

ASSESSMENT OF QUALITY LEVEL IN THE FACULTY OF ADMINISTRATIVE  
SCIENCES AT UNIVERSITY OF SCIENCE AND TECHNOLOGY (UST) IN YEMEM

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## ABSTRACT

The study sought to assess the quality of educational services in the Faculty of Administrative Sciences at the University of Science and Technology in Yemen from the students' points of views. In addition, it examined the difference in opinions among students on quality as related to gender, study levels and area of specialization. The study applied the quantitative research approach, where the questionnaire was the tool for collecting the data. The population was 481 students from which 350 students were selected as a sample. The researchers used the descriptive statistics to examine the level of quality but T-Test and Analysis of Variance (ANOVA) were used to

test the differences among respondents on the level of quality. Moreover, the Pearson's Correlation analysis employed to find out the magnitude and direction of relationships among the quality dimensions. The results showed an acceptable level of quality services in general and for its different dimensions. The researchers recommend further studies on the topic in the various colleges and universities to enrich the field of quality services and to have better understanding for the nature of quality services required in Yemen.

### Keywords:

Service, Quality, SQ, UST,  
Students, Yemen

## ملخص الدراسة

هدفت الدراسة إلى تقييم جودة الخدمات التعليمية في كلية العلوم الإدارية بجامعة العلوم والتكنولوجيا في اليمن من وجهة نظر الطلاب. بالإضافة إلى ذلك، تم تفحص الاختلاف في الآراء بين الطلاب حول الجودة من حيث النوع الاجتماعي ومستويات الدراسة ومجال التخصص. تبنت الدراسة المنهج الكمي لتحليل البيانات، وكان الاستبيان الأداة المستخدمة لجمع البيانات وقد بلغ مجتمع الدراسة 481 طالباً وطالبة، تم اختيار 350 من الطلبة عينة للدراسة. استخدم الباحثان الإحصاء الوصفي لدراسة مستوى الجودة بينما تم استخدام الاختبار التائي وتحليل التباين

لفحص الاختلافات بين المستجيبين فيما يخص مستوى الجودة. علاوة على ذلك، ولعرفة حجم واتجاه العلاقات بين أبعاد الجودة تم استخدام معيار ارتباط بيرسون. أظهرت النتائج أن هنالك مستوى مقبولاً من جودة الخدمات بشكل عام وبأبعادها المختلفة. ومع ذلك يوصي الباحثان بإجراء مزيد من الدراسات حول الموضوع في بقية الكليات والجامعات لإثراء مجال خدمات الجودة وللحصول على فهم أفضل لطبيعة خدمات الجودة المطلوبة في اليمن. الكلمات الدلالية: الخدمة، الجودة، جودة الخدمة (SQ)، جامعة العلوم والتكنولوجيا (UST)، الطلبة، اليمن

## 1. Introduction

The quality perception has developed over the past decades from product (goods and service) orientation into customer orientation and satisfaction. The service quality is a comparison between customers' expectation and actual performance (Lewis & Booms, 1983). Unlike goods, service quality does not enjoy the same pace of development and level of success as goods does due to the subjectivity, disparities in the measures and the ever-changing behaviours and attitudes of customers. In respect of educational service quality, there have been different quality attributes investigated by researchers as Yousapronpaiboon, (2013); Theresia & Bangun, (2017); and Al-Haddad et al, (2018).

In Yemen, there are ten public and twenty private universities offering higher educational services in competitive environment. The University of Science and Technology (UST) is one of the private universities in Yemen (Yemen Times, 2015). It has nine academic faculties, inter alia, Faculty of Medicine and Health Sciences, Faculty of Engineering and Faculty of Administrative Sciences (UST, 2017). The researchers conducted their study at the Faculty of Administrative Sciences (FAS) to contribute to the knowledge framework of quality of education specifically the services quality at the Faculty.

### 1.1 Literature Review

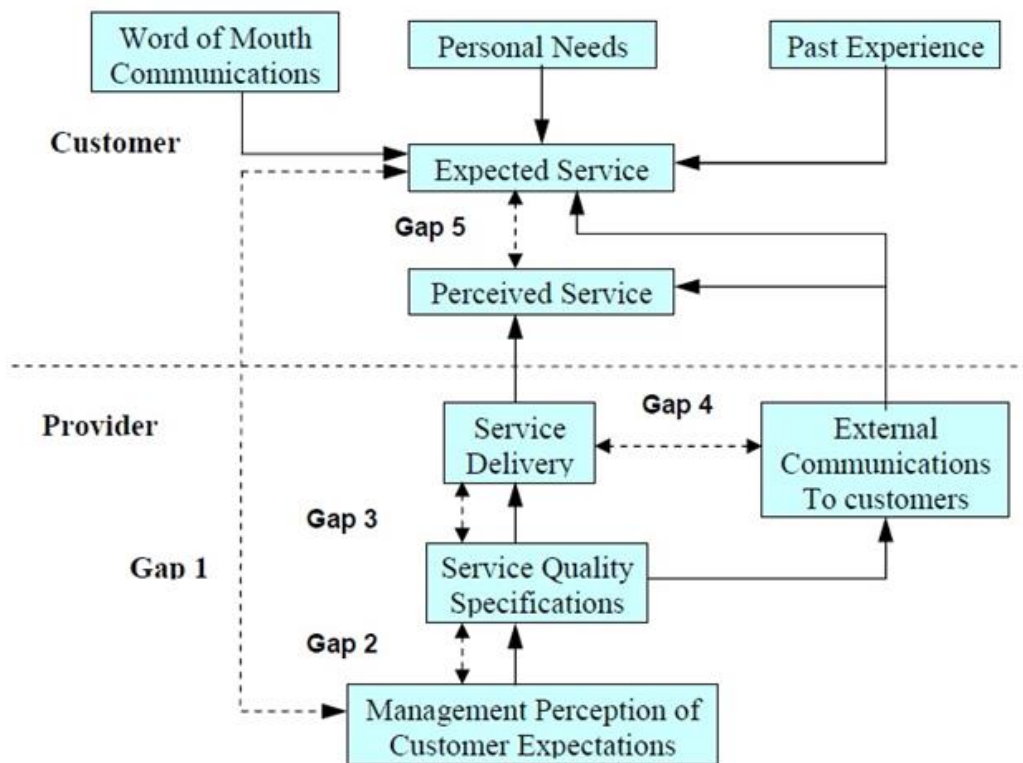
There are different opinions towards service quality (SQ). While some researchers consider the SQ as unclear topic (Clewes, 2003; Al-Assry, 2015) there are groups who suggested that SQ in a form of "Service Quality Model (SERVQUAL)" has clear guideline for measuring SQ Parasuraman et al., (1985). Furthermore, Pena et al., (2013), as presented in Figure 1, endeavoured to explain SQ as filling five gaps within available components. These gaps are: consumer expectation-management perception gap, service quality specification gap, service delivery gap, external communication gap and expected service-perceived service gap.

Nevertheless, fulfilling or exceeding expectations of clients is a major requirement in quality, therefore, Goetsch & Davis, (2006) declared that quality is a dynamic state associated with products, service, people, processes, and environments. Kang and James, (2004) examined SQ through five dimensions that are reliability, assurance, tangible, empathy and responsiveness. Their finding was that the five dimensions did a good job to assess the service delivery process but suggested that other dimensions to be assessed.

Besterfield et al. (2007) designated nine dimensions of SQ that are: performance, feature, conformance, reliability, durability, service, response, aesthetics, and reputation which vis a vis Kang and James (2004) and Kotler et al. (2012) five dimensions. Yousapronpaiboon (2013) used the same five dimensions to measure higher education SQ in Thailand and found that students' expectations exceed their perception that was reflected in the low quality scores in five dimensions of SQ.

The tangibles showed the most negative score for SQ and followed by responsiveness, assurance, empathy and reliability.

In contrast with Besterfield et al. (2007) but in line with Kang and James (2004), Kotler et al. (2012), and Yousapronpaiboon (2013) Theresia & Bangun (2017) applied the same five dimensions to detect the customer (students) satisfaction. Their findings showed that tangibles and reliability have positive effect on customer satisfactions while responsiveness, assurance and empathy have no impact on students' satisfactions.



**Figure 1.** Service Quality Model (SERVQUAL), Pena *at el.*, (2013).

Al-Haddad et al., (2018) used expanded SQ factors of six items but kept the assurance item from the five dimension model. The differences were in the items of physicality, dependability, reactivity, skill acquisition and students satisfaction. Their findings showed moderate degree of agreement on the educational SQ provided by the university. The assurance got the highest rank but the physicality got the lowest score and showed dissatisfaction with state of the halls, building and facilities.

The aforementioned studies showed the diversity of dimensions and implicitly suggest addition or exclusion of items. No study touches on the undergraduate students in Yemen generally or specifically in the Faculty of Business Administration. Similarly, there was no study touches on items as curricula, education aids, library services, academic staff, administrator and infrastructure that the current study will investigate.

## 1.2. Problem Statement

The researchers surveyed available literature to enable them to identify the knowledge's gap in the field of SQ at UST. They found one study by Al-Assry (2015) that has investigated SQ in UST from the point of view of post-graduate students. However, the researchers have not come across any study that examines educational SQ from the perspective of undergraduates. Therefore, considering the prominence of the educational SQ issue in a competitive environment the study has been carried out to contribute in filling the gap in the field of SQ at UST from the perspective of undergraduate students in the Faculty of Administrative Sciences.

## 1.3. Objectives of the study

The main objective of the study is to investigate level of quality in the Faculty of Administrative Science from the point of views of students during the academic year of 2017- 2018 through the following:

- To identify the level of service quality in targeted faculty in general and specifically in the following dimensions:
  - a) Curricula
  - b) Educational Aids
  - c) Library Services
  - d) Academic Staff
  - e) Administrators
  - f) Infrastructure
- To investigate the differences among student's opinions as related to curricula, education aids, library services, academic staff, administrators and infrastructure on the basis of gender, study level and area of specialization.

## 1.4. Research Questions:

The two study questions guided this study are:

1. What is the level of quality at Faculty of Administrative sciences in general and as related to its different dimensions "Curricula, Educational Aids, Library Services, Academic Staff, Administrators and Infrastructure"?
2. What are the differences in opinions of students on quality dimensions based on gender, area of specialization and level of students?

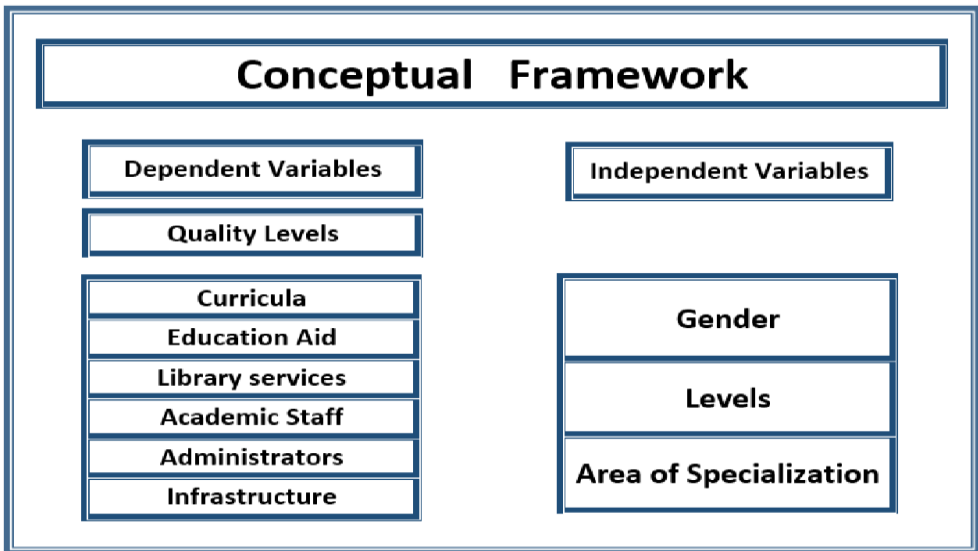
### 1.5. Research hypothesis

In response to study question no. 2, the hypotheses are as follows:

- There are differences in opinions of students on quality dimensions based on “gender, level of study, area of specialization”. Three sub-hypothesis stem from this main hypothesis. They are as follows:
  - Students’ opinions are different on each dimension of quality services based on gender.
  - Students’ opinions are different on each dimension of quality services based on level of study.
  - Students’ opinions are different on each dimension of quality services based on area of specialization.

### 1.6. Research Framework

Based on the study’s questions, the ‘dependent variables’ identified for this study is the quality of services while the ‘independent variables’ are represented by “gender, levels, and area of specialization”. The service feature was examined based on these variables. The Figure 2 below illustrates these variables and their relationships.



**Figure 2.** Research Frameworks (Relationship between Variables)

## 1.7 Conceptual and Operational Definitions

**Service Quality:** Defined as “the perception that meet or exceed customers’ expectation” Kotler et al. (2012). It is defined here as satisfaction that expressed by the students.

**Infrastructure:** It is the underlying permanent structure in the Faculty of Administrative Sciences (Merriam Webster, 2018).

**Area of specialization:** is defined as one of the program students are enrolled in at the Faculty of Administrative Sciences in UST such as Business Administration, Accounting, and Banking (UST, 2017).

## 1.8 Limitations of the Study

The study took place at a period of time that the country is not stable due to the conflict and war. Therefore, the results of the study reflected the current situation in which the quality of services in the country is at minimum., i.e.; if limited services is provided it might considered at its highest level of quality when compare to what is provided in other universities or as reflection to the current situation. In addition, the respondents have responded in limited time which might have led them to provide imprecisely responses. Therefore, the results of the study might be taken with some degree of vigilance and cannot be generalized.

## 2. Research Methodology

The study was conducted at UST in Yemen to measure the level of educational SQ in the Faculty of Administrative Sciences (FAS) from the point of view of students. The researchers used quantitative approach where descriptive statistics and correlation were utilized with their related statistic techniques. The study surveyed the opinions of the students; i.e., external customers, through structured closed-ended questionnaires to targeted students in the FAS at UST to collect the data. All students, males and females, registered in FAS registered during the academic year 2016-2017 were considered as the population for the study and the student of FAS was the unit of analysis. The customers identified the quality of educational service received based on the designed questionnaire distributed to them. According to the registrar documents, there are 1178 students, 633 males and 545 female students. The researchers believe that not all students can respond to the questionnaire. Therefore, they identified the group of students who were in 3rd and 4th year in the programs to be as targeted population due the adequate period experienced in the program. The other freshman levels had limited experience to enable them to respond critically to the questionnaires. The targeted population enrolled in the program were 481students (252 male and 229 female). Convenience sampling was used to target students who were reachable and feeling contented in answering the questionnaire (Zikmund et al., 2013). There were 350 questionnaires distributed out to the targeted population, however, only 300 questionnaires were return. The

valid number of questionnaire for analysis was 176, which was considered as acceptable.

## 2.1 Data Collection

The researchers modified a questionnaire employed by Alsharjabi *et al.*, (2017) and included inputs and remarks from panel of experts. The structured questionnaire was comprised of six sections. The first section contains demographic information while the other five sections are formatted as 'closed-ended' questions on quality of services. All 'closed-ended' items of quality were evaluated on five-points of Likert Scale: "strongly agree, agree, neutral, disagree and strongly disagree" for five sections. The five sections evaluated were: curricula, education aid, library services, academic staff, administrator and infrastructure.

Data was collected from questionnaires that were distributed to females and males sections. The researchers have self-administered data collection's process. Some difficulties in collecting data were experienced due to the reluctance of some students in responding to the questionnaire. However, the researchers managed to distribute the questionnaires to all available students in classes during the aforementioned academic year.

## 2.2 Reliability & Validity:

The instrument was presented to a panel of experts in the field of quality management to examine its face validity. Based on their feedback, some items were adjusted. The validity and reliability of the instrument were calculated through Cronbach's Alpha test. Table 1 shows the results of Cronbach's Alpha. The results indicated that the data collection tool used for this research had high value for 'reliability' equal to 0.95 and 'validity' of 0.98. Moreover, the results showed that all dimensions of the instrument had high validity and reliability ranging from 0.78 to 0.90 for reliability and from 0.88 to 0.95 for validity.

**Table 1. Reliability and Validity of Research Instrument**

| Variables            | Reliability<br>(Cronbach's<br>Alpha) | Validity<br>(Cronbach's<br>Alpha½) | No. of Items |
|----------------------|--------------------------------------|------------------------------------|--------------|
| Curricula            | 0.85                                 | 0.92                               | 7            |
| Educational Aids     | 0.82                                 | 0.90                               | 6            |
| Library Services     | 0.84                                 | 0.92                               | 10           |
| Academic Staff       | 0.86                                 | 0.93                               | 7            |
| Administrators       | 0.78                                 | 0.88                               | 4            |
| Infrastructure       | 0.90                                 | 0.95                               | 8            |
| <b>All Variables</b> | <b>0.95</b>                          | <b>0.98</b>                        | <b>42</b>    |



### 2.3. Data Analysis

The quantitative data has been obtained from surveying of the opinions through the questionnaire. “Statistical Package for the Social Sciences [SPSS-22]” software has been utilized to produce ‘descriptive statistics’ as planned to answer the first research question. ANOVA and T-Test data was generated for testing the hypothesis. According to Glass and Hopkins (1996), one-factor “ANOVA” is used when we test more than two variables while T-Test is used when we test only two variables i.e., “dependable and independent variable”.

### 3. Results and Discussion

The targeted population was students registered in level three and four due their longer period and experience in the programs. It consists of 481 students (252 male and 229 female). ‘Convenience sampling’ was used to reachable students during the period of research which was 350 students. Only 300 was return but 176 questionnaires were valid for analysis. After running the test on the data using SPSS, the descriptive statistics (means and standard deviation) and correlation results were generated.

#### 3.1 Descriptive Results

The descriptive analysis was used to answer question 1 of the research which is “What is the level of quality at Faculty of Administrative sciences in general and as related to its different dimensions “Curricula, Educational Aids, Library Services, Academic Staff, Administrators and Infrastructure?”. In response to the question and to have common interpretation for descriptive results, Table 2 explained the calculated means. It is divided into three categories for the purpose of discussing the results. The researchers divided the mean value into three levels. The mean value of statements with less than 2.5 is interpreted as ‘low agreement’. Those statements with a mean’s value between 2.5 and 3.4 can be described as ‘moderate agreement’. Other statements have a mean’s value more than 3.4 are interpreted as high.

**Table 2 Interpretation of Mean’s Values**

| Mean Value         | Interpretation |
|--------------------|----------------|
| Less than 2.5      | Low agreement  |
| Between 2.5 to 3.4 | Moderate       |
| More than 3.4      | High average   |

#### 3.1.1 Descriptive results for Level of quality of Services:

Table 3 shows the descriptive statistic according to the responses of the students on level of quality of service. The items are presented in descending order and

according to the calculated means and standard deviations associated with each statement. In general, the level of quality services at FAS is at moderate level. It obtains a mean of (3.31) with a standard deviation of (0.61). The dimensions of quality for infrastructure, library received the highest means while the curricula, and academic staff and educational aid dimensions obtained moderate means. The administrative dimension attained the lowest mean of (2.99) and standard deviation of 0.61. This indicates that FAS has focused on infrastructure and library services more than human resources development. Services related to infrastructure are receiving more attention and might be more noticeable than the other services.

**Table 3. Descriptive Statistics on the Quality Service Based on Quality Service Dimensions**

| N | Category                   | Mean        | Std. Deviation |
|---|----------------------------|-------------|----------------|
| 1 | Infrastructure             | 3.61        | 0.86           |
| 2 | Library services           | 3.37        | 0.75           |
| 3 | Curricula                  | 3.31        | 0.78           |
| 4 | Academic staff             | 3.26        | 0.82           |
| 5 | Educational aid            | 3.25        | 0.82           |
| 6 | Administrative             | 2.99        | 0.89           |
|   | <b>Quality of services</b> | <b>3.31</b> | <b>0.61</b>    |

### 3.1.2 Descriptive Statistics Per statement of Curricula Dimension:

Table 4 presents seven statements that are related to curricula dimension. The statements within the dimension were presented in the table in descending order and according to the calculated means and standard deviation. In general, the level of quality of service in curricula is good because it has moderate mean of (3.31). The students' responses reflected moderate satisfaction as it has obtained a mean of (3.31) and standard deviation of (0.78), which suggests more work is needed in the different areas of the curricula item.

The results show that two statements obtained the higher mean. They are: "Syllabus I studied added me new knowledge and skills", "Objective of Syllabus is clear" with means of (3.79), (3.65) respectively. It seems that FAS has made efforts to set standard for the curricula that make students feel satisfies with it, but FAS still needs to work on these to improve it so that it keep and increase the level of satisfaction among students. The remaining five statements received moderate mean between (2.97) and (3.40). These results suggested that the quality of service

related to curricula is acceptable to students because most of the means are moderate. This may suggest further improvement in FAS is needed.

**Table 4. Descriptive Statistic for Curricula's Dimension**

| N | Item                                                                                           | Mean        | Std. Deviation |
|---|------------------------------------------------------------------------------------------------|-------------|----------------|
| 1 | Syllabus I studied added me new knowledge and skills                                           | 3.79        | 0.98           |
| 2 | Objective of Syllabus is clear                                                                 | 3.65        | 0.97           |
| 3 | Textbooks reflected the announced contents                                                     | 3.40        | 1.05           |
| 4 | Information I acquired from syllabus met my expectation                                        | 3.13        | 1.05           |
| 5 | Knowledge and Skills in the syllabus                                                           | 3.11        | 1.18           |
| 6 | Syllabuses are suitable with the updates in area of specialization                             | 3.10        | 1.13           |
| 7 | Nature of syllabus that I studied enable me link between the theoretical and practical aspects | 2.97        | 1.17           |
|   | <b>Curricula Dimensions</b>                                                                    | <b>3.31</b> | <b>0.78</b>    |

### 3.1.3 Description Statistics of Education Aids Dimension

Table 5 presents six statements that are related to educational Aids. The statements are presented in descending order and per value of the calculated means and its associated standard deviation. In general, the educational aids used in FAS are in line with the objective of quality of services. However, it received moderate means of (3.25) and standard deviation of (0.82). Therefore, more work is required to improve the services for this dimension to increase the level of satisfactions of students.

The results show that some statements obtained higher means such as: “presentations and summaries provided with textbooks help me to understand the subject” and “technology used in teaching contribute to communicate the information”. They obtained the highest mean of (3.56) and (3.54) respectively. The remaining four statements attained means between (2.67) and (3.35). These low and moderate means may urge FAS to work on improving these aspects to satisfy the needs of students as they are important in the process of teaching and learning.

**Table 5. Descriptive Statistic for Educational Aids Dimension**

| N | Item                                                                                      | Mean        | Std.<br>Deviation |
|---|-------------------------------------------------------------------------------------------|-------------|-------------------|
| 1 | Presentations and summaries provided with textbooks help me to understand the subject     | 3.56        | 1.10              |
| 2 | Technology used in teaching contribute to communicate the information                     | 3.54        | 1.04              |
| 3 | Using the electronic technology within teaching the syllabus assist in enriching lectures | 3.35        | 1.23              |
| 4 | Various type of technologies are used in teaching                                         | 3.20        | 1.21              |
| 5 | Techniques used in teaching are in line with Syllabus                                     | 3.16        | 1.10              |
| 6 | The collage provides practical aspects that assist in understanding the syllabus          | 2.67        | 1.10              |
|   | <b>Educational Aids Dimension</b>                                                         | <b>3.25</b> | <b>0.82</b>       |

### 3.1.4. Description Statistics of Library Services Dimension

Table 6 presents ten statements that are related to Library Services. The statements are presented in descending order and according to the calculated means and associated standard deviation. In general, the library services provided in FAS are in line with the objective of quality of services. This dimension has obtained moderate mean of (3.37) with standard deviation of (0.75), which suggests more work is needed.

The results show that some statements have obtained higher means between (3.95) and (3.56). It seems that FAS has supported these areas, which is reflected in higher students' satisfactions. FAS needs to carry on the support to these areas to preserve students' satisfactions. The remaining five statements have attained means between (2.73) and (3.39). The result levels of satisfactions based on students' responses may urge FAS to work on them to improve these aspects to satisfy the needs of students.

**Table 6. Descriptive Statistic for Library Services Dimension**

| N | Item                                                                          | Mean        | Std.<br>Deviation |
|---|-------------------------------------------------------------------------------|-------------|-------------------|
| 1 | General environment for the library is adequate ( quiet, temperature, light)  | 3.95        | 1.07              |
| 2 | Working hours are suitable                                                    | 3.76        | 1.14              |
| 3 | Arrangement for borrowing books are smooth and quick                          | 3.65        | 1.19              |
| 4 | Reading areas in the library are sufficient                                   | 3.56        | 1.12              |
| 5 | Books, Journals related to specialization are available with right quantities | 3.49        | 1.22              |
| 6 | Liberian provided outstanding services                                        | 3.39        | 1.12              |
| 7 | Database is available to assist in searching for required books               | 3.15        | 1.16              |
| 8 | References are up to date                                                     | 3.15        | 1.06              |
| 9 | There is electronic library to be utilized                                    | 2.84        | 1.24              |
| 1 |                                                                               | 2.73        | 1.31              |
| 0 | Service of photocopying are available in the library                          |             |                   |
|   | <b>Library Services Dimension</b>                                             | <b>0.75</b> | <b>3.37</b>       |

### 3.1.5. Description Statistics of Academic Staff Dimension

Table 7 presents seven statements that are related to academic staff. The statements are presented in descending order and per the calculated means and associated standard deviation. The academic staff is provided in the faculty are in line with the objective of quality of services. The academic staff dimension obtains higher mean of (3.26) and standard deviation of (0.82) which is moderate. The academic dimension is important for the quality as it is the core item responsible for providing direct services to students on a day-to-day basis.

The results show that two statements have obtained higher means between (3.55) and (3.47). They are: “instructors have long experience in their areas of specialization” and “instructors are using different teaching methods (lecture, presentation and research)”. The remaining five statements attained means between (3.43) and (2.70). These values of means suggest to FAS to do more work on improving these aspects to increase the students' satisfaction.

**Table 7. Descriptive Statistic for Academic Staff Dimension**

| N                               | Item                                                                                  | Mean        | Std.<br>Deviation |
|---------------------------------|---------------------------------------------------------------------------------------|-------------|-------------------|
| 1                               | Instructors have long experience in their areas of specialization                     | 3.55        | 1.02              |
| 2                               | Instructors are using different teaching methods (lecture, presentation and research) | 3.47        | 1.07              |
| 3                               | Teaching practice in line with the plan in the syllabus description                   | 3.43        | 1.07              |
| 4                               | Students are treated by instructors in a way reflected their needs                    | 3.31        | 1.15              |
| 5                               | Student are evaluated by instructors with fairness and objectivity                    | 3.29        | 1.14              |
| 6                               | Feedback for assignments and tests are provided on timely manner                      | 3.09        | 1.12              |
| 7                               | Instructors allocate adequate office hours for their students                         | 2.70        | 1.18              |
| <b>Academic Staff Dimension</b> |                                                                                       | <b>3.26</b> | <b>0.82</b>       |

### 3.1.6. Descriptive Statistic for Administrators' Dimension

Table 8 presents four statements related to administrators' dimension. The statements are presented in descending order and according to the calculated means and associated standard deviation. The administrators provide services in line with the objective of quality of services. The administrators dimension obtained higher mean of (2.99) and standard deviation of (0.89). While it reflects moderate mean, but is it reflected lower satisfaction from the other dimensions. The FAS is encouraged to work heavily on this dimension because the human resource has important role in providing quality of services.

The results showed that all the four statements attained means between (3.09) and (2.82). These statements are "students are received by Administrative cadre in a good manner", "brochures on the college system are provided to students", "students counselling is helping me in well-adjusted during my studies", and "I received my academic documents in effective manner" which obtained mean of (3.09), (3.07), (2.99), and (2.82) respectively. These may suggest that FAS needs to work on improving these aspects to increase students' satisfaction because these areas are important to support students during study time in the college.

**Table 8. Descriptive Statistic for Administrators' Dimension**

| N                                | Item                                                                 | Mean        | Std.<br>Deviation |
|----------------------------------|----------------------------------------------------------------------|-------------|-------------------|
| 1                                | Students are received by Administrative cadre in a good manner       | 3.09        | 1.17              |
| 2                                | Brochures on the college system are provided to students             | 3.07        | 1.10              |
| 3                                | Students counseling is helping me in well-adjusted during my studies | 2.99        | 1.18              |
| 4                                | I received my academic documents in effective manner                 | 2.82        | 1.12              |
| <b>Administrators' Dimension</b> |                                                                      | <b>2.99</b> | <b>0.89</b>       |

### 3.1.7. Descriptive Statistic for Infrastructure Dimension

Table 9 presents eight statements that are related to infrastructure dimension. The statements are presented in descending order and according to value of the calculated means and standard deviation. According to the results, the infrastructure services provided in FAS are in line with the objective of quality of services. The infrastructure dimension has obtained the highest mean of (3.61) with a standard deviation of (0.86). This indicates that the UST has crucial investment on infrastructure which put it on a lead position in comparison with the other dimensions. It may be due to its tangible services being able to be recognized easily and requirements are noticeable to be fulfilled.

The results showed that seven statements obtained higher means which represent most of the statements of the dimension. These means are between (3.84) and (3.60). These results suggest FAS has to keep up the good work on them and develop when possible. The remaining one statement obtained a moderate mean. It is "equipment's are modern" which obtained mean of (3.31). This suggest to FAS to work on improving this item to satisfy the needs of students through enabling instructors and students to utilize modern equipment for effective teaching and learning.

**Table 9. Descriptive Statistic for Infrastructure Dimension**

| N | Item                                                                                                              | Mean        | Std.<br>Deviation |
|---|-------------------------------------------------------------------------------------------------------------------|-------------|-------------------|
| 1 | Area of lecture room is adequate for teaching                                                                     | 3.84        | 1.04              |
| 2 | The collage's building is suitable and has comfortable surrounding areas                                          | 3.73        | 1.14              |
| 3 | Services provided in the college are miscellaneous ( Cantina, photocopying, Internet services, computer services) | 3.64        | 1.11              |
| 4 | General internal environment and the available furniture provide friendly education climate                       | 3.64        | 1.21              |
| 5 | Availability of guidance sign that leads to the different location in the collage                                 | 3.60        | 1.10              |
| 6 | Furniture in the lecture room are suitable and sufficient                                                         | 3.60        | 1.12              |
| 7 | Continuous maintenance services for college 's building and furniture                                             | 3.53        | 1.13              |
| 8 | Equipment's are modern                                                                                            | 3.31        | 1.17              |
|   | <b>Infrastructure Dimension</b>                                                                                   | <b>3.61</b> | <b>0.86</b>       |

### 3.2 T-Test and ANOVA Results

To answer question no.2, which is "What are the differences in opinions of students on the different dimensions on the basis of gender, area of specialization and level of students?" The T-test and ANOVA have been utilized to get the answer for the research questions.

#### 3.2.1 T-Test for Quality Services

##### a) T-test for Quality Services per Gender

Table 10 presents the results for T-Test for the difference among male and female on the level of the quality for each dimension. The results of test showed that there are differences among male and female respondents on the level of quality services in regard curricula, education aids, library services, academic staff; administrators while there no difference in opinion on the level of quality on available infrastructure. This may have interpreted that the level of available infrastructure is adequate which led to agreement among male and female respondent.



**Table 10. T-Test Results for Level of Quality per Dimension per Gender**

| group Statistics                | Gender | N     | Mean | Std.<br>Deviation | t    | Sig.<br>(2-tailed) | Decision |
|---------------------------------|--------|-------|------|-------------------|------|--------------------|----------|
| Curricula                       | Male   | 89.00 | 3.46 | 0.75              | 2.63 | 0.01               | Accepted |
|                                 | Female | 87.00 | 3.15 | 0.79              |      |                    |          |
| Education aid                   | Male   | 89.00 | 3.52 | 0.73              | 4.76 | 0.00               | Accepted |
|                                 | Female | 87.00 | 2.97 | 0.82              |      |                    |          |
| Library Services                | Male   | 89.00 | 3.54 | 0.68              | 3.26 | 0.00               | Accepted |
|                                 | Female | 87.00 | 3.19 | 0.77              |      |                    |          |
| Academic Staff                  | Male   | 89.00 | 3.47 | 0.76              | 3.44 | 0.00               | Accepted |
|                                 | Female | 87.00 | 3.05 | 0.84              |      |                    |          |
| Administrators                  | Male   | 89.00 | 3.17 | 0.83              | 2.70 | 0.01               | Accepted |
|                                 | Female | 87.00 | 2.81 | 0.92              |      |                    |          |
| Infrastructure                  | Male   | 89.00 | 3.72 | 0.79              | 1.71 | 0.09               | Rejected |
|                                 | Female | 87.00 | 3.50 | 0.92              |      |                    |          |
| Level of Quality<br>of services | Male   | 89.00 | 3.48 | 0.60              | 3.79 | 0.00               | Accepted |
|                                 | Female | 87.00 | 3.11 | 0.69              |      |                    |          |

\*Level of significance is at  $\leq 0.05$

#### **b) T-test of Quality Services According to the Level of Students**

For the purpose of investigation, the differences among students' points of views in regard to curricula, education aids, library services, academic staff, administrators and infrastructure according to the level of students, T-Test was run on the data and Table 11 portrays the result of testing per each dimension.

The results of the test presented that there are no differences among respondents per the level of student in the program on the level of quality services in regard to curricula, education aids, library services, academic staff, administrators and infrastructure dimension. This agreement of respondents may result from the feel that the services in FAS are at acceptable in the two levels.

**Table 11. T-Test Results for Level of Quality per Dimension According to the Level of Students**

| Section                         | Level | N     | Mean | Std.<br>Deviation | t     | Sig.<br>(2-tailed) | Decision |
|---------------------------------|-------|-------|------|-------------------|-------|--------------------|----------|
| Syllabus                        | Three | 99.00 | 3.32 | 0.74              | 0.21  | 0.84               | Rejected |
|                                 | Four  | 77.00 | 3.29 | 0.83              |       |                    |          |
| Education Aid                   | Three | 99.00 | 3.25 | 0.82              | -0.01 | 0.99               | Rejected |
|                                 | Four  | 77.00 | 3.25 | 0.83              |       |                    |          |
| Library<br>Services             | Three | 99.00 | 3.34 | 0.75              | -0.61 | 0.55               | Rejected |
|                                 | Four  | 77.00 | 3.41 | 0.75              |       |                    |          |
| Academic<br>Staff               | Three | 99.00 | 3.25 | 0.83              | -0.31 | 0.76               | Rejected |
|                                 | Four  | 77.00 | 3.28 | 0.83              |       |                    |          |
| Administrator<br>s              | Three | 99.00 | 2.96 | 0.89              | -0.56 | 0.57               | Rejected |
|                                 | Four  | 77.00 | 3.04 | 0.89              |       |                    |          |
| Infrastructure                  | Three | 99.00 | 3.64 | 0.90              | 0.42  | 0.67               | Rejected |
|                                 | Four  | 77.00 | 3.58 | 0.82              |       |                    |          |
| Level of<br>Quality<br>services | Three | 99.00 | 3.29 | 0.67              | -0.17 | 0.86               | Rejected |
|                                 | Four  | 77.00 | 3.31 | 0.67              |       |                    |          |

“\*Level of significance is at  $\leq 0.05$ ”

### 3.2.2 ANOVA of Services Quality Services according to the Area of Specialization

For the purpose of investigation, the differences among students points of views in regard to curricula, education aids, library services, academic staff, administrators and infrastructure according to the Level of Students, One-way Analysis of Variance (ANOVA) was run on the data because the independent variable has more than two levels. There are five area of specialization in the faculty of administrative sciences.

Table 12 presents the results of testing using the ANOVA. The result showed that there are no differences on students' opinion in regard to the level of quality services in educational aids and infrastructure dimensions because the calculated probabilities are greater than 0.05. However, there is a difference among respondents on curricula, library services, academic staff, and administrator dimensions. In these dimensions, the calculated probability for each dimension is equal and less than 0.05 level of significance. In addition, there are differences among respondents on the general level of quality services that included all dimensions.

**Table 12. One-Way Analysis of Variance (ANOVA) for Quality Dimension and Area of Specialization**

|                     |                   | Sum of<br>Squares | Df     | Mean<br>Square | F    | Sig. | Decision |
|---------------------|-------------------|-------------------|--------|----------------|------|------|----------|
| Curricula           | Between<br>Groups | 5.69              | 4.00   | 1.42           |      |      |          |
|                     | Within<br>Groups  | 101.02            | 171.00 | 0.59           | 2.41 | 0.05 | Accepted |
|                     | Total             | 106.71            | 175.00 |                |      |      |          |
| Education<br>Aids   | Between<br>Groups | 3.99              | 4.00   | 1.00           |      |      |          |
|                     | Within<br>Groups  | 113.73            | 171.00 | 0.67           | 1.50 | 0.20 | Rejected |
|                     | Total             | 117.72            | 175.00 |                |      |      |          |
| Library<br>Services | Between<br>Groups | 5.40              | 4.00   | 1.35           |      |      |          |
|                     | Within<br>Groups  | 91.95             | 171.00 | 0.54           | 2.51 | 0.04 | Accepted |
|                     | Total             | 97.35             | 175.00 |                |      |      |          |
| Academic<br>Staff   | Between<br>Groups | 6.28              | 4.00   | 1.57           |      |      |          |
|                     | Within<br>Groups  | 112.58            | 171.00 | 0.66           | 2.38 | 0.05 | Accepted |
|                     | Total             | 118.86            | 175.00 |                |      |      |          |
| Administra<br>tors  | Between<br>Groups | 7.54              | 4.00   | 1.89           |      |      |          |
|                     | Within<br>Groups  | 130.76            | 171.00 | 0.76           | 2.47 | 0.05 | Accepted |
|                     | Total             | 138.30            | 175.00 |                |      |      |          |
| Infrastruct<br>ure  | Between<br>Groups | 4.55              | 4.00   | 1.14           |      |      |          |
|                     | Within<br>Groups  | 125.98            | 171.00 | 0.74           | 1.54 | 0.19 | Rejected |
|                     | Total             | 130.53            | 175.00 |                |      |      |          |
| Quality<br>Services | Between<br>Groups | 4.44              | 4.00   | 1.11           |      |      |          |
|                     | Within<br>Groups  | 73.61             | 171.00 | 0.43           | 2.58 | 0.04 | Accepted |
|                     | Total             | 78.05             | 175.00 |                |      |      |          |

“\*Level of significance is at  $\leq 0.05$ ”

### 3.2.3 Correlation Analysis for Quality Services

For the purpose of investigation, Person Correlation was run on to examine correlation among quality dimensions and overall quality services. The results are shown in table 13. The relationship between each dimension and SQ is described strong if it is equal to 0.75 or more. Table 13 shows that there were strong correlational relationships among the dimensions and the SQ in FAS. The correlation coefficients for the quality dimension and the quality of services in the collage at the level of significance of  $\leq 0.05$  are around 80 which is interpreted as strong relationships between each dimension and the level of quality. However, the relationships among the quality service dimensions of quality are between weak and moderate with value of correlation coefficient (0.48-0.71).

**Table 13. Pearson's Correlation among the Dimensions and Quality Services**

| Dimension        |                     | Curric. | Ed.Aids | Lib. Services | Teach. Cadre | Admin. Cadre | Infrastructure | Quality of Services |
|------------------|---------------------|---------|---------|---------------|--------------|--------------|----------------|---------------------|
| Curricula        | Pearson Correlation | 1.00    |         |               |              |              |                |                     |
|                  | Sig. (2-tailed)     |         |         |               |              |              |                |                     |
|                  | N                   | 176.00  |         |               |              |              |                |                     |
| Education Aids   | Pearson Correlation | 0.71    | 1.00    |               |              |              |                |                     |
|                  | Sig. (2-tailed)     | 0.00    |         |               |              |              |                |                     |
|                  | N                   | 176.00  | 176.00  |               |              |              |                |                     |
| Library Services | Pearson Correlation | 0.52    | 0.62    | 1.00          |              |              |                |                     |
|                  | Sig. (2-tailed)     | 0.00    | 0.00    |               |              |              |                |                     |
|                  | N                   | 176.00  | 176.00  | 176.00        |              |              |                |                     |
| Academic Staff   | Pearson Correlation | 0.67    | 0.67    | 0.64          | 1.00         |              |                |                     |
|                  | Sig. (2-tailed)     | 0.00    | 0.00    | 0.00          |              |              |                |                     |
|                  | N                   | 176.00  | 176.00  | 176.00        | 176.00       |              |                |                     |
| Administrators   | Pearson Correlation | 0.49    | 0.57    | 0.60          | 0.67         | 1.00         |                |                     |
|                  | Sig. (2-tailed)     | 0.00    | 0.00    | 0.00          | 0.00         |              |                |                     |
|                  | N                   | 176.00  | 176.00  | 176.00        | 176.00       | 176.00       |                |                     |
| Infrastructure   | Pearson Correlation | 0.48    | 0.52    | 0.65          | 0.57         | 0.55         | 1.00           |                     |
|                  | Sig. (2-tailed)     | 0.00    | 0.00    | 0.00          | 0.00         | 0.00         |                |                     |

| Dimension                   |                     | Curric. | Ed.Aids | Lib. Services | Teach. Cadre | Admin. Cadre | Infrastructure | Quality of Services |
|-----------------------------|---------------------|---------|---------|---------------|--------------|--------------|----------------|---------------------|
| Level of Quality of Service | N                   | 176.00  | 176.00  | 176.00        | 176.00       | 176.00       | 176.00         |                     |
|                             | Pearson Correlation | 0.79    | 0.84    | 0.82          | 0.86         | 0.80         | 0.78           | 1.00                |
|                             | Sig. (2-tailed)     | 0.00    | 0.00    | 0.00          | 0.00         | 0.00         | 0.00           |                     |
|                             | N                   | 176.00  | 176.00  | 176.00        | 176.00       | 176.00       | 176.00         | 176.00              |

“\*Level of significance is at  $\leq 0.05$ ”

#### 4. Conclusion and Recommendations

The main purpose of this study was to assess the quality services in the FAS at UST. The assessment was based on six dimensions as identified by the study. They are curricula, education aids, library services, academic staff, administrators and infrastructure. Quantitative and test hypotheses approaches were utilized. In conclusion, the study has shown that the students have agreed that there is acceptable level of quality of services at the FAS at UST. The most acceptable quality dimension by students was infrastructure. The students have good experience with other dimensions of qualities. However, they expect more work on them. The most needed work is in the dimensions related to administrators. There is a need to upgrade this item to better level as it is an important aspect of SQ due to the daily and frequent contact with students.

The finding indicates that there is substantial level of SQ in the FAS at UST. For those statements that have high means they also need to continue the improvement and make the SQ as the culture in the system. UST can build on the available results of the study to strength the system for each college. It is recommended that special requirements of SQ for each field of study in the colleges need to be considered as well as conducting awareness campaign for students on the available educational services for students. Other universities may use these results as indicators for improving their system or establishing new arrangement. Regular feedback from students will strengthen the quality system in the university and upgrade the services to better position.

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