ANALYSIS OF HEALTH SERVICE QUALITY IN IMPROVING XYZ HOSPITAL SERVICES

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ABSTRACT

XYZ Hospital is a type c military hospital located in Surabaya and has the function of support and optimal health services for military personnel, military families, and the general public. In its implementation, there are several problems related to health services including a decrease in the number of patient visits, lack of human resources, and long patient service times. Therefore, it is necessary to analyze the quality of health services in improving XYZ hospital services. Service quality (Servqual) and Importance Performance Analysis (IPA) methods are used to measure the level of quality of health services provided to patient satisfaction. Based on the results of research from 99 respondents, it shows that from the 5 dimensions of Servqual, there are positive performance gaps, namely 3 attributes E1-X7, E4-X10, A3-X27, and negative values, namely 27 attributes R2-X20, R4-X22, RE1-X12, RE3-X14, R5-X23, A5-X60, A1-25, T4-X4, A2-X26, T1-X1, RE5-X16, R3-X21, RE7-X18, T5-X5, RE2-X13, T3-X3, E5-X11, R1-X19, R6-X24, T2-X2, A4-X28, T6-X6, RE6-X17, A6-X30, RE4-X15, E3-X9, and E2-X8. In IPA, Quadrant I has 10 attributes, namely T5-X5, RE1-X12, RE3-14, RE5-X16, RE7-X18, R4-X22, R5-X23, R2-X20, A1-X25, A5-X29 which are priority improvements health services, quadrant II 6 attributes that show maintain achievement, quadrant III 8 attributes are considered less important for patients but the services provided are too excessive.

Keywords: Quality of Health Services, SERVQUAL, IPA, XYZ Hospital.

1. INTRODUCTION

The hospital is one of the health service providers that continues to grow and the number is increasing every year. Based on data from the National Statistics Office (BPS), the number of hospitals in 2021 is 3112 units increasing by 5.17% from the previous year as many as 2,959 units. The number consists of 2514 general hospitals and 598 units are special hospitals. (Mahdi, 2022) . The tendency of the number of hospitals to increase from year to year shows that hospitals must be able to compete and win the competition. In addition, with the emergence of economic globalization and the era of change, it becomes a serious challenge for managers in hospital management. In this time of change, it is necessary to be careful with leaders so that they can adapt to developments while maintaining the continuity of the organization to survive.

In the era of opening up geographical boundaries, the obstacle is the emergence of new competitors, namely the creation of hospitals that are not only at the local or national level but also at the international level. Therefore, at this time hospitals that have been established and operating are expected to prepare themselves to advance their organizations, especially their resources and management systems, to be able to create quality hospital health services for their customers. The function of health services within the hospital itself has changed from what was once a social organization to a corporate organization that seeks profit (profitability) from the business it runs. This is because the hospital is complex. dense, capitalintensive, and technological organization, requires a fairly high cost to maintain this health effort.

The human resources that must be owned by hospitals are regulated by hospital accreditation, especially in determining the number and

specifications of staff and service support facilities that hospitals must have. Standardization of resources such as human resources, management standards, and technology is an important component to face competition and create hospitals with quality health services, which are indicators of improving the image and profitability of hospitals.

XYZ Hospital is a type c military hospital that has the function of carrying out optimal health support and services for military personnel, families, and the general public so that quality health services are needed. For this reason, it is necessary to involve patients as customers who feel the direct impact of the health services provided. The quality of health services is closely related to patient satisfaction which is a measure of the success of the quality of health services. (Pasalli' and Patattan, 2021). Efforts to improve the quality of health services can be carried out in different ways or methods. Among them are by using the Service Quality (Servqual) and Importance Performance Analysis (IPA) methods.

Previous research regarding measurement of service quality mostly uses the Servqual method, including the effect of service quality on customer satisfaction by using internet banking services in Jambi. This study examines the elements that affect the quality of internet banking services for customers, and finds that the quality of internet-based services significantly customer satisfaction (Assegaff, 2017), Next research uses the Servqual method and simple addictive weighting (SAW) on the implementation of the Servqual and SAW methods to analyze patient satisfaction based on the quality of outpatient poly services. The gap used is customer satisfaction. (Putro, 2017), Further research was conducted on measuring patient satisfaction, and health care services in the UAE (United Arab Emirates) hospitals using Servqual. This study evaluates the quality of health services by investigating the

factors that influence patient satisfaction in private and public hospitals in the UAE based on the five dimensions of service quality from Servqual (Al-Neyadi, Abdallah, and Malik, 2018). Next is service quality and satisfaction in the healthcare sector . of Pakistan-The patient's expectations examine the expectations of patients' satisfaction with health facilities in public hospitals which are higher than in private hospitals in Pakistan. (Al-Neyadi, Abdallah and Malik, 2018).

2. MATERIALS AND METHODS

Service Quality is generally grouped into five dimensions according to Parasuraman (Sinollah and Masruro, 2019). namely

- a. Tangible (physical evidence) Direct evidence includes appearance and facilities, buildings, equipment, and appearance of company employees. The company's physical appearance will affect the customer's evaluation of the quality of service provided by the company,
- b. Reliability (reliability), which shows how far the company provides the same service as promised accurately and precisely. This reliability is not only important for big problems because small problems are also important for customers in evaluating the company,
- c. Responsiveness shows the willingness and commitment of the company in providing timely services. Responsiveness is not only about the speed of service provided, but also the willingness of the company or employees to help customers., d. Assurance (belief) The ability to generate trust and confidence from customers which includes knowledge, courtesy, and the ability of employees to foster customer trust in the company, e. Empathy (empathy) The communication ability of employees to explain well about the services provided by the company will have a good impact on customer evaluations. Service Quality can be defined as the difference between customer expectations of

service before and after the service is provided (A. Parasuraman, Valarie A. Zeithaml, 1988). Service quality (Servqual) is a tool to measure service quality, which can be used to analyze the causes of service problems and understand how service quality can be improved. Measuring the quality of service is almost the same as measuring customer satisfaction, which is determined through the perceived performance variable by consumers.

Importance Performance Analysis is an analytical technique to identify performance factors. An organization must demonstrate the satisfaction of its service users (consumers). This method was originally used by Martilla and James in the field of market research and consumers, behavior, But in later developments, its use has been expanded to include research on hospital services, tourism, schools, and even analysis of public bureaucracy (government) performance. The IPA method (Importance Performance Analysis) is a framework for understanding customer satisfaction as a function of expectations (Importance or degree of importance) concerning an attribute and a customer rating of organizational performance (performance) as perceived by customers (Supranto, 2006).

The IPA method can provide managers in the service industry with important information in the form of measurement of customer satisfaction and efficient resource allocation. Both are in an easy-touse format. There are two approaches to this method, namely: 1) assessing the performance gap by calculating the difference between the performance score and the importance score; 2) identifying service attributes that arena priority to be improved and have an impact on increasing customer satisfaction by using a Cartesian diagram which is divided into four quadrants. The method (IPA) can categorize the attributes of products or services based on how well a product or service can measure the satisfaction performance that is considered important by the patient and the

satisfaction performance received by the patient (Hidayat, Wibowo and Wardana, 2021a). The steps in this research include.

2.1 Literature and Field Studies

At the library study stage and field study, researchers collect information and existing literature in the form of books, journals, laws or hospital websites, and profiles of XYZ Hospital that have a relationship with the topic problem to be raised in the research.

2.2 Problem Identification

The research begins with the identification of problems which are the activities that form the basis for carrying out the research. This activity is carried out to identify the main problems to be discussed and then proceed with the formulation of the problem. Identification of problems that occur in services in outpatient units, emergency units, and inpatient units to the expected patient satisfaction.

2. 3 Determination of Variables and Indicators

Determination of variables and indicators is carried out before making the questionnaire, to find out which factors must be studied. Determination of variables and indicators also makes it easier to analyze in a study. Where the operational definition of research variables and the measurement scale of expectations is the desire of the respondents about hospital services which can be known by a structured questionnaire. Meanwhile, operational definition of the research variable and the scale of measurement of reality is the actual condition of the hospital services received by the respondent, which can be determined using a structured questionnaire.

2.4 Determination of Population and Sampling Techniques

At this stage, the determination sample is to be selected from the population of patients who seek treatment or receive services at XYZ Hospital in all service units to represent the population. for the selected sample to be representative, the number of samples is determined according to the solving formula.

$$n = \frac{N}{1 + Ne^2} \qquad 1)$$

Information:

n = sample size

N = population size

e = margin of error or maximum error tolerated (0.05)

To determine the number of samples in the population, the researchers took data from the last 4 years on the number of patient visits per day at the hospital from 2018 to 2021.

$$n = \frac{123}{1+123.(0.05)^2} = 123/1.30755 = 94.07$$
 rounded

up by 94 samples. To anticipate the occurrence of errors in the research questionnaire, the target respondent was raised to 99 people.

2.5 Preparation and Distribution of Questionnaires

The preparation and distribution of questionnaires concerning the 5 dimensions in the servqual method, namely Tangible, Reliability, Responsiveness, Assurance, and Empathy are also used as variables determining indicators to be studied. Respondents were directed to answer all questions well through an assessment of the answers.

2.6 Data Collection and Processing Phase.

The stages of data collection and processing include:

2.6.1 Validity Test

A validity test is used to determine whether a questionnaire is valid or not. A questionnaire is considered valid if the questions in the questionnaire can say something that is measured

by the questionnaire. The questionnaire test (validity and reliability) was carried out in two stages. Stage 1 for 30 respondents is a preliminary survey that has similar characteristics to the research subject. Sampling to test the validity of this research instrument is based on the opinion (Singarimbun, M., & Shofian, 1995) that the minimum number of test samples is 30 respondents and the questionnaire can be said to be valid if r count > r table. To determine the r table based on the number of respondents, in this case, 30 respondents, look at the critical number in line N-2, which is 30-2 = 28 with a significant level of 5%, the critical number obtained in the two-way r table is 0.361. Stage 2 is an advanced stage in the validity and reliability test for 99 respondents to be studied. To test the validity of the extended questionnaire with the number of respondents 99 people, the critical number r table is obtained by looking at rows N-2. With 99 respondents, the line seen is line 99-2 = 97 . with a significant level of 5%, the critical number obtained in the two-way r table is 0.1975, so it is said to be valid if the r count ≥is 0.1975. This study used Bivariate Pearson (Product Correlation Pearson Moment). This analysis is done by correlating each item's score with the total score. The total score is the sum of all items. Question items that have a significant correlation with the total score. Data processing using IBM SPSS Statistics 25 software.

The correlation formula is as follows:

$$\underline{r_{xy}} = \frac{N\Sigma xy_{-(\Sigma x)}(\Sigma y)}{\sqrt{(N\Sigma x^2 - (\Sigma x)^2 (N\Sigma y^2 - (\Sigma y)^2)^2}}$$
 2)

Information

 ${
m r}_{xy}~=$ Correlation coefficient between variable X and variable Y

 Σxy = The number of multiplications between the variables x and Y

 $\sum x^2$ = The sum of the squares of the X . values

 $\sum y^2$ = The sum of the squares of Y . values

$$(\Sigma_X)^2 =$$

The sum of the values of X is then squared

 $(\sum y)^2$ = The sum of the Y values is then squared Statistically, the correlation number obtained must be compared with the critical number of the correlation table value of r.

2.6.2 Reliability Test

The instrument reliability test was conducted to determine the reliability of the measuring instrument used. In quantitative terms, data is declared reliable if two or more researchers in the same object produce the same data, or a group of data when split into two shows data that are not different. (Sugiyono, 2014) . The reliability test in this study used Cronbach's Alpha Coefficient method. This coefficient is the reliability coefficient that is most often used because this coefficient describes the variation of the item, either for true or false or not format, such as formal on a Likert scale. The formula is as follows:

$$rtt = \left\lfloor \frac{k}{k-1} \right\rfloor \left\lfloor \frac{1 - \sum \sigma b^2}{\sigma t^2} \right\rfloor$$
 Information :

rtt = instrument reliability coefficient (total test)

k = number of questions

 $\sum \sigma b2$ = number of item variants

 $\sigma t2 = total variance$

Cronbach alpha scale 0 to 1, has the following meaning:

- a. Cronbach's alpha value is 0.00 to 0.20, meaning less reliable
- b. Cronbach's alpha value of 0.21 to 0.40, meaning somewhat reliable
- c. Cronbach's alpha value is 0.41 to 0.60, meaning it is quite reliable
- d. Cronbach's alpha value 0.61 to 0.80, means reliable
- e. Cronbach's alpha value is 0.81 to 1.00, which means very reliable

From the scale above it can be concluded that where the results of Cronbach's Alpha calculations are then consulted with the provision that a variable is said to be reliable if it gives Cronbach's Alpha value > 0.60.

2.7 Processing Method Servqual.

After obtaining the necessary research data and passing the validity and reliability tests based on five dimensions, data analysis of the gap between expectations and perceptions was carried out by looking for the gap value. By calculating the Servqual score, the calculation results obtained can be used as a reference for the occurrence of gaps between gaps. In analyzing the servqual method, the following steps can be carried out (Irawan et al., 2020):

Finding the reality score of each Xi variable and the expected score of the Yi variable. Summing up the score of expectation (Yi) and reality (Yi), from each variable of all respondents, then calculate the average \overline{X} and \overline{Y}

$$\overline{X} = \frac{\sum Xi}{n}$$

$$\overline{Y} = \frac{\sum Yi}{n}$$
Where : 5)

 \overline{X} = Average score of reality level

 \overline{Y} = Average score of expectation level

n= Number of respondents

Calculating the gap (gap) between the average score of reality with the average score of expectations.

$$Nsi = \overline{X}i - \overline{Y}i$$
 6)

Where:

Nsi = The average score of the variable gap to -i Calculate the average gap of each variable

$$\overline{\text{NS}}\text{i} = \frac{\sum \text{NSi}}{\text{Ai}}$$
 7)

Where

 $\overline{\text{NS}}$ i= The average value of the i variable gap

Ai = Number of attributes for each variable i

The conclusion of the calculation of the satisfaction score for each dimension with the following conditions:

- a. A negative servqual score (<0) indicates a gap between reality and customer expectations, it is said to be "Unsatisfied".
- b. A servqual score greater than or equal to zero (>=0), indicating the fact that it has met or exceeded customer expectations, is said to be "Satisfied".

2.8 Processing Method IPA

Importance-Performance Analysis (IPA) is used to determine the level of service provided by the hospital and the improvements that the hospital needs to make to improve the quality of its services. The analysis consists of two components, namely the level of conformity analysis and quadrant analysis. The calculation of the level of conformity between the level of expectation and the level of performance is by the formula (Wibisono, 2019):

For information:

 \overline{X} , \overline{y} = The average score of the level of satisfaction (X) and the level of importance (Y) for an attribute

 \sum Xi, \sum Yi: Total score of satisfaction level assessment (X) and importance level (Y) for attribute i

n: Number of respondents

3. RESULTS AND DISCUSSION

3.1 Questionnaire Creation

The making of the questionnaire is based on previous studies on measuring service quality using the servqual method and the results of consultations with the management of the hospital as well as the results of interviews with patients as respondents so that 30 measurement indicators are obtained in servqual Servqual Five Dimensions Questionnaire

Table 1. Variable Dimensions of Servqual

Servqual Dimension	Attribute	Questions in the Questionnaire
Tangibles	T1-X1	The Attractive appearance of medical/non-medical staff
(physical evidence)	T2-X2	The patient waiting room in the hospital is comfortable and clean
	T3-X3	The hospital has facilities for washing hands, water with soap, and hand sanitizer in every room
	T4-X4	The hospital has enough health experts
	T5-X5	There is a suggestion box and stationery to accommodate suggestions from patients and families
	T6-X6	Bathroom cleanliness and toilets are well maintained
Empathy	E1-X7	patient's an illness and can provide a way out
(empathy)	E2-X8	Nurses in serving are polite and friendly
	E3-X9	The comfort of the patient during the examination is very much considered by doctors and nurses
	E4-X10	Doctors and nurses provide encouragement and motivation to patients
	E5-X11	certain social status/class of patients
Reliability	RE1-X12	Doctor arrival and medical action according to schedule
(Reliability)	RE2-X13	Fast and appropriate nurse response for patients
	RE3-X14	Experienced medical personnel in providing health services
	RE4-X15	Provide visiting time for the patient's family according to the schedule
	RE5-X16	Doctors can diagnose diseases accurately
	RE6-X17	Issuance of billing receipts accurately and professionally
	RE7-X18	Easy service procedures and referral system.
Responsiveness (Responsiveness)	R1-X19	The counter clerk answers the patient when it is difficult to understand the treatment procedure

Servqual Dimension	Attribute	Questions in the Questionnaire
	R2-X20	Patient registration can be done online
	R3-X21	Hospital staff notify about when services will be provided
	R4-X22	Patient waiting time for outpatient services is less than 60 minutes.
	R5-X23	There is a complaint center or customer service that is always ready to serve which can be contacted by the complaints department or via telephone.
	R6-X24	The hospital pharmacy staff explained the dosage and the rules for taking medication.
Assurance	A1-X25	Medical treatment by doctors according to patient complaints
	A2-X26	The hospital always maintains the sterilization of health service facilities (Cleanliness of medical equipment)
	A3-X27	Guarantee that the confidentiality of patient information (social identity and condition) patient) can be well awake
	A4-X28	Medical staff can foster a sense of trust in patients
	A5-X29	Hospital pharmacies have a stock of drugs that patients need.
	A6-X30	Parking attendants have responsibility for vehicles that are guarded by leaving the parking area.

3.2 Stage 1. Test the Validity and Reliability of the Questionnaire for 30 respondents

Carry out instrument testing in the form of questionnaires to 30 people for validity and ensure reliability testing and respondents understand the intent of the questions in the questionnaire. questions, while for the reliable level, if the questionnaire is found to be unreliable, it is done by adding or subtracting respondents and it can also be done to replace respondents because it is possible that respondents do not understand the questions in the questionnaire. Furthermore, if all the variables in the questionnaire are declared valid and reliable, the questionnaire will be distributed to 99 respondents who are the research sample, in this case, patients who receive treatment (Source : Research data processing, 2022)

at the hospital. Questionnaires were distributed to 33 outpatients, 33 ER patients, and 33 inpatients. The selection of respondents to fill out the questionnaire was based on various considerations ranging from education level, occupation, having been treated in other hospitals which were benchmarks, and seeking treatment at XYZ Hospital so that they could compare the quality of the types of health services provided, other considerations regarding selection the respondents including patients who had already been treated. aged 17 years and over who understand and understand the mastery of research themes and so on.

servqual validity and reliability test for 30 respondents at the level of expectation and level of perception.

Table 2. Validity Test Processing Results

Variable	Expectancy Level			Interpretation
	r Count	r Count		
T1-X1	0.369	0.642	0.361	"Valid"
T2-X2	.662	.567	.361	"Valid"
T3-X3	.499	.722	.361	"Valid"
T4-X4	.510	.683	.361	"Valid"
T5-X5	.600	.595	.361	"Valid"

Variable	Expectancy Level	Perception Level	r table	Interpretation
_	r Count	r Count		
T6-X6	.422	.667	.361	"Valid"
E1-X7	.715	.591	.361	"Valid"
E2-X8	.381	.691	.361	"Valid"
E3-X9	.464	.493	.361	"Valid"
E4-X10	.690	.725	.361	"Valid"
E5-X11	.565	.698	.361	"Valid"
RE1-X12	.395	.524	.361	"Valid"
RE2-X13	.703	.592	.361	"Valid"
RE3-X14	.467	.602	.361	"Valid"
RE4-X15	.532	.673	.361	"Valid"
RE5-X16	.571	.492	.361	"Valid"
RE6-X17	.406	.616	.361	"Valid"
RE7-X18	.622	.674	.361	"Valid"
R1-X19	.647	.599	.361	"Valid"
R2-X20	.478	.643	.361	"Valid"
R3-X21	.475	.539	.361	"Valid"
R4-X22	.525	.608	.361	"Valid"
R5-X23	.415	.515	.361	"Valid"
R6-X24	.596	.578	.361	"Valid"
A1-X25	.859	.595	.361	"Valid"
A2-X26	.565	.594	.361	"Valid"
A3-X27	.680	.713	.361	"Valid"
A4-X28	.586	.567	.361	"Valid"
A5-X29	.477	.482	.361	"Valid"
A6-X30	.556	.606	.361	"Valid"

(Source: Research data processing, 2022)

The test results using IBM SPSS statistics 25 show the level of expectation and perception level table for the value of r count \geq r table so that the variables of the questionnaire can be validated. Furthermore, a reliable check was carried out for the questionnaire variables for 30 respondents at the level of expectation and level of perception. Cronbach's Alpha results show that the expectation level is $0.915 \geq 0.60$ and the perception level is $0.940 \geq 0.60$. This means that the variables on the questionnaire are very reliable

Table 3. Reliability Statistics Expectation Level

Reliability Statistics					
Cronbach's Alpha N of Items					
.915	30				

 Table 4. Reliability Statistics Perception Level

Reliability Statistics					
Cronbach's Alpha N of Items					
.940	30				

3.3 Stage 2 Validity and Reliability Test for 99 respondents

Phase 2 was carried out after the validity and reliability tests for 30 respondents were completed. Furthermore, validity and reliability tests were

carried out for 99 respondents. The results of the validity and reliability of the questionnaire on the expectation and perception level for 99 respondents were obtained as follows:

Table 5. Results of Validity Test Processing

Variable	Perception	Норе	r table	Interpretation
	r Count	r Count		
T1-X1	0.609	0.368	0.1755	Valid
T2-X2	0.440	0.346	0.1755	Valid
T3-X3	0.374	0.619	0.1755	Valid
T4-X4	0.625	0.203	0.1755	Valid
T5-X5	0.383	0.267	0.1755	Valid
T6-X6	0.387	0.417	0.1755	Valid
E1-X7	0.424	0.388	0.1755	Valid
E2-X8	0.649	0.296	0.1755	Valid
E3-X9	0.523	0.204	0.1755	Valid
E4-X10	0.276	0.233	0.1755	Valid
E5-X11	0.325	0.604	0.1755	Valid
RE1-X12	0.597	0.320	0.1755	Valid
RE2-X13	0.253	0.410	0.1755	Valid
RE3-X14	0.564	0.250	0.1755	Valid
RE4-X15	0.396	0.362	0.1755	Valid
RE5-X16	0.557	0.239	0.1755	Valid
RE6-X17	0.507	0.329	0.1755	Valid
RE7-X18	0.488	0.614	0.1755	Valid
R1-X19	0.558	0.679	0.1755	Valid
R2-X20	0.560	0.263	0.1755	Valid
R3-X21	0.435	0.498	0.1755	Valid
R4-X22	0.380	0.258	0.1755	Valid
R5-X23	0.518	0.261	0.1755	Valid
R6-X24	0.339	0.551	0.1755	Valid
A1-X25	0.637	0.288	0.1755	Valid
A2-X26	0.565	0.381	0.1755	Valid
A3-X27	0.357	0.584	0.1755	Valid
A4-X28	0.581	0.602	0.1755	Valid
A5-X29	0.490	0.262	0.1755	Valid
A6-X30	0.387	0.307	0.1755	Valid

(Source: Research data processing, 2022)

Table 6. Reliability Statistics Perception

Reliability Statistics
ronbach's Alpha N of Items
.802 30

The table above shows the calculated r-value at the level of perception and expectation shows the calculated r-value \geq r table so that these variables are declared valid. Furthermore, for reliable variables at the level of perception, Cronbach's alpha value is $0.877 \geq 0.60$, and Cronbach's alpha value for the Expectancy level was $0.802 \geq 0.60$ so the variables at the level of perception and expectation could be assessed as very reliable.

Table 7. Expected Reliability Statistics

3.4. Distribution of Respondent's

Reliability Statistics					
Cronbach's Alpha	N of Items				
Alpha	IN OFFICEITIS				
.877	30				

Characteristics

The characteristics of respondents who receive health services at hospitals are divided into several sections, namely based on age group, gender, type of work, level of education, income, treatment, reasons for choosing, and length of stay in the hospital. Distribution of Research Respondents Characteristics as follows:

Table 8. Distribution of Respondent's Characteristics

No	Patient Characteristics	Amount	Percentage
1	Age	99	100%
	17- 24 years old	12	12%
	25-34 years old	31	31%
	35-49 years old	47	47%
	50-64 years old	7	7%
	65 years and over	2	2%
2	Gender	99	100%
	Man	61	62%
	Woman	38	38%
3	Type of work	99	100%
	Student/Student	2	2%
	Government employees	19	19%
	Private employees	8	8%
	Housewife	28	28%
	Military	35	35%
	Etc	7	7%
4	Level of education	99	100%
	JUNIOR HIGH SCHOOL	3	3%
	SENIOR HIGH SCHOOL	65	66%
	College	31	31%

3.5 Processing Method Servqual

Research data that comes from questionnaires that have been distributed to 99

(Source: Research data processing, 2022) respondents and have been tested for validity and reliability using the help of IBM SPSS 25 software, then data processing is carried out using the

Servqual method, namely processing gap data, to find the value of the gap between expectations and customer perceptions. or patients about services that have been felt and have also received health services at other hospitals as a benchmark. The

comparison between expectations and the reality of service quality, according to the 5 dimensions/ variables in the Service Quality method that has been distributed through the questions in the questionnaire is as follows:

Table 9. Gap performance Servqual

Variabl	е	Health services	Perception	Hope	gap	Rating
Tangible	T1-X1	The attractive appearance of medical/non-medical staff	2.63	4.37	-1.75	10
	T2-X2	The patient waiting room in the hospital is comfortable and clean	1.89	2.68	-0.79	20
	T3-X3	The hospital has facilities for washing hands, water with soap, and hand sanitizer in every room	2.40	3.60	-1.19	16
	T4-X4	The hospital has enough health experts	2.66	4.51	-1.85	8
	T5-X5	There is a suggestion box and stationery to accommodate suggestions from patients and families	2.32	3.75	-1.42	14
	T6-X6	The cleanliness of the bathroom and toilet are well maintained	2.67	3.43	-0.77	22
Empathy	E1-X7	The doctor listens to complaints about the patient's illness and can provide a way out	4.03	3.40	0.63	29
	E2-X8	Nurses in serving are polite and friendly	2.68	2.91	-0.23	27
	E3-X9	The comfort of the patient during the examination is very concern to doctors and nurses	2.31	2.70	-0.38	26
	E4- X10	Doctors and nurses give encouragement and motivation to patients	3.54	2.66	0.88	30
	E5- X11	There is no discrimination of certain social status/class of patients	2.22	3.41	-1.19	17

Variabl	е	Health services	Perception	Hope	gap	Rating
Reliability	RE1- X12	Doctor arrival and medical action according to schedule	2.08	4.64	-2.56	3
	RE2- X13	Fast and appropriate nurse response for patients	2.26	3.54	-1.27	15
	RE3- X14	Experienced medical personnel in providing health services	2.30	4.62	-2.31	4
	RE4- X15	Provide visiting time for the patient's family according to the schedule	3.97	4.52	-0.55	25
	RE5- X16	Doctors can diagnose diseases accurately	2.26	3.90	-1.64	11
	RE6- X17	Issuance of billing receipts accurately and professionally	1.96	2.64	-0.68	23
	RE7- X18	Easy service procedures and referral system.	2.19	3.73	-1.54	13
Responsive ness	R1- X19	The counter clerk answers the patient when it is difficult to understand the treatment procedure	2.58	3.69	-1.11	18
	R2- X20	Patient registration can be done online	2.11	4.83	-2.72	1
	R3- X21	Hospital staff notify about when services will be provided	1.97	3.58	-1.61	12
	R4- X22	Patient waiting time for outpatient services is less than 60 minutes.	2.07	4.65	-2.58	2
	R5- X23	There is a complaint center or customer service that is always ready to serve which can be contacted by the complaints department or via telephone.	1.99	3.89	-1.90	5
	R6- X24	The hospital pharmacy staff explained the dosage and the rules for taking medication.	2.28	3.28	-1.00	19
Assurance	A1-25	Medical treatment by doctors according to patient complaints	2.23	4.10	-1.87	7

Variable		Health services	Perception	Hope	gap	Rating
	A2- X26	The hospital always maintains the sterilization of health service facilities (Cleanliness of medical equipment)	2.68	4.53	-1.85	9
	A3- X27	Guarantee that the confidentiality of patient information (social identity and patient condition) can be maintained properly	3.89	3.53	0.36	28
	A4- X28	Medical staff can foster a sense of trust in patients	2.61	3.39	-0.79	21
	A5- X29	Hospital pharmacies have a stock of drugs that patients need.	2.15	4.03	-1.88	6
	A6- X30	Parking attendants have responsibility for vehicles that are guarded by leaving the parking area.	3.87	4.47	-0.61	24

In Table 9. it can be seen that of the 30 variables 3 variables have positive values, namely the Empathy E1-X7 attribute (Doctors listen to complaints about the patient's illness and can provide solutions), E4-x10 attributes (Doctors and nurses provide enthusiasm and motivation to the patient) and the Assurance attribute A3-x27 (Assurance that the confidentiality of patient information / social identity and patient's condition can be maintained properly) this indicates that the reality has met or exceeded customer expectations, is said to be "Satisfied". While the other 27 attributes are negative, this indicates that XYZ Hospital has not been able to fulfill the wishes of consumers/patients because consumers are still dissatisfied with these health services including attributes R2-X20, R4-X22, RE1-X12, RE3-X14, R5-X23, A5-X60, A1-25, T4-X4, A2-X26, T1-X1,

(Source : Research data processing, 2022)

Re5-X16, R3-X21, RE7-X18, T5-X5, RE2-X13, T3-X3, E5- X11, R1-X19, R6-X24, T2-X2, A4-X28, T6-X6, RE6-X17, A6-X30, RE4-X15, E3-X9, and E2-X8. The three biggest negative gaps, namely the responsiveness dimension R2-X20 (patient registration can be done online). R4-X22 (Patient waiting time to get outpatient services is less than 60 minutes) and RE1-X12 (Doctor arrival and medical action according to schedule)

3.6. Processing Method IPA (Importance Performance Analysis)

Data processing using the IPA method is carried out by analyzing the level of suitability and quadrant analysis. The Compliance analysis level is the result of the comparison of perceived satisfaction or reality score with the expectation or interest score so that the results of the calculation of conformity are obtained

Service Variables	Satisfactio n Rating (perceptio n) (x)	Interest Assessment (Hope) (y)	Average Satisfactio n (perception)	Average Interest (Expectation) y	Conformity Level (Tki)
T1-X1	260	433	X 4.37	2.63	60%
T2-X2	188	265	2.68	1.89	71%
T3-X3	240	356	3.60	2.40	67%
T4-X4	263	446	4.51	2.66	59%
T5-X5	229	371	3.75	2.32	62%
T6-X6	266	340	3.43	2.67	78%
E1-X7	398	337	3.40	4.03	118%
E2-X8	265	288	2.91	2.68	92%
E3-X9	231	267	2.70	2.31	87%
E4-X10	351	263	2.66	3.54	133%
E5-X11	222	338	3.41	2.22	66%
RE1-X12	208	459	4.64	2.08	45%
RE2-X13	226	350	3.54	2.26	65%
RE3-X14	228	457	4.62	2.30	50%
RE4-X15	393	447	4.52	3.97	88%
RE5-X16	225	386	3.90	2.26	58%
RE6-X17	196	261	2.64	1.96	75%
RE7-X18	216	369	3.73	2.19	59%
R1-X19	256	365	3.69	2.58	70%
R2-X20	210	478	4.83	2.11	44%
R3-X21	195	354	3.58	1.97	55%
R4-X22	207	460	4.65	2.07	45%
R5-X23	199	385	3.89	1.99	52%
R6-X24	226	325	3.28	2.28	70%
A1-25	220	406	4.10	2.23	54%
A2-X26	265	448	4.53	2.68	59%
A3-X27	386	349	3.53	3.89	111%
A4-X28	259	336	3.39	2.61	77%
A5-X29	213	399	4.03	2.15	53%
A6-X30	382	443	4.47	3.87	86%
	7623	11181			68%

Based on table 3.10 above, it is obtained for the Total Conformity Level (Total TKI) between reality and expectations

$$TKi = \frac{^{7623}}{_{11181}}X100\% = 68\%$$

Overall Assessment Criteria:

0.81 - 1.00 (Very Good)

0.66 - 0.80 (Good)

0.51 - 0.65 (Pretty Good)

0.35 - 0.50 (Not Good)

(Source : Research data processing, 2022)

0.00 - 0.34 (Very Bad)

So for the level of suitability Based on the results of calculations between the level of reality and the level of expectation of the quality of the attributes studied through a comparison of the actual score to the expected score, the overall performance of service quality is in a Good category, namely 68%

The results of the average score of the reality level (satisfaction) with expectation level (interest) obtained a value that becomes the level of satisfaction and level of expectation on the importance matrix Performance. The point of intersection results from the mean value of the plane of expectation (y) and reality (x) so that it can

be seen the relative importance or perception of various attributes on the satisfaction or expectations of hospital customers/patients. Making a Cartesian diagram using the help of IBM Spss Statistics 25 software. The following shows a Cartesian diagram for each servqual dimension.

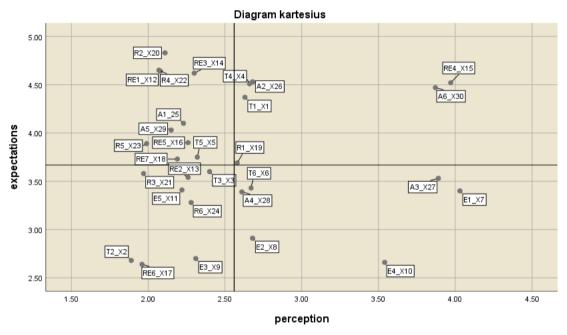


Figure 1. Cartesian diagram

(Source: Research data processing, 2022)

Based on the result visualization of the Cartesian diagram, quadrant I is obtained, namely 10 attributes including T5-X5, RE1-X12, RE3-14, RE5-X16, RE7-X18, R4-X22, R5-X23, R2-X20, A1-X25, A5- X29. This means that these attributes according to the patient are considered very important but in reality or reality, they are not in line with expectations. For this reason, the quality of this attribute needs to be improved. While the attributes T1-X1, T4-X4, RE4-X15, R1-X19, A2-X26, and A6-X30, are in quadrant II (6 attributes), this indicates that these attributes are following the expectations of the patient so they need to be maintained. In quadrant III there are 8 Attributes, namely T2-X2, T3-X3, E3-X9, E5-X11, RE2-X13, RE6-X17, R3-X21, R6-X17, R3-X21, R6-X24 which indicate the item considered less important to the patient and the services provided are considered ordinary. For the attributes in quadrant IV, there are 6 attributes, namely T6-V6, E1-X7, E2-X8, E4-X10, A3-X27, and A4-X28. this means the item is considered less important to the patient but the services provided are too excessive.

4. Conclusion

Based on the results of data processing that has been carried out by researchers, it can be concluded that The quality of the health services of Hospital XYZ is rated as good, but there are some things to consider, including:

- a. The results of the Servqual Method analysis were obtained from 30 attributes that were judged to have 3 positive values, namely the Dimension Assurance attribute A3-X27 (Guarantee that the confidentiality of patient information (social identity and patient condition) can be maintained properly), Empathy attributes E1-X7 (Doctors listen to complaints about the disease suffered by the patient and can provide a way out) and E4-X10 (Doctors and nurses provide enthusiasm and motivation to patients) while the other 27 attributes are negative. The three attributes with the highest negative value are: the dimensions of responsiveness R1-X20 (patient registration can be done online), R4-X22 (patient waiting time to get outpatient services is less than 60 minutes), and Reliability on the RE1-X12 attribute (Doctor arrival and medical action according to schedule)
- b. The results of the analysis using the IPA method obtained 10 attributes that exist in quadrant I which are priorities that must be repaired immediately on the Tangible dimensions T5-X5, Reliability RE1-X12, RE3-14, RE5-X16, RE7-X18, Responsiveness R4-X22, R5-X23, R2-X20, and Assurance A1-X25, A5-X29.

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DEVELOPMENT STRATEGY FOR KODIKLATAL ADMINISTRATIVE ASSISTANCE EDUCATION CENTERS TO IMPROVE THE QUALITY OF EDUCATIONAL RESULTS

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ABSTRACT

The Indonesian National Armed Forces as the front line of national defense must implement policies that are in line with those conveyed by emphasizing on the ranks in order to carry out appropriate budgetary activities, especially those that are right on target for predetermined uses. The use of the budget must optimize the control side of activities, the fulfillment of the procurement of goods and services as well as the maintenance of defense equipment and the fulfillment of targeted supplies, as well as personnel management and updating of educational institutions. The Center for Administrative Assistance Education, Kodiklatal is an instructive institution for the Naval force which is the center for authoritative help instruction and has an imperative part in regulatory help instruction. The reason of this consider was to decide elective techniques for creating authoritative help instruction centers in arrange to move forward the quality of prepared warriors utilizing the SWOT strategy. The comes about of the distinguishing proof are 15 (fifteen) inner variables with 8 (eight) quality variables and 7 (seven) shortcoming variables, and 15 (fifteen) outside components with 8 (eight) opportunity components and 7 (seven) risk components. By weighting all factors, the chosen methodology may be a strength-threat procedure which suggests maximizing the change of debilitating variables by utilizing qualities within the frame of concentric expansion, with 5 (five) ST methodologies produced.

Keywords: SWOT, education, administrative assistance

1. INTRODUCTION

The Navy is a system formed from subsystems that must be maintained in readiness with the right coaching method so that it can be used in various operations (Marsetio, 2014). Various threats that occur in the world today require the TNI, especially the Navy, to be ready in all parts, to administrative and logistical assistance in various conditions, to carry out all forms of operations, to protracted war situations such as the example currently happening in various countries. countries in the world. In addition, the Covid-19 virus pandemic, which has even developed in various variants and has been felt by all countries in the world, has become a scourge for all elements of society, including the TNI, which is actually required to participate actively in supporting the government to prevent the transmission of the epidemic. the. The competence of all TNI soldiers at all strata is very much needed, to master and be ready from the

start to enter the field of duty, according to their respective expertise in all units. This is largely determined by the education process and intense training undertaken by each TNI personnel in their respective fields from all educational strata.

In the Navy Leadership Meeting held in March 2022, the Chief of Staff of the Navy conveyed the importance of evaluating the work program of the previous years as a joint evaluation and introspection to improve the performance of the Navy. As the front line, the TNI as the front line of national defense must implement policies that are in line with those conveyed by the President, the Minister of Defense, and the Commander of the TNI, with emphasis on the ranks in order to carry out appropriate budgetary activities, especially on target for predetermined uses. The use of the budget must optimize the control side of activities, the fulfillment of the procurement of goods and services as well as the maintenance of defense

equipment and the fulfillment of targeted supplies, as well as personnel management and updating of educational institutions.

Referring to the policy points of the leadership above, Command for Education and Training Doctrine of the Navy as a place of education for Indonesian navy soldiers, has one educational center, Administrative Assistance Education Center, which is located directly under the General Support Education Command, as an institutional unit, education that carries out the educational function of administrative assistance, with the task of coordinating, supervising, and controlling the schools under it, as well as fostering strength including its organic supporting facilities and infrastructure. As it were so distant, the concept of considering that has been connected until presently is still restricted to the application of financial variables and the viability of how in carrying out each operation one can get ready each movement at the least taken a toll as required, solid, and with adequate supplies, as well as with upkeep and other needs. as characterized prerequisites, how and when to move assets to where they are required, as well as supply chain administration amid operations managing with certain factors to anticipate costs, quality debasement, utilization, and ensuing request. However, the things mentioned above have not been followed by the development of the developing situation, for example, where the development of various software for the latest financial administration and supply administration activities in the government environment, where the TNI as one of the implementing elements of the State Revenue and Expenditure Budget must be able to follow and implement it. Then, the development of treasury science to internal supervision of institutions, Administrative Assistance Education Center still does not have certified educators and fully masters the field, causing the knowledge provided is still not in accordance with current developments, which results in many being found in the field of soldiers resulting from Administrative Assistance Education Center students who have just been assigned, must learn from the beginning again to be able to understand, follow and carry out their duties and responsibilities in financial and supply administration properly in their respective units.

From the three schools, each school has a different duration of time for each educational program. And the current conditions of Administrative Assistance Education Center related to the 10 components of education in accordance with the 2021 Administrative Assistance Education Center Development Report include:

- a. The current education curriculum in the Administrative Assistance Education Center ranks, for example in the lessons of the treasury management system which still does not refer to current developments, so it is necessary to improve the curriculum according to the demands of the posture and criteria for the latest treasury administration system personnel.
- b. Instruction packages to support students in teaching and learning activities are still lacking and there are still instruction packages that are invalid/not in accordance with the latest developments, for example in the development of the latest treasury system.
- c. There is still a lack of qualified educators to educate students in Administrative Assistance Education Center, especially to teach material on financial administration and supply management.
- d. There are still many Education Personnel in the ranks of Administrative Assistance Education Center, especially for several positions in organizational staff and schools, as well as the lack of qualified personnel to guide students in the Administrative Assistance Education Center environment.

- e. There are still students who do not master the required field of work when they are involved in the assignment.
- f. Shortage of instructional instruments and instructional assists including computers that support the latest treasury system.
- g. Teaching methods at Administrative Assistance Education Center have not utilized E-Learning technology which is one of the needs that must be mastered well by personnel involved in educational institutions faced with current technological advances.
- h. Evaluation of learning outcomes that still have indications that are not balanced and real with the reality on the ground.
- i. Some classroom buildings and accommodation mess buildings are old buildings and need renovation.
- j. The budget for needs is not in accordance with the operational needs of education.

Given the importance of the Navy's readiness to carry out tasks according to the constitution and the development of the situation above, faced with various problems with the conditions of the Administrative Assistance Education Center, it is deemed necessary to carry out research on the strategy for developing the Administrative Education Center Assistance (Administrative Assistance Education Center) in the provision of education which refers to 10 (ten) components of education, in order to improve the quality of students who are superior and professional, in dealing with the problems above, as well as the challenges and threats faced today. The target of this research is to find a development strategy in the implementation of education in Administrative Assistance Education Center which still refers to the parameters of the 10 (ten) components of education, in dealing with the various problems above, as well as to improve the quality of the trained soldiers who are ready to face the

challenges and threats that will be faced. since entering the field of their respective assignments. With the priority of research that everything that will be carried out in this study aims to make Administrative Assistance Education Center able to fix all parts of the process of providing education in a proportional and sustainable manner, so that it is hoped that Administrative Assistance Education Center will be able to improve the quality of its students in their respective fields, especially in facing the current developments.

There are several steps used in formulating a development strategy to improve the quality, capability and effectiveness of the implementation of the main tasks of Administrative Assistance Education Center in improving the quality of the trained soldiers. It begins with system thinking to analyze in general all stakeholders involved in the education implementation process at Administrative Assistance Education Center from the highest level to the lowest level, so that it can be clearly illustrated how to determine the steps to be taken in responding to the problems that occur. After analyzing the relevant stakeholder system, then determining the right strategy using the SWOT Weaknesses, Opportunities (Strengths, Threats) analysis method, where the priority of this method is to obtain conceptual policy strategies that best.

The objectives to be achieved in this study are to identify external and internal factors to find the development strategy of Administrative Assistance Education Center to answer the problems that occur referring to 10 (ten) education components, then determine the priority of the Administrative Assistance Education Center development strategy in order to determine the best preferential strategy.

2. MATERIALS AND METHODOLOGY

2.1. Systems Analysis Theory

Concurring to Satzinger (2012), frameworks examination is an action that permits one to recognize and indicate what the unused framework ought to accomplish. Frameworks investigation is more than fair a brief explanation of the issue. For illustration, the administration must be able to track clients, enroll items, screen guarantee, and track levels of benefit and other capacities. System analysis explains in detail what the system must achieve according to the needs and how to solve a problem. There are 5 activities in conducting system analysis:

- a. Gather detailed information, system analysis obtains information from people who will use the system, information is obtained either through interviews or seeing how it works.
- b. Define requirements, analysts use the combination of information from implementing activities and documents to determine the latest system requirements.
- c. Prioritize requirements, after all needs are met, it is important to determine which needs are the most important for implementing activities.
- d. Develop user interface dialogs, by developing a new system to replace the old system, it is important to make the implementer of activities responsive to the new appearance of a system.
- e. Evaluate requirements with users, it is important to evaluate the new system with the implementing activities and document everything for the sake of developing a good system in the future. In this study, the author will conduct a system analysis of stakeholders involved in the implementation of education at Administrative Assistance Education Center, Kodiklatal Surabaya, in order to clearly determine strategies to answer the problems that exist in this study.

2.2. Stakeholder Theory

Stakeholders or also called stakeholders are

parties who can influence or receive the impact of the decisions taken (Freeman, 1984). Another meaning of partners is as a community, both exclusively and in bunches, who have authenticity, control, and intrigued within the victory of the company (Chandra, Indarto, Wiguna, & Kaming, 2011). In other words, partners have an enormous part and impact on the maintainability of the company. In this study, referring to various references to work instructions and rules as well as the results of interviews with officials and staff at Administrative Assistance Education Center, a scheme for the stakeholders/stakeholders from the implementation of the entire education program at Administrative Assistance Education Center can be made, as follows

 a. The top command in this case the Navy Education Service

All related departments in the Naval Education Office, which are directly under the leadership of the Navy, formulate policies for all education within the Navy organization education in the field of Administrative Assistance in the Navy.

b. Command for Education and Training
 Doctrine of the Navy.

All relevant Directorates and staff who are indirectly responsible for the entire implementation of education at the Kodiklatal in this case education in the field of Administrative Assistance in the Navy.

c. General Support Education Command

The entire Department and related staff are indirectly responsible for the entire implementation of education at General Support Education Command in this case education in the field of Administrative Assistance under General Support Education.

d. Administrative Assistance Education Center All Administrative Assistance Education Center officials and staff who are directly responsible for the implementation of all educational programs at Administrative Assistance Education Center.

- e. Instructor. All instructors of all educational programs at Administrative Assistance Education Center that have been prepared.
- f. Student All students from all strata and groups who are studying at Administrative Assistance Education Center.
- g. Users. In this case, work units directly receive students trained by Administrative Assistance Education Center and feel how capable the soldiers trained at Administrative Assistance Education Center are after entering service.

2.3 Stakeholder Analysis

According to Satzinger (2012) activity diagrams describe the various user activities in a system, the people who perform each activity, and the sequential flow of activities. Activity Diagrams use many symbols such as:

- a. Oval, symbolizing individual activities in the work flow.
- b. Connecting arrow, represents the sequence between workflow activities.
- c. The black circle, symbolizing the beginning and the beginning of a workflow.
- d. Diamond, symbolizing decision-making points in the workflow.
- e. Heavy solid line, is a synchronization bar which separates one line into many lines or combines many lines into one.
- f. Swimlane heading, symbolizing the main agent.

From the explanations of the three theories above, an analysis of the stakeholder system is described in the process of providing education at the Administrative Assistance Education Center:

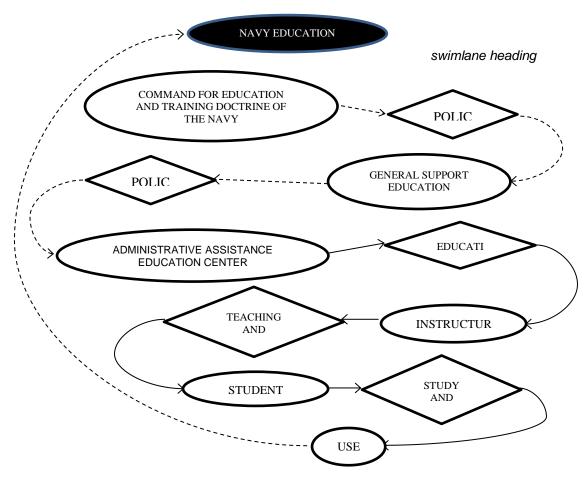


Figure. 1 Activity Diagram of Stakeholder System Analysis

2.4 Strategy Theory

The procedure may be a word with numerous

implications that are pertinent and valuable to those entrusted with setting techniques for companies, businesses, or organizations (Özleblebici, et al., 2015). Strategy comes from the Greek word strategy which implies an arrangement to destroy the adversary by utilizing assets (Athapaththu, 2016). The advancement technique incorporates a detailing work in considering outside and inside variables in organizational conditions. Methodology detailing incorporates exercises to create an advanced commerce mission and vision, distinguish viewpoints of organizational openings and dangers remotely, decide angles of managerial qualities and shortcomings inside, decide long-term corporate objectives, plan elective organizational techniques, and define chosen procedures for advancement (Fariyatul, 2017).

Within the military circle, technique alludes to a common arrangement of assault or defense. In this case, it includes courses of action made sometime recently really lock in the foe and plan to hurt that adversary. In this setting, the procedure is concerned with the sending of assets. As a result, there are continuously two adaptations of a given methodology: (1) technique as mulled over or expecting, and (2) procedure as realized (Özleblebici, et al., 2015). These days, military qualities go up against various challenges around the world.

2.5 SWOT Analysis

The SWOT strategy is the foremost common strategy that can be utilized to analyze strategic cases. SWOT could be an apparatus that's regularly utilized to analyze the inside and outside environment to attain an orderly approach and support for choice circumstances. SWOT is an acronym for qualities (S), shortcomings (W), openings (O), and dangers (T). The primary two components (qualities and shortcomings) relate to the inner components of the organization, whereas

openings and dangers cover the more extensive setting or environment in which the substance works.

2.6 Ten Components of Education

The pattern and structure of the Education of Indonesian navy Soldiers refers to the 10 (ten) Educational Components, which are the design of education as a series of vertical and horizontal education arrangements and administrations and are arranged based on the spectrum of assignments, strata/position/class and qualifications of personnel. which will be projected on the current and subsequent assignments. This component refers to the main components of education consisting of input, process, output, environmental, and outcomes (Sudjana, 2010).

The Education Components listed in the Regulation of the Commander of the Indonesian National Armed Forces No. Perpang/51/IX/2008, concerning the Instruction Manual for the Education of Indonesian National Army Soldiers, includes:

- a. The educational modules may be a set of subjects and instructive programs given by an instructive institution that contains lesson plans that will be given to lesson members in one period of instruction level.
- b. The Instruction Package is the completeness of educators in their readiness to provide subject matter in order to achieve curricular/lesson goals that contain teaching materials directed at achieving instructional goals.
- c. Educators are personnel in charge of providing knowledge, skills and the formation and development of personality through teaching, training and nurturing/guiding efforts.
- d. Educational Personnel are all organic personnel of educational institutions who are directly or indirectly involved in the operational implementation of an education who fill structural positions in educational institutions and have the

same status as staff personnel in general.

- e. Students are personnel who are carrying out learning tasks at the officer, non-commissioned and enlisted levels organized by educational institutions in tiered or non-tiered.
- f. Instructional Tools and Instructional Assistance Tools.
 - 1) Instructional tools are equipment used in education to: acquire certain skills, describe or demonstrate a process or concept so that students get the desired knowledge, and create a situation or environment that students can use to practice knowledge and skills.
 - 2) Instructional aids are equipment used for the functioning of an instructional device. In the implementation of education, it is possible to have equipment that functions as an instructional tool, but it can also function as an instructional assistant. Vice versa, equipment that functions as a tool to help instructions but also functions as an instructional tool.
- g. Teaching Method is a way of delivering teaching materials in the implementation of education. The teaching methods in detail are as follows:
 - 1) Centered on Educators include: Lectures, Lectures and Instructions.
 - 2) Student-centered includes: reading assignments, student presentations, discussions, seminars, participant exercises, simulations, research and assessments, case studies, formal debates and tutorials.
- h. Educational Evaluation. It is a tool to measure the development level of students as well as the level of efficiency and effectiveness of the curriculum.
- i. Educational facilities are buildings and their equipment and other facilities where education is held, the development of which is regulated in

accordance with the provisions concerning the logistics development of the Indonesian National Armed Forces in force.

- j. The Education Budget consists of three components:
 - 1) Fixed costs, which are maintenance costs, the amount of which is adjusted to the respective Lemdik assets.
 - 2) Variable costs according to the index, namely the operating costs of education, the amount of which is adjusted to the number of classes and the length of education based on the index.
 - 3) Variable costs of operating instructional tools, determined according to the needs of an education.

3. RESULT AND DISCUSSION

3.1 Criteria Identification

The investigation arrange starts with information collection by conducting interviews with eleven Master staff which speaking to from each partner (E1; E2; E3; E4; E5; E6; E7; E8; E9; E10; E11) within the advancement of the Regulatory Help Instruction Center. Respondents in this essential information collection are specialists and official officers who have competence in their areas and are prepared with official involvement and have a vital introduction of considering approximately the improvement of the Authoritative Help Instruction Center with all the issues in it and it is anticipated that discernment information the legitimacy of the respondents can be met.

3.2. Strategy Formulation

Based on the examination of inner variables gotten 15 (fifteen) inner components with 8 (eight) quality components and 7 (seven) shortcoming components and 15 (fifteen) outside components with 8 (eight) opportunity variables and 7 (seven) danger components. This area examines the

investigation of the comes about of the weighting of criteria and elective techniques for creating Authoritative Help Instruction Center utilizing EFI and EFE weighting through the utilization of surveys

given to partners in the Regulatory Help Instruction Center advancement technique.

3.3. Internal Factor Evaluation (EFI) Matrix

Table 1. Internal Factor Weighting

NO	STRENGTH FACTOR	ACCUMULATIVE	WEIGHT	RATING	SCORE
		VALUE	ALIGHT:	TUNTHE	(WXR)
1.	Support for the vision and mission of the Administrative Assistance Education Center for the achievement of the Indonesian Navy vision and mission.	34	0,068	1,782	1,848
2.	The work program of the Administrative Assistance Education Center in supporting organizational development in the Navy.	35	0,068	1,370	1,438
3.	Organizational and managerial performance within the Administrative Assistance Education Center supports the organization.	35	0,068	1,287	1,354
4.	Conformity of the workload index value of the Administrative Assistance Education Center personnel with the organization's inside.	35	0,068	1,763	1,831
5.	The work spirit of the educators and teaching assistants of the Administrative Assistance Education Center.	35	0,068	3,311	3,379
8.	The existence of practical exercises to improve the quality of student outcomes.	35	0,068	3,659	3,727
7.	Student's ability to interact with developing technology.	35	0,068	3,311	3,379
8.	Internet network support that can be accessed by both students and personnel.	35	0,068	3,659	3,727
	Total	279		3	20,683
	WEAKNESS		11.		
NO	FACTOR	ACCUMULATIVE VALUE	WEIGHT	RATING	SCORE (W X R)
	The existence of the Administrative Assistance Education Center and the Schools under it are currently in the face of	32	0.000	12	2000
10	developments and technology.	,32	0,062	2,686	2,748
2.		34	0,066	3,000	2,748 3,066
	developments and technology. Competence of educators & teaching assistants Education Center for Administrative Assistance supports the teaching and		Constant		0.00000
2.	developments and technology. Competence of educators & teaching assistants Education Center for Administrative Assistance supports the teaching and learning process. The number of teaching staff & teaching assistant staff at the Administrative Assistance Education Center in carrying out the	34	0,066	3,000	3,066
2.	developments and technology. Competence of educators & teaching assistants Education Center for Administrative Assistance supports the teaching and learning process. The number of teaching staff & teaching assistant staff at the Administrative Assistance Education Center in carrying out the main task to the maximum. Readiness of facilities and infrastructure to support the implementation of education and training such as buildings.	34 35	0,066	3,000	3,066 1,850
2. 3. 4.	developments and technology. Competence of educators & teaching assistants Education Center for Administrative Assistance supports the teaching and learning process. The number of teaching staff & teaching assistant staff at the Administrative Assistance Education Center in carrying out the main task to the maximum. Readiness of facilities and infrastructure to support the implementation of education and training such as buildings, messes, sports facilities.	34 35 34	0,066	3,000 1,782 2,065	3,066 1,850 2,131
2. 3. 4.	developments and technology. Competence of educators & teaching assistants Education Center for Administrative Assistance supports the teaching and learning process. The number of teaching staff & teaching assistant staff at the Administrative Assistance Education Center in carrying out the main task to the maximum. Readiness of facilities and infrastructure to support the implementation of education and training such as buildings, messes, sports facilities. Readiness of e-learning based teaching methods. The suitability of the instruction package is faced with the	34 35 34 34	0,066 0,068 0,066	3,000 1,782 2,065 1,782	3,066 1,850 2,131 1,848

Weighting is done to discover how much impact or effect these components have on the procedure itself. The illustration for the evaluation of the quality figure (S) sub-criteria no. 1 is gotten from adding up to the appraisal of respondent's answers is 34. The

figure is 516 (from 279+237). Though the weight of the quality sub-criteria no.1 is gotten from the value in column 1 partitioned by the entire number of appraisals, (weight = 34/516 = 0.066).

516

3.4 External Factor Evaluation (EFE) Matrix

Total of accumulative value

Table 2 External Factor Weighting

NO	FACTOR	ACCUMULATIVE VALUE	WEIGHT	RATING	SCORE (W X R)
1.	The influence of government programs, world maritime axis demands the readiness of defense equipment and crews.	38	0,083	2,075	2,158
2.	The development of situations and conditions outside the very dynamic of the organization.	36	0,078	1,782	1,861
3.	Validation of organizations within the Navy to the organization of the Administrative Assistance Education Center itself.	37	0,081	2,354	2,434
4.	Interaction/cooperation relationship with other related institutions both at home and abroad for the Administrative Assistance Education Center.	37	0,081	1,613	1,693
5.	The ability of the government's budget in the defense sector, especially for education within the Navy.	38	0,083	1,948	2,031
6.	Preparation of human resources in the national strategic industry independence program for student outcomes.	36	0,078	2,000	2,078
7.	The development of the internet world is increasingly rapid in increasing good knowledge to personnel and students.	36	0,078	1,782	1,861
8.	The influence of the country's geopolitical conditions on students and personnel.	35	0,076	1,736	1,812
	Total	293	-	97	15,929

	THREAT			22	VIDERIAL POR PARTICIPATOR
NO	FACTOR	ACCUMULATIVE VALUE	WEIGHT	RATING	SCORE (W X R)
1.	The existence of the Administrative Assistance Education Center and the Schools under it are currently in the face of developments and technology.	17	0,037	3,510	3,547
2.	Competence of educators & teaching assistants Education Center for Administrative Assistance supports the teaching and learning process.	25	0,054	2,830	2,885
3.	The number of teaching staff & teaching assistant staff at the Administrative Assistance Education Center in carrying out the main task to the maximum.	26	0,057	3,142	3,199
4.	Readiness of facilities and infrastructure to support the implementation of education and training such as buildings, messes, sports facilities.	24	0,052	3,061	3,113
5.	Readiness of e-learning based teaching methods.	25	0,054	3,603	3,657
6.	The suitability of the instruction package is faced with the development of the outside situation.	29	0,063	2,318	2,381
7.	Instructional tools / instructional support tools, especially hardware and software according to the latest standard rules.	20	0,044	3,603	3,646
333	Total	166			22,428
ă .	Total of accumulative value	459		1	

Weighting is done to discover how much impact or effect these variables have on the technique itself. Illustration for the appraisal of the openings calculate (O) sub-criteria no. 1 is gotten from add up to the appraisal of respondent's answers is 38. The entire evaluation of each quality and shortcoming calculate is 459 (from 293+156). Though the weight of the quality sub-criteria no.1 is gotten from the value in column 1 partitioned by the whole number of evaluations, (weight = 38/459 = 0.083).

3.5 Recapitulation of the calculation results of the EFE / EFI matrix

Based on the comes about of calculations that have been carried out through SWOT framework examination, the ultimate esteem of outside variables, openings and dangers, and inside variables, qualities, and shortcomings, is obtained, as appeared within the table underneath:

Table 3. EFE / EFI Matrix Calculation Results

NO	FACTOR	VALUE

	Internal Factor	
1	Strength	20,683
	Weakness	15,339
	External Factor	
2	Opportunities	15,929
	Threat	22,428

At that point orchestrated a cross technique between variables or a SWOT framework to decide the chosen procedure to be utilized in issue fathoming. Through the technique quadrant, the chosen elective technique is gotten from the contrast between each calculation as appeared within the taking after table:

Table 4. Analysis of the intersection of the lines of the SWOT matrix

	s w	X axis	Y axis		
s	w	0	т	(S- W)	(O- T)
20,683	15,340	15,929	22,428	5,343	- 6,500

From the picture over, it can be seen that the technique for creating the Authoritative Help Instruction Center to progress the quality of understudy results is in quadrant IV.

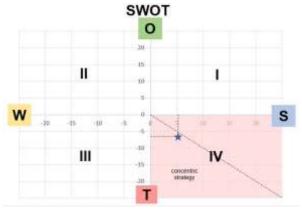


Figure 2. SWOT Kuadrant

The crossing point position in quadrant IV distinguished conditions that bolster the utilization of the concentric broadening procedure which procedure to include unused things related to maximizing the advancement of undermining variables by utilizing existing strengths. From the comes about of making the Strength-Threat methodology concept, interviews were carried out with specialists to approve the S-T technique that had been conceptualized. From the comes about of interviews with specialists, 5 S-T methodologies were chosen, to be specific ST 1, ST 2, ST 3, ST 4, and ST 5 strategies.

Table 5. Strategies ST

CODE	STRATEGY				
Maintaining and increasing support and implementation of the vision mission of the Administrative Assistance Education Center by responding to the needs of administrative assistance personnel in the so that they are ready to serve in their respective fields.					
ST 2	Maximizing the implementation of work programs to support the organization of the Navy, especially in leadership policies that are now very concerned about rotation and assignments, especially for educators and teaching assistants.				
ST 3	One of the ways to improve performance and managerial skills is by involving outside experts in teaching students and in organizational development to be				

	able to keep up with updates in the field of administrative assistance in			
	accordance with the development of various external regulations.			
	Maintain and increase the enthusiasm and loyalty of personnel, both students			
and staff of the Administrative Assistance Education Center, to				
ST 4	themselves to face the challenges of the times, both from outside and			
	individually.			
	Improving the quality and quantity of practical training in accordance with			
OT 5	technological developments as well as updating various software and			
ST 5	hardware to be ready to meet the needs of personnel in developing a new			
	organization within the Indonesian navy.			

4. CONCLUSION

Based on the results of the research that has been done, conclusions :

- a. The variables that can be distinguished within the SWOT examination in defining the technique for creating the Regulatory Help Instruction Center are 15 (fifteen) inner variables with 8 (eight) quality variables and 7 (seven) shortcoming components and 15 (fifteen) outside components with 8 (eight) opportunity variables and 7 (seven) danger components.
- b. Based on the comes about of the detailing of the technique for the improvement of the Authoritative Help Instruction Center utilizing SWOT examination, it produces a point of the crossing point of inner and outside components to the Lattice Space quadrant, the point (5,343; -6,500) is found in quadrant IV. Quadrant IV is indistinguishable from the concentric expansion quadrant where this procedure includes unused things related to maximizing the change of undermining components by utilizing existing qualities. The technique concept in quadrant IV utilized is the ST procedure (Strength-Threat) five elective with need techniques.

ACKNOWLEDGEMENT

Improvement Procedure for Regulatory Help Instruction Center could be a shape of reaction to

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COMPOSITE DEVELOPMENT STRATEGY IN THE NATUNA AREA COASTAL DEFENSE IN SUPPORTING THE MAIN TASKS OF THE INDONESIAN ARMED FORCE

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ABSTRACT

The Unitary State of the Republic of Indonesia is the largest archipelagic country in the world, where its geographical constellation which is in a cross-world position places the sea area of national jurisdiction very strategically for both Indonesia and for other countries. The State Defense Policy of 2020 set by the Minister of Defense of the Republic of Indonesia formulates that the implementation of National Defense is carried out in a directed, measurable, transparent and accountable manner, demanding the establishment of a Universal People's Security Defense System (Sishankamrata) through efforts to manage national resources which include all human resources, human resources and human resources. natural resources, artificial resources and national infrastructure throughout the territory of the Republic of Indonesia as a defense unit in overcoming threats. Composite Company capabilities can still be developed by increasing the strength and capabilities of composite companies and optimizing the degree pattern. The Composite Company development strategy can be started by first studying the potential threats that may be in the future and analyzing the condition of the Composite Company which must be improved to create national maritime security. Based on these problems, this research offers a strategy for developing a composite company in maintaining national marine security that takes into account potential threats in the future. In this study, the authors analyzed the problem using the SWOT method. The SWOT method is used to formulate the main strategy for the development of Composite Companies in the face of national maritime security threats, used to analyze the implementation of the Composite Company development strategy in the face of national maritime security threats. The AHP method is used for decision making involving a number of criteria and alternatives selected based on consideration of all related criteria are used to determine the priority scale of the strategy to be implemented for the advancement of the Navy.

Keywords: Strategy, Composite Company, SWOT Method, Analytical Hierarchy Process (AHP) Method

1. INTRODUCTION

The Unitary State of the Republic of Indonesia is the largest archipelagic country in the world, where its geographical location which is in a cross-world position places the territorial sea of national jurisdiction very strategically both for Indonesia and for other countries. In addition to Indonesia's strategic geographical position, the Indonesian Hydro Oceanography navy's Centerstates that Indonesia has 17,508 islands, 6.40 million km² of Indonesian waters, 0.29 million km² of territorial waters, 3.11 million km² of archipelagic waters, and the exclusive economic zone. 3.00 million km², Indonesia's land area 1.90 million km2, Indonesia's area of 8.30 million km2, Indonesia's coastline length of 108.000 km (Pushidrosal, 2018).

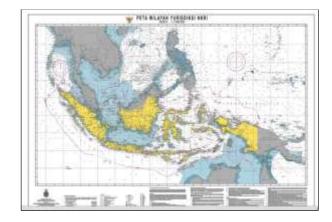


Figure 1. Indonesian Teritorial

Indonesia is the largest archipelagic country in the world which is located between two oceans and two continents which makes its waters become one of the arteries of international trade. In the development of the strategic environment, this has an impact on military threats from outside. As a

sovereign state, it must prepare a strong national defense system in order to maintain the integrity and sovereignty of the Unitary State of the Republic of Indonesia (NKRI). The development of the national defense system is faced with the vastness of the territorial waters leaving many vulnerabilities that can be a threat to the Unitary State of the Republic

of Indonesia. In addition to the change in the national defense paradigm, there are vulnerabilities in strategic areas which, if not immediately fully controlled, can be exploited for the benefit of other countries.



Figure 2. Nine Dash Line Map

The State Defense Policy of 2020 set by the Minister of Defense of the Republic of Indonesia formulates that the implementation of National Defense is carried out in a directed, measurable, transparent and accountable manner, demanding the establishment of a Universal People's Security Defense System (Sishankamrata) through efforts to manage national resources which include all human resources, human resources and human resources. natural resources, man-made resources and national infrastructurethe territory of the Republic of Indonesia as a defense unit in overcoming threats. on national defense policy. In particular, the South China Sea (LCS) conflict has not yet shown a peaceful settlement in the medium term. The South China Sea conflict involves Southeast Asian countries such as the Philippines, Vietnam, Brunei Malaysia and Darussalam including Indonesia, this maritime boundary conflict is an

issue that the Indonesian government pays attention to.

The South China Sea is a semi-enclosed sea area or a semi-enclosed area, if usually the land is surrounded by the sea in the South China Sea, the opposite is the sea surrounded by land. According to the international law of the sea, UNCLOS (United Convention on the Law Of the Sea) in 1982, states have the right to the sea, namely the territorial sea measured from the coastline as far as 12 miles, an additional zone of 24 miles and then there is an EEZ (Exclusive Economic Zone) as far as 200 miles. (Marsetio, 2014). To be able to realize security conditions at sea, there needs to be efforts to enforce sovereignty and law enforcement. In addition, there is a need for security control in the form of a pattern for the operation of the Navy's forces. So that the problem of law enforcement at sea becomes one of the very important national issues, Indonesia's strategic role and awareness of the importance of the sea to improve the economy is an urgent need for Indonesia so that it requires a maritime concept that will bring a strong Indonesian economy. Maritime itself is a system that connects the global pulse of countries in the world and becomes the most important path in the continuity of the global economy. The meaning of the sea for the Indonesian people has four strategic meanings, namely: 1) As a natural resource and a medium for the national economy; 2) As a means of unifying the nation; 3) As a defense medium; 4) As a medium of communication. Indonesian waters are strategic for commercial activities, such as fishing, laying submarine cables and pipelines, exploiting oil and gas and conducting scientific research. However,

Several maritime security issues are quite prominent, and the concerns of the world community are: (a) High threats of violence, such as piracy, sabotage, and terror of vital objects; (b) navigational threats, such as shortages and theft of navigational aids; (c) resource threats, such as damage and pollution of the sea and its ecosystems; and (d) sovereign and legal threats, such as illegal fishing, illegal immigrants, illegal treasure hunting, illegal exploration and exploitation of natural resources, and smuggling of goods, people and weapons (Poerwowidagdo, 2015).

The South China Sea (LCS) is an international shipping lane that is quite dense and strategic and directly borders with countries in the Southeast Asian region with a high level of economic activity so that it has the potential for conflicts over natural resources. Faced with the development of the strategic environment, the possible threats faced in the region are maritime border issues. various forms of security disturbances and violations of law at sea, problems with Sea Line of Communication (SLOC) users and problems with ALKI I users as well as the influence of superpowers who feel competent in the area. the area. Viewed from the economic aspect, the use of marine areas and the use of marine resources around the border are factors that trigger conflicts between nations. this will have an impact on security and legal factors related to violations at sea, especially in border areas. As an archipelagic country, the potential of marine resources is very abundant and has strategic value for the sustainability of national development. In addition, the strategic position of the Indonesian state places Indonesian waters in a very important position and determines the smooth distribution of goods and services that are needed to support regional thus economic growth, providing realistic expectations to accelerate the process of national economic growth.

Indonesia as a country that has very rich marine natural resources, it can lure certain parties to exploit them illegally. This not only disturbs the stability of security at sea, the factual and actual challenges and demands following the development of science and technology encourage the advancement of weapons technology and changes in military tactics and strategies. It is estimated that threats and disturbances to Indonesia's defense interests in the future are classified into three types. namely military threats, both armed and unarmed, non-military threats and hydride threats. These threats are categorized in the form of real and nonreal threats. Real threats can be 1) International terrorism, 2) Separatist movements, 3) Radicalism, 4) Communal conflicts, 5) Transnational crimes, 6) illegal immigration, 7) maritime security disturbances, 8) Air security disturbances, 9) Disease outbreaks , 10) Cyber attacks and espionage, 11) Drug trafficking and abuse. Meanwhile, the unreal threat itself is a form of threat in the form of open conflict or conventional war, with the presence of armed forces between countries. But the threat is still a small possibility (Kemhan, 2015).

A number of maritime security threats in non-military contexts that often occur in Indonesia include: 1) Illegal fishing and related crimes, namely fraud, tax evasion of illegal fuel transactions; 2) Smuggling activities in maritime circles, namely drug smuggling, people smuggling, weapons smuggling, illegal goods smuggling, smuggling of agricultural products and similar commodities, technology smuggling; 3) Illegal immigrants; 4) Piracy and armed crime; 5) Terrorism; 6) Threats of technological developments, information systems; 7) Human rights violations, namely underage work, labor inequality, poor living conditions (Morris and Paoli, 2018).

In accordance with Article 9 of Law Number 34 of 2004 concerning the TNI, the duties of the Navy are as follows: 1) Carry out the duties of the Marine Corps in the defense sector; 2) Enforce the law and maintain security in the marine area of national jurisdiction in accordance with the provisions of national law, international law that has been ratified; 3) Carry out the task of Navy diplomacy in the context of supporting foreign policy policies set by the government; 4) Carry out the duties of the TNI in the development and development of the Marine Matra power; 5) Implementing the empowerment of marine defense areas.

This requires the Navy Composite Company to improve the professionalism of soldiers according to the function of their positions, supported by increased knowledge and modernization of defense equipment. Based on the consideration of future task challenges as a necessity in adapting to the development of science and technology and the strategic environment to achieve organizational goals. In the organizational structure of the TNI, it consists of units/organizations directly under the guidance of the Indonesian Armed Force Headquarters and units/organizations under the Army Headquarters up to the level of the TNI Naval

Main Base. Changes in the strategic environment globally and regionally, following the development of global defense technology which is growing rapidly as it is today,

Faced with existing problems and vulnerabilities, there needs to be a change with the development of the coastal defense system through the formation of coastal defense units by theComposite CompanyNavy(Sekmilpres, 2019) which functions as a unitanti-access/buffer area (anti-access/area denial) to prevent, confront and thwart military operations or enemy attacks carried out by sea at several strategic choke points located in the Waters of the Indonesian National Jurisdiction, can provide fire reinforcement and protection to Kogasgabhantai in the context of the implementation of Opshantai and provide reinforcement for other military operations.

Indonesian Presidential Regulation Number 66 of 2019 concerning the Organizational Structure of the TNI and emphasized through the Regulation of the Commander of the TNI Number 49 of 2019 concerning the Organizational Principles and Procedures of the Navy Headquarters which states that the Marine Corps of the Indonesian navy is the TNI Operations Municipality as the main organizer of amphibious operations. , coastal defense operations and security operations for strategic outer islands within the framework of OMP and OMSP as well as other operations in accordance with the policy of the TNI Commander.

With the ratification of Presidential Decree No. 66 of 2019 concerning the Organizational Structure of the TNI, there is clarity on Duties and AuthoritiesThe Indonesian navy Composite Company in the implementation of coastal defense requires regulation, adjustment and development of the coastal defense system according to the development of existing threat factors, as well as adjustments to the concept of national defense, namely the implementation of the management of

defense areas through the realization of defense strengthening at choke points or strategic straits. In line with this, the form of coastal defense is divided into two, namely coastal defense as a form of defense operation that is carried out continuously through supervision and control of water areas and coastal defense as a form of combined coastal defense operations.

This aims to maintain sovereignty and wealth as well as a form of government responsibility in maintaining shipping safety and maritime security. The Unitary State of the Republic of Indonesia as the largest archipelagic country in the world that has abundant natural resources that can actually make this country a super power country as well as preparing coastal defense operations on the outermost/strategic islands that are prone to threats from within and outside the country. Implementation of defense operations for the Navy base in accordance with situational developments. Develop a combat force plan in order to meet the needs of combat operations forces. Develop an action plan to deal with contingency situations based on the Kasal policy. Coordinate and cooperate with relevant agencies and agencies inside and outside the Navy for the smooth implementation of main tasks. Submitting considerations and suggestions to Kasal regarding matters related to his field of duty. In order to carry out the basic objectives and military strategy of the Indonesian navy.

The strategy of developing an organization requires strategic steps that can be applied in the strategic policies of the Navy. Strategic policy is the determination of the direction of an organization to achieve future goals. The SWOT concept is used as a determination of the Intensity value score possessed by the sub-components in each component carried out by Stakeholders, in this case the researcher determines the Composite Company Commander as expert determining the priority scale, the SWOT analysis is used as a strategy

formulation to obtain alternative strategies from Internal and External factors.

The Analytical Hierarchy Process (AHP) method is a decision-making method that involves a number of criteria and alternatives that are selected based on the consideration of all related criteria used to determine the priority scale of the strategy to be implemented first to improve the technological components of concern to be improved.(saaty, 2004). It is hoped that this method is able to provide development recommendations so that the right strategy stages can be obtained for the development of composite companies in the Natuna area. From the results of the selected strategic will it he able to formulate priorities. aRoadmap within a period of 5 (five) years which will be used as a guideline in the development of a Composite Company in the Natuna area to support the main tasks of the TNI in the South China Sea. From the results of this study, it is hoped that it can help provide advice and input to the leadership of the Indonesian navy in the development, development of the Natuna Composite Company in the future.

2. RESEARCH METHODOLOGY

The model design of this research can be presented in the form of input, process and output diagrams that describe the research process starting from obtaining data, processing data, analyzing and evaluating the results / outputs of research data. At the initial stage, input and identification of data variables are carried out that affect the optimization of the composite company's ability in the Natuna area, then in the process stage an analysis and strategy of optimizing the composite company's ability in the Natuna area is carried out in the face of marine security threats. In this process, all variables as a system are included as variables that interact with one another. The integration of several theoretical concepts and

methods is applied to the assessment of threat criteria,

2.1 SWOT METHOD

In this study, the SWOT or Strength (S), Weakness (W), Opportunity (O) and Threat (T) analysis methods were used to identify and formulate several main strategies for developing posture capabilities in the face of national maritime security threats. This SWOT stage consists of several steps, namely: (1) identifying/determining Internal factors consisting of strengths and weaknesses of the composite company; (2) identify/determine External factors consisting of opportunities and threats for the development of a composite company. Illustration of the identification of external factors and internal factors

The variable identification process is carried out by conducting open interviews with experts to identify internal factors and identify external factors, then the data is processed to obtain the Strength (S), Weakness (W), Opportunity (O) and Threat (T) factors. After obtaining the Strength (S), Weakness (W), Opportunity (O) and Threat (T) factors, the SO (Strength-Opportunity) strategy matrix was prepared; determination of WO (Weakness Opportunity) Strategy; determination of ST Strategy (Strength-Threat); determination of WT (Weakness-Threat) Strategy. Illustration of matrix arrangement

After the Strategy Matrix is formed, it is followed by compiling the compilation of the main strategies and mapping the main strategies to be able to sort out the main strategies based on the category of capability development strategy, strength development strategy and degree pattern development strategy. Main Strategy Compilation and Mapping Illustrations.

SWOT analysis, after obtaining several substrategies, a model and hierarchical level were formed to determine priorities for the selected substrategies using an approach to optimizing the ability of composite companies in the Natuna area. The results of the SWOT analysis were carried out by a questionnaire to determine the relationship or interest between one sub-strategy and another substrategy using the AHP method approach to determine strategic priorities and a strategic road map.

2.2. RESEARCH FLOWCHART

In this study there are several stages to achieve the expected goals. Starting with the problem identification stage and collecting data taken from books, journals, field studies, as well as questionnaires onexpertchoice. Then proceed with the identification and formulation of strategies. In this research.

3. RESULT AND DISSCUSSION

This chapter will discuss the results of data analysis and interpretation based on the results of questionnaires and interviews from experts regarding internal factors containing strengths and weaknesses, as well as external factors containing opportunities and threats that most influence the posture development strategy in supporting the main tasks of the Indonesian navy. The first step in this research is to use a SWOT analysis to identify and formulate several composite company development strategies. Next, the AHP method is used to determine strategic priorities and a composite company strategy road map to support the TNI's main tasks

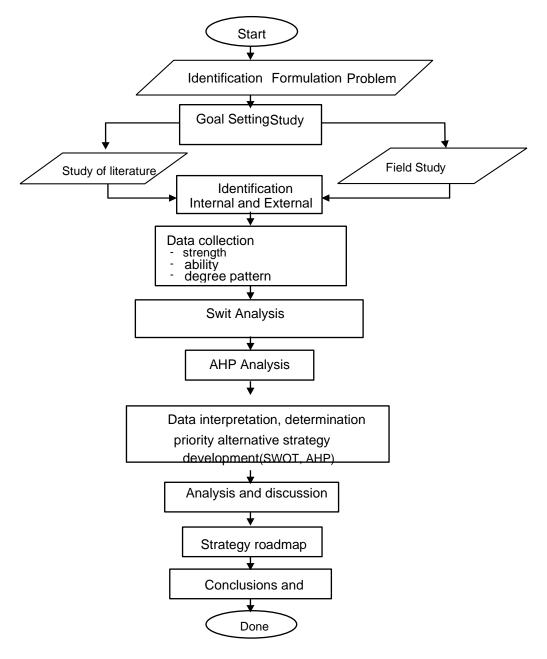


Figure 2. Research Methodology

3.1 IDENTIFICATION OF RESEARCH VARIABLES

The variable in this research is the development model of this Composite Company, which consists of: the level of strength, ability and pattern of the Navy's strength.

Table 1. Identification Research

No.	Variable	Description
1	Navy Strength	The main tool of the Navy weapon system used to achieve task performance and achievement

2	Naval Ability	Navy performance in using strength in a professional manner to carry out tasks
3	Navy Degree Pattern	Placement and assignment of elements of the Navy

Based on Table 1. it can be seen that internal and external factors in influencing the Composite Company development strategy in supporting the main tasks of the TNI. Identification of internal factors that influence the development of posture in support of the TNI's main tasks, including: strengths

marked with the symbol "S", and weaknesses with the symbol "W". Identification of external factors that influence the development of marine posture in supporting the TNI's main tasks, these include: Opportunities marked with the symbol "O", and threats with the symbol "T".

3.2 Analysis of Internal Factors Identification

Organizational internal factorsNavyis an Composite activity within the Company development management environment, which consists of the strengths and weaknesses of the CompanyNavy. The aspects used to identify the internal strengths and weaknesses of the Composite Company, which include the Composite Company's strengths, the Composite Company's capabilities, and the Composite Company's degree pattern. The detailed identification of the strength factor (S) is measured from the aspect of the strength of the Composite Company which consists of: (1) Minimum essential force (MEF) policy to makeNavyworld class through modernizing the main weapon system/defense equipment; (2) The condition of defense equipment that is always ready to meet needsNavyto carry out the function as a landing force in the form of power projection from the sea; and (3)Navyhas complete equipment for coastal defense, such as field artillery (Armed), coastal radar, including facing electronic and cyber warfare. Furthermore, the identification of strength (S) as measured from the aspect of the ability of the Composite Company, namely: (4) Intelligence abilityNavyto deal with irregular warfare & special Ops information technology; (5) The ability of soldiers to serve in OMP and OMSP in units; and (6) Navyhave good diplomatic skills to get to a reliable Expeditionary and Multirole. And the Strength Factor (S) measured from the aspect of the Composite Company degree pattern, namely: (7)Navyincreasing the professionalism of soldiers by training in accordance with the cycle of training, courses, and specialization education; (8)Navycurrently has a Natuna composite company to make it easier to carry out tasks; and (9) Lantamal Class A is projected to have 1 battalion in strength to assist with base defense. For Lanal type B, it will be filled by one company plus. While Lanal type C will be filled with one minus company so that the power is spread throughout Indonesia and participates in accelerating regional development.

The detailed identification of the weakness factor (W) is measured from the aspect of the Composite Company's strength which consists of: (10). Limitations of meeting the needs of defense equipment against the APBN; (11). Limitations of the information system in presenting data on the condition of defense equipment to the leadership elements; (12) Limited number of coastal defense equipment, such as field artillery (Armed), coastal radar, etc. Furthermore, the weakness factor of the Composite Company (W) is measured from the aspect of the ability of the Composite Company which consists of: (13). Limitations of meeting the needs of defense equipment against the APBN; (14). The technical capabilities of soldiers in the field are not evenly distributed and need to be improved; (15) The diplomatic ability of soldiers to go to Expeditionary and Multirole is not evenly distributed; and Furthermore, this weakness factor (W) is measured from the aspect of the Composite Company degree pattern which consists of: (16). The different professional abilities of individual soldiers; (17). The formation of a battalion depends on certain policies and conditions; and (18) The pattern of filling in personnel at the level of lantamal type A, lanal type B, and C is still not fulfilled.

Table 2 Identification of Internal Factors

	Internal factors				
No.	Strength Factor	Weakness Factor			
	Strength Composite				
1	Minimum essential force (MEF) policy to make the navy a world class through modernizing the	Limitations of meeting the needs of defense equipment against the state budget			
1	main weapons system/defense equipment	equipment against the state budget			
	main moupone dystem dolones equipment				
	The condition of defence acquirement that is	Limitations of information ovators in			
	The condition of defense equipment that is always ready to meet the needs of the navy to	Limitations of information systems in presenting data about the condition of			
2	carry out its function as a landing force is a	defense equipment to the leadership			
	form of power projection from the sea	elements			
	the navy has complete equipment for coastal	Limited months and acceptal deferre			
3	defense, such as field artillery (Armed), coastal	Limited number of coastal defense			
3	radar, including facing electronic and cyber	equipment, such as field artillery (Armed), coastal radar, etc			
	warfare	,			
	Ability Composite (Sompany			
		Intelligence to deal with irregular warfare &			
4	Intelligence capability to deal with irregular warfare & special Ops information technology.	special Ops information technology that is			
	wanare & special Ops information technology.	not yet optimal			
The control of the co					
5	The ability of soldiers to serve in OMP and	The technical ability of soldiers in the field is not evenly distributed and needs to be			
"	OMSP with units	improved			
		•			
6	have good diplomatic skills to get to a reliable	The diplomatic ability of soldiers to go to Expeditionary and Multirole is not evenly			
	Expeditionary and Multirole	distributed			
	Degree PatternCompos	l site Company			
		,			
_	improve the professionalism of soldiers by	The different professional abilities of			
7	training according to the Kormar training cycle,	individual soldiers			
	courses, and specialization education				
	Notice of National Control of the Co	The formation of the money of the control			
8	currently has a Natuna composite company to make it easier to carry out tasks	The formation of the market depends on certain policies and conditions			
	make it easier to earry out tasks	ocitain policies and conditions			
	Lantamal Class A is projected to have a				
	strength of 1 battalion to help defend the base.				
	For Lanal type B, it will be filled by one	The pattern of filling in personnel at the			
9	company plus. Meanwhile, Lanal type C will be	The pattern of filling in personnel at the level of lantamal type A, lanal type B, and C			
	filled with one minus company so that the	is still not fulfilled			
	power is spread throughout Indonesia and	-			
	participates in accelerating regional development				
	dovolopinont				
	(Source: Data Process	1 0000			

(Source: Data Processed, 2022)

3.3 IFE Matrix Analysis (Internal Factor Evaluation)

The results of identification, data tabulation and weighting score calculations according to expert answers to the questionnaire on Internal Factors in the form of strengths and weaknesses that have been weighted and rated have obtained a

score on the IFE matrix of 3.26, the IFE value indicates that the current posture is in a strong position (3.00). -4.00), which means that currently the posture has a strong internal condition in utilizing the strengths and overcoming the weaknesses of the existing postures.

Table 3. IFE Matrix

No.	Internal factors	Weight	Rating	Weighted Score	
	NGTH				
Postu	Ire Strength				
1	Minimum essential force (MEF) policy to make it world class through modernizing the main weapons system/defense equipment	0.05	3	0.14	
2	The condition of defense equipment that is always ready to fulfill the need to carry out its function as a landing force is a form of power projection from the sea	0.05	3	0.15	
3	has complete equipment for coastal defense, such as field artillery (Armed), coastal radar, including facing electronic and cyber warfare	0.06	3	0.18	
Postu	re Ability	T			
4	Intelligence capability to deal with irregular warfare & special Ops information technology.	0.07	4	0.27	
5	The ability of soldiers to serve in OMP and OMSP with units	0.06	3	0.18	
6	have good diplomatic skills to get to a reliable Expeditionary and Multirole	0.05	3	0.16	
Posture Degree Pattern					
7	improve the professionalism of soldiers by training in accordance with the cycle of training, courses, and specialization education	0.06	4	0.24	
8	currently has a Natuna composite company to make it easier to carry out tasks	0.06	3	0.17	

No.	Internal factors	Weight	Rating	Weighted Score	
9	Lantamal Class A is projected to have a strength of 1 battalion to help defend the base. For Lanal type B, it will be filled by one company plus. Meanwhile, Lanal type C will be filled with one minus company so that the power is spread throughout Indonesia and participates in accelerating regional development	0.05	3	0.14	
	То	tal Streng	th Score (S)	1.64	
	(NESS				
1	Ire Strength Limitations of meeting the needs of defense equipment against the state budget	0.06	4	0.24	
2	Limitations of information systems in presenting data about the condition of defense equipment to the leadership elements	0.05	3	0.15	
3	Limited number of coastal defense equipment, such as field artillery (Armed), coastal radar, etc	0.05	3	0.14	
Posti	re Ability				
4	Intelligence to deal with irregular warfare & special Ops information technology that is not yet optimal	0.05	3	0.14	
5	The technical ability of soldiers in the field is not evenly distributed and needs to be improved	0.05	3	0.14	
6	The diplomatic ability of soldiers to go to Expeditionary and Multirole is not evenly distributed	0.06	3	0.18	
Posture Degree Pattern					
7	The different professional abilities of individual soldiers	0.06	3	0.18	
8	Formation depends on certain policies and conditions	0.05	3	0.15	
9	The pattern of filling in personnel at the level of lantamal type A, lanal type B, and C is still not fulfilled	0.08	4	0.31	
	Tota		s Score (W)	1.62	
	(Source: Data processe		Score S+W	3.26	

(Source: Data processed, 2022)

The data shows that the IFE matrix has the main strength of posture, which lies in the aspect of posture ability, namely: "intelligence ability to deal with irregular warfare & special Ops information technology" with the highest score of 0.27. then the second strength lies in the strength of the degree pattern posture, namely: "improving professionalism of soldiers by training in accordance with the cycle of training, courses, and specialization education". Then in the third rank of posture strength and posture ability, namely: "having complete equipment for coastal defense, such as field artillery (Armed), coastal radar, including facing electronic and cyber warfare" and "The ability of soldiers to serve in OMP and OMSP with units".

The main weakness faced by students lies in the pattern of posture degrees, namely: "The pattern of filling in personnel at the level of type A, type B, and C floors is still not fulfilled". And the second weakness to facelies in the strength of the posture, namely: "Limits on the fulfillment of defense equipment needs to the state budget".

3.4 Analysis of Identification of External Factors Posture

Organizational external factors are activities in the external environment of posture development management, which consist of opportunities and threats they have. These aspects are used to identify external opportunities and threats of posture, which include posture strength, posture ability, and posture degree patterns.

The detailed identification of the opportunity factor (O) is measured from the aspect of posture strength which consists of: (1) having a positive image so that it can be well received by the local community, when in the assignment service. Furthermore, identification of Opportunities (O) which is measured from the aspect of posture ability, namely: (2) Ability in law enforcement at sea; and (3) The ability to establish bilateral relations and share technology with developed countries. And the Opportunity Factor (O) which is measured from the aspect of the degree pattern, namely: (4) Geographically, Indonesia is a maritime country in the world's traffic lane; and (5) The level of military resources that are not limited by population demographics.

The detailed identification of the threat factor (T) is measured from the aspect of posture strength which consists of: (1). People easily panic, when there is a global issue. Furthermore, the threat factor (T) is measured from the aspect of posture ability which consists of: (2). There is no information system that can present an accurate description of the tactical situation; and (3). The risk is very high, because the defense industry is still dependent on foreign technology. And then the threat factor (T) is measured from the aspect of the posture degree pattern which consists of: (4). Geographical risk that marine areas require extra supervision; and (5). The level of soldier resource is not limited by population demographics. Based on the description above, the Opportunities and Threats factors possessed by Posture in supporting the main tasks of the TNI.

Table 4. Identify External Factors

No.	External Factors					
	Opportunity Factor	Threat Factor				
Post	Posture Strength					
1	have a positive image so that it can be well received by the local community, when in the assignment service.	People easily panic, when there is a global issue				

Na	External Factors				
No.	Opportunity Factor	Threat Factor			
Post	ure Ability				
2	Ability in law enforcement at sea	There is no information system that can present a picture of the tactical situation in real time.			
3	Ability to establish bilateral relations and share technology with developed countries	The risk is very high, because the defense industry is still dependent on foreign technology			
Post	ure Degree Pattern				
4	Geographically, Indonesia is a maritime country in the world's traffic lane	Geographical risk so that marine areas require extra supervision			
5	Unlimited soldier resource levels by population demographics	Unlimited soldier resource levels by population demographics			

(Source: Data processed, 2022)

3.5 EFE Matrix Analysis (External Factor Evaluation)

The results of identification, data tabulation and weighting score calculations according to expert answers to the questionnaire on External Factors in the form of strengths and weaknesses

that have been weighted and rated have obtained a score on the EFE matrix of 3.21, the EFE value indicates that the current posture is in a strong position (3.00-4.00), which means that currently the posture has a strong external condition to take advantage of the opportunities and threats of the existing posture.

Table 5. EFE Matrix

No.	External Factors	Weight	Rating	Weighted Score
OPPO	ORTUNITY			
Posti	ure Strength			
1	have a positive image so that it can be well received by the local community, when in the assignment service.	0.10	4	0.42
Posture Ability				
2	Ability in law enforcement at sea	0.10	3	0.31
3	Ability to establish bilateral relations and share technology with developed countries	0.10	3	0.29
Total Odds Score (O)				1.55

No.	External Factors	Weight	Rating	Weighted Score
Post	ure Degree Pattern			
4	Geographically, Indonesia is a maritime country in the world's traffic lane	0.09	3	0.27
5	Unlimited soldier resource levels by population demographics	0.09	3	0.26
Total Odds Score (O)				
THRE	EAT			
Post	ure Strength			
1	People easily panic, when there is a global issue	0.10	3	0.29
Post	ure Ability			
2	There is no information system that can present an accurate description of the tactical situation.	0.11	4	0.44
3	The risk is very high, because the defense industry is still dependent on foreign technology	0.10	3	0.31
Posture Degree Pattern				
4	Geographical risk so that marine areas require extra supervision	0.11	3	0.34
5	Unlimited soldier resource levels by population demographics		3	0.29
Total Threat Score (T)				1.66
Total Score (O+T)			3.21	

(Source: Data processed, 2022)

Table 5. shows that the EFE matrix has the main opportunity factor (O) as measured from the aspect of posture strength which consists of: "having a positive image so that it can be well received by the local community, when in the assignment service" with the highest score of 0.42. Then the probability (O) of the second rank posture is measured from the aspect of posture ability, namely: "Ability in law enforcement at sea" with a score of 0.31. And then the third (O) opportunity rank, measured by posture ability, namely "The ability to establish bilateral relations and share technology with developed countries" with a score of 0.29.

The main threat faced lies in the ability of posture, namely: "There is no information system that can present an accurate description of the tactical situation" with the highest score of 0.44. And

the second rank threat that must be faced lies in the postu title pattern, namely: "Geographical risk so that the sea area requires extra supervision" with a score of 0.34. Furthermore, the third rank threat that must be faced by the marines lies in the ability of posture, namely: "The risk is very high, because the defense industry is still dependent on foreign technology" with a score of 0.31.

4. RESULT AND DISCUSSION

4.1. Internal – External Matrix Analysis

Internal-external matrix (IE) analysis is obtained from the total weighted score of the IFE and EFE matrices, then the resulting weighted score is entered into the IE matrix to map the company's current position, it is known that the IFE value is 3.26 and the EFE is 3.21. This means the

position of the posture strategy in Cell I, namely: Growth and Build.

4.2. Strategy Development

The SWOT matrix is used to formulate strategies based on a combination of internal and external environmental analysis. There are four main strategies used, namely;

- a. SO strategy, namely: a strategy that uses strengths to take advantage of opportunities. Strategies that use strengths to take advantage of existing opportunities. The findings of alternative SO strategies in the field, namely:
 - Improving the HR of Soldiers by continuing to learn the technology of developed countries and managing the quality and quantity of defense equipment
 - 2) Improving the brand image in the community and the world's traffic lanes through professionalism
- b. ST strategy, namely: a strategy that utilizes strengths to overcome threats, Strategies that utilize strengths to overcome threats. The findings of alternative ST strategies in the field, namely:
 - Improving the modernization of quality defense equipment and human resources of soldiers to convince the public and provide the right information
 - Developing battalions to improve the welfare of soldiers' resources
- c. WO strategy, namely: a strategy that minimizes weaknesses by taking advantage of opportunities. Strategies that minimize weaknesses by taking advantage of opportunities. Findings of alternative WO strategies in the field, namely:
 - improve a positive image by increasing modernization defense equipment
 - 2) Establish bilateral relations with developed countries to increase the human

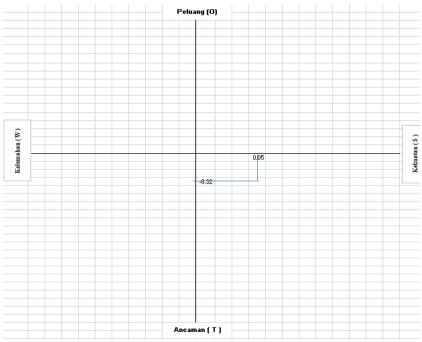
- resources of soldiers and determine battalion development strategies
- d. WT strategy, namely: a strategy that minimizes weaknesses, and at the same time anticipates threats. Strategies that minimize weaknesses, and at the same time anticipate threats. The findings of alternative WT strategies in the field, namely:
 - 1) Improving the modernization of quality defense equipment and human resources of soldiers to convince the public and provide the right information
 - 2) Develop defense equipment technology by increasing the knowledge of human resources of soldiers

Shows that SWOT (Strengths, Weaknesses, Opportunities and Threals) which are arranged in a systematic and structured manner that forms four matrix strategies, namely: SO, ST, WO and WT strategies. The results of the calculation of the IFAS – EFAS score for the SWOT matrix strategy can be seen in Table 6.

Table 6. IFAS and EFAS Scores SWOT Matrix

IFAS		EFAS		
Category	Sub-Total	Category	Sub-Total	
Strength (S)	2.15	Opportunity (O)	2.05	
Weakness (W)	2.09	Threat (T)	2.37	
Total (SW)	0.05	Total (OT)	-0.32	

Based on Table 6, the results of IFAS and EFAS are then presented in a SWOT quadrant graph or Cartesian diagram. The point on the X axis shows the internal factor (IFAS) while the point on the Y axis shows the value of the external factor. Then a line is drawn between the two. This graph shows the position or position of the current posture, can be seen in Picture 3.



Picure 3. Position Strategy Posture

Based on Figure 3, it is known that the quadrant of the EFAS and EFAS calculations is the ST quadrant (Strength and Threal quadrant). The value obtained from IFAS is (-0.16) which is located on the axis of the SWOT quadrant. The value of EFAS is (-0.6) which is located on the ordinate axis of the SWOT quadrant. The posture position is located in quadrant III with coordinates (0.05; -0.32) which shows the ST strategy, namely the posture of utilizing strength to overcome threats. What postures can do:

- a. Increasing the modernization of quality defense equipment and human resources of soldiers to convince the public and provide constant information.
- b. Develop battalions to improve the welfare of soldiers' resources.

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