secondary school graduates. The tertiary level comprises a wide range of courses under technician and diploma programmes, with some technical training institutes offering degree programmes (Hassan et al., 2021). However, Ayonmike and Okeke (2020) observed that the expected status of technical education is the "second-best option" to general or academic education in developing, emerging, and industrialised countries. Implementing the technical education curriculum faces numerous challenges in African countries (Ayonmike & Okeke, 2020; Hassa et al., 2021; Onweh et al., 2022). These challenges affect the quality of service of the tertiary technical institutes, resulting in much lower enrolment rates compared to countries in Europe and Asia. African researchers' interest in the quality of technical education institutions could be much higher (Okoye & Arimonu, 2016).

Moreover, the researcher of this study premised it on the understanding that focusing on service quality and its assessment can aid in creating customer-oriented standards for service quality. This understanding will enable technical higher education institutions to embrace a market approach in their programmes (Biben et al., 2018) and have competitive advantages (Raju & Bhaskar, 2018). Both theoretical and empirical evidence shows that student satisfaction assessment is vital in determining the service quality of higher learning education institutions (Ongo, 2019). Therefore, this paper assesses the quality of technical education services using a case study of public institutions in Tanzania to form a basis for recommending necessary improvements.

2. Literature review

Service Quality

In higher learning education, service quality is not only essential, but it is a vital ingredient of educational excellence. Magasi et al. (2022) found that it is clear that positive perceptions of service quality have a significant influence on student satisfaction. Thus, satisfied students would attract more students through word-of-mouth communications. Also, the students can be motivated or inspired by their institution's academic performance and administrative efficiency (Ongo, 2019).

Satisfaction

It is a condition felt by someone who has experienced service performance compared to prior expectations. Satisfaction is a function of a relative mapping of customers' experience with their own beliefs or knowledge embedded in their minds (Chow, 2020); in the context of a student, satisfaction is a student's fulfilment response after an education services experience.

Empirical studies

Shi and Shang (2020) found that the SERVQUAL model plays a guiding role in evaluating the management of emerging enterprises, consumers' preferences for services, and resource allocation of service industries in developing countries in their study on a 'Review of Quality of Service and SERVQUAL Model'. As a result, management and marketing professionals have investigated it and discovered that the industry's service quality significantly impacts consumer satisfaction, experience, and brand loyalty (Shi & Shang, 2020). The findings are consistent with results of a study by Ozdemir, Kaya and Turhan (2020) in higher education institutions in Turkey on a scale to measure sustainable campus services in higher education: "Sustainable Service Quality." The researchers found service quality to have a substantial positive link with student satisfaction. As a result of enhancing service quality, student satisfaction may also improve.

Mashenene's (2019) study on the effect of service quality on students' satisfaction in Tanzania's higher education demonstrated a gap between students' perceptions and expectations. However, the dimensions of the SERVQUAL model; reliability, tangibility, responsiveness, assurance, and empathy; were essential for students. Contrarily, a study by Khan, Ahmed and Nawaz (2011) on students' perspectives of service quality in higher learning institutions in Pakistan revealed a significant relationship between service quality dimensions (reliability,

assurance, responsiveness, and empathy) with satisfaction. The same findings revealed that tangibility had an insignificant relationship with students' satisfaction. The implication is that the higher the level of student satisfaction, the greater their willingness to put significant effort in their studies.

The analysis of these studies shows that the findings from the analysed empirical articles support each other, although there is a significant difference in service quality dimensions, particularly tangibility. Therefore, if higher learning institutions provide quality services to their customers, students will be satisfied with their services. Mwiya et al. (2017) conducted a study on Higher Education Quality and Student Satisfaction in Zambia. They concluded that the service quality performance dimensions (tangibility, reliability, responsiveness, empathy, and assurance) were each significantly positively related to overall customer satisfaction, affecting behavioural intentions.

3. Research Methodology

The research was conducted at the Tanzania Institute of Accountancy (TIA) at the beginning of the semester (October and November 2021) in the academic year 2021/2022. In addition to offering technical education services at the Master's Degree, Postgraduate Diploma, Bachelor's Degree, Ordinary Diploma, and Basic Technician Certificate levels, TIA is a publicly funded institution with full accreditation. It has six campuses spread over Mtwara, Mbeya, Singida, Mwanza, Kigoma, and Dar es Salaam. According to the study, TIA's Dar es Salaam campus enrolls more than half of the TIA students. Therefore, the researcher selected the Dar es Salaam campus because it has many students enrolled at TIA and could represent the entire population. The study used quantitative data analysis. As suggested by Kothari (2017), the researcher used the proportional allocation method to determine the sample size of the respondents at each level of the study. The sizes of samples drawn from the three levels of analysis (Bachelor's Degree, Diploma, and Basic Technician Certificate) were kept proportional to the number of enrolled students in each study group. Therefore, 125 students ($n = 125$) were selected, maintaining a sampling rate of 10.1% of the 1,024 students enrolled in the Bachelor's Degree and Diploma programmes (second year) and the Basic Technician Certificate programme, as presented in Table 1.

Table 1: Student's level of the study included in the current study

Level of study	#Students in the target population	#Students in the sample	Sampling Rate (%)
Bachelor's Degree	299	52	10.0
Diploma	337	35	10.3
Basic Technician Certificate	388	38	10.0
Total	1,024	125	10.1

Source: Authors compilation.

This study adapted the SERVQUAL survey instrument. SERVQUAL (an acronym derived from the term "Service Quality") is a well-tested survey method for measuring service quality (Onditi & Wechuli, 2017). Parasuraman designed the original SERVQUAL instrument to assess organisations and businesses in the service area (Parasurman et al., 1988). However, its adaptation in the academic setting is supported by researchers in different parts of the world (Hanaysha et al., 2011; Onditi, 2017; Yousapronpaiboon, 2013; Farahmandian et al., 2013; Ojo & Ifeoma, 2018). Literature substantiates that SERVQUAL is the most popular and widely used service quality model to measure students' satisfaction worldwide (Weerasinghe & Fernando, 2017). In this research, some changes were made to that questionnaire but covered all the five dimensions of the SERVQUAL model: tangibility, reliability, responsiveness, assurance, and empathy. The researcher aligned the service quality indicators within these five dimensions to the accreditation standards set by the National Council for Technical and Vocational Education and Training (NACTVET)—a statutory body established by the Act of Parliament, Cap. 129, to oversee and coordinate technical and vocational education and training in Tanzania, provided by non-University tertiary institutions.

The first part of the questionnaire captures demographic data about the respondents (discipline, age, gender). The instrument comprises 20 statements for each scale: one to measure students' expectations of the services an ideal higher education institution provides and the other one to measure their perception of the actual services delivered to them. The scores for expectation and perception items ranged from 1 (strongly disagree) to 5 (strongly agree) on a five-point Likert-type scale. Therefore, if perception exceeds expectation ($P > E$), service quality is very satisfactory. Service quality is good if perception equals expectation ($P = E$). However, if expectation exceeds perception ($E > P$), service quality is poor (Parasuraman et al., 1988).

For this study, the researcher used the "IBM SPSS Statistics" software version 20 to test the constructs and indicators of quality in the adapted SERVQUAL instrument and the service quality gap analysis. The researcher examined the reliability test of the constructs for Cronbach's Alpha. The reliability results show that all the constructs in the instrument had a Cronbach's Alpha reading > 0.7 , as indicated in Table 1. The alpha reading supports that the constructs were reliable (Hair et al., 2019). The researcher used the means to compare the students' perceptions and expectations of educational service quality and the gap between them.

Table 2: Description of dimension

Dimension	Specific quality indicators assessed through the Likert-type scale				Item Reliability
					Cronbach's Alpha
Tangibility	1. Buildings and offices	2. Lecture halls	3. Appearance of lecturers	4. Teaching aids	.738
Reliability	5. Timely information to students	6. Availability of lecturers	7. Support from faculty staff	8. Knowledgeable lecturers	.753
Responsiveness	9. Exam handling	10. Response to student queries	11. Timely feedback to students	12. Providing academic advice whenever required	.851
Assurance	13. Building trust and feeling safe	14. Instilling confidence in students	15. Courtesy and professionalism	16. Positive attitudes toward students	.703
Empathy	17. Understanding students' need	18. Student's best interest as objective	19. Convenient office hours for students	20. Personal attention to every student	.779

Source: Authors compilation

Also, the study tested the reliability of the SERVQUAL instrument to ensure solid and valid results. The researcher calculated the SERVQUAL score between

ideal service and basic service concerning the following measures: tangibles, reliability, responsiveness, assurance, and empathy. The researcher obtained each dimension score by calculating the difference between the expectation (E) and perception (P) service scores (SERVQUAL score = P- E). The positive scores indicated that TIA students' expectations met the students' perceptions of higher education institutions' services. The negative scores showed that TIA students' expectations were not satisfying, and their perceptions of higher educational institution services were poor.

4. Results and Discussion

The demographic variables included the following characteristics of respondents: gender, age, and residence. Table 1 presents the demographic information based on frequency distributions and percentages. Of the 125 respondents in this study, 65 (52%) were female, and 60 (48%) were male. In terms of age groups, the majority of the students were 21 years old and above (49.6%). In the case of residence, most of the respondents were off-campus, about 102 (81.6%). See Table 3.

Table 3: Demographic table

		Frequency	Per cent
Respondent sex	Female	65	52.0
	Male	60	48.0
	Total	125	100
Respondent age	18 years	14	11.2
	19 years	24	19.2
	20 years	25	20.0
	21 and above	62	49.6
	Total	125	100.0
Residence	On campus	23	18.4
	Off-campus	102	81.6
	Total	125	100.0

Source: Authors compilation from SPSS 20. Output

Table 4 shows the mean scores on service quality expectations, service quality perceptions, and service quality. The total mean score of TIA students' on service quality expectations was 1.594. Among the five dimensions, the researcher found the highest expectation related to the responsiveness dimension (mean score = 1.66), and the lowest was related to the **tangibility** dimension (mean score = 1.475). Besides the four items with the highest expectations, three related to responsiveness (that is, providing academic advice when required, response to students' queries and timely feedback to students), and one related to reliability (that is, availability of lecturers). Among the four items in tangibility, two items had the lowest expectations score (buildings, offices, and teaching aids).

Regarding service quality perceptions, the total mean score of TIA students' service quality perceptions was 1.7005. Among the five dimensions, two dimensions had equal and the highest perceptions of the **reliability and assurance** dimensions (mean score = 1.7325), and the lowest perceptions related to the **responsiveness** dimension (mean score = 1.6525). However, for the two items with the highest perceptions score, one related to reliability (availability of lecturers). Moreover, two items with the lowest perceptions score, one about responsiveness (Examination Handling) and the other related to assurance (Courtesy and professionalism).

The researcher computed the mean gap score for each item and dimension by subtracting the expectation score from the perception score (P-E). The results show the differences between perceptions and expectations for all 21 items and five dimensions. The results show that two dimensions, which are **empathy and responsiveness**, were statistically significant ($p < 0.05$), while the other three dimensions; which are tangibility, reliability assurance; were statistically insignificant ($p > 0.05$). In addition, the difference between the total mean score of perceptions and expectations was statistically negligible. Therefore, a gap between the TIA students' service quality perceptions and expectations existed on two dimensions among the higher educational institutions included in this study.

The study results show that the total gap mean of a TIA student's overall service quality score was 0.1065. The tangibility category had the largest disparity in service quality (gap mean score = 0.24). The responsiveness component had the lowest gap in service quality (gap mean score = -0.0075). The researcher identified the four items with the biggest gaps from an analysis of the mean gap scores of 20 items. The three items were related to the tangible dimension (i.e., building and offices, library service, and teaching aids), and one was related to the assurance dimension (i.e., instilling confidence in students).

Table 4: Mean scores of dimensions of service quality

Dimension and items	Student Expectation (E)		Perception and experience (P)		Mean Gap score
	Mean	SD	Mean	SD	(P - E)
Tangibility	1.475		1.715		0.24
Buildings and offices	1.27	0.447	1.57	0.797	0.30
Lecture Halls	1.61	0.771	1.62	0.749	0.01
Library services	1.54	0.736	1.94	1.01	0.40
Teaching Aids	1.48	0.736	1.73	0.855	0.25
Reliability	1.6325		1.7325		0.10
Timely information to students	1.53	0.789	1.68	0.789	0.15
Availability of lecturers	1.85	1.000	1.90	0.979	0.05
Support from faculty staff	1.63	0.713	1.76	0.766	0.13
Knowledgeable lecturers	1.52	0.655	1.59	0.636	0.07
Responsiveness	1.66		1.6525		-0.0075
Exam handling	1.50	0.679	1.54	0.602	0.04
Response to student's queries	1.69	0.875	1.72	0.736	0.03
Timely feedback to students	1.68	1.209	1.66	0.761	-0.02
Providing academic advice when required	1.77	0.89	1.69	0.723	-0.08
Assurance	1.565		1.7325		0.1675
Building trust and feeling safe	1.64	1.103	1.79	0.806	0.15
Instilling confidence in students	1.52	0.631	1.82	0.766	0.30
Courtesy and professionalism	1.50	0.703	1.50	0.63	0.00

Positive attitude toward students	1.60	0.582	1.82	0.784	0.22
Empathy	1.6375		1.67		0.0325
Understanding student needs	1.67	0.77	1.72	0.691	0.05
Students' best interest as objective	1.66	0.794	1.58	0.585	-0.08
Convenient office hours for students	1.48	0.736	1.63	0.724	0.15
Personal attention to every student	1.74	0.72	1.75	0.886	0.01
Overall service quality	1.594		1.7005		0.1065

Source: Authors compilation from SPSS 20. Output

The researcher used the one-way ANOVA test to assess the difference between the five dimensions of expectations, the five dimensions of perceptions, and the service quality gap, based on the TIA students' demographic variables (i.e., gender, programme, and age) in higher educational institutions. After the researcher discovered that the study scores were distributed normally, the researcher used the one-way ANOVA test instead of other tests. The test showed the following:

- There were no significant differences between the perceptions based on all demographic variables—an exception on assurance.
- There were no significant differences between the five dimensions of ideal and actual based on the demographic variables—gender.
- There were no significant differences between the perceptions based on age; an exception was on the dimension of empathy on students' needs ($p = 0.015$), and there were no significant differences between the experience based on age except on the tangibility dimension on lecture rooms ($p = 0.015$)
- Also, the result supported a significant difference between the student perception of tangibility, reliability, responsiveness, and empathy based on the programme. There were no significant differences between the assurance dimensions on the perception based on the demographic variables—programme; all p-values were more critical than 0.05.

5. Conclusions and Recommendations

Based on the statistical analysis results, the researcher found that TIA students' perception exceeded their expectations; this showed that students perceived high-quality services under the following dimensions: tangibility, reliability, assurance, and empathy. On the other hand, expectations exceeded their perceptions, evidenced by the students' low scores on one dimension: responsiveness. A gap between expectations and perceptions with the highest service quality gap was related to the tangibles dimension. The lowest gap in service quality was associated with the responsiveness dimension. Therefore, reliability, tangibles, assurance, responsiveness, and empathy were important for students.

In addition, this study's results showed significant differences in service quality gaps based on the programme. As the findings indicated, the lowest mean score among SERVQUAL's five dimensions was responsiveness, followed by empathy, assurance, reliability, and tangibility. Since the findings showed positive and negative satisfactory services to students of TIA, the results of the present study have several managerial implications for service quality enhancement in technical and higher education in Tanzania.

First, because tangibility showed the most favourable service quality gap mean score, the service quality under this dimension is very satisfactory. Therefore, the institute can continue to enhance and keep tangibles well (buildings and offices, lecture halls, teaching aids, and library services).

Secondly, reliability showed positive service quality to students. This positivity means that the services under this dimension were very satisfactory; that institute has to succeed and provide timely information to students, availability of lecturers, and support from faculty staff and knowledge lecturers; also, they have communicated and are very satisfactory.

Thirdly the responsiveness dimension showed a negative mean gap score, which indicates that the service quality was unsatisfactory; therefore, to address the responsiveness dimension, institutes need to provide prompt services, demonstrate a willingness to help, and respond to students' inquiries.

Fourth, since assurance showed a positive service quality gap mean score, this positivity indicates that the quality of the service under this dimension was satisfactory.

The faculty and staff at TIA provide quality by being knowledgeable enough to respond to students' questions and ensuring they are always polite and welcoming. Moreover, the behaviour of the staff is more trustful among the students.

Finally, empathy, which showed a positive service quality gap mean score, indicates that the service quality under this dimension was satisfactory. This positivity implies that all the services under the empathy dimension were acceptable, except the students' best interest as objective; this showed a negative mean gap score. Therefore, higher education institutions may improve their services in light of the discussed dimensions of SERVQUAL according to the expectations and perceptions of the TIA students.

Based on the findings of this study and their implications, the researcher suggests the following:

1. Technical institutions should ensure they form an examination panel for handling and providing timely feedback. Prompt service provision demonstrates a willingness to help and respond to students' inquiries. Quick response will help improve conducive environment for learning.
2. Institutions should provide academic advice, solve different students' queries and provide timely feedback to decrease the gap between students' perceptions and expectations; this may support technical education in Tanzania. Institutions should establish a quality assurance team to implement the said suggestions.

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