

# ASSESSING THE PERCEIVED QUALITY AND EXPECTED QUALITY AT THAMAR UNIVERSITY USING “SERVQUAL SCALE”: AN APPLIED STUDY

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## Abstract

This research aimed at measuring the perceived quality and expected quality at Dhamar University, using the global SERVQUAL gap gauge to diagnose the level of service quality from the viewpoint of faculty teaching-staff, whose views were explored through the development of a questionnaire consisting of (29) paragraphs that expressed the five dimensions of the gap scale; tangibility, reliability, response, security, and sympathy. Besides, the number of respondents reached (290) items, and the descriptive approach was used, and by utilizing from the statistical package of social sciences to analyze field study data, a number of results were reached from which the followings are the most important ones:

There are statistically significant differences between the expected quality averages and perceived quality, and the gap between the perceived and expected services in the total degree of dimensions is (1.126).

There were statistically significant differences between the perceived quality dimensions averages according to the five dimensions of quality (tangibility, reliability, response, safety, sympathy), and that the differences between each of the dimensions of response and safety on the one hand and sympathy on the other hand, were in favor of the response and safety dimensions.

There were no statistically significant differences towards the expected quality dimensions of the measures due to demographic variables (gender, specialization).

Hence, the most important recommendations of the researcher are:

- Adopting the application of total quality management and starting implementing a training program for all university employees to spread the culture of total quality and the importance of adhering to it in providing services.

Developing a detailed plan to improve the level of service quality on the level of the five quality dimensions equally with taking into account that these dimensions reflect an integrated system that tackles the material and behavioral aspects and that they together create an essential input for the advancement of the university.

A continuity to conduct evaluation studies of development processes and following the approach of continuous improvement.

**Keywords:** Thamar University, Perceived Quality, Expected Quality.

## 1. Introduction

The Yemeni governmental universities, including Dhamar University, face many administrative and financial challenges that have come together with other factors to constitute fundamental factors for the low level of service quality, lack of capabilities and weakness of administrative performance. However, these universities are required to apply quality concepts to improve service performance and provide an academic milieu suitable to attract the student, employee and teaching-member. Consequently, the reality measurement and evaluation is considered obviously as the first step for development and launching towards meeting the expectations and needs of its employees.

The advanced and developing countries are striving deeply in great efforts to improve the quality of educational services in universities, and to overcome the problems that prevent these services from being performed with a quality that satisfies customers. Moreover, they are contributing to achieve economic development. Therefore, the quality of educational services is one of the main topics of attention to those interested in education and development, to reach graduates who can contribute to carry put an economic development. (Ajmi & Al-Tuwaijri, 2016, p. 138).

Quality, with its mean of achieving the best results with the least resources, has become a strategic choice for universities, due to its great impact on achieving success and having a competitive advantage, as well as improving their reputation. Thus, it

profoundly leads to attracting distinguished teachers, students, and employees, in addition to the impact of service quality in various financial aspects, including reducing the cost of lack of quality and marketing costs that these universities spend to improve their internal and external mental image. An assessment is the cornerstone in the processes of planning and improving quality, as its results entail empowering universities from making the right decisions. Several quality measures have emerged to achieve customer satisfaction and understand their perceptions and expectations for the quality of services provided to them including the SERVQUAL scale or gauge, which is based on determining the level of quality by measuring the gap between the actual performance and the expected performance of the service thru gauging the elements of the physical, administrative, and technical educational system and the handling methods that surround how to perform these services, through specific dimensions, namely, tangibility, reliability, response, safety, and empathy. Its results allow it to make the necessary improvement decisions and assess the students low and important satisfaction and yet the highest necessity. (Chui, T. B., & bin Ahmad, M. S. 2016).

The importance of using the “SERVQUAL SCALE” in determining the quality levels in higher education institutions is due to “a factor in global competition” and the need for universities to provide high-quality outputs in order to survive and achieve goals in the labor market, because educational and research services are one of the most important areas of services in the community service, especially that they are providing. Therefore, the higher education universities and institutes that play decisive role in the development of societies and hence such educational foundations should continue to take care of improving the quality of education and research services (Gilavand, Fatahiasl & Majd, 2017, p 188).

## **2. Research problem**

On basis of the foregoing, the research problem is represented patently in the need of Dhamar University to measure the quality of the services which it provides, and to know whether that quality is able to fulfill the needs of faculty members and their evolving ambitions. Also, it enables the university to compete locally, regionally and globally, by measuring the gap between perceived quality and the expected quality. An identification of the research problem can be carried out in the following questions:

1. What is the level of perceived services quality and the expected quality from the viewpoint of faculty members?
2. Are there statistically significant differences between perceived quality and expected quality from the viewpoint of faculty members at the aggregate level, and at the level of quality of service dimensions as represented in; tangibility, reliability, response, safety, and sympathy?
3. Are there statistically significant differences between perceived quality dimensions and expected quality at the total level and the level of service quality dimensions represented by tangibility, reliability, response, safety, and sympathy attributable to demographic variables (gender and specialization) ?.

## **3. Significance of the Research**

The importance of the research is due to the following:

1. It uses the measure of the gap between perceptions and expectations as a relatively new method provided by total quality management (TQM) to measure the level of quality and provide an objective perception based on scientific facts concerning the level of services quality and the ambitions of faculty members.
2. The need of Dhamar University to possess scientific data regarding the shortcomings and challenges which it faces.
3. A contribution to the development of the gap scale and making use of it in the processes of measuring and continually improving the quality of service to meet the demands of customers and society in general and on basis of various approaches; socially, economically and culturally.
4. A Contribution to the promotion of a culture of measurement and continuous improvement among university employees to bridge the difference or rift between expectations and perceptions of actual performance.

## **4. Objectives of the Research**

This research strives to achieve the following aims:

1. An identification of the concepts of perceived quality and expected quality.
2. Measuring the level of service quality at Dhamar University and determining the gap between perceived quality and expected quality from the viewpoint of faculty members at the macro level and the level of quality of service dimensions as represented on; tangibility, reliability, response, safety, and sympathy according to “SERVQUAL SCALE”
3. Forwarding the appropriate suggestions and recommendations that help in taking improvement and development proceedings.

## **5. Research Methodology**

The analytical description approach was used to formulate the theoretical framework, and the statistical survey method for quantifying the opinions and attitudes of the respondents towards the perceived quality levels and expected quality in the university, and the quality of service will be measured according to the following formula:

$$Q = P - E$$

As:

Q = Perceived (actual) quality of each dimension of service quality.

P = Actual performance for each dimension.

E = Customer expectations for the performance of each dimension of quality of service.

## 6. Sources of Data Collection

The information and data were extracted from two complementary sources:

- Primary Sources: They are patently represented in the views of the items of the research sample that was expressed by answering the paragraphs of the measurement “questions” prepared according to the scale of gap in the quality of service that was developed to be conformed to the nature of the research and its goals.
- Secondary Sources: they are explicitly represented in previous researches and studies related to the topic of research.

## 7. Theoretical Framework and Concepts

### 7.1 The Concept of Quality of Service

The Service as Kotler defines it is “any activity, achievement, or benefit that one party provides to another party and is intangible and does not result in any ownership, and that its production or delivery may be related to a tangible or unrelated material product” (Al-Khalidi, 2006: 31), and the service product is distinguished from the commodity product With a number of features, the most important of which are intangibility, Lack of Ownership, inseparability between the service itself and the person providing it, an invariability in terms of inability to stereotype it, and the perishability which means the lack of storage (Al-thamour, 2005: 24-32).

As for Quality, it is “the meeting of the needs and requirements of customers, and handing them an appropriate level of service based on their expectations which indicate their desires and aspirations that were constituted according to their past experiences and the marketing blending of service and personal communications as well”. (Dale, B. G., Van Der Wiele, T., & Van Iwaarden, J. 2007:184). So that “customers extract their observations and perceptions about the quality of service from the levels of conviction that they have acquired or practiced in specific duties, and hence, supplying high-quality services which means ensuring consistency in the performance and delivery of services on a daily basis”. (Weitz and Wesley, 2002: 340). According to the entry of the gap, Bateson (1992: 301) believes that beneficiaries judge the quality of service by comparing the service that they actually receive (Actual Service) with the service they expect to receive (Expected Service) and thus it is consistent with Berry et. al. (1994: 42). They are the owners of the gap scale in the definition of quality as “the difference resulting from the state of struggle between the expectations of the client and his perceptions”. Total Quality has to be expressed according to Seroquel Scale by the following equation: Quality of Service = Expected Service - Actual Performance (Parasuraman, et.al, 1988:19). Quality such sense is the personal assessment of the customer, resulting from a comparison between his expectations and his perceptions of the service he received, which begins in his assessment of its quality from two main components of quality; technical quality which refers to quantitative assessment, and functional quality which means how interaction with the customer is made during the delivery process of the technical quality to the customer who receives the service. (Ali, 2011: 33). Thus, the customers obviously evaluate the quality depending on what they wish and what they consider as acceptable in the service.

### 7.2 Perceived Quality and Expected Quality

Perceived Quality is what the one being touched by the client and it is usually related to actual performance. The perceptions are formed through customers’ evaluation of the quality service provided, and an identification of whether it is convincing. Besides, the perceptions may change over time, and therefore it is necessary to continuously evaluate customers’ perceptions. (Phiri, M. A., & Mcwabe, T. 2013). In the other hand, the expected quality is what customers are expected to obtain in the services provided to them. Hence, the expectations refer to all the beliefs that are deeply formed for the customers according to the standards of quality of services on the basis of which performance is evaluated. Hence, the clients are comparing their perceptions of service performance with referential norms when assessing service quality. (Wilson, et. al., 2016: 60). There are two types of expectations among clients about the quality of the service, including the required services and adequate services. The required services are the level of service that customers expect and it is a mixture of what customers think is possible or should be. in the other thread, an adequate quality is unambiguously the level of service that customers accept in general that don’t even satisfy all their requirements, and this was agreed to be adequate service, according to (Zeithaml, et. al., 2009: 77), the hopes and desires of clients are likely to be high, but they have a certain level of understanding and tolerance in cases where it is not possible to receive the required service.

### 7.3 Gap Approach

The evaluation of customers' expectations and perceptions of quality of service through the Seroquel scale forms the basis for understanding customers' relationship with service providers. It helps in assessing customers' expectations and their awareness of the service availability excellently. Moreover, it leads to defining of the deficiencies as well as providing recommendations in strategies that can be followed to continue focusing on customers. (Zeithaml and Bitner, 2003:23). Gap Approach has been one of the foundations of the gap theory in its interpretation of psychological processes through which customers evaluate and judge service quality, as this approach is based on the level of service quality determined by the difference between Perceived quality and Expected quality. (Al-Khaldi, 2006: 51). There are three levels of customers' satisfaction with quality, which can be reached in practice through Seroquel Scale, as follows; (Al-Khaldi, 2006: 51).

- If the quality of the expected service is bigger than perceived service, the quality of service is less than satisfactory.
- If the quality of the expected service is equal to the perceived quality of service, the quality of service will be satisfactory.
- If the quality of the expected service is less than the perceived quality of service, the quality of service will be more satisfactory and therefore it will move towards optimal quality.

According to the gap model, there are five gaps in the quality of service that arise because of the perceptions difference, as follows; (Al-mikhlaifi, 2016 ) on basis of the gap approach that was designed by Parasuraman,A.,Zeithaml, V. A., & Berry, L. L (1985)

Gap (1): It arises from the contradiction between management's awareness or understanding of customer expectations and what customers consider themselves to be a high quality level, due to the lack of marketing researches, and insufficient upward communication with management.

Gap (2): It arises from the difference between management's perceptions of customers' expectations and the ability of management to design that awareness into standards.

Gap (3): It arises from the difference between the specifications of service quality and the way through which it is provided (delivery) due to the ambiguity of the role and conflict between employees as well as the decline of an employee skills that fit with work technology, the lack of flexibility for supervisory control systems, and the absence of teamwork.

Gap (4): It arises from the difference between the service already provided and the excessive promises that the organization has made through its contacts with clients.

Gap (5): It arises from the difference between the customers-perceived service and the service that they expected. In other words, the perceived service does not match the actual service. The following figure (1) shows the five gaps in the quality of services.

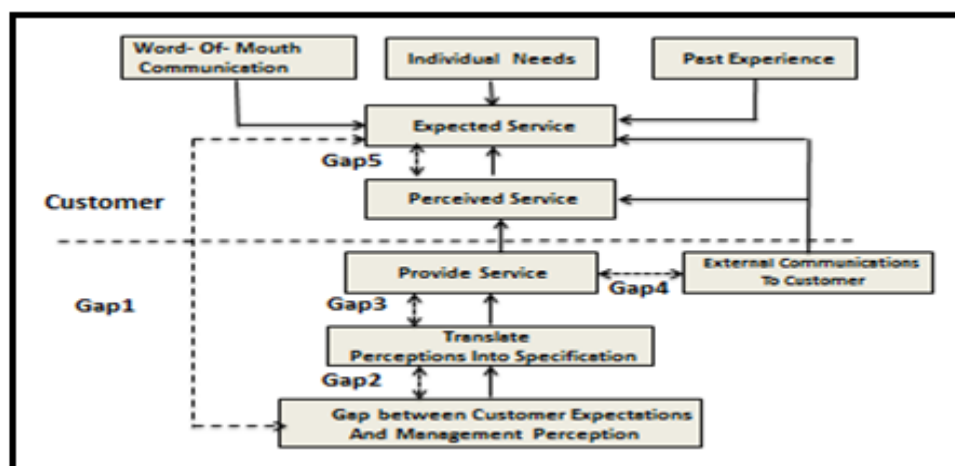


figure (1) shows the five gaps in the quality of services

### 8. Related Literature and Hypotheses

Measuring the quality of services represents the scientific approach or domain that the processes of continuous quality improvement splendidly depend on. The measurement of quality of services has attracted the attention of researchers who have worked on developing many measures to determine the level of quality, including the gap scale (SERVQUAL) to test customers' perceptions and expectations of quality of services, including service in university education. Many foreign studies have emerged, and few of Arab studies that have applied these standards in higher education organizations. Among these studies are,

**Marwan I. AL-Fadli and others Study (2019)** aimed at identifying the quality of educational services provided by Muhammad Bin Ali Al-Senussi University from the viewpoint of its members through opinions and evaluation of the quality of educational services at the university. The researchers used a program of statistical analysis (SPSS) and descriptive analysis such as mean and standard deviation. To measure the relationship between the variables, the researchers used the correlation coefficient (Pearson

correlation). The research found that there is a statistical significance of the relationship between independent and dependent research variables, where it was found that classrooms are equipped and easily accessible. There are programs to familiarize new students, learn about university laws, and facilitate communication between students, staff, and faculty members. The researchers recommended that there should be hard working on continuous development and improvement of medical services, providing special facilities for people with special needs, and qualifying students by participating in scientific conferences, seminars, and workshops, and urging students to submit offers at the end of each semester.

**El Alfy, S., & Abukari, A. Study (2019)** intended to reveal the dimensions that constitute the quality of service from the viewpoint of graduate students and faculty teaching-staff at the university to provide a better understanding of the main elements of service quality (SQ). The current research included theories and concepts related to marketing and higher education and employ in-depth interviews with students and employees to collect data. The respondents' views were analyzed using content analysis. A conceptual model was developed to explain the proposed relationship between study variables. Based on the qualitative data analysis, the results exposed four dimensions of SQ: academic services, academic facilities, administrative services, and the role of student service. To add, the performance and employee orientation were found to influence SQ quality of service. Research results can direct education managers and academicians to consider the role of student service as an integral dimension of SQ and find new ways for improvement.

**Al-Mikhlafi Study (2016)** aimed at measuring perceived quality and expected quality at Prince Sattam bin Abdulaziz University, using the SERVQUAL gap scale to diagnose the level of service quality from the viewpoint of faculty members and students, and by using appropriate statistical methods a number of results have been reached from which the following are considered as the most important ones;

- There is a discrepancy in the levels of the quality gap of the perceived and expected services at the level of each dimension of the scale, as the gap reached for the tangible dimension (0.826), for the reliability dimension (0.699), while for the response dimension (0.724), safety dimension (0.588), and empathy dimension (0.835). The average gap between perceived and expected quality at the five-dimensional level was (0.7344).

- There are statistically significant differences between the perceived quality dimensions averages according to the five dimensions of quality, as well as between all dimensions of perceived quality averages in addition to the level of the total score due to the designation variable (student - faculty member) for the favor of students.

**Lazibat, T., Bakovi, T., & Duževi, I. Study (2014)** aimed at analyzing the contextual and individual effects on student satisfaction, and examining how teachers and students' perception of quality of service affected students' satisfaction, a multi-level analysis was performed to determine how the effect of different factors on students' satisfaction. For the first level of analysis, data on students from different institutions of higher education were collected, and teachers' perceptions of quality of service were included in the second level of analysis. In total, responses were collected from (1378) students and (621) teachers from 61 higher education institutions. The research results revealed how teachers and students evaluate service quality. Moreover, the study provides insights into the dimensions of service quality that have the greatest impact on students' satisfaction, from the viewpoint of students and teachers. This study confirmed the significance of attention to teachers' perceptions of quality of service as important determinants of students' satisfaction. It suggested a modular, linear, multi-level approach to experimental students' satisfaction testing.

**Lages & Fernandes Study (2005)** was conducted to measure the gap in the prevailing personal and social value system in the university community. It was carried out through a sample of university students consisting of (543) male and female students who applied the gap scale to measure the quality and effectiveness of values in university life. The results of the research showed the effectiveness of the scale to identify the prevailing perceived and expected values in terms of the education system, behavior patterns, student habits, and social relations between students themselves and between them and the professors and employees working in the university. The results also showed that there are no fundamental differences in the level of the gap (perceptions and expectations) of students attributable to the variables of gender and specialization.

**Yoon, S., & Suh, H. Study (2004)** targeted at measuring the gap between the perceptions and expectations about the quality of services provided by a Korean institute specialized in higher education, through a sample consisting of (86) beneficiaries of the services of this institute. The results of the research indicated that this test is effective for measuring the quality of services. The results also showed differences in the level of the gap in estimating the level of service quality due to the gender variable in favor of males.

**Sangeeta & Banwet Study (2004)** had been designed to measure the gap between students' perceptions and expectations about the level of effectiveness and quality in university education. The sample consisted of (190) male and female students in one of the Indian institutes of higher education. The results showed that there were statistically significant positive differences in a few of education aspects, such as media, techniques, and the use of technology, however, on the other stance, a large and negative gap emerged between students' perceptions and their expectations in a large number of other aspects, especially those related to values, social life, and material aspects of the institute. The results of the research also showed that there were no fundamental differences in the level of the gap in the perceptions and expectations of students in the quality of services according to gender and the level of living, while there were differences due to the variable of specialization in favor of theoretical fields or streams.

**Sahney & Karunes Study (2004)** spotlight on revealing the level of quality in the education system using the method of the gap between male students' perceptions and expectations. The research sample consisted of (364) male and female students enrolled in one Indian university, and the results revealed a negative and statistically significant gap between Students' perceptions and

expectations in the material field, reliability and response, while the results on the other hand, showed a positive and statistically significant gap in the level of services in the areas of safety and social sympathy. The results of the research also showed differences in the gap between students' perceptions and expectations in estimating the level of service provided by the university due to gender, specialization, and academic year in favor of females, scientific streams, and first year students respectively.

Thus, by extrapolating the previous studies, it is clear that there is agreement on the importance of measuring the quality of services, whether by developing measures for the quality of services in universities or applying the (SERVQUAL SCALE) given that the measurement constitutes the scientific approach for improvement and the developmental delineation based on the results of scientific studies.

## 9. Hypotheses of the Study

9.1 There are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the expected quality and perceived quality averages.

9.2 There are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the perceived quality dimensions averages according to the five quality dimensions (tangibility, reliability, response, safety, sympathy).

9.3 There are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the expected quality dimensions averages due to the five quality dimensions (tangibility, reliability, response, safety, sympathy).

9.4 There are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) towards the perceived quality dimensions of averages attributable to demographic variables (gender, specialization).

9.5 There are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) towards the expected quality dimensions of averages due to the demographic variables (gender, specialization).

## 10. Field study procedures

### 10.1 Study Population and Sample

The study community was represented by all faculty members in the colleges of Dhamar University, and there are (9) colleges representing the target community, where the total number of teaching staff reached (1368), including (1168) males and (226) females. In order to find a high degree of representation of the study community, and based on the study's goals, questions and hypotheses, a simple random sample was chosen using the following sample law:

$$n = \frac{P(1-P)}{\frac{P(1-P)}{N} + \frac{E^2}{S.D^2}}$$

Where:

n: Size of the study sample.

N: The size of the study population equals (1368) items for faculty members.

E: The maximum percentage of characteristics to be studied in any society, and researchers considered it 50%.

B: The allowable error rate is usually 5%.

D: The standard score for the confidence factor chosen by the researchers is 95%, so the corresponding standard score is (1.96).

Applying the equation to the faculty members' sample:

$$n = \frac{0.5(1-0.5)}{\frac{0.5(1-0.5)}{1368} + \frac{(0.05)^2}{(1.96)^2}} = 300$$

Accordingly, (300) questionnaires were distributed according to the number of vocabulary of the faculty members sample, of which (290) questionnaires were retrieved, which constituted approximately (96.67%) of the number of questionnaires that were distributed against (9) of the questionnaires that were not retrieved. Thus, the number of questionnaires that have been analyzed is (290) questionnaires, which constituted (96.67%) of the questionnaires distributed. Also it represented the percentage (21.20%) of the study population.

## 10.2 Statistical analysis of the characteristics of the study sample

The results of the analysis of the characteristics of the sample came as shown in Table (1).

**Table (1) Distribution of study sample according to gender and specialization**

Category	Category	Frequency	Percent
Gender	Male	224	77.2
	female	66	22.8
	<b>Total</b>	<b>290</b>	<b>100.0</b>
Specialization	scientific	108	37.2
	Humanitarian	182	62.8
	<b>Total</b>	<b>290</b>	<b>100.0</b>

It is clear from Table No. (1) the increase in the number of males to twice the female, which is a logical increase in relation to the reality of Dhamar University and the educational situation of women in Yemen, and the increase in the number of the sample population in the humanities reflects the practical reality of Yemen's needs of humanities.

## 10.3 Study Instrument

The study tool was represented by a questionnaire whose questions were distributed on two axes. The first was devoted to the questions related to personal factors which are the designation and specialization, while the second axis was devoted to the questions related to the quality dimensions according to the SERVQUAL scale which firstly was constituted of (22) paragraphs to measure the gap of quality in services through five dimensions namely; tangibility, reliability, response, safety, and sympathy which represent the essential principles for scaling. In this study, paragraphs were added to the scale within the framework of the five dimensions, so that the paragraphs of the scale reached (29) paragraphs, as well as reformulating the basic scale paragraphs to fit with the nature of the university education service activity. The views of the study sample were measured towards perceived and expected atmosphere according to Likert's quintuple scale; Excellent, Very Good, Good, Acceptable, and Weak. The questionnaire items were distributed on the dimensions of quality as follows:

**First. Tangibility Dimension**, it was represented by (10) paragraphs that dealt with variables related to equipment, materials, buildings and facilities, their attractiveness, availability of modernity, and the materialistic appearance of service of the university.

**Second. Reliability Dimension**, it was represented by (5) items that dealt with the university's fulfillment of its various obligations and promises to customers, and its interest in solving stuck problems, accuracy, and objectivity in providing services.

**Third. Responsiveness Dimension**, it was represented by (5) paragraphs dealt with the speed of the university's response to providing services in a timely manner, the extent of staff keenness on immediacy, and continuous cooperation with clients.

**Fourth. Safety Dimension**, It was represented by (4) items that dealt with the ability of workers and their eagerness to instill mutual trust with customers and notify them of safety, and having a sufficient experience to answer clients' questions and inquiries and deal confidentially with their personal information.

**Fifth. Empathy Dimension**, it was represented by (5) paragraphs that dealt with the employees' interest and attention to the personal needs of clients and the desire to develop acquaintance opportunities and providing with the respect and hospitality by employees. The questionnaire was distributed to the research community, through the university's electronic and digital portal.

**Stability Test**, Stability test had been conducted to ensure the validity of the scale if it is reused again and gives the same results and achieving internal consistency. The use of the Fakronback equation leads to an estimate of the stability of the scale more than it really is, because its calculation depends on the stability of perceptions and expectations and the link between them, the following formula has been used,

$$r_d = \frac{\delta_1 r_{11}^2 + \delta_2 r_{22}^2 - 2r_{12}\delta_1\delta_2}{\delta_1^2 + \delta_2^2 - 2r_{12}\delta_1\delta_2}$$

Whereas:

$r_d$ : Stability of the instrument.

$r_{12}$  : Correlation between perceptions and expectations.

$r_{11}^2$  ,  $r_{22}^2$  : Persistent perceptions and expectations.

$\delta_1^2$  ,  $\delta_2^2$  : Varied perceptions and expectations.

$$r_d = \frac{\delta_1 r_{11}^2 + \delta_2 r_{22}^2 - 2r_{12}\delta_1\delta_2}{\delta_1^2 + \delta_2^2 - 2r_{12}\delta_1\delta_2}$$

By applying the equation, the instrument's stability reached 0.76, which is high stability, and thus the instrument became valid for study.

#### 10.4 Hypotheses Test Results

Results related to testing of the first hypothesis, which states that, there are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the expected quality averages and perceived quality.

To check the validity of the hypothesis, the mean averages were calculated for the expected quality and perceived quality and the gap between them. In order to know the significance of the differences, a T-Test for two samples was used. The results were as in the following table,

**Table (2) includes the results of the t-test for two interconnected samples to examine the significance differences between the averages of the perceived and expected quality dimensions**

Variables	Perceived quality		Expected quality		Gap	t-statistic	p-value
	Mean	Standard Deviation	Mean	Standard Deviation			
tangibls	2.792	0.796	3.979	0.883	1.186	16.273	0.000
Reliability	2.895	1.074	3.990	1.022	1.095	12.690	0.000
responseivnees	2.841	1.128	4.025	0.993	1.183	12.802	0.000
Assurance	3.174	1.121	4.116	1.016	0.941	11.751	0.000
Empathy	2.756	1.182	3.881	1.088	1.126	11.540	0.000
<b>Total</b>	<b>2.865</b>	<b>0.885</b>	<b>3.991</b>	<b>0.882</b>	<b>1.126</b>	<b>15.264</b>	<b>0.000</b>

Through the shown statistical results in Table (2), it is exposed that,

1. The results showed that the expected quality averages are bigger than the perceived quality averages.  
 2. Measuring of the gap between perceived quality and expected quality at the dimension level, and the overall score showed the following results:

a. The largest gap reached (1.186) for the tangibility dimension.

B. The gap has decreased to (1.095) for the reliability dimension.

C. The gap between perceived and expected services in the overall score of the dimension reached (1.126).

3. The results of the (t) test of two related samples showed a statistically significant difference between perceived quality and expected quality in favor of expected quality, in all dimensions and the total score where the gap between the averages of the perceived quality and expected quality paragraphs ranged between (1.186 and 1.095) and the value of (t) at this level of the difference (16.273, 12.690). So, it is the same statistical significance as the level of significance is less than the acceptable significance level in the study (0.05). The average difference (gap) between the average perceived quality and the expected quality of the total degree of dimension was (1.126), which is statistically significant at the level of significance below (0.05).

Thus, on basis of the foregoing, the hypothesis that states that, there are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the averages of the expected and perceived quality is accepted.

Examining of the second hypothesis that states that there are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the perceived quality dimensions averages according to the five quality dimensions (tangibility, reliability, response, safety, sympathy). To check the validity of this hypothesis, the repeated multiple-contrast analysis of variance was used



“Repeated Measure Design” and statistical “Wilks' Lambda” and hence the following table No. (3) shows the results of examining the second hypothesis;

**Table (3) Results of repeated multi-measurements of variance test and analysis to examine the significances of differences between the perceived quality dimensions averages**

Wilks' Lambda	F-statistic	Hypothesis df	Error df	p-value
0.726	13.289	4	286	0.000

The results of Table No. (3) indicate that there are statistically significant differences at the level of significance between the averages of quality dimensions of perceived quality as perceived by the study sample individuals. And to find out for which dimensions such differences belong, the researcher used the CDAC test for the dimensional comparisons between the dimensional averages. Table (4) shows the results of the CDAC test.

**Table (4) Sidak test results for dimensional comparisons between the averages of the perceived quality dimensions**

Varibles (i)	Varibles (j)	t-statistic	p- value
tangibls	Reliability	-0.103	0.592
	responsiveness	-0.049	0.998
	Assurance	-0.382*	0.000
	Empathy	0.037	1.000
Reliability	responsiveness	0.054	0.982
	Assurance	-0.279*	0.002
	Empathy	0.139	0.463
responsiveness	Assurance	-0.333*	0.000
	Empathy	0.086	0.903
Assurance	Empathy	.418*	0.000

By extrapolating the statistical results shown in Table (4), it is clear that;

There are statistically significant differences at the level of significance less than (0.05) between the dimensions of tangibility, reliability, response and sympathy on one hand, and safety dimension on the other hand, for the favor of the safety dimension. Consequently, based on the foregoing, the second hypothesis that states there are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the perceived quality dimensions averages according to the five quality dimensions “tangibility, reliability, response, safety, sympathy” is accepted.

Examining of the third hypothesis that states there are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the expected quality dimensions averages due to the five quality dimensions (tangibility, reliability, response, safety, sympathy). The contrast was tested and analyzed through “Repeated Measure Design” to examine the significances of differences between the expected quality dimensions averages. The results were as shown in Table No. (5),

**Table No. (5) Results of repeated multi-measurements of variance test and analysis to examine the significances of differences between the expected quality dimensions averages**

Wilks' Lambda	F-statistic	Hypothesis df	Error df	p-value
0.726	5.587	4	286	0.000

The results in Table (5) indicate that there are statistically significant differences at the level of significance between the expected quality standard dimensions as perceived by the study sample individuals. And to find out for which dimensions such differences belong, the researcher used the CDAC test for the dimensional comparisons between the dimensional averages. Table (6) shows the results of the CDAC test.

**Table (6) Sidak test results for dimensional comparisons between the averages of the expected quality dimensions**

Variables (i)	Variables (j)	t-statistic	p- value
tangibls	Reliability	-0.012	1.000
	responsiveness	-0.046	0.997
	Assurance	-0.137	0.354
	Empathy	0.097	0.633
Reliability	responsiveness	-0.034	0.999
	Assurance	-0.125	0.559
	Empathy	0.109	0.494
responsiveness	Assurance	0.109	0.494
	Empathy	-0.091	0.602
Assurance	Empathy	0.143*	0.008

By extrapolating the statistical results shown in Table No. (6), it is clear that:

There are statistically significant differences at a level of significance less than (0.05) between the dimensions of response and safety on one hand and sympathy on the other hand, in favor of the response and safety dimensions. Therefore, relying on the foregoing, the third hypothesis which states that there are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the expected quality dimensions averages due to the five quality dimensions “tangibility, reliability, response, safety, sympathy” is accepted.

Examining of the fourth hypothesis that states that, there are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) towards the perceived quality dimensions of averages attributable to demographic variables (gender, specialization). To check the validity of this hypothesis, a t-test of two independent samples have been used. The results patently appeared as in the following tables;

First. *Due to Specialization*: the results were found out as in Table No. (7).

**Table No. (7) shows results of t-test to know significance of the differences due to specialization of the perceived quality dimensions.**

Variables	specialization	N	Mean	S.D	t-statistic	p-value
tangibls	scientific	108	2.896	0.858	1.213	0.227
	Humanitarian	182	2.731	0.754		
Reliability	scientific	108	2.885	1.091	-0.086	0.932
	Humanitarian	182	2.901	1.070		
responsiveness	scientific	108	2.941	1.186	0.816	0.416
	Humanitarian	182	2.782	1.094		
Assurance	scientific	108	3.194	1.182	0.167	0.867
	Humanitarian	182	3.162	1.089		
Empathy	scientific	108	2.859	1.222	0.810	0.419
	Humanitarian	182	2.695	1.161		
Perceived Total	scientific	108	2.937	0.958	0.752	0.453
	Humanitarian	182	2.822	0.841		

It is clear from the results of Table (7) that there are no statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between all dimensions of perceived quality averages as well as the total score attributable to the field (human - scientific)

variable, and this is evidenced by the arithmetic values (t) which were less than their tabular values as they reached The significance level is greater than 0.05.

Second. Due to Gender: the results were found out as in Table No. (8).

**Table No. (8) shows results of t-test to know significance of the differences due to gender of the perceived quality dimensions.**

Varies	Gender	N	Mean	S.D	t-statistic	p-value
tangibls	Male	224	2.843	0.802	1.411	0.16
	female	66	2.621	0.760		
Reliability	Male	224	2.963	1.079	1.395	0.156
	female	66	2.667	1.041		
responsiveness	Male	224	2.859	1.176	0.344	0.731
	female	66	2.782	0.962		
Assurance	Male	224	3.203	1.127	0.572	0.568
	female	66	3.076	1.110		
Empathy	Male	224	2.741	1.177	-0.277	0.782
	female	66	2.806	1.217		
Perceived Total	Male	224	2.898	0.898	0.838	0.403
	female	66	2.751	0.842		

It is clear from the results of Table (8) that there are no statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between all dimensions of perceived quality averages as well as the total score attributable to the gender (male - female) variable, and this is evidenced by the arithmetic values (t) which were less than their tabular values as they reached The significance level is greater than 0.05. Thus, on basis of the foregoing, the fourth hypothesis which states that, there are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) towards the perceived quality dimensions of averages attributable to demographic variables (gender, specialization) is totally rejected.

Examining of the fifth hypothesis which states that, there are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) towards the expected quality dimensions of averages due to the demographic variables (gender, specialization). To validate this hypothesis, a t-test of two independent samples have been used whereas the results were shown as in the following tables;

First. Due to Specialization: the results were found out as in Table No. (9).

**Table No. (9) shows results of t-test to know significance of the differences due to specialization**

Variables	specialization	N	Mean	S.D	t-statistic	p-value
tangibls	scientific	108	4.035	0.741	0.593	0.554
	Humanitarian	182	3.945	0.959		
Reliability	scientific	108	4.082	0.913	0.826	0.41
	Humanitarian	182	3.936	1.082		
responseivnees	scientific	108	4.215	0.756	1.788	0.076
	Humanitarian	182	3.912	1.099		
Assurance	scientific	108	4.208	0.864	0.847	0.398
	Humanitarian	182	4.060	1.096		
Empathy	scientific	108	4.063	0.888	1.555	0.122
	Humanitarian	182	3.774	1.183		
Perceived Total	scientific	108	4.103	0.714	1.181	0.24
	Humanitarian	182	3.924	0.965		

cted quality dimensions.

It is evident from the results of Table No. (9) that there are no statistically significant differences at a significance level ( $\alpha \leq 0.05$ ) between all dimensions of the expected quality averages as well as the total score attributable to the variable of specialization (human - scientific). The significance level is bigger than 0.05.

Second. Due to Gender: the results were found out as in Table No. (10).

**Table No. (10) displays the results of differences test according to the gender variable**

Variables	specialization	N	Mean	S.D	t-statistic	p-value
tangibls	scientific	108	4.035	0.741	0.593	0.554
	Humanitarian	182	3.945	0.959		
Reliability	scientific	108	4.082	0.913	0.826	0.41
	Humanitarian	182	3.936	1.082		
responseivnees	scientific	108	4.215	0.756	1.788	0.076
	Humanitarian	182	3.912	1.099		
Assurance	scientific	108	4.208	0.864	0.847	0.398
	Humanitarian	182	4.060	1.096		
Empathy	scientific	108	4.063	0.888	1.555	0.122
	Humanitarian	182	3.774	1.183		
Perceived Total	scientific	108	4.103	0.714	1.181	0.24
	Humanitarian	182	3.924	0.965		

It is evident from the results of Table No. (10) that there are no statistically significant differences at a significance level ( $\alpha \leq 0.05$ ) between all dimensions of the expected quality averages as well as the total score attributable to the variable of gender (male-female). The significance level is bigger than 0.05. Therefore, on basis of the above mentioned, the hypothesis stated that there are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) towards the expected quality dimensions of averages due to the demographic variables (gender, specialization) is rejected.

## 11. Discussion

By extrapolating the statistical results, it is evident that the expected quality is greater than the perceived quality at the level of the five dimensions; tangibility, reliability, response, safety, empathy, which indicates the low level of quality provided by the university from the viewpoint of the faculty members, and that the gap between the level of quality they are looking for and the quality provided to them is still Significant at the overall level of the SERVQUAL SCALE dimensions as reaching (1.126). Thus, this result differs from the results of previous studies in terms of the size of the difference between the perceived quality and the expected quality. It reflects a negative view of the quality of the services provided, as in the study of Zagre and Klein (2003), which showed a positive view of the quality of services provided to university students, and the results confirmed that the demographic factors represented by gender and specialization had no effect on the opinions of the study sample towards the low level of perceived quality. Likewise, with regard to the expected quality, to which their aspirations are close, which means entirely that the quality is still far from the university's interests, which deprives it of the ability to compete at the level of all its educational, research and community service functions. Perhaps this is because the university is still managed by traditional methods in addition to the effects of war which is still going on in Yemen which has made the concern for the quality of education to be secondary, especially with the cutoff of the salaries of university employees three years ago. Hence, it has been a frustration for service providers and service recipients. The results of the study agree with previous studies in the presence of differences between the perceptions of the study sample members of the perceived quality level at the level of dimensions. So, it is normal for the views to differ in evaluating the level of quality at each dimensional level.

## Recommendations

In light of the research results, Dhamar University should importantly take into account the following suggestions;

1. Gaining the satisfaction of university employees by providing wages to all university employees, as it is one of the basics that cannot be overlooked because of its interruption in the low level of performance.
2. An adopting of the application of total quality management (TQM) and starting implementing a training program for all university employees to spread the culture of total quality and the importance of adhering to it in providing services.
3. Putting a detailed plan to improve the level of service quality at the level of the five dimensions of quality equally taking into consideration that these dimensions reflect an integrated system that addresses the physical and behavioral aspects, and that together they keenly constitute a necessary entry point for the advancement of the university.
4. A Continuity to conduct evaluation studies for development processes and to follow the continuous improvement approach.

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