

THE DEVELOPMENT STRATEGY OF FASHARKAN LANTAMAL IX XYZ FROM CLASS C FASHARKAN TYPE TO FASHARKAN CLASS A KOARMADA III WITH SWOT AND ISM APPROACH

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ABSTRACT

The formation of Koarmada III resulted in a shift and an increase in the number the KRI in its working area, so it must be balanced with the ability of maintenance and repair facilities (fasharkan). Fasharkan XYZ is a fasharkan with class C status so it needs to be upgraded to class A in order to support its main task. The purpose of this research is to determine the alternative development strategy of Fasharkan XYZ. This study uses an integrated SWOT analysis and Interpretative Structural Modeling (ISM). SWOT analysis to formulate alternative strategies developed, namely the SO strategy consisting of 6 (six) strategic steps, the ST Strategy consisting of 6 (six) strategic steps, the WO Strategy consisting of 9 (nine) strategic steps and the WT strategy consisting of 4 (four) strategy move. From the weighting of the EFAS and IFAS matrices the WO strategy was selected. By using ISM, it is obtained 5 (five) levels of hierarchical structure from the classification of elements in the WO strategy, including the strategy (WO5) at level V. Then the sub strategies (WO1) and (WO4) are at level IV. At level III it consists of 4 (four) sub strategies, namely (WO2); (WO6); (WO7); (WO8). At level II, namely the sub strategy (WO3). At level I sub strategy (WO9).

Keywords: *Fasharkan XYZ, development strategy, SWOT, ISM.*

1. INTRODUCTION

As a maritime country, most of its territories are islands separated by the ocean. The Indonesian Navy (TNI AL) as an integral part of the Indonesian National Army (TNI) has a main task that focuses on defense and security at sea. This is part of the trinity of the universal role of the Navy as put forward by Ken Booth, a British maritime thinker (Marsetio, 2014). In accordance with what is mandated in the doctrine of the Indonesian National Armed Forces Tridarma Eka Karma (tridek) in the roles, functions and main tasks of the Navy, among others:

- a. Carry out TNI duties in the marine sector in the defense sector.
- b. Upholding the law and maintaining security in the marine area of national jurisdiction in accordance with the provisions of national law and international law that has been ratified.

- c. Carry out the diplomatic duties of the Navy in order to support the foreign policy set by the government.
- d. Carry out TNI duties in the development and development of the strength of the marine dimension.
- e. Implementing the empowerment of marine defense areas.

The formation of Koarmada III based on the Presidential Decree of the Republic of Indonesia Number 12 of 2018 concerning the formation of Koarmada III and Pasmar 3 in Sorong will have an impact on shifting the operational area and adding combat units according to the operating sector, especially towards East Indonesia. So that we need a balanced process between the Motion Exercise Schedule (JOG) and the Maintenance Exercise Schedule (JOP).

Koarmada III currently only has 2 (two) Ship Maintenance and Repair Facilities (Fasharkan) namely, class C Fasharkan at Lantamal IX XYZ and Fasharkan class A at Lantamal X Manokwari.



Figure 1. Map of the Working Area of Koarmada III

Fasharkan Lantamal IX XYZ, which currently still has a class C level, is very important to upgrade its grade to Fasharkan class A. Some considerations on the importance of developing XYZese Fasharkan include:

- a. Formation of Koarmada III in Sorong. Based on the Regulation of the Chief of Naval Staff Number 17 of 2018, dated 9 May 2018 concerning the Establishment of Fleet Command III.
- b. Geographically, fasharkan XYZ is very strategic because it has the closest position to Mako Koarmada III
- c. Based on the data, many KRIs who are carrying out operational tasks in the eastern region will carry out provisions and stabilization of technical conditions at Fasharkan Lantamal IX XYZ compared to Lantamal X Manokwari fasharkan.

Table 1. KRI recapitulation visited in Lantamal IX XYZ and Lantamal X OPQ

No	Period Of Time	Total Visit
LANTAMAL IX XYZ		
2018		
1	Three Months I	4
2	Three Months II	4
3	Three Months III	5
4	Three Months IV	5
2019		
1	Three Months I	9
2	Three Months II	18
3	Three Months III	18
4	Three Months IV	4
2020		
1	Three Months I	10
2	Three Months II	18
Total		95
LANTAMAL X OPQ		
2018		
1	Three Months I	1
2	Three Months II	-
3	Three Months III	3
4	Three Months IV	2
2019		
1	Three Months I	3
2	Three Months II	1
3	Three Months III	8
4	Three Months IV	5
2020		
1	Three Months I	-
2	Three Months II	3
Total		26

- d. Regional issues in the region of Southeast Asian (ASEAN) countries are so complex and dynamic that Indonesia's strategic defense planning policies in the 2015 - 2020 period must be able to adopt this phenomenon within the existing timeframe. The maritime sector development program by the government is an opportunity for the Indonesian Navy to develop its capabilities. Indonesia needs to strengthen its defense capability among Southeast Asian countries by strengthening the base posture and defense structure that is linked to the vision of the world's maritime axis.
- e. The current priority for handling state threats is the issue of terrorism and radicalism, separatism and armed rebellion, natural and environmental disasters, drug abuse and threats to the mindset. The change in the threat dimension is one of the basic considerations in defense force development planning in addition to the limited capacity and budget support that can be provided by the state.
- f. The development of the strategic environment around the Fasharkan XYZ work area shows that the existing ship maintenance facility is PT. Doc and Shipping Wayame XYZ, PT. Doc and Shipping

Tawiri and PT. Perikanan Nusantara Maluku cannot accommodate ship maintenance work due to overcapacity and limited shipyard capabilities of vessels under 500 GT (Gross Tonnage) due to limited shipyard facilities (Haikal Marasabessy, Kompas, 2011). Thus, around 76 percent or 380 ships out of 500 units in Maluku are forced to carry out repairs and maintenance in Papua and Sulawesi.

Currently, Fasharkan XYZ is only able to carry out intermediate maintenance but its nature is still limited, such as carrying out repair / servicing of pump motors and not being able to maintain and repair KRI up to the depot level or to repair docking or maintenance of ships under the Water Line (BGA). This is not in accordance with the repair provisions needed by KRI in terms of maintenance, namely the existence of type 'A' fasharkan.

Based on these problems, it is an inevitable need for the development of XYZese fashion in order to improve the ability to repair and maintain KRI. This study aims to determine what factors influence the development of Fasharkan XYZ, as well as formulate several strategies to meet the minimum or same abilities as class 'A' Fasharkan for example Lantamal V Surabaya fasharkan and Lantamal VI Makassar fasharkan.

There are several methods that can be used in planning development strategies to improve abilities or capabilities such as (Ragil Sudaryanto, 2016) Integration of Threats Opportunities Weaknesses Strength (TOWS), Analytic Hierarchy Process (AHP) and Simple Additive Weighting (SAW) in Strategy Formulation (Case Study PT. XYZ). (Lumaksono, 2014) using the SWOT-AHP method as a strategy for developing the shipyard industry in Sumenep. (Aam Slamet Rusydiana et al, 2018) using the Interpretative Structural Modeling (ISM) approach method in the development of cooperatives with a Sharia background in Indonesia.

The integration of SWOT and ISM analysis is used in this study to formulate a development strategy for Fasharkan XYZ. SWOT analysis is used to formulate alternative strategies. While the ISM method is used to determine priorities in the preparation of a road map for the chosen strategy.

Research Objectives. From the description of the problem formulation above, this research is carried out by aiming at the objectives to be achieved, namely:

- a. To get the factors and criteria that influence the development strategy of Fasharkan XYZ.
- b. To formulate a development strategy for Fasharkan XYZ.
- c. To determine priorities and strategic roadmaps that can be applied in the development of Fasharkan XYZ.

2. MATERIALS AND METHOD

2.1 Literatur Review

In this study, the aim of this research is to formulate a strategy for the development of Fasharkan Lantamal IX XYZ through the SWOT analysis approach by identifying factors that influence both internal and external factors based on current conditions to obtain alternative strategies and then using the Interpretative Structural Modeling (ISM) approach to determine alternatives and priorities as well as strategic steps for the development of Fasharkan Lantamal IX XYZ.

2.2 Fleet Command III

Fleet Command (Koarmada) III as the Main Operational Command (Kotama Ops) is directly under the TNI Commander and as the Main Development Command (Kotama Bin) is directly under Kasal. This is stated in the Regulation of the Chief of Naval Staff (Perkasal) Number 17 of 2018 concerning Formation of Fleet Command III.

2.3 Main Base of the Indonesian Navy

In general, the Navy Main Base (Lantamal) has the main duties and functions in accordance with the Indonesian Navy Base, which is based on the Decree of the Chief of Naval Staff Number Kep / 1771 / XII / 2013 concerning the Guidebook for Standardization Administration of the Indonesian Navy Base (Pum-7.03), is as follows :

- a. Main tasks. The Navy Base has the main task of carrying out administration and logistics for elements of the Navy (ships, aircraft and Marines) and carrying out maritime potential development by utilizing the facilities and infrastructure owned by the Pangkalan itself and those associated with it.
- b. Function. The base as a place to dock, provision, operation and maintenance as well as repairing operational elements of the Indonesian Navy and personnel maintenance. This is known as the "5R" function namely Rebase, Replenishment, Repair, Rest and Recreation.

2.4 Maintenance and Repair Facilities (Fasharkan)

One of the work units under Lantamal was Fasharkan. Fasharkan is a ship maintenance and repair facility owned by the Indonesian Navy, which is part of the maritime service industry (injasmar) to support combat readiness of elements of the Indonesian Navy. Based on the Decree of the Chief of Naval Staff Number Kep / 1771 / XII / 2013 concerning the Guidebook for Standardization Administration of the Indonesian Navy Base (Pum-7.03), in general, the main functions and duties of fasharkan are to provide maintenance and repair support for Indonesian Navy ships at medium maintenance levels, Depo level as well as emergency maintenance for KRI or KAL that are homebase in their working area and also those operating in that area and have development capabilities, in this case the production of a certain scale ship.

2.5 Development Strategy

Strategic management is a managerial action in making decisions in determining the direction of performance in the long term of an organization which includes observations of environmental influences, formulation or planning of a strategy, implementation of evaluation and implementation of the strategy itself (J. David Hunger, 2003).

2.6 SWOT analysis

SWOT is a tool commonly used in analyzing the internal and external environment in obtaining a systematic approach and support for decision makers (Rangkuti., 2012). SWOT is an abbreviation in English of strength (S), weakness (W), opportunity (O) and threat (T). Internal organizational factors are represented by the first two factors (strengths and weaknesses), while external factors from the words opportunities and threats cover the broader environmental context in which the entity operates (Rangkuti, 2018).

In the SWOT analysis (Rangkuti., 2012), several key questions are as follows:

- a. Strengths, which is an internal variable in an organization that has positive values whose conditions can be controlled and in planning can be strengthened.
- b. Weaknesses, which is a negative internal variable in the organization that can be controlled and in planning, can be improved.
- c. Opportunities, which is an external condition of an organization that has a positive value that cannot be controlled and its benefits can be utilized.
- d. Threats, which is an external condition with negative values that cannot be controlled and its impact may be minimized.
- e. What obstacles are being faced. In determining the strategy based on the potential factual conditions and problems as described above, the technique used is to find a cross strategy of the four SWOT factors above, namely:

- 1) S-O strategy: The strategy is formulated by utilizing all components of the strength and taking as many opportunities as there are.
- 2) S-T Strategy: Strategies that are taken to take advantage of existing strengths in dealing with emerging threats.
- 3) W-O Strategy: A strategy to take full advantage of opportunities to deal with the weaknesses of the organization.
- 4) W-T Strategy: Strategies to overcome weaknesses and eliminate threats that arise.

Table 2. Matrix SWOT

INTERNAL/EXTERNAL FACTOR	STRENGTH (S) (Maximal)	WEAKNESS (W) (Minimal)
OPPORTUNITIES (O) (maximal)	S-O Strategy (Maximal-Maximal)	W-T Strategy (Minimal-Minimal)
THREATS (T) (Minimal)	S-T Strategy (Maximal-Minimal)	W-O Strategy (Minimal-Maximal)

2.7 Interpretative Structural Modelling (ISM)

ISM was first introduced by J. Warfield in 1973, by defining ISM as a computer-assisted learning process that allows individuals or groups to develop a map of complex relationships between various elements involved in a complex situation (Warfield, 1974). ISM is a sophisticated planning methodology used to identify and infer various kinds of relationships between factors in a particular problem or issue (Sage, 1977).

ISM is a sophisticated interactive planning methodology that allows a group of people, working as a team, to develop a structure that defines the relationships among the elements in a set. Structure is obtained by answering simple questions. (Bhattacharya and Momaya, 2009). ISM is a method of making decisions from complex situations by connecting and organizing ideas in a visual map. ISM is a model that describes the specific relationship between variables, the overall structure and has an output in the form of a graphical model in the form of quadrants and variable levels (Li & Yang, 2014).

ISM begins with the identification of elements that are relevant to the problem or problem and extends to group problem solving techniques. A structural self-interaction matrix (SSIM) was developed based on the comparison of the paired elements. There are procedures or stages in using the ISM method, these stages include (Firoz & Rajesh, 2012) :

a. Parameter identification. The elements to be considered for identification of relationships were obtained through literature surveyors by conducting surveys.

b. Development of Structural Self Interaction Matrix (SSIM). The development of the interpretive structural model begins with the construction of a structural self-interaction matrix, which shows the direction of the contextual relationship among the elements.

c. Reachability Matrix. From the self-interaction matrix (SSIM), relational indicators are converted into binary numbers 0 and 1 to obtain a square matrix, which is called the reachability matrix (Hussain, 2011).

1) If (i, j) the value in SSIM is V, (i, j) the value in the reachability matrix will be 1 and (j, i) the value will be 0.

2) If (i, j) the value in SSIM is A, (i, j) the value in the reachability matrix will be 0 and (j, i) the value will be 1.

3) If (i, j) the value in SSIM is X, (i, j) the value in the reachability matrix will be 1 and (j, i) the value will also be 1.

4) If (i, j) the value in SSIM is the value of O, (i, j) in the reachability matrix will be 0 and (j, i) will also be 0.

d. Partition level. From the reachability matrix, for each parameter, the reachability set and the antecedent set are derived. Variables, which are common in reachability sets and antecedent sets, are allocated to intersection sets. The top-level element for each hierarchy is one where the

antecedent set and the intersection set are the same in the ISM hierarchy. Once the upper level barrier is identified, it is removed from consideration and other upper level barriers are found (Firoz & Rajesh, 2012). This process will continue until all levels of each barrier are found.

e. Interpretive structural modeling (ISM) constructs. From the partitioned parameters and reachability matrix, a structured model is derived, showing the parameters at each level and arrows showing the direction of the relationship. Such a graphical representation of the model is called a diagraph.

f. MICMAC analysis. MICMAC analysis refers to the Matrice d'Impacts Croisés Multiplication Appliquée á un Classement (Hussain, 2011) and involves developing a graph to classify various enablers based on driving power and dependence power. MICMAC is also used to check driving power and power dependencies. Variable is a concept that contains a variation of values consisting of at least two variations (Suharjo, 2013). The variables have been classified into four categories referred to as Autonomous, Linkage, Dependent and Driving / independent.

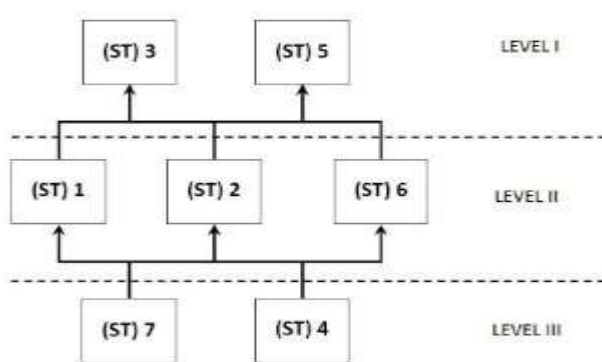


Figure 2. Hierarchy Level Determination in the Selected Strategy

2.8 Research Procedures

By using the SWOT and ISM analysis methods in this study, systematically and sequentially based on the problems raised, a

research analysis can be compiled through several process steps, including:

a. The process of identifying the factors that influence the organization's internal (internal factors) which at the same time is in the form of determining the existing variables of the strengths and weaknesses. Furthermore, the identification of external factors (external factors) in the form of determining factors of opportunities (Opportunities) and Threats (Threats).

b. Formulation of a questionnaire as a means of obtaining an assessment from respondents on the factors that have been formulated. The rating of the factors is given a scale between 1 (very very bad) to 9 (very very good).

c. Through a questionnaire, expert views or perceptions of internal and external factors are obtained. Then these factors are grouped into internal factors (strengths and weaknesses), as well as external factors (opportunities and threats) which are then carried out weighting.

d. Multiplies the weight of each internal factor by its rating to determine the weight score, as well as the external factor.

e. Add up the average score for each variable to determine the total weight score.

f. The output of the SWOT analysis is a strategy formulation.

g. The results of the SWOT analysis were made a questionnaire to determine the relationship or interest between one sub strategy and another by using the ISM method approach to determine strategic priorities and the road map for the development strategy of Fasharkan Lantamal IX XYZ.

In general, all processes and sequences of activities carried out in the study are depicted in a flowchart as shown in Figure 3.

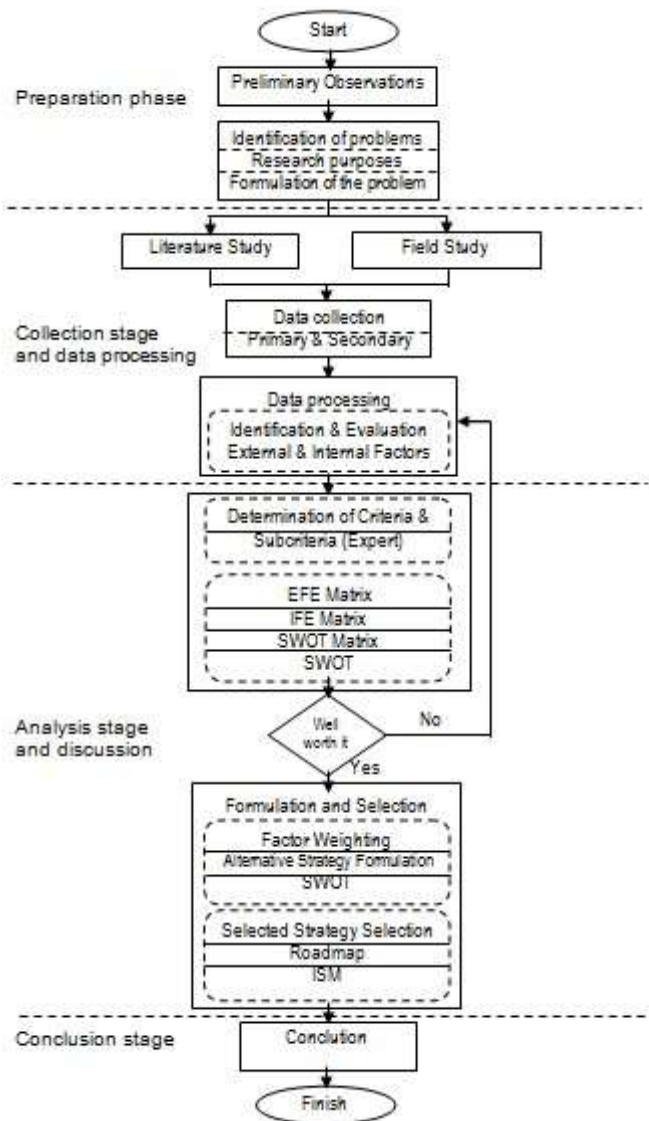


Figure 3. Flowchart Mapping

3. RESULT AND DISCUSSION

3.1 Strategy Formulation

Data collection through literature studies, documents and interviews with competent parties or experts, namely six personnel (E1; E2; E3; E4; E5; E6;) related and observation in obtaining the formulation of internal and external factors. Based on the analysis of internal factors, it was obtained 8 strength factors and 8 weakness factors. Meanwhile, the analysis of external factors obtained 9 (nine) opportunity factors and 7 (seven) threat factors. This section discusses the analysis of the results of weighting criteria and alternative strategies for the development of Fasharkan XYZ by using weighting from EFAS and IFAS through the use of

questionnaires given to stakeholders in XYZ's fasharkan development strategy.

3.2 Weighting of Internal Factors / Internal Factors Analysis Summary (IFAS)

After the strengths and weaknesses of the internal factors in the development of Fasharkan XYZ are known, then the IFAS weighting is carried out as in the following table:

Table 3. Internal Factor Weighting

Internal Factor Criteria	Assessment	Weight (W)	Rating (R)	W x R
Strengths (S)				
Well commitment	7,67	0,07	2,83	0,19
Has a dock	7,17	0,06	2,83	0,17
Competent human resources	7,33	0,06	2,67	0,17
Computer operator well	7,50	0,06	2,67	0,17
Transfer of Technology chance	7	0,06	2,67	0,16
Good managerial	7,17	0,06	3,33	0,21
Budget availability	7,33	0,06	3,17	0,20
Strategic location	7,33	0,06	3,17	0,20
Total Strength	58,50	0,50	23,33	1,47
Weaknesses (W)				
Old workshop equipment	7	0,06	3,5	0,21
No docking facility	7,50	0,06	3,33	0,21
Less equipment operator	7,67	0,07	3	0,20
No professional certification	7	0,06	3,33	0,20
Unable to repair KRI to depot level	7,33	0,06	3,33	0,21
Manually equipments	6,67	0,06	3,33	0,19
Welding less technology	7,17	0,06	3,5	0,22
Focused budget employee spending	7,50	0,06	3,33	0,21
Total Weaknesses	57,83	0,50	26,67	1,66
Total	116,33	1	50,00	3,12

Weighting is done to find out how much influence or impact these factors have on the strategy itself. Strength sub-criteria assessment no. 1 (7.67) is obtained from the total answers of 6 respondents (46) divided by the number of respondents (6), namely (value = $46/6 = 7.67$). The total assessment of each strength and weakness factor was 116.33. The weight of the sub-criteria strength no.1 (0.07) is obtained from the value in column 1 (7.67), divided by the total number of assessments (116.33), namely (weight = $7.67 / 116.33 = 0.07$). It is known that the weighted score for strength is 1.47 and weaknesses is 1.66. The rating aims to provide a scale ranging from 4 to 1 based on these factors that affect the development of Fasharkan XYZ

3.3 Weighting of External Factors / External Factors Analysis Summary (EFAS)

After the opportunities and threats to external factors in the development of Fasaharkan XYZ are known, then the EFAS weighting is carried out as in the following table:

Table 4. External Factor Weighting

External Factor Criteria	Assessment	Weight (W)	Rating (R)	W x R
Opportunities (O)				
Government Policy	7,33	0,06	3,17	0,20
Procurement of domestic vessels	7,50	0,06	2,83	0,18
An increase in the number of ships	7,00	0,06	2,50	0,15
Additional defense budget	7,17	0,06	2,67	0,16
The number of productive age	7,50	0,06	2,50	0,16
Limited shipyards	7,50	0,06	3,17	0,20
Strict regulations for new shipyards	7,00	0,06	3,50	0,21
Increase in the defense industry	7,50	0,07	3,33	0,23
Transfer of Technology adopted	7,17	0,07	3,00	0,18
Total Opportunities	65,67	0,56	26,67	1,67
Threats (T)				
High interest rates	7,17	0,06	3,50	0,22
Low defense budget (1.5% GNP)	7,33	0,06	3,17	0,20
High budget for new technology	7,33	0,06	2,67	0,17
Less integrity of each shipyards	7,17	0,07	3,50	0,22
Dependence on foreign technology	7,50	0,07	3,50	0,23
Limitations of technology transfer	6,83	0,06	3,50	0,21
Rpid development of technology	7,50	0,07	3,50	0,23
Total Threats	50,83	0,44	23,33	1,45
Total	116,50	1,00	50,00	3,12

Weighting is done to find out how much influence or impact these factors have on the strategy itself. Opportunities sub-criteria assessment no.1 (7.33) is obtained from the total answers of 6 respondents (44) divided by the number of respondents (6), namely (value = $44/6 = 7.33$). The total assessment of each opportunities and threats factor was 116.50. The weight of the sub-criteria opportunities no.1 (0.07) is obtained from the value in column 1 (7.67), divided by the total number of assessments (116.33), namely (weight = $7.67 / 116.33 = 0.07$). It is known that the weighted score for opportunities is 1.67 and threats is 1.45. The rating aims to provide a scale ranging from 4 to 1 based on these factors that affect the development of Fasharkan XYZ

3.4 SWOT matrix and the determination of the chosen strategy

Based on the results of calculations that have been carried out through the IFAS and EFAS

analysis, the final value of internal factors (strengths and weaknesses) and external factors (opportunities and threats) is obtained. The results of the weighting of the influencing factors above are arranged in a cross strategy between factors or a SWOT matrix to determine the chosen strategy, so that we can analyze what strategy is appropriate to use in problem solving. In summary, it can be seen in the following table.

Table 5. Matrix SWOT

IFAS \ EFAS	Strengths (S = 1,47)	Weaknesses (W = 1,66)
Opportunities (O = 1,67)	Strategy S-O = 3,14	Strategy W-O = 3,33
Threats (T = 1,45)	Strategy S-T = 2,92	Strategy W-T = 3,11

The combination of the crossover strategy of the IFAS and EFAS factors or the SWOT matrix produces several strategic formulations with certain weights. Based on the final score obtained, strategic priorities are arranged starting from the strategy with the highest score to the lowest, as shown in the figure below:



Figure 4. Strategy Weights

Based on the IFAS-EFAS interaction process through a cross strategy / combination of elements of S, W, O, and T elements, the strategy alternative with the highest weight is the Weaknesses - Opportunities (WO) strategy. This can be interpreted as a chosen substrategy to solve the problems faced by maximizing the opportunities available to deal with organizational weaknesses / shortcomings. This condition is favorable for XYZese fasharkan because in terms of external factors, the existing

opportunities are greater than threats in the context of developing XYZese fasharkan into class 'A' fasharkan types.

3.5 Prioritization of Sub-strategies based on ISM

Based on the analysis results, the selected sub-strategy is the W-O strategy as an alternative development strategy for Fasharkan XYZ. Where these elements are obtained from the results of determining the strategy in the SWOT analysis. In the next step, in order to prioritize the organizational development sub-strategy, the Interpretative structural modeling approach is used.

Table 6. Results of Determination of Sub Strategies

Code	Sub-Strategy W-O
WO1	New procurement and updating of equipment for each workshop
WO2	Construction of slipway shipyard facilities and complete infrastructure
WO3	Construction of a graving dock with a capacity of up to 5000 DWT
WO4	Increased capability of renewable welding technology
WO5	Charging personnel according to their needs and competencies
WO6	Implementation of education and training and courses according to assignments
WO7	Integration of cooperation with related stakeholders in order to align common goals
WO8	Increased cooperation in transfer of technology in all fields
WO9	The new KRI procurement policy is in line with the development of KRI's fasharkan

After obtaining several alternatives from the W-O selected sub-strategy, from the WO1 to WO9 alternatives, then the ISM questionnaire was taken from the selected sub-strategies to the validator / expert of the position holder for further data processing using ISM. The results from processing the ISM questionnaire data obtained the following binary calculation formations:

Table 7. Reachability Matrix

Code	Sub-strategy W-O	Sub-Strategy									Driven Power
		1	2	3	4	5	6	7	8	9	
WO1	New procurement and updating of equipment for each workshop	1	1	0	0	0	1	1	1	0	5
WO2	Construction of slipway shipyard facilities and complete infrastructure	0	1	0	0	1	1	0	0	1	4
WO3	Construction of a graving dock with a capacity of up to 5000 DWT	0	1	1	0	0	0	0	0	1	3
WO4	Increased capability of renewable welding technology	1	0	0	1	0	0	0	0	1	3
WO5	Charging personnel according to their needs and competencies	1	1	1	1	1	1	0	0	1	7
WO6	Implementation of education and training and courses according to assignments	0	0	1	1	0	1	1	1	1	6
WO7	Integration of cooperation with related stakeholders in order to align common goals	0	0	1	0	0	0	1	1	1	4
WO8	Increased cooperation in transfer of technology in all fields	0	0	0	0	0	0	0	1	1	2
WO9	The new KRI procurement policy is in line with the development of KRI's fasharkan	0	0	1	0	0	0	1	0	1	3
Dependence		7	4	3	2	4	4	4	4	8	

Based on further data processing and analysis on RM, the Driven Power and Dependence values are obtained which are then mapped or classified into the sub-strategy elements based on Driven Power (DP) as the abscissa (X) axis and Dependence (D) as the ordinate axis (Y) in the graphic description /picture. The classification of existing elements can be classified into 4 sectors, namely:

- Sector I. As Weak Driver - weak dependence variables (Autonomous). In terms of changes in this sector with the system, it is relatively small or irrelevant.
- Sector II. As Weak Driver - Strongly Dependence Variables (Dependent). Changes in this sector depend on the input and actions taken on the system, especially those that come from linkage changes.
- Sector III. As Strong Driver - Strongly Dependence Variables (Linkage). In this sector, the relationship between variables is not stable. Every action taken will affect other changes.
- Sector IV. As Strong Driver - Weak Dependence Variables (independent), the changes in this sector are called independent variables, where this sub strategy is considered a key factor in the system.

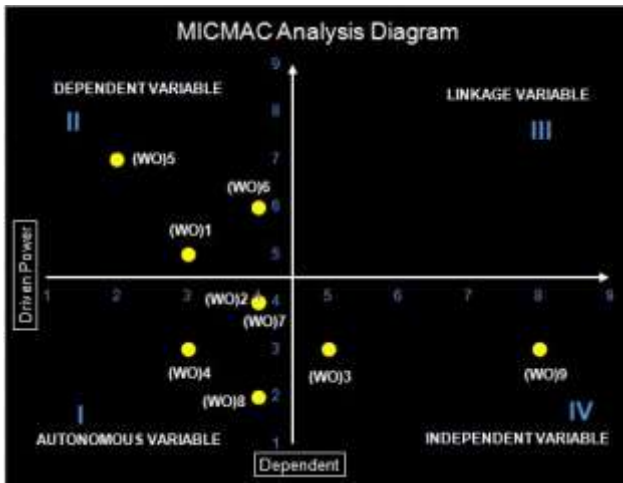


Figure 5. MICMAC Analysis Diagram

Through the influence of driven power and dependence on the MICMAC Analysis Diagram it is known that the autonomous variables (sector I) consist of four variables, namely (WO2), (WO4), (WO7) and (WO8). This sub strategy has a relatively small driving power and has little dependence on other elements.

Sector II (Dependent Variable), there are two elements of the sub strategy, namely building a graving dock up to 5000 DWT (WO3) capability and a new KRI procurement policy in line with the development of KRI (WO9) fasharkan. these elements have a relatively small driving power but are heavily dependent on other elements as triggers in the development of Fasharkan. Sector III (variable linkage) has no variables.

Sector IV (Independent variable) has three variables, namely new procurement and updating of equipment for each workshop (WO1), filling of personnel according to their needs and competencies (WO5) and implementation of education and training and courses according to assignments (WO6) has an effect strong against the success of fasharkan development. Where (WO5) as the strongest driver in driving other variables. Then sequentially followed by the (WO1) and (WO6) sub-strategies as driving other variables in the XYZese fasharkan development process.

In accordance with Figure 5. The micmac analysis diagram can be arranged from each element and can be obtained 5 (five) hierarchical levels of each variable as shown below.

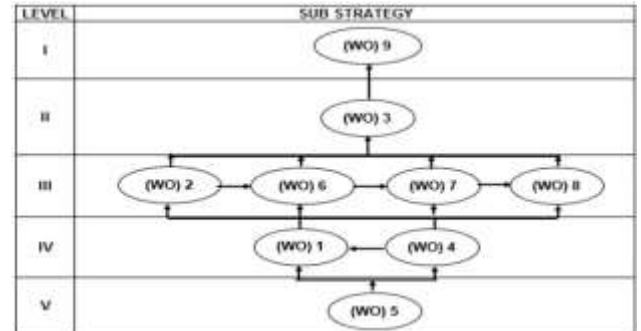


Figure 6. Strategic Structure Level

From the picture above, it is obtained 5 (five) levels of the hierarchical structure, namely the variables (WO5) are at level V. The sub-strategy (WO1) and (WO4) are at level IV. At level III it consists of 3 (three) sub strategies, namely (WO2), (WO6) and (WO7) and (WO8). At level II there is a strategy (WO3) and at level I a strategy element (WO9).

4. DISCUSSION

The research starts from the problem identification stage and data collection from literature, field studies, interviews and questionnaires to selected experts. The next stage is identifying and formulating strategies. With the SWOT analysis method, the W-O sub-strategy was selected. In order to solve the problems faced by maximizing the opportunities available to deal with organizational weaknesses / shortcomings. This condition is favorable for XYZese fasharkan because in terms of external factors, the existing opportunities are greater than threats in the context of developing XYZese fasharkan into class 'A' fasharkan types.

The SWOT analysis method integrates external and internal factors in formulating a legal development strategy. weighting of each factor is

carried out with an EFAS / IFAS analysis which is then carried out a cross combination of each of these factors in the form of an SO strategy (6 strategy steps), WO strategy (9 strategy steps), ST strategy (6 strategy steps) and WT strategy (4 strategy steps) where the selected strategy with the highest weight is the sub-strategy WO = 3.33

After taking the ISM questionnaire from the selected sub-strategies (WO1) - (WO9) to the occupational expert, a binary calculation formation is obtained to determine the relationship / position of each strategy in the reachability matrix to determine the function of each variable as a driven power or as a the dependence factor (dependence / linkage). From Figure 5, it can be classified into 4 (four) sectors, namely the autonomous variable (sector I), there are 4 (four) sub strategy variables (WO2, WO4, WO7, WO8). In sector II (Dependent Variable) there are 3 (three) sub strategies (WO1, WO5, WO6), Sector III (variable linkage) has no variables and sector IV (Independent variable) has 2 (two) sub strategy variables (WO3, WO9)).

The next step is to map the relationship between the sub strategies of the selected strategy in the hierarchical level structure in order to identify the linkages between the sub strategy elements. Based on the results of the classification of elements in the WO strategy, there are 5 (five) levels of hierarchical structure. It can be described briefly from the hierarchical structure that the filling of personnel according to their needs and competencies (WO5) is at level V. Then the sub-strategies of new procurement and equipment updating for each workshop (WO1) and increasing the capability of renewable welding technology (WO4) are at level IV. . At level III it consists of 4 (four) sub strategies, namely the construction of slipway shipyard facilities and completing the infrastructure (WO2); Implementation of education and training as well as courses according to assignments (WO6); Integration of cooperation with

related stakeholders in order to align common goals (WO7); Increased cooperation in transfer of technology in all fields (WO8). At level II, namely the construction of a graving dock with a capacity of up to 5000 DWT (WO3). At level I, the new KRI procurement policy is in line with the formal development of KRI (WO9).

5. CONCLUSION

The conclusion that can be made are:

- a. The formation of Koarmada III in Sorong had an effect on changes in the operating sector and the addition of KRI elements, especially in the eastern region. This has implications for increasing workloads and readiness of bases in order to increase capabilities in the process of maintaining and repairing KRI so that they are always ready to carry out operational tasks at sea, with the existence of a strategy for developing fasharkan Lantamal IX XYZ from class C to class A.
- b. By paying attention to the external and internal factors of the organization which are then processed and analyzed using the SWOT approach, several formulations are obtained, namely the strategy strengths(S) - Opportunities(O) (SO1-SO6), Strategies of Weaknesses(W) - Opportunities(O) (WO1-WO9), strategy strengths(S) - Threats(T) (ST1-ST6) and strategy weaknesses(W) - Threats(T) (WT1-WT4) where the selected strategy with the highest weight is the WO sub-strategy with a score of 3.33
- c. Using the ISM method, the WO strategy is further processed into the reachability matrix and the weight of each sub-strategy WO is obtained in the value of driven power and dependence, then entered in the micmac analysis diagram, the position of each variable element is obtained to determine the effect (driven power) and dependence. (dependence) one variable on another variable.
- d. Mapping of each variable in the relationship between the sub-strategies of the selected strategy into the hierarchical level structure in order to

identify the relationship between the elements of the sub strategy, there are 5 (five) levels of the hierarchical structure, namely the sub-strategy (WO5) is at level V. sub-strategy (WO1) and (WO4) is at level IV. At level III it consists of 4 (four) sub strategies (WO2); (WO6); (WO7); and (WO8). At level II there is a strategy (WO3). At level I strategy (WO9).

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XYZ's fasharkan development strategy is a form of response to the validation of organizational development. This investigation is expected to be one of the considerations and inputs in the decision making process. The subject of research studies is expressed in variables to represent the place of the organization with the aim of not causing negative perceptions. Acknowledgments to agencies that have provided support and opportunities to researchers to provide support for their thoughts and to honorable officials and supervisors so that this paper can be compiled.

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