

Student Perceptions On The Academic Staff Service Quality at Bung Hatta University Indonesia



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ARTIKEL INFO

Submitted:
April 5, 2023

Revision:
April 5, 2023

Accepted:
April 5, 2023

Keywords:

Service quality, academic staff, student perceptions, higher education

ABSTRACT

Optimizing services to students is an important aspect that must be managed seriously by all tertiary institutions. Moreover, with the PT-BHMN regulation, state universities also play a role like private universities in reaching the number of students. Therefore, service is one of the key factors and promotional media for prospective students in choosing a tertiary institution. In this study, we investigated student perceptions of the service quality of academic staff at Bung Hatta University. Data was collected from 488 students. Sample data were statistically analyzed using the modified Servqual model using 6 dimensions (ie: physical evidence, reliability, responsiveness, assurance, empathy, information systems). The findings reveal that the responsive tangibles dimension shows the highest negative gap, while the reliability dimension has the lowest negative gap among all dimensions. So the conclusion is that overall improvements must be made in order to be able to provide optimal service for users of educational services, especially in West Sumatra, Indonesia.

1. INTRODUCTION

Higher education is a formal social institution, which in the current competitive climate is required to be more sensitive to the interests of its stakeholders (Sarsale & Caday, 2020), especially their internal stakeholders, namely students as the most important asset of higher education (Chui et al., 2016). University services will be considered quality, if the university's products and processes meet the needs and expectations of students and other stakeholders (Datta & Vardhan, 2017). Student satisfaction is the best barometer of the quality of educational services, which gets the most attention from higher education institutions in seeking competitive advantage (Hafni et al., 2020; Chui et al., 2016; Mansori et al., 2014; Hill, 1995). The main challenge for these institutions is to understand and channel their resources to achieve customer satisfaction.

An interesting phenomenon of universities in the last decade in Indonesia is the change in status from several state universities to state-owned corporate body higher education institution (PT-BHMN). This phenomenon is certainly one of the driving factors for improving the quality of higher education, both private and public, considering that the independence side is increasingly dominant, especially in terms of funding, the optimization of income generating posts is becoming increasingly crucial. For this reason, universities are very concerned about their credibility and one of them can be formed from performance which is reflected in the quality of higher education services (Leonard, 2018).

Bung Hatta University is one of the best private universities in Sumatera, Indonesia. According to the 2021 World University Ranking (UniRank), Bung Hatta University is ranked 126th in Indonesia; ranked 3 in West Sumatera under Andalas University and Padang State University (<https://www.4icu.org/id/>) and the best private university in Sumatra according to the Ministry of Education and Culture of the Republic of Indonesia (<http://klusterisasi-pt.kemdikbud.go.id/>). Continuous improvement should always be made in an effort to maintain and improve this position. One of the efforts that must be made by the campus is to improve services to students.

A number of literatures reveal several models in measuring service quality but the Servqual method (Parasuraman et al., 1988) is known to be the most widely used by scholars and practitioners (Amin et al., 2013; Yarimoglu, 2014; Ghotbabadi et al., 2015;

Tefera & Govender, 2016; Ojaghi et al., 2017) and has been widely applied in various facets of the service industry except for the higher education sector where little research has been conducted (Datta & Vardhan, 2017). Servqual is a multi-dimensional research instrument designed to capture consumer expectations and perceptions of a service along five dimensions that are believed to represent service quality. The five dimensions are tangibles, reliability, responsiveness, assurance, and empathy (Rohini & Mahadevappa, 2006).

This study aims to determine student perceptions of the service quality of academic staff at Bung Hatta University, Padang Indonesia by using the Servqual method developed by (Parasuraman et al., 1990). The questions were structured to explore the research objectives. There are 6 dimensions of service quality that are measured, including 5 dimensions of the Parasuraman version and the development of dimensions by adding 1 dimension related to information systems. So that in the end it is known which dimensions need to be improved and/or maintained. The study population consisted of active students from all faculties at Bung Hatta University (7 faculties), who were selected using a random sample

Finally, it is hoped that this study will contribute to the development of literature related to the Serqual method in universities and provide insight for researchers and practitioners.

2. LITERATURE REVIEW AND HYPOTHESIS

Quality of Service at Universities

The subject of university service quality has been commonly studied as a result of major initiatives of stakeholder institutions (De Jager & Gbadamosi, 2010). More specifically, research on this topic has been conducted in the UK (e.g. Telford & Masson, 2005), Portugal (e.q. Oliveira_Brochado & Marques, 2007), Germany (e.q. Voss et al., 2007), Russia (e.q. Razinkina et al., 2018), China and Hong Kong (e.q. Kwan & Ng, 1999), South Africa (e.q. De Jager & Gbadamosi, 2010), Spain (e.q. Vazquez et al., 2014), Philippine (e.q. Sarsale & Caday, 2020), Malaysia (e.q. Ojaghi et al., 2017), and Indonesia (e.q. Hafni et al., 2020; Kurnia et al., 2019).

It is no different from other forms of service outside the university. In college, quality is related to satisfaction; the highest quality means the best satisfaction of consumer

preferences (Yarimoglu, 2014). Organizations have realized that service quality bring sustainable and competitive advantages. Service quality and customer satisfaction are critical success factors for companies that think about competitiveness, development, and growth in the market (Angelova & Zekiri, 2011) Different definitions of service quality have been proposed by researchers; they state that it involves fulfilling the requirements.

According to Rauch et al. (2015), Tjiptono and Chandra (2016), to conduct a comprehensive company evaluation, management must compare its performance with the expectations of its customers, and with the performance of other companies in the same industry. Service quality is briefly defined as how a company meets or exceeds customer expectations. Researchers agree on the definition of service quality, saying that service delivery can coordinate with, match, or override the wishes of buyers. Service quality increases customer satisfaction and cost management increases profits (Yarimoglu, 2014).

Servqual Method and Dimensions

Several experts put forward the dimensions of service quality that looked at various aspects. This is because the measurement of service quality in higher education is known to have no consensus and has not been able to find the best service quality. Every university stakeholder is unique so the measurements cannot be equated (Gruber et al., 2010). Some researchers still use Serqual with some modifications for universities (Afridi et al., 2016; Arambewela & Hall, 2006; Calvo-Porrall et al., 2013; Kanakana, 2014; Yousapronpaiboon, 2014; Senthilkumar & Arulraj, 2011). In addition, Abdullah (2006) offers HEdPERF (Higher Education PERFORMANCE) which provides dimensions of non-academic aspects, academic aspects, reputation and programs.

Lovelock (2002) suggest that service quality has eight dimensions, namely: performance, features, reliability, conformance to specifications, durability, servicability, aesthetics, perceived quality. Then, from the results of his research on delivering quality service: balancing customer perceptions and expectations. Meanwhile, the results of research by Saravanan & Rao (2007) identify the dimensions or factors of service quality as follows: human aspects of service delivery, core service, social responsibility, systematization of service delivery: nonhuman aspects, tangibles of service-scapes, service marketing.

More specifically, the dimensions of service quality in universities, Kotler & Fox. (1995) suggest that there are six main dimensions in service quality at universities, namely:

quality of instruction, academic advising, library resources, extracurricular activity, opportunities to talk with faculty members, job placement services.

Parasuraman et al. (1990) obtained the results that there are ten general dimensions of service quality, namely: tangibles-physical appearance, reliability-perform as promised constantly, responsiveness, competence, courtesy, credibility, security/safety, access-easy to do business, communication-keeping customer informed, understanding customer needs. In its development, the ten dimensions become only five main dimensions, namely: tangible, reliability, responsiveness, assurance and empathy.

Parasuraman et al. (1985); Parasuraman et al. (1988); and Parasuraman et al. (1990) recommend Servqual, a service quality method to measure the scale of the difference between what consumers expect and perceptions, and its dimensions are:

- a. Tangibles, describe the physical facilities, equipment, and appearance of the personnel and presence of users;
- b. Reliability, refers to the ability to provide the promised service accurately and reliably.
- c. Responsiveness, namely the willingness to help customers and give proper attention.
- d. Assurance is a polite and knowledgeable employee who provides a sense of trust and confidence.
- e. Empathy, includes caring and individual attention to users.

3. RESEARCH METHOD

This study uses a qualitative approach to empirically prove student perceptions of the services of academic staff at Bung Hatta University. Descriptive research is used to get an idea of how students perceive academic services in universities as one aspect that can improve the quality of higher education. The population in this study were all students in all levels. The sampling technique used was cluster random sampling, because students came from 7 faculties with different characteristics.

Due to the covid-19 pandemic and to get more responses from respondents, a questionnaire was made using a google form which was distributed through the whatsapp group of each faculty. The questionnaire was filled out within two weeks after the distribution. After collection, obtained a total of 488 questionnaires received responses from respondents and data processing continued. The low response rate is a significant

obstacle. The response rate is quite low at 7,14% and this is in line with Agustini's (2018) statement which states that the low response rate is a problem in the survey.

Research Instrument

The primary data required for this study were collected using a service quality assessment survey instrument adopted from Parasuraman et al. (1990). However, it has been modified by adding aspects of the availability of information systems as one of the aspects needed by a university today. This instrument has two parts, where the first part describes students' expectations of the quality of student services that must be owned by a university and the second part describes the actual experience of students as what has been provided by the university. The instrument was measured using a 5 point Likert scale, where 1 is "not satisfied" and 5 is "very" satisfied. A total of 49 indicators describe the six dimensions of service quality for academic staff.

Analysis Techniques

The Servqual method is based on the assumption that consumers compare service performance with the ideal standard of each service attribute. This Servqual method analyzes the gap between two main variables, namely expected service and perceived service. If the gap of the service attribute is zero (0) or positive (+), it means that the service quality is said to be good. Conversely, if the gap score obtained is negative (-) then it can be said that the quality of service is unsatisfactory. Servqual score can be calculated by the following formula (Parasuraman et al., 1990):

$$\text{Servqual Score} = \text{Perception Score} - \text{Expectation Score}$$

Where the Servqual score is the quality of service, the perception score is the perception of the service received, the expectation score is the expectation of the service received. The Servqual instrument is useful in performing gap analysis. Because usually services or services are intangible, communication and understanding gaps between employees and customers have a serious impact on perceptions of service quality (Berry & Parasuraman, 1997).

4. RESULTS AND DISCUSSIONS

Respondent Demography

Table 1 shows the percentage distribution of the number of respondents who filled out the questionnaires that were distributed. From a total of 488 questionnaires, the number

of male students who filled out as many as 38.9%, far less than female students which amounted to 61.1%.

Table 1. Respondent Demography

Characteristics	Frequency	Percentage (%)
Gender:		
Male	190	38.9
Female	298	61.1
Faculty:		
Faculty of Economic & Business	96	19.7
Faculty of Law	38	7.8
Faculty of Teacher Training and Education	173	35.5
Faculty of Cultural Study	24	4.9
Faculty of Civil Engineering and Planning	95	19.5
Faculty of Fisheries and Marine Science	5	1.0
Faculty of Industrial Technology	57	11.7

Sources: Data processed, 2022

Judging from the distribution of the questionnaire, the faculties who filled out the most questionnaires were the Faculty of Teacher Training and Education as much as 35.5%, while those who filled out the questionnaires the least were the Faculty of Fisheries and Marine Sciences as much as 1%.

Indicator Identification

Identification of question items is done to find out what indicators are considered in determining service facilities. There are 49 question items that must be filled out by respondents, including five dimensions of servqual methods and one additional dimension related to information systems. The question items can be seen in table 2.

Table 2 Research Questionnaire

No	Item	Statement
Tangible Dimensions		
1	T-1	Classrooms are neatly arranged and clean
2	T-2	Cool and comfortable lecture room
3	T-3	Adequate learning facilities available in lecture rooms (infocus, white/black boards, tables, chairs, etc.)
4	T-4	Laboratories that are relevant to the scientific needs of students (complete and adequate), for example: computers with high specifications, quality technical labor, language labor with good equipment, etc.)
5	T-5	Online learning facilities can increase the productivity of the teaching and learning process
6	T-6	Overall, the online learning process

7	T-7	Campus has adequate library
8	T-8	Availability of reference books in the library
9	T-9	Availability of adequate and clean toilet facilities
10	T-10	Worship facilities that can be used by students
Reliability Dimensions		
11	R-1	The number of lecturers is adequate and in accordance with their field of expertise
12	R-2	Lecturers arrive on time and according to the lecture day schedule
13	R-3	Semester Lesson Plans made by lecturers
14	R-4	Supplementary teaching materials (handouts, modules, etc.) given to students to complement the lecture materials The clarity of the lecture material given by the lecturer is in accordance with the semester learning plan
15	R-5	Availability of time for discussion and question and answer during learning
16	R-6	Lecturer returns exam/assignment results with objective scores
17	R-7	Ability of academic staff to serve student administration
18	R-8	Quality of academic staff to meet student interests
19	R-9	The availability of service time by academic staff is very adequate
20	R-10	
Responsiveness Dimensions		
21	RP-1	The campus provides academic advisors for students
22	RP-2	The campus provides scholarships for underprivileged students
23	RP-3	Campus helps students when facing academic problems
24	RP-4	The campus tries to give a positive response to every student complaint
25	RP-5	The Chancellor and his staff provide time for parents of students to consult
26	RP-6	Campus provides medical services for sick students
27	RP-7	The campus provides insurance assistance for students who have an accident
Assurance Dimensions		
28	A-1	Courteous academic administrative staff in providing services
29	A-2	The administrative staff serves you effectively and is easy to find
30	A-3	Student problems/complaints are handled by the campus through the Academic Supervisor
31	A-4	Every work/assignment is always returned to the student
32	A-5	Time is used effectively by lecturers in the teaching process Sanctions for students who violate the rules that have been set apply to all students without exception
33	A-6	Lecturer services in the process of final project/thesis guidance
34	A-7	The final project/thesis guidance process tends to be fast
35	A-8	Lecturers provide guidance on solving problems in the implementation of thesis research
36	A-9	Lecturers are easy for students to find to consult about proposals/thesis
37	A-10	
Empathy Dimensions		
38	E-1	Campus care in understanding the interests and difficulties of students
39	E-2	There is socialization related to the amount of tuition fees There is socialization related to the development and acceptance of bidikmisi scholarships
40	E-3	Campus monitors student progress through academic supervisors
41	E-4	Lecturers are willing to help students who have difficulties in academics/courses
42	E-5	Lecturers are open, cooperative with students
43	E-6	The campus seeks to understand the interests and talents of students and strives to develop them
44	E-7	
Information System Dimensions		
45	IS-1	The campus provides information on the lecture system in the form of a lecture guide

		book	The campus provides academic and non-academic information in the form of a website
46	IS-2	(online)	
47	IS-3	Campus openly provides information and services both academic and non-academic	
48	IS-4	The campus tries to give a positive response to every student complaint	
49	IS-5	The campus tries to be transparent in explaining the use of student funds	

Sources: Data processed, 2022

Servqual Calculation

The calculation of the average score of the level of expectation and the level of performance of each quality dimension is carried out to calculate the Servqual gap score. The average value of the level of expectation and the level of performance of each quality dimension can be calculated by multiplying the respondents' answers by a Likert scale. From the results of the scores for each attribute, the gap value is calculated based on the formula above. Results Servqual score calculation can be seen in table 3.

Table 3. Servqual Score Calculation Results

Item	Experiences	Expectation	GAP	Classification	Service Quality
Tangible Dimensions					
T-1	3.78	4.34	-0.56	Medium	Passably
T-2	3.66	4.37	-0.71	Medium	Passably
T-3	3.82	4.38	-0.57	Medium	Passably
T-4	3.55	4.33	-0.78	Medium	Passably
T-5	3.56	4.32	-0.77	Medium	Passably
T-6	3.49	4.30	-0.81	Low	Not Good
T-7	3.50	4.30	-0.80	Medium	Passably
T-8	3.47	4.27	-0.80	Low	Not Good
T-9	3.73	4.35	-0.62	Medium	Passably
T-10	3.87	4.42	-0.55	Medium	Passably
Average	3.64	4.34	-0.70	Medium	Passably
Reliability Dimensions					
R-1	4.03	4.38	-0.35	Medium	Passably
R-2	3.86	4.32	-0.46	Medium	Passably
R-3	4.02	4.36	-0.34	Medium	Passably
R-4	3.90	4.32	-0.41	Medium	Passably
R-5	3.93	4.32	-0.39	Medium	Passably
R-6	3.94	4.33	-0.39	Medium	Passably
R-7	3.75	4.28	-0.54	Medium	Passably
R-8	3.80	4.29	-0.49	Medium	Passably
R-9	3.79	4.29	-0.50	Medium	Passably
R-10	3.76	4.30	-0.54	Medium	Passably
Average	3.88	4.32	-0.44	Medium	Passably
Responsiveness Dimensions					
RP-1	4.24	4.52	-0.28	Medium	Passably
RP-2	3.94	4.40	-0.46	Medium	Passably

RP-3	3.83	4.36	-0.52	Medium	Passably
RP-4	3.77	4.32	-0.54	Medium	Passably
RP-5	3.60	4.33	-0.73	Medium	Passably
RP-6	3.77	4.34	-0.58	Medium	Passably
RP-7	3.72	4.35	-0.62	Medium	Passably
Average	3.84	4.37	-0.53	Medium	Passably
Assurance Dimensions					
A-1	3.78	4.32	-0.55	Medium	Passably
A-2	3.72	4.31	-0.59	Medium	Passably
A-3	3.91	4.36	-0.45	Medium	Passably
A-4	3.70	4.29	-0.59	Medium	Passably
A-5	3.85	4.31	-0.47	Medium	Passably
A-6	3.91	4.36	-0.45	Medium	Passably
A-7	3.82	4.31	-0.49	Medium	Passably
A-8	3.71	4.31	-0.60	Medium	Passably
A-9	3.79	4.31	-0.52	Medium	Passably
A-10	3.69	4.31	-0.63	Medium	Passably
Average	3.79	4.32	-0.53	Medium	Passably
Emphaty Dimensions					
E-1	3.63	4.33	-0.70	Medium	Passably
E-2	3.42	4.30	-0.88	Low	Not Good
E-3	3.61	4.32	-0.71	Medium	Passably
E-4	3.70	4.29	-0.58	Medium	Passably
E-5	3.73	4.29	-0.56	Medium	Passably
E-6	3.74	4.34	-0.59	Medium	Passably
E-7	3.68	4.34	-0.66	Medium	Passably
Average	3.65	4.32	-0.67	Medium	Passably
Information System Dimensions					
IS-1	3.70	4.32	-0.62	Medium	Passably
IS-2	3.84	4.33	-0.49	Medium	Passably
IS-3	3.81	4.32	-0.51	Medium	Passably
IS-4	3.72	4.32	-0.60	Medium	Passably
IS-5	3.54	4.31	-0.77	Medium	Passably
Average	3.72	4.32	-0.60	Medium	Passably

Sources: Data processed, 2022

From the results of the calculation of the Servqual gap score, it is found that all service indicators asked are still negative, which means they are still not satisfying service users (students).

Comparing Findings with Contemporary Studies

The quality of student services shows significant disparities across all dimensions which imply that students' expectations of the quality of student services are not met based on their experiences. When viewed from the tangibles dimension, it shows an average experience value of 3.64 and an average expectation of 4.34; meaning that it has a difference of -0.7. Tangibles in this study showed the highest negative gap. The results of

this study are in line with the research of Kalam & Mahonta (2017) and Lodesso et al. (2018). In tertiary services, students' expectations regarding physical facility services are of course very high, clean lecture rooms, complete learning facilities, such as air conditioning, infocus, laboratories, libraries, clean toilets, etc. The results obtained show that students still need better physical facilities to be able to optimize the learning process on campus.

The reliability dimension refers to the service of teaching staff and students to students. The results of the study show that the average value of this variable is 3.88; expected value 4.32; and the gap is -0.70. The results of this study also show that students' expectations of lecturer and student services exceed what they get. Students need an adequate number of lecturers, lecturers enter on time, availability of lesson plans as lecture guidelines, opportunities for discussion, and so on. The right system is needed to be able to accommodate the needs of these students regarding the services of the lecturers and education staff. The results of this study are consistent with the research of Misaii and Mohammadimehr (2018) which states that students will always need lecturer guidance and administrative services from time to time.

The responsiveness dimension shows an average experience value of 3.84; hope 4.37; and the difference is -0.53. Likewise, the assurance dimension shows an average experience value of 3.79; hope 4.32; and the difference is -0.53. The two dimensions show the same gap, namely -0.53, meaning that the results of this test show that student responses to service are still negative for the dimensions of responsiveness and assurance. This research is in line with previous research which found a negative effect of service from the responsiveness dimension (Afridi et al., 2016; Misaii and Mohammadimehr, 2018); negative effect of service on the assurance dimension (Datta & Vardhan, 2017; Rezaei et al., 2017). Students need the willingness of educational institutions to be able to increase their response to help and give proper attention, as well as being polite and giving students a sense of trust and confidence (Parasuraman et al., 1990).

The empathy dimension has a gap value of -0.67 which comes from the difference in the average experience score of 3.65 and expectation of 4.32. Meanwhile, from the additional dimension, namely the information system, it shows an average experience value of 3.72; hope 4.32; with an average gap of -0.60. For these two dimensions it also shows that the dimensions of empathy and information systems still show negative values,

meaning that the services received are still below the desired expectations. This research is in line with previous research which found a negative effect on the dimension of empathy (Chui et al., 2016) as the dimension that shows the most negative gap. This result simply connotes different student perceptions of service quality as well as service delivery levels among higher education institutions worldwide.

5. CONCLUSIONS AND SUGGESTIONS

Improving the quality of service to students can have a major influence on public interest and trust in choosing a university to continue their education. This factor is an important aspect for universities to be able to maintain their existence in the competition among existing universities. This study was conducted to assess student perceptions of the service quality of academic staff at Bung Hatta University Indonesia.

This research can be a reference for private higher education with the same faculties in particular. However, in general, service by looking at the six dimensions above can be an indication of service by all educational institutions. In this study there are limitations that might affect the validity of the research results. This study distributed questionnaires to approximately 7,000 active students, who, due to the Covid-19 period, used online media in the distribution process (Google form). The number of returned questionnaires was 488 questionnaires (less than 10% of the total students). It is suspected that the low number of questionnaire uptake can also affect the results in general.

For future research, it is recommended to use various methods so that the level of uptake of the questionnaire is higher, such as direct dissemination or interview techniques so that students' wishes regarding services can be explored. Of course this also takes a long time and costs more. However, with the aim to be able to optimize this alternative service can be considered.

ACKNOWLEDGMENTS

The authors would like to thank the Research and Community Service Institute of Universitas Bung Hatta for supporting this study through the 2022 intermediate research scheme with contract number 11.02.13.03.2022 dated January 24 2022. We also express our appreciation to the students who assisted in data collection and all Bung Hatta University students who took the time to become respondents in this study.

REFERENCES

- Abdullah, F. (2006). Measuring service quality in higher education: HEDPERF versus SERVPERF. *Marketing Intelligence & Planning*, 24(1), 31–47.
- Afridi, S. A., Khattak, A., & Khan, A. (2016). Measurement of service quality gap in the selected private universities/institutes of peshawar using SERVQUAL Model. *City University Research Journal*, 6(1), 61–69.
- Agustini, M. Y. D. H. (2018). Survey by knocking the door and response rate enhance technique in international business research. *Problems and Perspectives in Management*, 16(2), 155–163.
- Amin, M., Yahya, Z., Ismayatim, W. F. A., Nasharuddin, S. Z., & Kassim, E. (2013). Service quality dimension and customer satisfaction: An empirical study in the Malaysian Hotel Industry. *Services Marketing Quarterly*, 34(2), 115–125.
- Angelova, B., & Zekiri, J. (2011). Measuring customer satisfaction with service quality using American Customer Satisfaction Model (ACSI Model). *International Journal of Academic Research in Business and Social Sciences*, 1(3), 232–258.
- Arambewela, R., & Hall, J. (2006). A comparative analysis of international education satisfaction using Servqual. *Journal Service Research*, 6, 141.
- Berry, L. L. & Parasuraman, A. (1997). Listening to the customer--the concept of a service-quality information system. *MIT Sloan Management Review*, 38(3), 65.
- Calvo-Porrall, C., Lévy-Mangin, J.-P., & Novo-Corti, I. (2013). Perceived quality in higher education: an empirical study. *Marketing Intelligence & Planning*, 31(6), 601–619.
- Chui, T. B., Ahmad, M. S., Bassim, F., & Zaimi, N. (2016). Evaluation of service quality of private higher education using service improvement matrix. *Procedia - Social and Behavioral Sciences*, 132–140.
- Datta, K. S., & Vardhan, J. (2017). A SERVQUAL-based framework for assessing quality of international branch campuses in UAE: A Management Students' Perspective. *Sage Open*, 7(1), 1–9.
- De Jager, J., & Gbadamosi, G. (2010). Specific remedy for specific problem: measuring service quality in South African higher education. *High Education*, 60(3), 251–267.
- Ghotbabadi, A. R., Feiz, S., & Baharun, R. (2015). Service quality measurements: A Review. *International Journal of Academic Research in Business and Social Sciences*, 5(2), 267–286.
- Gruber, T., FuB, S., & Zikuda, M. G. (2010). Examining Student Satisfaction with Higher Education Services Using a New Measurement Tool. *International Journal of Public Sector Management*, 23(2), 105–123.
- Hafni, L., Chandra, S., & Chandra, T. (2020). Model Peningkatan Kualitas Pelayanan Pada Perguruan Tinggi Di Riau. *EKUITAS (Jurnal Ekonomi Dan Keuangan)*, 3(4), 445–463. <https://doi.org/10.24034/j25485024.y2019.v3.i4.4179>
- Hill, F. M. (1995). Managing service quality in higher education: The role of the student as primary consumer. *Journal of Quality Assurance in Education*, 3(3), 10–20.
- Kalam, A., & Mahonta, H. C. (2017). Measuring service gap of higher education in Bangladesh: A comparative study between public university and private university. *IOSR Journal of Business and Management*, 19(11), 49–55.
- Kanakana, M. G. (2014). Assessing Service Quality in Higher Education using the SERVQUAL Tool. *International Conference on Industrial Engineering and Operations Management 1(969)*, 68–74.

- Kotler, P., & Fox., K. F. . (1995). *Strategic Marketing for Educational Institution*. (Second Ed.). Englewood Cliffs, New Jersey. Prentice Hall, Inc.
- Kurnia, W. I., Hendang, R., & Buton, A. (2019). Strategi Peningkatan Kualitas Pelayanan Pendidikan Pada Perguruan Tinggi. *Journal of Industrial Engineering Management*, 4(2), 11–22. <https://doi.org/10.33536/jiem.v4i2.449>
- Kwan, P. Y., & Ng, P. W. (1999). Quality indicators in higher education comparing Hongkong and China's students. *Management Audit Journal*, 14(1/2), 20–27.
- Leonnard, L. (2018). The Performance of Servqual to Measure Service Quality in Private University. *Journal on Efficiency and Responsibility in Education and Science*, 11(1), 16–21.
- Lodesso, S., van Niekerk, E., Jansen, C., & Müller, H. (2018). Student satisfaction regarding service quality at Ethiopian Public Higher Education Institutions: A Case Study. *Journal of Student Affairs in Africa*, 6(2), 51–64.
- Lovelock, C. H. (2002). *Service Marketing. Second Edition*. Englewood Cliffs, New Jersey. Prentice Hal Inc.
- Mansori, S., Vaz, A., & Ismail, Z. M. M. (2014). Service quality, satisfaction and student loyalty in Malaysian private education. *Asian Social Science*, 10(7), 57– 66. <https://doi.org/10.5539/ass.v10n7p57>
- Misaii, H., & Mohammadimehr, M. (2018). Evaluating the quality of educational services based on student's viewpoint according to SERVQUAL Model in the Faculty of Mathematical, Statistical and Computer Sciences at Tehran University. *The Journal of Medical Education and Development*, 12(4), 282–292.
- Ojaghi, S., Rezaee, B., Naderi, N., & Jafari, H. (2017). Entrepreneurship education service quality in universities based on servqual model. *Malaysian Online J5ournal of Educational Management*, 5(2), 60–74.
- Oliveira_Brochado, A., & Marques, R. C. (2007). *Comparing alternative instruments to measure service quality in higher education*. Universidade do Porto, Faculdade de Economia do Porto.
- Parasuraman, A., Zeithaml, V. A., & Berry., L. L. (1990). *Delivering Quality Service Balancing Customer Perceptions and Expectations*. New York. The Free Press A Division of Macmillan Inc.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49, 41–50.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring customer perceptions of service quality. *Journal of Retailing*, 64(1), 12–40.
- Rauch, D. A., Collins, M. D., Nale, R. D., & Barr, P. B. (2015). Measuring service quality in mid-scale hotels. *International Journal Contemporer Hospitality Management*, 27, 87–106.
- Razinkina, E., Pankova, L., Trostinskaya, I., Pozdeeva, E., Evseeva, L., & Tanova, A. (2018). Student satisfaction as an element of education quality monitoring in innovative higher education institution. *E3S Web of Conferences* 33, 03043.
- Rezaei, S., Karami Matin, B., Hajizadeh, M., Soroush, A., Mohammadi, Z., Babakhany, M., & Jamshidi, K. (2017). Evaluating service quality in the higher education sector in iran: an examination of students' perspective. *International Journal of Human Rights in Healthcare*, 10(2), 146–155.
- Rohini, R., & Mahadevappa, B. (2006). Service quality in Bangalore Hospitals - An empirical study. *Journal of Services Research*, 6(1), 59–84.

- Saravanan, R., & Rao, K. S. P. (2007). Service Quality from the Customer's Perspective: An Empirical Investigation. *The Quality Management Journal*, 14(3).
- Sarsale, M. S., & Caday, S. G. (2020). Exploring quality of student services of a Philippine state university satellite campus using Servqual and service improvement matrix. *Malaysian Online Journal of Educational Management*, 8(2), 59–71.
- Senthilkumar, N., & Arulraj, A. (2011). SQM-HEI – determination of service quality measurement of higher education in India. *Journal of Modelling in Management*, 6(1), 60–78.
- Tefera, O., & Govender, K. (2016). From SERVQUAL to HOTSPERF: Towards the development and validation of an alternate hotel service quality measurement instrument. *African Journal of Hospitality, Tourism and Leisure*, 5(4), 1–16.
- Telford, R., & Masson, R. (2005). The congruence of quality values in higher education. *Quality Assurance Education*, 13(2), 107–119.
- Tjiptono, F. & Chandra, G. (2016). *Service, Quality dan Satisfaction* (Edisi 4). Andi, Yogyakarta.
- Vazquez, J. L., Aza, L., & Lanero, A. (2014). Students' experiences of university social responsibility and perceptions of satisfaction and quality of service. *Review of Contemporary Business, Entrepreneurship and Economic Issues*, 28(s), 25–39.
- Voss, R., Gruber, T., & Szimigin, I. (2007). Service quality in higher education: the role of student expectations. *Journal Business Research*, 60(9), 949–959.
- Yarimoglu, E. K. (2014). A review on dimensions of service quality models. *Journal of Marketing Management*, 2(2), 79–93.
- Yousapronpaiboon, K. (2014). RVQUAL: Measuring Higher Education Service Quality in Thailand. *Procedia - Social and Behavioral Sciences*, 116, 1088–1095.

