

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

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ABSTRACT

The formation of Koarmada III resulted in a shift and an increase in the number of KRIs in its working area, so that it had to 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 to support KRI improvements. The purpose of this study is to determine an alternative strategy for the development of Fasharkan XYZ with the Delphi approach, TOWS analysis and Interpretative Structural Modeling (ISM). Delphi technique to determine criteria from key factors, TOWS analysis to formulate alternative strategies developed, namely the SO strategy which consists of 7 (seven) strategic steps, the ST strategy consists of 5 (five) strategic steps, the WO strategy consists of 9 (nine) steps strategy and strategy WT consists of 4 (four) strategy steps. From the weighting of the EFE and EFI matrices, the WO strategy is selected. With ISM obtained 5 (five) levels of hierarchical structure from the classification of elements in the WO strategy, namely strategy (WO) 6 at level V. Then sub strategy (WO) 4 is at level IV. At level III it consists of 4 (four) sub strategies, namely (WO) 2; (WO) 3; (WO) 7; (WO) 9. At level II, there are sub strategies (WO) 1 and (WO) 8. At level I sub strategy (WO) 5.

Keywords: Fasharkan XYZ, development strategy, Delphi, TOWS, 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 defence 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 defence 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 Pasmabar 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 UVW.

Fasharkan Lantamal IX XYZ with class C is very important to upgrade its status to class A. Considerations of the importance of developing Fasharkan XYZ 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 Formation of Fleet Command III.
- b. Geographically, Fasharkan XYZ is very strategic because it is located closest to Mako

Koarmada III and close to the city center and public facilities (air and sea ports).

c. Based on the data, many KRIs currently operating in the eastern region will re-equip and strengthen technical conditions in Fasharkan XYZ compared to Fasharkan UVW.

d. The development of shipyard companies around the Fasharkan XYZ working area shows that the existing ship maintenance facility is PT. Doc and Wayame Shipping, PT. Doc and Shipping Tawiri and PT. Perikanan Nusantara Maluku cannot accommodate ship maintenance work due to overcapacity and limited facilities, only being able to afford under 500 GT (Gross Tonnage) (Haikal Marasabessy, Kompas, 2011). About 76 percent or 380 ships out of 500 units in Maluku are forced to carry out repairs and maintenance in Papua and Sulawesi.

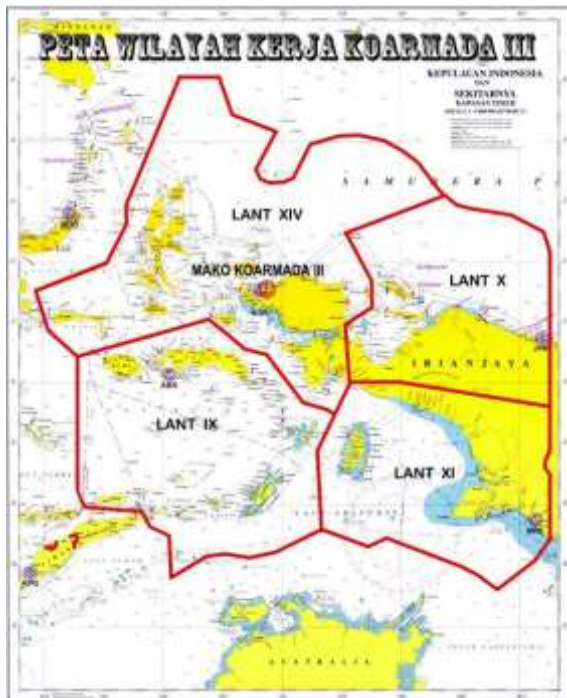


Figure 1. Map of the Working Area of Koarmada III (Source: Processed data)

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

Based on these problems, the development of Fasharkan XYZ is an unavoidable need in order to improve the ability to repair and maintain KRI. This study aims to determine what factors influence the development of Fasharkan XYZ, and to formulate several development strategies according to

class A Fasharkan, for example Fasharkan Lantamal V ABC and Fasharkan Lantamal VI DEF.

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

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

(Source: Processed data)

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 (Study The case of PT. XYZ). (Lumaksono, 2014) uses 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 developing cooperatives with a sharia background in Indonesia.

The integration of the Delphi, TOWS and ISM analysis techniques is used in this study to formulate a development strategy for the Fasharkan XYZ. Delphi technique to determine the criteria for development factors, TOWS analysis is used to formulate alternative strategies. While the ISM method is used to determine priorities in the preparation of the selected strategic road map.

Research purposes. From the description of the problem formulation above, this research was conducted with the aim of achieving the objectives to be achieved, namely:

a. To formulate factors and criteria that affect the development strategy of Fasharkan XYZ.

- b. Formulate a development strategy for Fasharkan XYZ.
- c. Determine priorities and the road map for the development strategy of Fasharkan XYZ.

2. MATERIAL AND METHOD

2.1 Literature Review

This study aims to formulate a development strategy for Fasharkan Lantamal IX XYZ by identifying criteria with the Delphi technique approach, TOWS analysis by identifying factors that influence both internal and external factors based on current conditions to obtain alternative strategies then using the Interpretative method. Structural Modeling (ISM) to determine priorities and strategic steps for the development of Fasharkan Lantamal IX XYZ.

2.2 Koarmada III

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

2.3 Main Base of the Indonesian Navy

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

- a. Main task. The Naval Base has the main task of carrying out the administration and logistics of elements of the Navy (ships, aircraft and Marines) and carrying out the development of maritime potential by utilizing the facilities and infrastructure owned by the Base itself and associated with it.
- b. Function. The base serves as a berth, procures, operates and maintains and repairs the operational elements of the Indonesian Navy and personnel maintenance. These are known as "5Rs" functions, namely Rebase, Replenishment, Repair, Rest, and Recreation.

2.4 Ship Maintenance and Repair Facilities (Fasharkan).

One of the work units under Lantamal is Fasharkan. Fasharkan is a ship maintenance and repair facility belonging to the Indonesian Navy which is part of the maritime service industry (injasmar) to support the 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 Guidelines for the Administration of Standardization of Indonesian Navy Bases (Pum-7.03). In general, the main functions and tasks of fasharkan are to carry out maintenance and support for the repair of Indonesian Navy ships at the moderate maintenance level, the Depo level as well as emergency maintenance for KRI or KAL who are at bases in their working area and also those operating in the area and have development capabilities, in this is the production of ships in a certain scale.

2.5 Development Strategy Theory

Strategic management is a managerial action in making decisions in determining the direction of long-term performance of an organization which includes observing environmental influences, formulating or planning a strategy, evaluating and implementing the strategy itself (J. David Hunger, 2003).

2.6 Delphi Method

This technique is to look for criteria and sub-criteria according to expert preferences in determining the factors that influence the development strategy of the object under study. Ratiations or elimination of criteria were carried out several times to determine which criteria influenced the type of criteria in the study area. Consensus or convergence of opinion is the final result of the Delphi method, whether the existing instrument is important to develop in stages: Identification of criteria then drawing opinion and measuring consensus.

2.7 TOWS analysis

TOWS is a tool commonly used in analyzing the external and internal environment in obtaining a systematic approach for decision makers (Rangkuti., 2012). TOWS stands for threat (T), opportunity (O), weakness (W) and strength (S). External factors are represented by the first two factors (opportunities and threats) covering the broader environmental context in which the entity operates, while the internal factors of the organization consist of strengths and weaknesses (Rangkuti, 2018). In the TOWS analysis, in addition to the above key factors in determining strategies based on potential factual conditions and problems as described above, the technique used is to find a cross strategy of the four SWOT factors above, namely:

- a. S-O strategy: Strategies are formulated by utilizing all components of strength and taking existing opportunities.

- b. S-T Strategy: The strategy taken to utilize existing strengths in facing emerging threats.
- c. W-O strategy: A strategy to take full advantage of opportunities to overcome organizational weaknesses.
- d. W-T Strategy: Strategies for overcoming weaknesses and eliminating emerging threats.

Table 2. Matrix TOWS

INTERNAL/EXTERNAL FAKTOR	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)

(Source: Processed data)

2.8 Interpretative Structural Modelling (ISM)

ISM was first introduced by J. Warfield in 1973, by defining ISM as a learning process with computers that allows individuals or groups to develop a map of complex relationships between various elements involved in complex situations (Warfield, 1974). 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 structure as a whole 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 the elements that are relevant to the problem and extends to group problem solving techniques. The structural self-interaction matrix (SSIM) was developed based on the comparison of paired elements. There are procedures or stages in using the ISM method, these stages include (Firoz & Rajesh, 2012):

- a. Parameter identification. The elements that will be considered for relationship identification were obtained through a literature surveyor by conducting a survey.
- 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 between 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 called the Reachability matrix (Hussain, 2011).

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 another upper-level barrier is found (Firoz & Rajesh, 2012). This process will continue until all levels of each barrier are found.

e. Interpretive structural modelling (ISM) constructs. From the partitioned parameters and reachability matrix, a structured model is derived, which shows the parameters at each level and arrows showing the direction of the relationship. The graphic 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 their propulsion and dependability. MICMAC is also used to check driving power and power dependency. Variable is a concept that contains value variations consisting of at least two variations (Suharjo, 2013). The variables have been classified into four categories, namely Autonomous, Linkage, Dependent and Driving / independent.

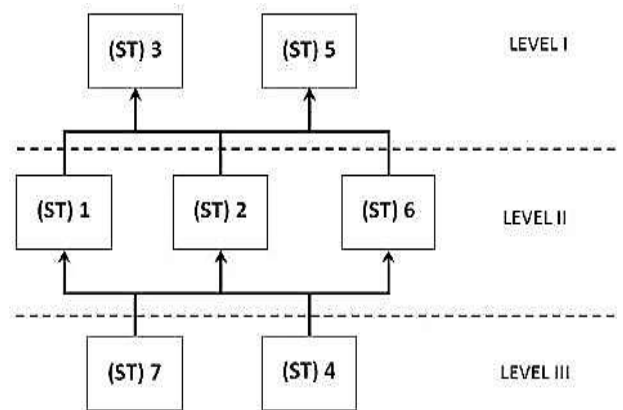


Figure 2. Hierarchy Level of Selected Strategy (Source: Darmawan, 2017)

2.9 Research Procedures

By using the Delphi, TOWS and ISM analysis methods in this study, systematically and sequentially based on the problems raised, the research can be arranged through several stages of the process:

- a. The process of identifying external factors in the form of determinants of opportunities (Opportunities) and Threats (Threats).

Furthermore, the identification of factors that affect the internal organization is carried out in the form of determining the existing variables which are the strengths and weaknesses.

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

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

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

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

f. The output of the TOWS analysis is in the form of a strategy formulation.

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

3. RESULTS AND DISCUSSION

3.1 Identification of Criteria

Data collection was obtained through literature study, documents, questionnaires and interviews with experts, namely 4 (four) related personnel (E1; E2; E3; E4). From the results of the ritation and elimination of the Delphi analysis, several key criteria were selected from external factors, namely economic, political, socio-cultural and technological as well as internal factors including human resources, facilities, technology and organization.

Table 3. Delphi Opinion Withdrawal Round 1

No	Faktor	Sub Kriteria	Narasumber				Rata	Std. Dev	Modus	Q1	Q2	Q3	IR	Evaluasi	
			NS 1	NS 2	NS 3	NS 4								Std. Dev	IR
1	Eksternal	Demografi	3	5	3	2	3,25	1,25831	3	3	3	4	1	Kon	Kon
		Ekonomi	4	5	5	3	4,25	0,95743	5	4,5	5	5	0,5	Kon	Kon
		Teknologi	5	5	5	2	4,25	1,5	5	5	5	5	0	Kon	Kon
		Politik	5	5	5	3	4,5	1	5	5	5	5	0	Kon	Kon
		Hukum	1	4	4	4	3,25	1,5	4	2,5	4	4	1,5	Kon	Kon
		Sosial Budaya	5	5	4	4	4,5	0,57735	5	4,5	5	5	0,5	Kon	Kon
		Pelanggan	5	5	2	2	3,5	1,73205	5	3,5	5	5	1,5	Div	Kon
		Pesaing	1	3	1	5	2,5	1,91485	1	1	1	2	1	Div	Kon
		Distribusi	5	2	2	1	2,5	1,73205	2	2	2	3,5	1,5	Div	Kon
		Pemasok	2	4	2	0	2	1,63299	2	2	2	3	1	Div	Kon
2	Internal	Pemasaran	2	2	4	0	2	1,63299	2	2	2	3	1	Div	Kon
		Sumber Daya Manusia	5	5	4	5	4,75	0,5	5	4,5	5	5	0,5	Kon	Kon
		Sumber Daya Fisik	5	5	5	5	5	0	5	5	5	5	0	Kon	Kon
		Operasi	5	3	3	1	3	1,63299	3	3	3	4	1	Div	Kon
		Keuangan	2	1	2	5	2,5	1,73205	2	1,5	2	2	0,5	Div	Kon
		Manajemen	2	2	2	5	2,75	1,5	2	2	2	2	0	Kon	Kon
		Organisasi	5	4	5	4	4,5	0,57735	5	4,5	5	5	0,5	Kon	Kon
		Teknologi	5	5	5	3	4,5	1	5	5	5	5	0	Kon	Kon

(Source: Processed data)

Table 4. Delphi Opinion Withdrawal Round 1

No	Faktor	Sub Kriteria	Narasumber				Rata	Std. Dev	Modus	Q1	Q2	Q3	IR	Evaluasi	
			NS 1	NS 2	NS 3	NS 4								Std. Dev	IR
1	Eksternal	Demografi	3	5	3	1	3	1,63299	3	3	3	4	1	Div	Kon
		Ekonomi	4	5	5	3	4,25	0,95743	5	4,5	5	5	0,5	Kon	Kon
		Teknologi	5	5	5	2	4,25	1,5	5	5	5	5	0	Kon	Kon
		Politik	5	5	5	3	4,5	1	5	5	5	5	0	Kon	Kon
		Hukum	1	4	4	5	3,5	1,73205	4	2,5	4	4	1,5	Div	Kon
		Sosial Budaya	5	5	4	4	4,5	0,57735	5	4,5	5	5	0,5	Kon	Kon
		Pelanggan	5	5	2	2	3,5	1,73205	5	3,5	5	5	1,5	Div	Kon
		Pesaing	1	3	1	5	2,5	1,91485	1	1	1	2	1	Div	Kon
		Distnbusi	5	2	2	1	2,5	1,73205	2	2	2	3,5	1,5	Div	Kon
		Pemasok	2	4	2	0	2	1,63299	2	2	2	3	1	Div	Kon
2	Internal	Pemasaran	2	2	4	0	2	1,63299	2	2	2	3	1	Div	Kon
		Sumber Daya Manusia	5	5	4	5	4,75	0,5	5	4,5	5	5	0,5	Kon	Kon
		Sumber Daya Fisik	5	5	5	5	5	0	5	5	5	5	0	Kon	Kon
		Operasi	5	3	3	1	3	1,63299	3	3	3	4	1	Div	Kon
		Keuangan	2	1	2	5	2,5	1,73205	2	1,5	2	2	0,5	Div	Kon
		Manajemen	2	2	1	5	2,5	1,73205	2	1,5	2	2	0,5	Div	Kon
		Organisasi	5	4	5	4	4,5	0,57735	5	4,5	5	5	0,5	Kon	Kon
		Teknologi	5	5	5	3	4,5	1	5	5	5	5	0	Kon	Kon

(Source: Processed data)

3.2 Strategy Formulation

Based on the analysis of external factors, there are 10 (ten) opportunity factors and 8 (eight) threat factors. Meanwhile, from the internal factor analysis obtained 10 (ten) strength factors and 9 (nine) weakness factors. This section discusses the analysis of the results of weighting criteria and alternative strategies for developing Fasharkan XYZ using EFE and EFI weighting through the use of questionnaires given to stakeholders in the development strategy of Fasharkan XYZ.

3.3 External Factor Evaluation Matrix (EFE)

After knowing the opportunities and threats from external factors in the development of Fasharkan XYZ. Weighting to determine the effect of factors on the strategy itself. The sub-criteria opportunity (O) no.1 of the total respondents' answers, namely 30. The total assessment of the opportunity and threat factors was 362 (26 + 101). The weight of the probability sub-criteria no.1 is obtained from the value in column 1 divided by the total number of assessments, namely (weight = 30/362 = 0.08). The weighting of the strategic factors in the table is obtained from the number of opportunities (O) of 1.72 and the number of threats (T) of 0.71. Total external factors amounted to 2.44. Rating to give a scale from 4 to 1 based on these factors is how influential it is on the development of Ambonese fashion.

3.4 Internal Factor Evaluation Matrix (EFI)

After weighting of external factors is carried out, the next step is weighting of internal factors in the form of strengths and weaknesses in the development of Fasharkan XYZ through weighting the EFI matrix. The sub-criteria for strength (S) no.1 from the total respondents' answers, namely 26. The total assessment of the strength and weakness factors was 349 (234 + 115). The weight of the strength sub criteria no.1 is obtained from the value in column 1 divided by the total number of assessments, namely (weight = 26/349 = 0.07). The weighting of the strategic factors in the table is obtained from the number of strengths (S) of 0.97 and the number of weaknesses (W) of 1.23. The total internal factor is 2.20.

3.5 TOWS Matrix and Strategy Determination

Based on calculations through the EFE and EFI matrix analysis, the final value of external factors (opportunities and threats) and internal factors (strengths and weaknesses) is obtained. Then arranged in a cross strategy between factors or a SWOT matrix to determine the chosen strategy to be used in problem solving. Through the strategy quadrant, the alternative strategy is selected from the difference in each factor.

Based on the table above, it is obtained that the X-axis point is -0.26 and the Y-axis point is 1.01. Furthermore, it is entered in the strategy quadrant to determine the strategic formula that

will be selected, as a form of problem solving that is appropriate or approaching to be applied as in Figure 3 below.

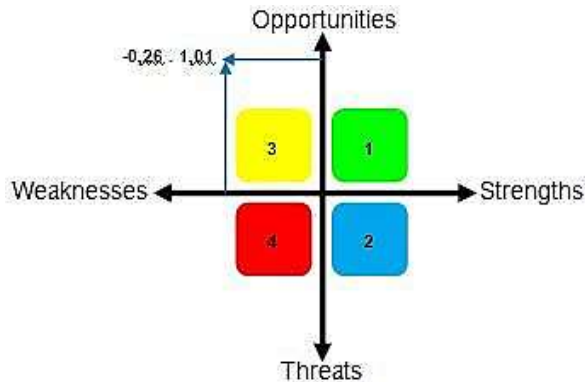


Figure 3. Strategy Quadrant
(Source: Processed data)

The description of the strategy quadrant image shows that the plotting of the strategic position is located in quadrant 3 (WO), indicating that the WO selected strategy can be used as an approach in answering existing problems as a formal development strategy, namely by maximizing existing opportunities and minimizing existing weaknesses in the organization.

3.6 Priority Sub-strategy based on ISM

Based on the analysis results, the E-O sub-strategy was selected as an alternative to the development strategy of Fasharkan XYZ. In the next step, to prioritize the organizational development sub-strategies, an Interpretative structural model approach was used.

After obtaining several alternatives from the W-O selected sub-strategy, from alternative (WO) 1 to (WO) 9, the ISM questionnaire was continued from the selected sub-strategies to the validator / expert position holder for further processing using the ISM.

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

- a. Sector 1. Weak Driver - weak dependence variables (Autonomous);
- b. Sector 2. Weak Driver - Strongly Dependence Variables (Dependent);
- c. Sector 3. Strong Driver -Strongly Dependence Variables (Linkage);

d. Sector - Strong Driver - Weak Dependent Variables (independent). So that the results of the coordinates (X, Y) can be drawn into a Cartesian diagram as a Micmac analysis diagram:

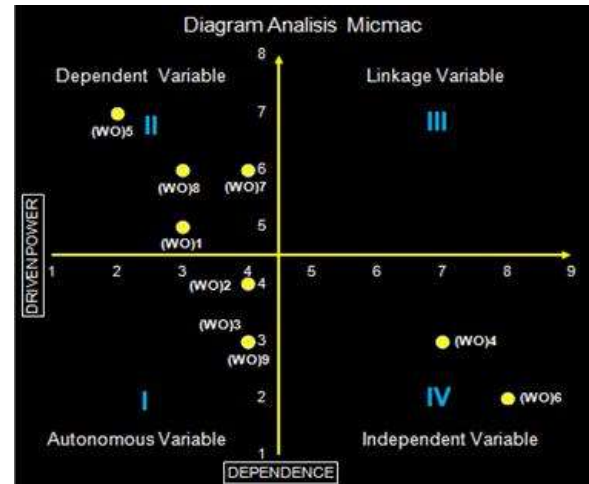


Figure 4. Micmac analysis diagram
(source: processed data)

From the Micmac analysis diagram, it is known that the distribution of strategies in several variables, including: autonomous variables consisting of 3 (three) sub-strategy elements, namely (WO) 2, (WO) 3 and (WO) 9; The dependent variable consists of 4 (four) sub-strategy elements, namely (WO) 1, (WO) 5, (WO) 7 and (WO) 8. The linkage variable does not contain a strategy element; in the independent variable there are elements of the sub strategy (WO) 4 and (WO) 6. Several elements of the sub-strategy are on the dividing line between sectors.

In addition to the sector mapping of each sub strategy to determine the position of each variable element whether as a driving / driving force or dependence on other variables, then based on the results of the micmac analysis diagram, 5 (five) levels of the hierarchical structure of each element can be obtained. variables as in the image below.

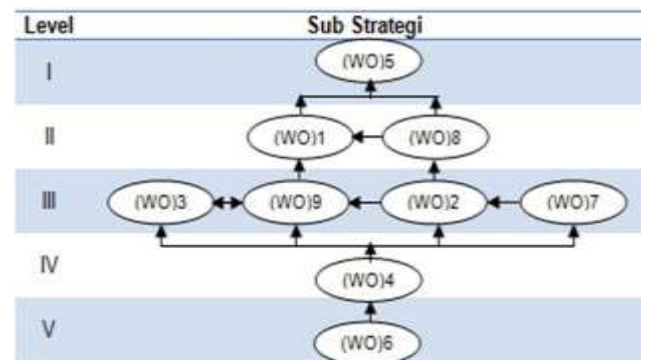


Figure 5. Level of Hierarchy Structure

3.7 DISCUSSION

The research stages started from problem identification, data collection from literature studies, field studies, interviews and questionnaires to selected experts. The next stage is identifying and formulating strategies. Starting from the Delphi analysis to determine criteria, then the TOWS analysis method, the W-O sub strategy was selected.

The TOWS analysis method integrates external and internal factors in formulating development strategies. Weighting of the factors with the EFE / EFI matrix, then cross combinations of each of these factors are carried out in the form of a SO strategy (7 strategy steps), WO strategy (9 steps of strategy), ST strategy (5 strategy steps) and WT strategy (4 strategy steps). where the strategy chosen in quadrant 3 is the WO sub strategy.

From the ISM questionnaire on the WO selected sub-strategy to the validator, a binary matrix is obtained to determine the relationship of each strategy in the reachability matrix to determine the function of each variable as a driving or dependency factor. From Figure 3.2 it

can be classified into 4 sectors, namely: autonomous variables (sector I), there are 3 sub strategy variables (WO) 2, (WO) 3, (WO) 9. Sector II (Bound Variables) there are 4 sub strategies (WO) 1, (WO) 5, (WO) 7, (WO) 8. Sector III has no variables and sector IV (independent variable) has 2 (two) strategic sub-variables (WO) 4 and (WO) 6.

The next step is to map the relationships between the sub strategies in a hierarchical level structure to identify relationships between elements. Based on the results of the classification of elements in the WO strategy, there are 5 (five) levels of the hierarchical structure, including sub strategy (WO) 6 at level V. Then sub (WO) 4 is at level IV. At level III it consists of 4 (four) sub strategies, namely (WO) 2, (WO) 3, (WO) 7 and (WO) 9. At level II sub strategies (WO) 1 and (WO) 8. At level I there are 5 sub strategies (WO).

Based on the level of the hierarchical structure, a Road Map for the development of Ambon's fasharkan consists of the stages set out in a strategic plan (renstra) which is divided into five-year programs.

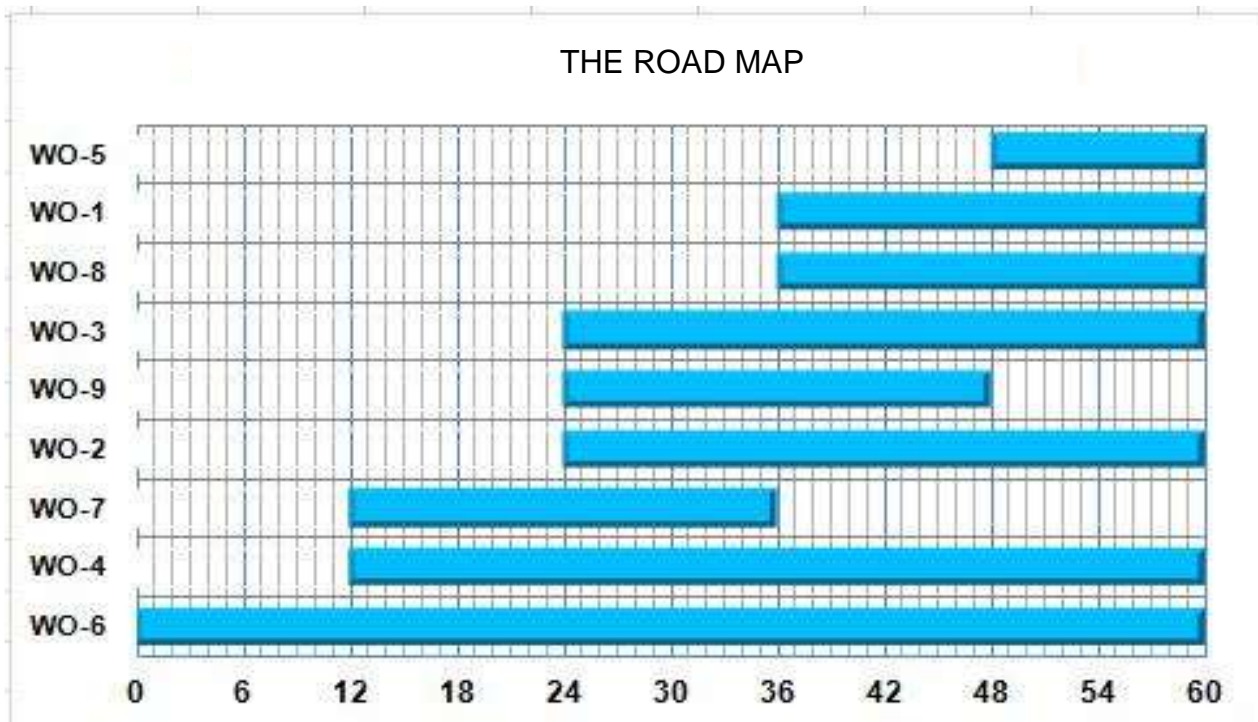


Figure 6. Graph of the Model Implementation Stage

(source: processed data)

4. CONCLUSIONS AND SUGGESTIONS

There are several conclusions that can be made are:

a. Factors that influence Ambon's fasharkan development strategy are grouped into 2 factors, namely external factors consisting of

18 criteria and internal factors consisting of 19 criteria.

b. The formulation of Ambon's fasharkan development strategy consists of 4 alternative strategies, namely the SO, WO, ST and WT strategies. The SO strategy consists of 7

strategic steps. ST strategy consists of 5 strategy steps. The WO strategy consists of 9 strategic steps and the WT strategy consists of 4 strategic steps. The priority of the weighted strategy results from the EFE and EFI matrices, the sub strategy is obtained in quadrant 3. In this case the WO strategy is chosen as an alternative strategy. c. WO selected strategy priority as the first alternative consisting of 9 sub strategies as a reference for ISM analysis. The strategic road map applied in the development of Fasharkan Ambon is carried out in stages:

1) The results of the classification of the elements of the sub-strategy can be classified into 4 (four) sectors. The autonomous variable (sector I) consists of three variables, namely sub strategy (WO) 2, (WO) 3 and (WO) 9. In sector II (Dependent variable) there are sub strategies (WO) 1, (WO) 5, (WO) 7 and (WO) 8. Sector III (variable linkage) does not have a strategy variable. Sector IV (independent variable) has 4 sub strategies (WO) and 6 sub strategies (WO).

2) With the elements in the WO strategy, there are 5 (five) levels of the hierarchical structure, namely: sub strategy (WO) 6 is at level V. Then sub strategy (WO) 4 is at level IV. At level III, it consists of (WO) 2, (WO) 3, (WO) 7 and (WO) 9 sub strategies. At level II, there are sub strategies (WO) 1 and (WO) 8. At level I there are 5 sub strategies (WO).

3) From the 5 levels classification of the hierarchical structure, it is formulated into a strategic road map for the development of Fasharkan Ambon which is contained in the 5-year strategic plan (RENSTRA) starting in 2021, sub-strategy (WO) 6 within 60 months. Furthermore, sub-strategy (WO) 4 within 48 months starting in 2022 and (WO) 7 within 24 months. In the year 2023 (WO) 2 for 36 months. Year 2023 sub strategy (WO) 9 in 24 months. Sub strategy (WO) 3 in 2023 for 36 months. (WO) 8 for 24 months starting in 2024. Sub strategy (WO) 1 for 24 months early 2024. The last stage in 2025 (WO) 5 for 12 months.

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