

**Assessment of Students' Satisfaction with Higher Education Services: Customer Satisfaction Index Method**

**Larasati Sukma Nurhidayah<sup>1</sup>, Slamet Slamet<sup>2</sup>**

<sup>1,2</sup>Universitas Islam Negeri Maulana Malik Ibrahim Malang, Indonesia

✉ Corresponding Author:

**Author: Larasati Sukma Nurhidayah**

E-mail: laras8764@gmail.com

**Abstract:** This study aims to assess student satisfaction with higher education services. This study was conducted at one of the state Islamic religious universities in East Java. The measure is a questionnaire based on service quality theory that assesses empathy, assurance, reliability, responsiveness, and tangible. The research population is students, and the target population is students in semesters IV - VIII in the 2022/2023 academic year. Data collection technique is survey techniques by sending via Google Forms and distributing directly for two months (June - July 2023). Purposive and random sampling are sampling approaches. A total of 288 students participated as respondents. Data analysis uses descriptive analysis and the Customer Satisfaction Index to determine satisfaction categories. The research results show that student satisfaction is in the quite satisfied category, with an average score of 62.07%. These findings indicate that the quality of higher education services requires continuous attention and improvement. The low level of student satisfaction supports these findings. This satisfaction deserves attention, as evidenced by feedback from students who are the main customers of higher education institutions.

**Keywords:** student, satisfaction, customer satisfaction index, higher education, services quality

**Abstrak:** Studi ini bertujuan untuk menilai kepuasan mahasiswa atas layanan pendidikan tinggi. Studi ini dilaksanakan pada salah satu perguruan tinggi keagamaan Islam negeri di Jawa Timur. Instrumen berupa kuesioner yang dibangun berdasarkan teori kualitas pelayanan yang meliputi: empati, jaminan, keandalan, daya tanggap, dan bukti fisik/wujud. Populasi penelitian yaitu mahasiswa, dan populasi target yaitu mahasiswa semester IV - VIII pada tahun akademik 2022/2023. Teknik pengumpulan data melalui teknik survei dengan pengiriman melalui Google Form dan disebarakan secara langsung pada Juni - Juli 2023. Purposive sampling merupakan pendekatan pengambilan sampel. Responden dalam penelitian ini adalah 288 (74,81%). Analisis data menggunakan analisis deskriptif dan Customer Satisfaction Index untuk menentukan kategori kepuasan. Hasil penelitian menunjukkan kepuasan mahasiswa berada pada kategori cukup puas dengan rata-rata skor sebesar 62,07%. Temuan ini menunjukkan bahwa kualitas layanan pendidikan tinggi memerlukan perhatian dan perbaikan yang berkelanjutan. Rendahnya tingkat kepuasan mahasiswa mendukung temuan tersebut. Kepuasan ini patut mendapat perhatian, terbukti dengan feedback dari mahasiswa yang menjadi pelanggan utama institusi perguruan tinggi.

**Kata kunci:** mahasiswa, kepuasan, customer satisfaction index, pendidikan tinggi, kualitas layanan

**How to recite:**

Nurhidayah, L. S., and Slamet, S. (2024). Assessment of Students' Satisfaction with Higher Education Services: Customer Satisfaction Index Method. *Iqtishoduna*. Vol. 20 (1): pp 39-51

**INTRODUCTION**

Universities are frequently viewed as educational-related businesses that offer learning, teaching, research, and social responsibility services (Wijatno, 2009). Services are now increasingly essential in the economic world, particularly in the education sector. Student satisfaction (SS) is currently the primary emphasis of Higher Education Institution (HEI) and is a critical factor in the Teaching Excellence Framework (Bell, 2022). Universities, as educational institutions, are obligated to give the highest service standards to their students (Kandiko & Mawer, 2014; Neves & Hillman, 2016), as SS and service quality (SQ) are inextricably linked (Negricea et al., 2014). An educational institution can be said to be successful if the educational services offered can meet the needs and desires of consumers (Wijaya, 2016). Satisfied students are more likely to continue using the services they have chosen, provide good feedback on their decisions, and share their experiences with others, which can help universities decrease promotional expenses (Schiffman, 2019). SS will be used to assess how well HEIs manage their educational institutions (Mulyawan & Shidarta, 2014). As a result, SS, as university customers, has emerged as a critical component of higher education administration both now and in the future.

Some previous research related to SS includes research on factors that can influence the emergence of feelings of satisfaction related to lecturer competence in learning and guaranteeing grades (Kandiko & Mawer, 2014; Letcher & Neves, 2010; Neves & Hillman, 2016), accuracy and lecturer responsiveness (Richardson et al., 2007), lecturer empathy (Alsheyadi & Albalushi, 2020; Alves & Raposo, 2009; Hadad et al., 2020). The most essential part of happiness is the teaching and learning process (Bell & Brooks, 2017). SQ has a good and significant influence on customer satisfaction (Arna Wisudaningsi et al., 2019; Belawanti et al., 2021; Ismanto & Munzir, 2020; Septianna et al., 2019). Sohail & Hasan (2021) said research findings reveal that lecturers' empathetic qualities do not affect SS. Furthermore, the findings of Salbiyah et al. (2019) show that reliability, such as competence and professionalism, do not affect SS. Thus, SS is influenced by various aspects, including SQ.

This study aims to assess SS with higher education services provided by one of the state Islamic religious universities in East Java. This goal is founded on the premise that SS is essential in every university. Students are a university's primary consumers; indirectly, students can assist in promoting the institution for free effectively and efficiently, provided the university where they study delivers excellent SQ (Susetyo et al., 2022). This condition can indirectly help universities cut promotional costs. Moreover, satisfied students will quickly move on to more attractive offers, whereas dissatisfied clients find it more challenging to change their choices (Kotler, 1997). To ensure satisfaction, institutions must give the highest level of service possible. The study question to fulfil this objective is: "How satisfied are students with the higher education services provided by HEIs?"

The majority of prior studies measured customer satisfaction levels in pure companies. Few studies have used the Customer Satisfaction Index to assess SS in HEIs. Several studies on SS as university clients are still only partially evaluated. SS is measured by lecturer competence (Kandiko & Mawer, 2014; Letcher & Neves, 2010; Neves & Hillman, 2016), lecturer responsiveness (Richardson et al., 2007), empathy (Alsheyadi & Albalushi, 2020; Alves & Raposo, 2009; Hadad et al., 2020), and teaching and learning processes (Bell & Brooks, 2017). This study assessed SS using Parasuraman et al. (1985) five-dimensional SQ model, including empathy, assurance, reliability, responsive, and tangible. These five dimensions are constructed into HEI management. Thus, this study differs from prior studies regarding the factors contributing to SS.

## **LITERATURE REVIEW**

### **Customer Satisfaction Theory**

Customer satisfaction is an overarching principle of customer service. According to Dissonance Theory, also known as cognitive dissonance theory, created by psychologist Festinger (1950), a person experiences dissonance - psychological discomfort or conflict with themselves. This situation is produced by a mental state in which they expect something (a product or service) to be of great value while it has the opposite worth. This hypothesis explains the psychological pressure that someone feels when they possess two or more opposing beliefs, concepts, or values. In other terms, someone is in battle with oneself. Contrast Theory, the polar opposite of Dissonance Theory, was initially proposed by Hovland et al. (1957). This psychological hypothesis asserts that comparing one object to another influences people's perceptions and judgments. According to the hypothesis, there is a propensity to grow the gap between a person's attitudes and those of others. This theory provides an alternative viewpoint on the consumer evaluation process following product use.

Another theory related to customer satisfaction is the Comparison Level Theory developed by (Kelley, 1984). This theory states that individuals evaluate the quality of social relationships based on standards or benchmarks, known as "comparison levels". This level is the minimum level of results that satisfies someone in a relationship. The comparison level is influenced by an individual's previous experiences and expectations. This theory states that customers set benchmarks for specific product or service aspects for example, price, customer expectations, desired quality, anticipated functionality, and comparison levels established by friends, relatives, or others who have purchased the product or service. It is the same product. Thus, the theory explaining customer satisfaction is closely related to customer psychological factors.

### **Service Quality**

Service quality is critical in corporate and public sectors (including HEIs). SQ is an assessment of how well the service given meets consumer expectations. Parasuraman et al. (1988) states that SQ is a general assessment or attitude that is related to overall superiority or superiority of service. Using a disconfirmation model, they developed a method for evaluating customer SQ. The SQ model is the most widely used model for measuring SS (Weerasinghe et al., 2017) and it is also relevant for measuring the quality of educational services (Railya B Galeeva, 2016; Tan & Kek, 2004; Teeroovengadum et al., 2016; Yousapronpaiboon, 2014). Thus, a suitable SQ model is employed to assess SS.

Parasuraman et al. (1988) identified five service excellence categories: (1) tangible—a company's ability to prove its existence to outside parties. Tangible indicators of the services provided include appearance and capabilities, as well as dependable physical buildings and infrastructure and the condition of the surrounding environment; (2) responsiveness. This dimension represents the company's policy of assisting clients and providing them with prompt and accurate services. Aside from that, when delivering information, businesses must be clear and simply understood by customers; (3) dependability. The company can deliver services as promised, accurately and consistently. Where services must meet client requirements and aspirations; (4) assurance. Ensure that firm employees have the knowledge, politeness, and aptitude to persuade clients about the items or services they offer; and (5) demonstrate empathy—a genuine desire to understand consumer wants and needs.

### **Students Satisfaction**

Student satisfaction has been regarded as an essential component in determining the quality of services given by HEIs. However, the quality of college services can be assessed from the perspectives of both administrators and students. Satisfaction is the sensation of joy or disappointment consumers have when comparing their expectations to the results they get (Kotler, 1997).

If the results meet the customer's expectations, he or she will be satisfied; vice versa. Consumer satisfaction is a measurement or indicator of how satisfied customers or users of a company's products or services are (Fatihudin & Firmansyah, 2019). Thus, when applied to higher education, buyer pleasure equals SS. This is because both employ service providers' services and incur expenditures as opportunity costs when pursuing an education.

Lupiyoadi & Hamdani (2008) identified five elements influence a person (customer), including (1) product quality. Consumers will be satisfied if the things they use are of high quality and satisfy their expectations; (2) SQ. Consumers will feel quite comfortable and satisfied if they receive good service. Customers will feel proud and confident that others will admire them if they use items or services from specific brands with greater satisfaction; (4) price. Quality products or services at low prices will deliver more value; and (5) costs. Consumers are more likely to be satisfied with a product or service if they do not have to pay additional fees or spend time getting it.

### **Customer Satisfaction Index**

The Customer Satisfaction Index (CSI) is an economic strategy for quantifying objective criteria influencing consumer educational service costs. According to the sociological viewpoint, satisfaction specifies society's regulatory criteria for the education system to function effectively in its social functions. Meanwhile, satisfaction with the pedagogical approach encompasses both qualitative (educational quality theory) and qualimetric (educational quality measurement theory). Psychological analysis employs psychometrics to investigate customers' mental representations of educational quality (Yanova, 2015). CSI is a multidimensional variable (Furr, 2011) and should not be studied as a single quantity. The CSI measurement's parametric framework includes subjective aspects such as mental evaluation of educational material, results, and processes (Yanova, 2015). The model approach governs the justification of the indicative unit measurement procedure used to formalize the CSI. Weight indices (coefficients) are the most critical methodologies in the empirical field.

Modelling techniques with "weighted coefficients" can be used to (1) identify target expectations in the education system; (2) determine the value of customer satisfaction levels based on factors that determine the quality of educational services; (3) conduct a comparative analysis of CSI in various educational segments; and (4) perform an "indicative zone" cluster analysis to identify risks and rank educational institutions. CSI assesses consumer satisfaction with service use based on the significance of product or service attributes (Yanova, 2015).

There are several processes must be taken to determine the amount of CSI, including (1) estimating the Mean Importance Score (MIS) and Mean Satisfaction Score (Aritonang, 2005). MIS is the average significance score of an attribute calculated using the average importance of each customer. Meanwhile, MSS is the average performance of an attribute based on the average company performance assessed by customers; (2) calculate the Weight Factor (WF) or weighted factor. This weight represents the percentage of MIS value per indicator to the total MIS of all indicators; (3) compute the Weight Score or weighted score. The weight of this value is calculated as the product of WF and average satisfaction, and (4) determines CSI. Thus, CSI is a relatively straightforward study with no notation specific to the company sector.

## RESEARCH METHOD

This study employs a quantitative research paradigm with a case study methodology. This study was undertaken at one of East Java's state Islamic universities. The research instrument used was a questionnaire with 45 statements divided into five SERVQUAL dimensions: empathy (7 items), assurance (11 items), reliability (7 items), responsiveness (7 items), and tangible (13 items). The measurement scale employs a Likert scale, from "very dissatisfied/important" (scale 1) to "very satisfied/important" (scale 5). The respondents' study consists of students from semesters IV - VIII in the Even Semester of the 2022/2023 Academic Year, or Class of 2019 - 2021, totaling 10,212 students. In this study, 385 students were respondents from various faculties. The sampling method is both purposive and random sampling. Based on editing the instrument's feasibility, there were 288 (74,81%) in the fit category and 97 (25,19%) in the unfit category. The response profile was 53 (18,40%) in the IV semester, 103 (35,76%) in the VI semester, and 132 (45,83%) in the VIII semester.

The data analysis employs descriptive and CSI using the following steps:

- 1) Determine of *Mean Importance Score* (MIS) and *Mean Satisfaction Score* (MSS).

$$MIS = \frac{\sum_{i=1}^n . Y_i}{n} \text{ dan } MSS = \frac{\sum_{i=1}^n . Y_i}{n}$$

Where:

$Y_i$  = The importance value of the Y attribute of i

$n$  = Number of respondents

- 2) Calculate of *Weight Factor* (WF) or weighted factors.

$$WF = \frac{MIS_i}{\sum_{i=1}^p . MIS_i} \times 100\%$$

Where:

$MIS_i$  = Average value of importance to-i

$\sum_{i=1}^p . MIS_i$  = Total average importance from i until p

3) Calculate of Weight Score with the formula:  $WS_i = WFi \times MSS$

Where:

$WFi$  = weighted factors of  $i$

$MSS$  = Average of satisfaction level

4) Determine of CSI

$$CSI = \frac{\sum_{i=1}^p \cdot MIS}{HS} \times 100\%$$

Where:

$HS$  = High Scale is the maximum Scale used (5)

$\sum_{i=1}^p \cdot MIS$  = Total average importance score from  $i$  to  $p$

**Table 1. Satisfaction Category**

No	Source of CSI (%)	Category
1.	81,00% – 100%	Very satisfied
2.	66,00% – 89,99%	Satisfied
3.	51,00% – 65,99%	Quite satisfied
4.	35,00% – 50,99%	Less satisfied
5.	0,00% – 34,99%	Unsatisfied

Sources: Aritonang (2005)

## RESULTS AND DISCUSSION

Table 2 shows the results of the standard deviation test data analysis for the five dimensions of SQ:

**Table 2. Test Standard Deviation and Mean**

Dimensions	Mean	Standard Deviation
Empathy	21,17	4,77
Assurance	32,48	7,71
Reliability	19,41	5,09
Responsiveness	18,75	4,56
Tangible	36,14	7,27

The standard deviation results indicate that all data is uniform. This is because the standard deviation value is less than the mean. This result indicates that, on average, respondents reply the same way to claims about the facilities and services supplied by institutions.

Table 3 shows the results of the descriptive analysis and the CSI test for the five dimensions:

**Table 3. Descriptive and CSI Test Results**

<b>Dimensions</b>	<b>Percentage agreement of statement items</b>	<b>CSI</b>	<b>Category</b>
Empathy	60,49%	63,34%	Quite satisfied
Assurance	59,05%	61,06%	Quite satisfied
Reliability	55,45%	56,96%	Quite satisfied
Responsiveness	53,58%	54,59%	Quite satisfied
Tangible	55,60%	74,40%	Satisfied
Average	56,83%	62,07%	Quite satisfied

Table 3 shows that the satisfaction level is at the criteria of 62,07%, which means quite satisfied. The tangible dimension contributed 74,40%, the responsiveness dimension amounted to 54,59%, the reliability dimension to 56,96%, the assurance dimension to 61,06%, and the empathy dimension to 63,34%. Meanwhile, the percentage of agreement with the statement averaged 56,83%, obtained from the tangible dimension of 55,60%, the responsiveness dimension of 53,58%, the reliability dimension of 55,45%, the assurance dimension of 59,05%, and the empathy dimension of 60,49%.

### **Discussion**

Based on CSI analysis, this study found that SS is in the quite satisfied group. The descriptive analysis results bolster this categorization. These findings indicate that the quality of higher education services supplied by state Islamic universities as the subject of study continues to disappoint students as clients of HEIs. Of the five dimensions, only one, tangible, may contribute to SS. This dimension encompasses the facilities, infrastructure, and atmosphere of HEIs. This condition indicates that HEIs prioritize the tangible component over the other four dimensions. The aspects of responsiveness, reliability, and assurance are equally crucial in developing competence, which is the ultimate goal of student learning. Thus, state Islamic institutions as the subject of study have been unable to provide a complete degree of SS.

The critical findings in this study are consistent with Kelley (1984) Comparative Level Theory. The comparative level theory in this research shows that students, as individuals, evaluate the quality of higher education services using the standards they perceive. The comparison level is based on the experiences and expectations of students who receive services from HEIs. Kotler (1997) defines satisfaction as the feeling of pleasure or disappointment experienced by consumers after comparing their expectations with the results they receive. In line with Kotler (1997), Fatihudin & Firmansyah (2019) define satisfaction as the extent to which product or service users feel happy or unhappy with the product or service they receive. These findings also show that



the psychological aspects experienced by students include discomfort, as defined in Dissonance Theory (Festinger, 1950). According to his understanding, a person experiences discomfort or psychological conflict as a result of receiving higher education services that do not match his expectations and perceptions. This finding was also explained in Contrast Theory (Hovland et al., 1957). According to this hypothesis, when one dimension is compared with another, it influences a person's perspective and judgment. The impact of less-than-optimal satisfaction tends to exacerbate their feelings of dissatisfaction.

The findings of this study are similar to the study of Siming et al. (2015). He stated that the more university facilities and services available, the more satisfied the students will be. However, these findings are different from Adawiyah (2022) research which found that the real dimension did not have a significant effect on satisfaction. Meanwhile, the responsiveness component of lecturers and education staff shows that SS is not yet optimal. These findings indicate that responsiveness and accuracy in service delivery influence students' sentiments about satisfaction. When their desires are fulfilled, they will be satisfied. This condition is in line with the views of Fatihudin & Firmansyah (2019) who argue that SQ is very important for a company, especially in the educational sector such as universities. In accordance with the responsiveness dimension and the reliability dimension, SS is still low. The results of this study support the opinion of Salbiyah et al. (2019), which states that dependency factors do not influence SS. However, the findings of this study contradict the findings of Sujianto et al. (2023), he said that the reliability dimension is very important and correlates with student happiness.

Apart from that, the guarantee factor is still in a bad range for forming SS. Guarantees in this research include guarantees that academic staff have adequate competence, guarantees of SQ, and other administrative guarantees. According to Juhana & Mulyana (2015), a sense of satisfaction will arise when the university keeps its promises. In addition, the empathy dimension also contributed to the low level of SS in this study. This component includes the academic community's awareness and knowledge of student needs and difficulties. This finding contradicts the belief of Meyers et al. (2019) which states that lecturers who can position themselves, understand and help students have a high sense of empathy, which leads to a high level of SS. However, this contradicts the findings of research conducted by Salbiyah et al. (2019) who found that the empathy component was not related to SS. Thus, SS is generally still in the lowest category of the five dimensions of SQ.

These crucial findings provide understanding and feedback to HEI management in order to improve SQ. In the framework of competition, rivalry happens not only in the private sector but also in public institutions, notably HEIs that adhere to the school of public service bodies and state universities as legal entities. Both institutes of higher education have adopted corporate-based management; competition can no longer be disregarded. If HEIs want to continue to develop, SS must be a primary concern.

## CONCLUSION

This study emphasizes the necessity of HEIs providing high-quality services to their students. SS is a feedback mechanism for HEI management. Periodically monitoring SS can improve the quality of higher education offerings. Indicators from SS evaluation results can provide precise and relevant information about service attributes that should be evaluated and maintained. This condition is strongly tied to the resources used to provide services to pupils. Thus, if institutions wish to remain competitive and viable, monitoring SS must be a priority and used as a strategic review. The study's findings will help provide evaluation material for HEIs to continuously improve and enhance all facilities, services, and human resource quality in meeting students' needs to achieve SS. This study will also give readers more insight into the relevance of SS for each university. Furthermore, this study was limited to only one university and one method, allowing it to be extended in the context of more extensive studies on student happiness in the future.

## REFERENCES

- Adawiyah, R. (2022). Pengaruh Dimensi Kualitas Pelayanan Tenaga Kependidikan terhadap Kepuasan Mahasiswa Fakultas Ushuluddin dan Humaniora UIN Antasari Banjarmasin. *Jurnal Administrasi dan Ilmu Manajemen*, 6 (2), 131–151.
- Alsheyadi, A. ., & Albalushi, J. (2020). Service Quality of Student Services and Student Satisfaction: The Mediating Effect of Cross-functional Collaboration. *The TQM Journal*, 32(6), 1197–1215.
- Alves, H., & Raposo, M. (2009). The Measurement of the Construct Satisfaction in Higher Education. *The Service Industries Journal*, 29, 203–218.
- Aritonang, L. R. (2005). *Kepuasan Pelanggan*. PT. Gramedia Pustaka Utama.
- Arna Wisudaningsi, B., Arofah, I., & Aji Belang, K. (2019). Pengaruh Kualitas Pelayanan dan Kualitas Produk terhadap Kepuasan Konsumen dengan Menggunakan Metode Analisis Regresi Linear Berganda. *Jurnal Statistika dan Matematika*, 1, 103–116.
- Belawanti, D. A., Prapti, R. L., & Triyani, D. (2021). Analisis Pengaruh Kualitas Pelayanan Sub Bagian Akademik Terhadap Kepuasan Mahasiswa Di Fakultas Kedokteran Universitas Diponegoro Semarang. *Jurnal Ilmiah Bidang Ilmu Ekonomi*, 19(2), 92–101.

- Bell, A. R., & Brooks, C. (2017). What Makes Students Satisfied? A Discussion and Analysis of the UK's National Student Survey. *Journal of Further and Higher Education*, 42(8), 1118–1142.
- Bell, K. (2022). Increasing undergraduate student satisfaction in Higher Education: the importance of relational pedagogy. *Journal of Further and Higher Education*, 46(4), 490–503. <https://doi.org/10.1080/0309877X.2021.1985980>
- Fatihudin, D., & Firmansyah, A. (2019). *Pemasaran Jasa (Strategi, Mengukur Kepuasan dan Loyalitas Pelanggan)*. Deepublish.
- Festinger, L. (1950). Informal social communication. *Psychological Review*, 57(5), 271–282. <https://doi.org/10.1037/h0056932>
- Furr, M. (2011). *Scale Construction and Psychometrics for Social and Personality Psychology*. SAGE Publications Ltd.
- Hadad, Y. B., Keren, & Naveh, G. (2020). The Relative Importance of Teaching Evaluation Criteria from the Points of View of Students and Faculty. *Assessment & Evaluation in Higher Education*, 45(3), 447–459.
- Hovland, C. I., Harvey, O. J., & Sherif, M. (1957). Assimilation and contrast effects in reactions to communication and attitude change. *Journal of Abnormal and Social Psychology*, 55(2), 244–252. <https://doi.org/10.1037/h0048480>
- Ismanto, W., & Munzir, T. (2020). Analisis Faktor-Faktor yang Mempengaruhi Kepuasan Konsumen. *Dimensi*, 9, 536–548.
- Juhana, D., & Mulyana, A. (2015). Pengaruh Kualitas Layanan Jasa Pendidikan terhadap Kepuasan Mahasiswa di STMIK Mardira Indonesia Bandung. *Jurnal Ekonomi, Bisnis & Entrepreneurship*, 9(1), 1–15.
- Student Expectations and Perceptions of Higher Education, a Study of UK Higher Education, (2014).
- Kelley, H. H. (1984). The theoretical description of interdependence by means of transition lists. *Journal of Personality and Social Psychology*, 47(5), 956–982. <https://doi.org/10.1037/0022-3514.47.5.956>
- Kotler, P. (1997). *Manajemen Pemasaran Analisis, Perencanaan, Implementasi dan Kontrol. Jilid 1* (A. Widyantoro (ed.)). PT. Pabelan.
- Letcher, D. ., & Neves, J. . (2010). Determinants of Undergraduate Business Student Satisfaction. *Research in Higher Education Journal*, 6, 1–26.
- Lupiyoadi, R., & Hamdani, A. (2008). *Manajemen Pemasaran Jasa*. Salemba Empat.
- Meyers, S., Rowell, K., Wells, M., & Smith, B. C. (2019). Teacher Empathy: A Model of Empathy for Teaching for Student Success. *College Teaching*, 67(3), 160–168.
- Mulyawan, D., & Shidarta, I. (2014). Determinan Kualitas Layanan Akademik di STMIK Mardira Bandung. *Jurnal Komputer dan Bisnis*, 8(1), 13–24.

- Negricea, C. I., Edu, T., & Avram, E. Ma. (2014). Establishing Influence of Specific Academic Quality on Student Satisfaction. *Social and Behavioral Sciences*, 116, 4430–4435.
- Neves, J., & Hillman, N. (2016). *The 2016 Student Academic Experience Survey*. Higher Education Academy.
- 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(4), 41. <https://doi.org/10.2307/1251430>
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: a Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, 64(1), 12–40.
- Railya B Galeeva. (2016). SERVQUAL application and adaptation for educational service quality assessments in Russian higher education. *Quality Assurance in Education*, 4(3), 7–8.
- Richardson, J. T. E., Slater, B., & Wilson, J. (2007). The National Student Survey: Development, Findings and Implications. *Studies in Higher Education*, 32, 557–580.
- Salbiyah, S., Nuraini, F., & Rosmaniar, A. (2019). The Effect of Academic Service Quality on Student Satisfaction Faculty of Economics and Business, University of Muhammadiyah Surabaya. *Saudi Journal of Economics and Finance*, 3(1), 10–22.
- Schiffman, L. (2019). *Consumer Behavior*.
- Septianna, A., Wijaya, A., & Yenyati, P. (2019). Analisis Pengaruh Kualitas Jasa Pelayanan terhadap Kepuasan Mahasiswa. *Jurnal Keuangan dan Bisnis*, 17(1), 14–31.
- Siming, Luo, Gao, J., & Xu, D. (2015). Factors Leading to Students' Satisfaction in the Higher Learning Institutions. *Journal of Education and Pratices*, 6(31).
- Sohail, M. S., & Hasan, M. (2021). Students' Perceptions of Service Quality in Saudi Universities: The SERVPERF Model. *Learning and Teaching in Higher Education*, 17(1), 654–665.
- Sujianto, Mujiono, Suardika, I. B., & Indriani, S. (2023). Pengaruh Kualitas Layanan Administrasi Akademik tentang Kepuasan Mahasiswa. *Jurnal Flywheel*, 4(1), 29–33.
- Susetyo, D. P., Pranajaya, E., Setiawan, T., & Suryana, A. (2022). Kualitas Pelayanan Akademik dan Citra Institusi sebagai Determinan Kepuasan Mahasiswa. *Formosa Journal of Applied Sciences*, 1(4), 473–492.
- Tan, K. C., & Kek, S. W. (2004). Service quality in higher education using an enhanced SERVQUAL approach. *Quality in Higher Education*, 10(1), 17–24. <https://doi.org/10.1080/1353832242000195032>
- Teeroovengadum, V., Kamalanabhan, T. J., & Seebaluck, A. K. (2016). Measuring service quality in higher education: Development of a hierarchical model (HESQUAL). *Quality Assurance in Education*, 24(2), 244–258.

<https://doi.org/https://doi.org/10.1108/QAE-06-2014-0028>

- Weerasinghe, I. M. S., Lalitha, R., & Fernando, S. (2017). Students' Satisfaction in Higher Education Literature Review. *American Journal of Educational Research*, 5(5), 533–539. <https://doi.org/10.12691/education-5-5-9>
- Wijatno, S. (2009). *Pengelolaan Perguruan Tinggi Secara Efisien, Efektif, dan Ekonomis: Untuk Meningkatkan Mutu Penyelenggaraan Pendidikan dan Mutu Lulusan*. Salemba Empat.
- Wijaya, D. (2016). *Pemasaran Jasa Pendidikan* (B. S. Fatmawati (ed.)). Bumi Aksara.
- Yanova, N. (2015). Assessment of Satisfaction with the Quality of Education: Customer Satisfaction Index. *Procedia - Social and Behavioral Sciences*, 182, 566–573. <https://doi.org/10.1016/j.sbspro.2015.04.782>
- Yousapronpaiboon, K. (2014). SERVQUAL: Measuring Higher Education Service Quality in Thailand. *Procedia - Social and Behavioral Sciences*, 116, 1088–1095. <https://doi.org/10.1016/j.sbspro.2014.01.350>