

Application of Kano Model for Customer Satisfaction Analysis of Health Center Service Quality

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Abstract. *In the health service sector, especially community health centers, service quality is an important issue considering its function as a first-level health facility that serves the wider community. Where customer satisfaction is an important benchmark for assessing the extent to which the health services provided are able to meet the needs of the community. This study aims to analyze customer satisfaction with service quality attributes at the Tanjung Ampalu community health center based on the Kano model. This study is a quantitative study involving 317 respondents with a survey research data collection method. This study adopts research instruments from previous researchers from reputable journals which use dimensions of service quality using the Kano model. The results of this study reveal that the dimensions of tangibles, reliability, responsiveness, and assurance at the Tanjung Ampalu community health center are classified into the one-dimensional category, while the empathy dimension is classified into attractive. which indicates that each service quality attribute in this study is very important and crucial in increasing customer satisfaction.*

Keywords: *Service Quality, Customer Satisfaction, Kano Model, Health Center*

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INTRODUCTION

In the world of business and public services, customer satisfaction is one of the main indicators in assessing the success of an organization. Kotler & Keller (2016), define customer satisfaction as a feeling of pleasure or disappointment that arises after comparing expectations with actual performance. When customer expectations are met or even exceeded, they will feel satisfied, and vice versa.

In the health service sector, especially health centers, patient satisfaction is an important benchmark for assessing the extent to which the health services provided are able to meet the needs of the community. Health centers as first-level health care facilities have a great responsibility in providing quality services to the community. According to Parasuraman, Zeithaml, and Berry (1988) in (Lizarelli et al., 2021), service quality is defined as the level of conformity between customer expectations and perceptions of the services provided. Therefore, understanding service quality attributes is essential to increasing customer satisfaction levels.

Based on an interview with the head of the Tanjung Ampalu Health Center, the health center still faces challenges in meeting customer satisfaction both in terms of facilities and infrastructure. One of the main complaints that is often received is related to queue numbers and long waiting times. In addition, the unfriendly attitude of some officers is also an important issue in the quality of service provided by the health center. The results of observations and data from health center complaint issues also show several other complaints related to facilities and

services. Some of them are the lack of facilities such as seating, complaints related to an unfriendly front office, dirty walls, unclean toilets, and officers who pay little attention to and control the water supply in the toilet.

The purpose of this study is to analyze customer satisfaction with the quality of service at the health center as seen from the dimensions of service quality. One approach to increasing customer satisfaction is to ensure that the quality of service provided meets the established standards, the application of the Kano Model is a relevant solution for measuring and analyzing service quality. There are five main dimensions in analyzing service quality: tangibles (physical evidence), reliability, responsiveness, assurance, and empathy. Meanwhile, the Kano Model can help classify service attributes based on their impact on customer satisfaction, such as expected, attractive, and neutral attributes.

According to Kotler (2016), organizations that are able to understand customer needs and desires will find it easier to increase customer loyalty. In addition, (Tjiptono, 2019) emphasizes the importance of measuring service quality periodically to ensure sustainability and service improvement. By combining the Kano Model method, it is hoped that a comprehensive analysis can be obtained to improve service quality and customer satisfaction at the Tanjung Ampalu Health Center. Several related studies have shown that consistent service quality analysis can provide a clear picture of the service dimensions that need to be improved.

For example, a study by (Lubis & Wahyuni, 2021) shows that the dimensions of reliability and responsiveness are often the main concerns in health services. Meanwhile, research by (Khikmawati & Wardana, 2020) found that the use of the Kano Model can facilitate the grouping of service attributes, making it easier for management to determine improvement priorities. Research related to service quality analysis using the Kano method was also conducted by (Kohli & Singh, 2021) which showed that each Kano category contains service quality attributes that affect customer satisfaction with the Company's actual performance.

Other studies related to service quality in public services, especially health services, patient satisfaction is very important. As research by (Usman et al., 2024) it is known that the five dimensions of service quality are factors that influence patient satisfaction related to health services. (Rizal & Ani Marwati, n.d.) in their research also identified the impact of the dimensions of service quality on consumer satisfaction. Service quality is a study of the extent to which there is a difference between customer expectations of the service they receive and their perceptions of the service provided by Zeithaml, 1988 in (Materla et al., 2019).

Service quality is the ability of an organization to provide services that not only meet customer expectations but also provide a positive and memorable experience. Parasuraman, Zeithaml, and Berry in (Khikmawati & Wardana, 2020) identified the dimensions of service quality into five main dimensions known as SERVQUAL which consist of; Tangibles, namely how a company's ability to realize its existence to external parties, Reliability related to the company's ability to provide appropriate services accurately and reliably, Responsiveness related to the company's ability to provide good responses and communication, Assurance related to how the company fosters trust in the company, and empathy related to how the company provides individual and sincere attention to customers.

The level of satisfaction is a function of the difference between perceived performance and expectations. According to (Tjiptono, 2023) concluded that "Satisfaction or dissatisfaction is a customer response to the evaluation of perceived discrepancies between pre-purchase expectations and the actual performance of the product felt after use. Conceptually, customer satisfaction can be described in the following Figure (Tjiptono, 2022).

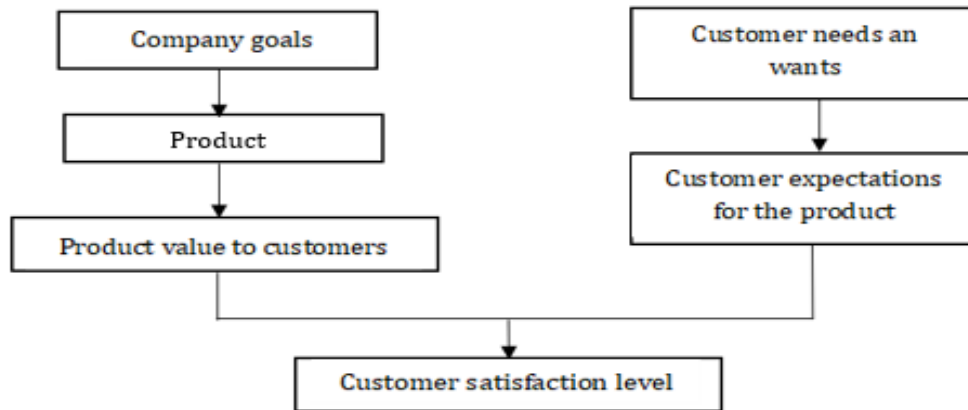


Figure 1. Customer Satisfaction Concept

Source: (Tjiptono, 2022)

The Kano method is a framework used to measure and categorize product or service attributes based on their impact on customer satisfaction. The Kano method is used to identify the level of customer satisfaction. Developed by Dr. Noriaki Kano from Tokyo Riko University in 1984. In the Kano Model, service attributes are grouped into several categories (Kano, 1984) in (Pai et al., 2024), namely; Must-Be (M) Attributes that are considered mandatory by customers. If this attribute is absent or not fulfilled, customers will be dissatisfied. But its existence does not significantly increase satisfaction because customers consider this category to be appropriate. One-Dimensional (O) Attributes that increase customer satisfaction proportionally. The better this attribute is fulfilled, the higher the level of satisfaction. Attractive (A) Attributes that customers do not expect but provide great satisfaction if present. Its absence does not cause dissatisfaction. Indifferent (I) Attributes that do not affect customer satisfaction. Reverse (R) Attributes that are considered negative by some customers, while positive by others. And Questionable (Q), which is an additional category that appears when customer answers to the questionnaire are inconsistent or difficult to understand.



Figure 2. Conceptual Kano Model

Source: (Materla et al., 2019)

METHODS

This research is descriptive and quantitative. Descriptively, this research attempts to describe the attributes of service quality that affect customer satisfaction using the Kano Model

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method, while quantitatively, this research is conducted to measure the level of customer satisfaction with service quality using numerical data that is analyzed statistically. The questionnaire was prepared based on the Kano model structure, which consists of functional and dysfunctional questions for each attribute. Before being distributed, the questionnaire was tested on 30 respondents to test the clarity of the language and validity and reliability tests were carried out using IBM SPSS Statistics Version 30. It is known that the value for the validity test in this study for each dimension is sig (2-tailed) <0.05 which indicates that the test results are valid and significant, then the Cronbach's Alpha value obtained > 0.7 indicates a good level of reliability. The population of this study were patients or families of patients who had received services at the Ampalu Health Center in 2024. The sample in this study was 317 respondents. Respondents were patients aged ≥ 17 years and could be represented by the patient's family if the patient was still <17 years old who received services at the Health Center during 2024. Respondents who were unwilling to fill out the questionnaire or had never received direct services were not included. This study did not involve intervention on the subjects and only used questionnaires that were filled out voluntarily by the respondents. Respondents were given an explanation of the purpose of the study and their right to refuse to participate. All data is kept confidential and is only used for academic purposes. The determination of the sample in the study was taken using the Krejcie and Morgan sample table formula based on a 5% error rate and a 95% confidence level, this is in accordance with Ministerial Regulation Number 14 Of 2017 concerning "Guidelines for Compiling Community Satisfaction Surveys of Public Service Provider Units". Data collection was conducted online and offline at the Tanjung Ampalu Health Center by distributing research questionnaires during operational hours in the period February 14 - March 14, 2025. The feasibility of the items used through the validity and reliability test stages. The collected research data were processed comprehensively using the IMB SPSS Statistics version 30 data analysis tool and Microsoft Excel for the Kano model calculation. The research questionnaire was designed with the Kano assessment scale for attributes in each dimension of service quality as follows:

Table 1. The Determination of Attribute Types in the Kano Model

Customer needs		Dysfunctional				
		1	2	3	4	5
		Like	Expect it	Do not care	Live with	Dislike
Functional	Like	Q	A	A	A	O
	Expect it	R	I	I	I	M
	Do not care	R	I	I	I	M
	Live with	R	I	I	I	M
	Dislike	R	R	R	R	Q

Source: (Jagusiak-Kocik & Idzikowski, 2023)

To determine the Kano category for each attribute, you can use the Blauth Formula (Walden, 1993) in (Kohli & Singh, 2021) as follows: (1) If the sum of the values (O+A+M) > sum of the values (I+R+Q), then the grade is obtained from the maximum end of (O+A+M); (2) If the sum of the values (O+A+M) < sum of the values (I+R+Q), then the grade is obtained from the maximum end of (I+R+Q); (3) If the sum of the values (O+A+M) = sum of the values (I+R+Q), then the grade is obtained from the maximum end among all kano categories, namely (O,A,M,I,R,Q). After the attribute category is known, to calculate the customer enhanced satisfaction *ESC* coefficient (better) and the customer reduced dissatisfaction coefficient *RDC* (worse) can be done using the following formula (Tehranineshat et al., 2022):

To calculate the customer satisfaction coefficient, the following formula can be used:

$$\text{Better} = \frac{A+O}{A+O+M+I}$$

To calculate the customer disappointment coefficient Disappointment Coefficient, the following formula can be used:

$$\text{Worse} = \frac{O+M}{A+O+M+I}$$

RESULTS AND DISCUSSION

The collected research data was identified based on descriptive data of the research sample to see the characteristics of the sample involved in this study. These characteristics include gender, age, education, and occupation. These characteristics can be seen in the following table.

Table 2. Respondent Characteristics

Characteristics	Total	Percentage (%)	Characteristics	Total	Percentage (%)
Gender			Age		
Male	118	37,2	<25 years	65	20,5
Female	199	62,8	25-40 years	134	42,3
Job			40-55 years	93	29,3
Student	50	15,8	>55 years	25	7,9
Civil Servant	55	17,4	Educations		
Private Employee	32	10,1	SD	0	0
Self-Employed	31	9,8	SMP	5	1,6
Retiree	26	8,2	SMA/SMK	174	54,9
Other	123	38,8	Diploma	12	3,8
			Bachelor	120	37,9
			Postgraduate	6	1,9

Source: Primary Processed Data (2025)

To determine the kano category, the answers from each attribute based on the functional and dysfunctional types are analyzed, then done by determining the respondent's value point in each functional and dysfunctional value. So that a meeting point is obtained to determine the attribute into the kano method.

Table 3. Summary of Kano Model analysis for the quality of Tanjung Ampalu health center services

	Attribute	A	M	O	I	Q	R	Total	Grade	ESC	RDC
Tangibles	complete equipment	75	67	150	24	1	0	317	0	0,71	0,69
	Physical environment	98	45	150	24	0	0	317	0	0,78	0,62
	Appearance of staff	107	45	133	32	0	0	317	0	0,76	0,56
	Availability of supporting facilities	109	53	125	28	2	0	317	0	0,74	0,57
Reliability	Reliability and accuracy in patient care	52	98	148	18	1	0	317	0	0,63	0,78
	Accurate diagnosis and appropriate treatment	42	102	149	23	1	0	317	0	0,60	0,79
	Understood health information	46	99	147	25	0	0	317	0	0,61	0,78
Resp	Officers are willing to help patients whenever needed	85	69	145	18	0	0	317	0	0,73	0,68

	Communication initiative to understand patient needs	90	69	133	24	1	0	317	0	0,71	0,64
	Speed in responding and providing services	87	69	144	17	0	0	317	0	0,73	0,67
	Accurate and complete information	75	70	148	24	0	0	317	0	0,70	0,69
Assurance	Providing a sense of security in services	65	92	137	23	0	0	317	0	0,64	0,72
	Skills and professionalism	52	86	157	22	0	0	317	0	0,66	0,77
	Guarantee of patient security and confidentiality	49	96	149	23	0	0	317	0	0,62	0,77
Empathy	Means for conveying complaints and suggestions	115	56	103	42	0	1	317	A	0,69	0,50
	Providing personal services	111	60	108	38	0	0	317	A	0,69	0,53

Source: processed primary data, 2025

After knowing the whole of the previous better and worse analysis, the better and worse values of each indicator in this study were obtained. The level of satisfaction or better is at a value of 0 to 1, if the value increasingly shows a value with the number 1 then it can be said that it increasingly affects the level of customer satisfaction, but conversely if the value is more inclined to 0 then it can be said that it will not affect customer satisfaction. While for the level of disappointment or worse is if the value is closer to the value of 1 then it will affect the level of user disappointment, the higher it is if the attribute is not available, conversely if the value is 0 then it does not affect user disappointment. The following are the results of calculating the better and worse values that can be made into a Kano diagram graph as below:



Figure 3. Better and Worse Graphs

Source: Source: Processed Primary Data

Customer Satisfaction Analysis of Tangibles

Based on the results of the analysis using the Kano model, the dimension of tangibles is categorized as a One Dimension attribute. This means that customer satisfaction will increase significantly if the attributes in this dimension are met, and vice versa will decrease if they are not met. The better and worse values in this dimension also show high numbers, indicating that the presence of adequate physical attributes is very important in forming positive customer perceptions. Tangible attributes in this context include the completeness of medical equipment, cleanliness and comfort of the waiting room, neat and professional appearance of officers, and the availability of facilities and infrastructure that support patient comfort. This classification shows that physical elements are not only supporting elements, but are basic expectations in health services.

In the context of the Tanjung Ampalu Health Center, this indicates the need for consistent budget allocation for facility maintenance and procurement of proper equipment. Given that the majority of patients come from areas with limited access to health services, the quality of facilities will greatly affect their perceptions of the credibility and professionalism of the service. Failure to meet these expectations not only reduces satisfaction, but can also erode public trust in the health center as a primary service provider. This finding is in line with the research of (Yao et al., 2024), which shows that physical attributes in public health services have a significant influence on customer satisfaction, especially in basic service facilities. Therefore, strengthening this dimension can be one of the strategic priorities in planning to improve the quality of services at the Tanjung Ampalu Health Center.

Customer Satisfaction Analysis on Reliability

From on the results of the analysis using the Kano model, the reliability dimension is classified into the One Dimension category. This means that the fulfillment of attributes in this dimension will directly increase customer satisfaction, while the inability to meet expectations can cause significant dissatisfaction. The better and worse coefficient values in this dimension also show quite high numbers, indicating customer sensitivity to service performance in terms of reliability. The reliability dimension includes aspects such as accuracy in patient care, accuracy of diagnosis, and the ability of medical personnel to provide clear and easy-to-understand information. In the context of the Tanjung Ampalu Health Center, this finding implies that reliability must be a priority in resource allocation, staff training, and routine monitoring of service quality.

This is in line with the findings of (Materla et al., 2019), which showed that attributes related to reliability were consistently categorized as the main elements forming customer satisfaction in primary care facilities. Furthermore, reliability not only has an impact on short-term satisfaction but also affects the level of patient trust in health care institutions as a whole. Therefore, strategic planning of the Health Center needs to ensure that SOPs, clinical protocols, and patient communication are carried out with a high level of consistency and accuracy. In the context of a society with still-developing health literacy, this becomes increasingly important to reduce patient anxiety and strengthen perceptions of service professionalism.

Customer Satisfaction Analysis of Responsiveness

Based on the results of the analysis using the Kano model, the responsiveness dimension is classified as a One-Dimensional attribute, which means that an increase in service responsiveness will directly increase patient satisfaction, while failure to meet expectations in this aspect risks dissatisfaction. High better and worse coefficients indicate that customers are very sensitive to the quality of responsiveness provided. In the context of the Tanjung Ampalu Health Center, the high value of this attribute can be understood through the demographic characteristics of service users who mostly come from rural areas with limited access to medical

information. Therefore, speed of service, willingness of officers to help, proactive communication, and alertness in handling patient complaints are critical aspects that are highly valued by patients.

This finding is in line with research (Yuan et al., 2021) which shows that in remote healthcare, responsiveness plays an important role in shaping perceptions of service quality and patient trust, especially in areas with structural barriers. The practical implication of this result is that strengthening the responsiveness dimension needs to be a strategic priority, for example through empathetic communication training for officers, implementing maximum response time standards, and monitoring patient satisfaction with responsive services regularly. Furthermore, the responsiveness attribute also indicates a higher potential for dependence on human interaction in services. This means that service improvement strategies are not sufficient only by providing infrastructure, but also require interpersonal qualities from service providers. This nuance is important to understand in the context of improving the quality of public services based on local needs.

Customer Satisfaction Analysis of Assurance

Based on the results of the Kano model analysis, the assurance dimension is included in the One Dimension category. This means that the inclusion of attributes in this dimension will directly increase customer satisfaction, while failure to fulfill them will significantly reduce satisfaction. The high better and worse coefficient values in this dimension emphasize the importance of the role of assurance in shaping patient trust and perceptions of quality in health services. This dimension includes aspects such as staff skills and professionalism, the ability to provide a sense of security during service, and guarantees of the security and confidentiality of patient information. In the context of primary services such as the Tanjung Ampalu Health Center, these attributes are the main foundation in building trust between patients and service providers, especially in areas that may still experience information gaps or negative experiences with health services.

Research by (Lubis & Wahyuni, 2021) also found that the assurance dimension is included in the one-dimensional category at the Sipayung Rengat Health Center UPTD, which states that this dimension is critical in various contexts of public health services. Therefore, the assurance dimension must be set as a minimum service standard, for example through internal policies related to medical data privacy, professional training of health workers, and the implementation of communication oriented towards patient safety and comfort. Strategically, improvements in this dimension not only have an impact on momentary satisfaction, but also build long-term loyalty and the legitimacy of the perception of health institutions in the eyes of the public. This is important in the context of trust-based public services such as health centers, where information security and staff expertise are the main points of emphasis in humanitarian and humanitarian services.

Customer Satisfaction Analysis of Empathy

Based on the results of the analysis using the Kano model, the empathy dimension is classified in the Attractive category. This means that the fulfillment of attributes in this dimension will significantly increase customer satisfaction, but its absence will not directly cause dissatisfaction. This shows that the empathy attribute acts as an added value in customer perceptions of service quality. Interestingly, the better coefficient on this dimension was recorded as high, indicating that the presence of the empathy attribute is highly appreciated by customers. However, the worse coefficient is also relatively high, although not as high as other dimensions, implying that in certain contexts, such as patients with high emotional needs, the absence of empathy can still trigger disappointment. This shows that perceptions of empathy can be dynamic and contextual, depending on the patient's background or previous experiences.

(Zhang et al., 2024) research in the context of breast cancer patient services also found that empathy attributes, such as personal service, were included in the Attractive category, showing consistency of results between health service contexts. In the context of the Tanjung Ampalu Health Center, the empathy attributes that were considered important included the availability of facilities for conveying complaints and suggestions, as well as individual attention to patients that reflected the officer's concern for the patient's emotional and psychological needs. Strategically, increasing empathy can be realized through interpersonal communication training for officers, providing an easily accessible feedback system, and getting used to a humanistic approach in every service interaction. Although not a basic attribute, empathy can be a key differentiator in creating meaningful service experiences and strengthening patient loyalty in the long term. This is especially important for groups of people who may feel marginalized or have had previous negative experiences with the health system.

CONCLUSION

The results of the analysis of the formulation of the problem regarding the grade class or category of the Kano model of service quality at the Tanjung Ampalu Health Center which was evaluated using the Kano model evaluation table, on the Tangibles, Reliability, Responsiveness, and Assurance indicators, the One-Dimensional (O) grade was obtained, while for the Empathy indicator, the Attractive (A) grade was obtained. Which means that the Tangibles, Reliability, Responsiveness, and Assurance indicators asked about the services and facilities provided by the Health Center Service describe an increase in customer or patient satisfaction if the service continues to be improved, but will decrease drastically if the service decreases. While for the Empathy indicator asked about the quality of service, it describes a large increase in customer satisfaction if the service exists or is improved, but if the service does not exist or is not improved, it will not reduce customer satisfaction because the service is basically not what customers expect. The level of service quality at the Tanjung Ampalu Health Center reviewed using the Kano Model approach shows a High value.

Because from the calculation of better and worse values from the data that has been obtained, all categories of better values are above 0.5 and approaching a value of 1, and these attributes also have worse values exceeding 0.50. Which means that these attributes are very crucial for customers, if these attributes exist or are met, customer satisfaction will increase, but if these attributes do not exist, it will cause great dissatisfaction. Because if this attribute is not available or is bad, customers will be very disappointed. So this is an attribute that must be prioritized to be met at least. In other words, this is a very critical and performance-sensitive feature. It is recommended that Tanjung Ampalu Health Center continue to improve the quality of services and facilities available. Based on the analysis results, the Tangibles, Reliability, Responsiveness, and Assurance indicators are included in the One-Dimensional (O) category, which indicates that improving services will proportionally increase customer satisfaction, while decreasing services will have an impact on decreasing satisfaction. Meanwhile, the Empathy indicator is in the Attractive (A) category, which means that the existence of this service can significantly increase customer satisfaction, but its absence does not have a negative impact on satisfaction. Given that all indicators show the One-Dimensional and Attractive categories, continuous efforts to improve services are very important to maintain and increase the level of customer satisfaction at Tanjung Ampalu Health Center.

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REFERENCES

- Jagusiak-Kocik, M., & Idzikowski, A. (2023). Implementation of the Kano model in a company providing public transport services. *Transportation Research Procedia*, 74, 57-63. <https://doi.org/10.1016/j.trpro.2023.11.112>
- Kohli, A., & Singh, R. (2021). An assessment of customers' satisfaction for emerging technologies in passenger cars using Kano model. *Vilakshan-XIMB Journal of Management*, 18(1), 76-88. <https://doi.org/10.1108/xjm-08-2020-0103>
- Kotler, P., & Keller, K. L. (2016). Marketing management 15th ed.(15th). Harlow: Pearson.
- Lizarelli, F. L., Osiro, L., Ganga, G. M., Mendes, G. H., & Paz, G. R. (2021). Integration of SERVQUAL, Analytical Kano, and QFD using fuzzy approaches to support improvement decisions in an entrepreneurial education service. *Applied Soft Computing*, 112, 107786. <https://doi.org/10.1016/j.asoc.2021.107786>
- Lubis, F. S., & Wahyuni, A. S. (2021). Analisis Kualitas Pelayanan UPTD Puskesmas Sipayung Rengat Menggunakan Metode Kano. In *Seminar Nasional Teknologi Informasi Komunikasi dan Industri* (pp. 254-261).
- Materla, T., Cudney, E. A., & Hopen, D. (2019). Evaluating factors affecting patient satisfaction using the Kano model. *International journal of health care quality assurance*, 32(1), 137-151. <https://doi.org/10.1108/IJHCQA-02-2018-0056>
- Pai, F. Y., Yeh, T. M., Hung, T. H., & Lu, H. Y. (2024). Applying the Kano model and QFD to improve the service quality of Kinmen County government's overseas residents service centers in Taiwan. *Journal of Infrastructure, Policy and Development*, 8(7). <https://doi.org/10.24294/jipd.v8i7.5492>
- Rizal, F., Marwati, T. A., & Solikhah, S. (2021). Dimensi Kualitas Pelayanan Dan Dampaknya Terhadap Tingkat Kepuasan Pasien: Studi Di Unit Fisioterapi. *Jurnal Kesmas (Kesehatan Masyarakat) Khatulistiwa*, 8(2), 54-62.
- Sabilu, Y., & Binekada, I. M. C. (2024). Analisis Faktor yang Mempengaruhi Kepuasan Pelayanan Kesehatan: Metode Servqual di Puskesmas Wilayah Kerja Dinas Kesehatan Kota Kendari. *NeoRespublica: Jurnal Ilmu Pemerintahan*, 5(2), 790-806. <https://doi.org/10.52423/neores.v5i2.283>
- Tehranineshat, B., Naderi, Z., Momennasab, M., & Yektatalab, S. (2022). Assessing the expectations and perceptions of nursing students regarding the educational services in a school of nursing and midwifery based on the SERVQUAL and Kano Models: A Case Study. *Hospital Topics*, 100(1), 26-34. <https://doi.org/10.1080/00185868.2021.1913080>
- Tjiptono, F. (2019). Strategi Pemasaran Jasa: *Konsep dan Penerapan*. Yogyakarta: Andi Publisher.
- Tjiptono, F. (2022). Service Management: *Mewujudkan Layanan Prima* (4th ed.). Yogyakarta: Andi Publisher.
- Tjiptono, F. (2023). *Riset Pemasaran* (A. Diana, Ed.). Yogyakarta: Andi Publisher.
- Yao, H., Guo, P., Du, W., Zhang, Y., Li, T., & Xiao, G. (2024). Service demand analysis and optimization strategy construction of emergency observation patients based on the Kano model. *Heliyon*, 10(16). <https://doi.org/10.1016/j.heliyon.2024.e36323>
- Yuan, Y., Liu, Y., Gong, L., Chen, H., Zhang, S., Kitayama, A., ... & Liang, J. (2021). Demand analysis of telenursing for community-dwelling empty-nest elderly based on the Kano

model. *Telemedicine and e-Health*, 27(4), 414-421.
<https://doi.org/10.1089/tmj.2020.0037>

Zhang, M., Zhang, L., Zhi, X., Cheng, F., Yao, Y., Deng, R., ... & Wang, Y. (2024). Demand analysis of health care services for community-dwelling breast cancer survivors based on the Kano model: a cross-sectional study. *International Journal of Nursing Sciences*, 11(2), 171-178.
<https://doi.org/10.1016/j.ijnss.2024.03.015>

Khikmawati, E., & Wardana, M. W. (2020, January). Analisis Kualitas Pelayanan Rumah Sakit Bintang Amin Husada Bandar Lampung Dengan Menggunakan Metode KANO. In *Seminar Nasional Riset dan Inovasi Teknologi (SEMNAS RISTEK)* (Vol. 4, No. 1).
<https://doi.org/10.30998/semnasristek.v4i1.3673>