

# *The descriptive analysis on the quality and guarantee mechanism of higher education between the Chinese and Malaysian students*

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**Abstract:** This article aims to measure the perception of undergraduates across China and Malaysia about quality and guarantee mechanism of higher institutions. The quantitative approach is used to conduct this research study. The researcher selected 250 participants from Chinese and Malaysian universities respectively. A survey questionnaire was used to collect the data from the participants. The reliability and validity of the questionnaire were assured before the final administration. Ethical considerations were fulfilled during the research process. The research has enhanced current understanding by directly comparing the higher education systems and assurance procedures in China and Malaysia. The study's results have enriched the academic discussion on higher education by providing a detailed analysis that adds to the current dialog among scholars. The findings can be utilized to enhance and improve the quality and guarantee mechanism of higher educational institutions across China and Malaysia.

## 1. Introduction

The study was conducted in China and Malaysia. This article represents the results of the study based on the data. The data was collected from students of science and social science departments. The researcher collected samples from two universities each from Malaysia and China. Data collected from the participants of the study was analyzed using Statistical Package of Social Sciences (SPSS-25). This article aims to prove that the students are satisfied with the various dimensions of quality of education (tangibility, reliability, responsiveness, assurance, and empathy) provided at Chinese and Malaysian higher educational institutions.

## 2. Descriptive Analysis

Descriptive statistics is applied in this research study. Descriptive statistics include mean, mode, median, variance, standard deviation, and range (Creswell, 2016)<sup>[1]</sup>. The mean and standard deviation of the collected data will be the main focus of this analysis. The findings were presented in tabular form.

### 3. Expectation of service quality scale

Table 1: Perception of respondents about various dimensions of expectation of service quality scale

Dimensions	Mean	SD
Tangibles	17.36	3.219
Reliability	21.74	3.576
Responsiveness	17.51	2.606
Assurance	17.65	2.190
Empathy	20.87	3.306

The table 1 indicates mean and standard deviation values for the five dimensions of expectation of service quality scale. These values illustrate students' expectation of service quality studying in various departments of Malaysian and Chinese universities. The dimensions of expectation scale were designed by McKay, Karwowski and Kaufman (2017) [2]. The statements of expectation scale were based on this model. There are a total of 22 questions. Each statement was graded on a Lickert scale item ranging from 1 (strongly disagree) to 5 (strongly agree). The mean values for the five-dimension model of expectation of service quality scale range from 17.36 to 21.74. Reliability of expectation scale had the highest mean value. This dimension measures students' level of relying on particular service of university. It had the highest mean value (M=21.74, SD=3.576). Empathy (M=20.87, SD=3.306) has the second highest mean value. This dimension measures students' feelings about a particular service. The third dimension is called assurance. This dimension had moderate mean value (M=17.65, SD=2.190). Responsiveness refers to helping the customers and providing them with the required service quality. Tangibles deals with physical elements of service quality. Overall, the results indicated that students expected a good service quality from universities.

Table 2: Mean and standard deviation of tangible dimension of expectation of service quality scale

Sr. No.	Item Description	Mean	SD
1	T1	4.29	1.134
2	T2	4.13	1.047
3	T3	4.52	.717
4	T4	4.44	.914

The five dimensions of expectation of service quality scale was examined further. The table 2 indicated that students expected good service quality from their respective universities. The students said that departments of universities (M = 4.52, SD = 0.717) should have good and attractive ambience. The second highest mean value (M = 4.44, SD = 0.914) indicated that the libraries of each university should have the latest literature about various fields offered at the university. The third highest mean value (M = 4.29, SD = 1.134) indicated that the departments of universities should present modern architecture. The last mean value indicated that (M = 4.13, SD = 1.047) pointed out that the appearance and structure of every department should be attractive.

Table 3: Mean and standard deviation of reliability dimension of expectation of service quality scale

Sr. No.	Item Description	Mean	SD
1	R1	4.24	.956
2	R2	4.28	.875
3	R3	4.41	.892
4	R4	4.43	.824
5	R5	4.38	.947

The Table 3 indicates the mean and standard deviation for dimension of reliability of expectation

of service quality scale. The highest mean value ( $M = 4.43$ ,  $SD = 0.824$ ) indicated that teachers should prepare the lectures and exam schedule as per needs of the students rather than the administrative department of university. The second highest mean value ( $M = 4.41$ ,  $SD = 0.892$ ) pointed out that highly knowledgeable teachers should be hired to teach the students. The third highest mean value ( $M = 4.38$ ,  $SD = 0.947$ ) indicated that the information of students should be kept confidential whether it is online or offline. The fourth highest mean value ( $M = 4.28$ ,  $SD = 0.875$ ) pointed out that the administrative staff should be helpful to solve the problems of the students. The administration should show courtesy if they were not able to solve the problem of the students. The last mean value ( $M = 4.24$ ,  $SD = 0.956$ ) pointed out that the department should provide students' required facilities on time if they promised to deliver.

Table 4: Mean and standard deviation of responsiveness dimension of expectation of service quality scale

Sr. No.	Item Description	Mean	SD
1	RS1	4.39	.903
2	RS2	4.25	.778
3	RS3	4.51	.715
4	RS4	4.36	.738

The table 4 indicates the mean and standard deviation for dimension of responsiveness of expectation of service quality scale. The highest mean value ( $M = 4.51$ ,  $SD = 0.715$ ) indicated that the faculty staff of various departments should be willing to help the students. The second highest mean value ( $M = 4.39$ ,  $SD = 0.903$ ) indicated that students should be informed on time if the department changed that schedule for exams or lectures. The third highest mean value ( $M = 4.36$ ,  $SD = 0.738$ ) pointed out that administrative staff should listen to the problems of students, and they should act promptly to solve the problem. The last mean value ( $M = 4.25$ ,  $SD = 0.778$ ) indicated that all students should be accommodated as per the schedule of department.

Table 5: Mean and standard deviation of assurance dimension of expectation of service quality scale

Sr. No.	Item Description	Mean	SD
1	AS1	4.22	.831
2	AS2	4.46	.661
3	AS3	4.50	.686
4	AS4	4.47	.677

The table 5 indicates the mean and standard deviation for dimension of assurance of expectation of service quality scale. The highest mean value ( $M = 4.50$ ,  $SD = 0.686$ ) indicated that administrative should be polite and friendly with the students. The second highest mean value ( $M = 4.47$ ,  $SD = 0.677$ ) pointed out that administration should ensure adequacy and professional knowledge of teachers. The third highest mean value ( $M = 4.46$ ,  $SD = 0.661$ ) indicated that students should trust the teachers and respect them. The last mean value ( $M = 4.22$ ,  $SD = 0.831$ ) pointed out that the students should be equipped with confidence from the behavior of administrative staff.

Table 6: Mean and standard deviation of empathy dimension of expectation of service quality scale

Sr. No.	Item Description	Mean	SD
1	EMP1	4.17	.880
2	EMP2	4.28	.778
3	EMP3	3.98	.943
4	EMP4	4.18	.896
5	EMP5	4.26	.787

The table 6 indicates the mean and standard deviation for dimension of empathy of expectation of service quality scale. The highest mean value ( $M = 4.28$ ,  $SD = 0.778$ ) indicated that every teacher should have convenient office hours to advise their students on different matters including teaching problems. The second highest mean value ( $M = 4.26$ ,  $SD = 0.787$ ) pointed out that teachers should understand the specific needs of students. Teachers should teach students as per their needs and cognitive level. The third highest mean value ( $M = 4.18$ ,  $SD = 0.896$ ) indicated that teachers should keep the interest of students in their mind to guide and teach them. The fourth highest mean value ( $M = 4.17$ ,  $SD = 0.880$ ) pointed out that teachers should provide personal attention to every student. They should listen to their questions and problems and solve them. The last mean value ( $M = 3.98$ ,  $SD = 0.943$ ) directed that the administrative staff should give proper attention to every student.

#### 4. Actual practices of service quality

Table 7: Perception of respondents about various dimensions of actual practices of service quality scale

Dimensions	Mean	SD
Tangibles	17.37	2.450
Reliability	21.91	3.359
Responsiveness	16.70	3.092
Assurance	17.40	2.822
Empathy	21.62	2.976

The table 7 indicates mean and standard deviation values for the five dimensions of actual quality of service quality scale. These values illustrate university's actual provision of student quality in various departments of Malaysian and Chinese universities. The mean values for the five-dimension model of actual practices of service quality scale range from 16.70 to 21.91. Reliability of actual practices of quality scale had the highest mean value. This dimension measures students' level of relying on particular services of university. It had the highest mean value ( $M=21.91$ ,  $SD=3.359$ ). Empathy ( $M=21.62$ ,  $SD=2.976$ ) has the second highest mean value. This dimension measures students' feelings about a particular service. The third dimension is called assurance. This dimension had moderate mean value ( $M=17.40$ ,  $SD=2.822$ ). Responsiveness refers to helping the customers and providing them with the required service quality. It has a mean value ( $M= 16.70$ ,  $SD= 3.092$ ). Tangibles deals with physical elements of service quality. It has a mean value ( $M= 17.37$ ,  $SD= 2.450$ ). Overall, the results indicated that universities in Malaysia and China was providing quality services to students.

Table 8: Mean and standard deviation of tangible dimension of actual practices of service quality scale

Sr. No.	Item Description	Mean	SD
1	T1	4.25	.867
2	T2	4.44	.672
3	T3	4.37	.851
4	T4	4.31	.821

The five dimensions of actual practices of service quality scale was examined further. The table 8 indicated that universities in Malaysia and China was providing quality services to students. The students said that departments of universities ( $M = 4.44$ ,  $SD = 0.672$ ) had good and attractive ambience. The second highest mean value ( $M = 4.37$ ,  $SD = 0.851$ ) indicated that the libraries of each university had the latest literature about various fields offered at the university. The third highest mean value ( $M = 4.31$ ,  $SD = 0.821$ ) indicated that the departments of universities had present modern

architecture. The last mean value ( $M = 4.25$ ,  $SD = 0.867$ ) pointed out that the appearance and structure of every department was attractive.

Table 9: Mean and standard deviation of reliability dimension of actual practices of service quality scale

Sr. No.	Item Description	Mean	SD
1	R1	4.43	.792
2	R2	4.50	.668
3	R3	4.47	.836
4	R4	4.27	.877
5	R5	4.24	.994

The table 9 indicates the mean and standard deviation for dimension of reliability of actual practices of service quality scale. The highest mean value ( $M = 4.50$ ,  $SD = 0.668$ ) indicated that teachers prepared the lectures and exam schedule as per needs of the students rather than the administrative department of university. The second highest mean value ( $M = 4.47$ ,  $SD = 0.836$ ) pointed out that highly knowledgeable teachers were hired to teach the students. The third highest mean value ( $M = 4.43$ ,  $SD = 0.792$ ) indicated that the information of students was kept confidential whether it is online or offline. The fourth highest mean value ( $M = 4.27$ ,  $SD = 0.877$ ) pointed out that the administrative staff were helpful in solving the problems of the students. The administration should show courtesy if they were not able to solve the problem of the students. The last mean value ( $M = 4.24$ ,  $SD = 0.994$ ) pointed out that the department provided students' required facilities on time if they promised to deliver.

Table 10: Mean and standard deviation of responsiveness dimension of actual practices of service quality scale

Sr. No.	Item Description	Mean	SD
1	RS1	4.32	.862
2	RS2	4.33	.903
3	RS3	4.12	1.002
4	RS4	3.93	1.159

The table 10 indicates the mean and standard deviation for dimension of responsiveness of actual practices of service quality scale. The highest mean value ( $M = 4.33$ ,  $SD = 0.903$ ) indicated that the faculty staff of various departments were willing to help the students. The second highest mean value ( $M = 4.32$ ,  $SD = 0.862$ ) indicated that students were informed on time if the department changed that schedule for exams or lectures. The third highest mean value ( $M = 4.12$ ,  $SD = 1.002$ ) pointed out that administrative staff listened to the problems of students, and they acted promptly to solve the problem. The last mean value ( $M = 3.93$ ,  $SD = 1.159$ ) indicated that all students were accommodated as per the schedule of department.

Table 11: Mean and standard deviation of assurance dimension of actual practices of service quality scale

Sr. No.	Item Description	Mean	SD
1	AS1	4.20	.865
2	AS2	4.36	.820
3	AS3	4.40	.898
4	AS4	4.43	.742

The table 11 indicates the mean and standard deviation for dimension of assurance of actual practices of service quality scale. The highest mean value ( $M = 4.43$ ,  $SD = 0.742$ ) indicated that

administrative was polite and friendly with the students. The second highest mean value ( $M = 4.40$ ,  $SD = 0.898$ ) pointed out that administration ensured adequacy and professional knowledge of teachers. The third highest mean value ( $M = 4.36$ ,  $SD = 0.820$ ) indicated that students trusted the teachers and respected them. The last mean value ( $M = 4.20$ ,  $SD = 0.865$ ) pointed out that the students were equipped with confidence from the behavior of administrative staff.

Table 12: Mean and standard deviation of empathy dimension of actual practices of service quality scale

Sr. No.	Item Description	Mean	SD
1	EMP1	4.04	.910
2	EMP2	4.42	.756
3	EMP3	4.36	.760
4	EMP4	4.50	.686
5	EMP5	4.35	.880

The table 12 indicates the mean and standard deviation for dimension of empathy of actual practices of service quality scale. The highest mean value ( $M = 4.50$ ,  $SD = 0.686$ ) indicated that every teacher had convenient office hours to advise their students on different matters including teaching problems. The second highest mean value ( $M = 4.42$ ,  $SD = 0.756$ ) pointed out that teachers understood the specific needs of students. Teachers taught students as per their needs and cognitive level. The third highest mean value ( $M = 4.36$ ,  $SD = 0.760$ ) indicated that teachers maintained the interest of students in their mind to guide and teach them. The fourth highest mean value ( $M = 4.35$ ,  $SD = 0.880$ ) pointed out that teachers provided personal attention to every student. They should listen to their questions and problems and solve them. The last mean value ( $M = 4.04$ ,  $SD = 0.910$ ) directed that the administrative staff gave proper attention to every student.

## 5. Conclusions

In conclusion, the above table indicates mean and standard deviation for various dimensions of perceived and actual practices service quality. The values of mean for all dimensions of perceived and actual practices service quality are above four. This indicates that students studying at Chinese and Malaysian universities are satisfied with the perceived and actual practices service quality of institutions. The findings of this research revealed a direct correlation between the characteristics of service quality and student happiness, which aligns with the prior claims made by other academics (Yan, Na, Alam, Masukujjaman & Lu, 2022) <sup>[3]</sup>. Furthermore, this study has demonstrated the appropriateness of utilizing the SERVQUAL instrument to assess service quality in this context. The findings indicate that the dimensions measured in this study align with those observed in previous research conducted in the field of higher education (Ming, Azam, Haur & Khatibi, 2020) <sup>[4]</sup>.

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