International Journal of ASRO
Volume 12, Number 02, pp.66-72
Apr 2021

DEVELOPMENT STRATEGY OF THE ANDROMEDA TO SUPPORT THE TRAINING OF THE OPERATION CORPS CADETS

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ABSTRACT

This research is motivated by the training implementation of the cadet of the operation corps which is not optimal because there are empty rooms in the Andromeda Building do not use optimally. The main objective of determining this strategy is that the empty room in the Andromeda Building can be used optimally. The formulation of the problem from this research is to determine the right strategy in optimizing the Andromeda Room to support cadets of the operation corps. This research is quantitative, this research was conducted by collecting respondents using a questionnaire with a purposive sampling technique. This study uses SWOT analysis, the first step is to create IFAS and EFAS matrices by giving weights to find the total score of the IFAS and EFAS variables. The second step is to formulate a strategy, namely SO, WO, ST, and WT. Further study shows that the advantages of the Andromeda bridge simulator building are designed like the KRI class Sigma. The disadvantage is that the navigation equipment contained in the bridge simulator is not ready in terms of quality or quantity. The results of this study are in the quadrant 3rd position where this condition is to minimize existing internal problems by maximizing existing opportunities through a review strategy to produce something new.

Keywords: *SWOT Analisis, Andromeda room, Borda Method*

1. INTRODUCTION

The Indonesian Naval Academy is the implementer of education within the Indonesian Navy, which has the task to organize an effective and efficient educational process to produce responsive, and competent Navy officers who have a fighting spirit, pride, professionalism, discipline, hard work, and smart work and have the ability to high probability through the proper application of management and educational technology. Naval Academy has five study programs that educate cadets in the academic and non-academic fields which are prepared to hone the abilities possessed by each cadet, one of the study programs owned by the naval academy is the operation defense management study program.

The cadets of the operation corps are candidates for Navy officers who are prepared to become candidates for the highest leadership positions in the Navy. Each officer of the operation corps must be able to lead its members in meeting the demands of the task. The basic qualification for any operation corps officer who is a graduate of the Naval Academy theat Able to carry out duties as a officer in the Corvette type and Sigma warship also Able to carry out duties as a Have the potential of defense science skills in the field of nautical, operation aspects of weapons engineering, management techniques, leadership, law, and social communication for career development as a cadre of leading officers in the Corvette type and Sigma warship.

The understanding level of the operation corps officer is obtained during the implementation of practical training. Understanding will be easier if the material is given repeatedly and carried out in direct practice to provide an overview of the basic material needed to become a reliable operation corps officer.

To improve the understanding of the cadets of the operation corps so that they can navigate navigation, tactical maneuvers, and communication, among others, by providing cubicle facilities to support the practical training of the cadets of the corps so that the cadets of the corps can perform direct simulations by carrying out tactical maneuvers to form formations following the ship's orders and the cadets can perform Proskomtis live simulation to improve cadets' understanding of communication with other ships using radio.

2. MATERIALS AND METHODS

2.1 Strategic Management Concept

Strategic management is a managerial way to determine the direction of performance in the long term of an organization which includes observing the influential environment, formulating or planning a strategy, implementing evaluation, and implementing the strategy itself (J. David Hunger, 2003). Etymologically, the strategy comes from Greek derived from the derivative of the word strategos, in the Athenian era of democracy which meant "military commander". On the other hand, from the perspective

of terminology, experts have different understandings of the meaning of strategy but have a similar meaning or meaning, namely a plan to achieve goals efficiently and effectively (Syahtaria, 2019).

According to (Istiqomah, 2017), strategic management can be defined as the technology and science to develop, implement, and evaluate cross-functional decisions that enable an organization to achieve its goals. This definition means that strategic management focuses on the integration of management, marketing, finance/accounting icon / operations, script and development, and information systems to achieve organizational success. In this text, the term strategic management is used synonymously with the term strategic planning.

Based on a book written by (Hunger & Wheelen, 2010) Strategic management is a set of management decisions and actions that determine the long-term performance of an organization. This includes scanning the environment, developing strategies, implementing strategies, and assessing and controlling them.

2.2 SWOT Analysis Concept

SWOT analysis has made a lot of progress since it was first used. SWOT first appeared at Harvard Business School in the early 1950s and analyzed a case study by Harvard University professor George Albers Smith Jr. and his C. Roland Kristensen. They studied organizational strategies related to their environment (Benzaghta et al., 2021). SWOT stands for (Strenght, weaknesses, opportunities, threats) there are Internal and external factors that may affect the process or structure under investigation. In this case, quality control impact assessment is in a complex social area Organization (Leiber et al., 2018). SWOT recognizes internal and external aspects that are critical to achieving company goals. Internal aspects refer to characteristics within the company's control, while external aspects are factors beyond the company's control.(Benzaghta et al., 2021) The first step to using SWOT analysis is we have to know what tincludeslude in internal factors and what includes external factors.

SWOT analysis is one of the ways to identify a lot of problems in an organization. We can know what are the strength, weaknesses, opportunities, and threats to our organization. In the SWOT matrix, there are four strategies that can be developed:

a. SO Strategy, Strategy to seize existing opportunities by leveraging strengths.

b. WO strategy, a strategy that attempts to minimize weaknesses or improve weaknesses in order to try to seize existing opportunities.

c. ST strategy, a strategy that uses strength that attempts to overcome or minimize the threats we face.

d. WT strategy, a strategy that attempts to minimize or reduce weaknesses in order to avoid threats that will be faced.

2.3 Research Approach

This study is a quantitative study using a descriptive approach.Quantitative research is a type of research characterized by being conducted in a systematic, well-planned and structured manner. Quantitative research can also be interpreted as empirical research that is used to study specific populations/samples using research tools and quantitative data. A descriptive approach means that this research aims to explain/explain to the reader the research subject and research results. This method also aims to provide an overview/ description without first making any analysis or general conclusions.

2.4 Research Subjects

Research resource persons are people who understand about Andromeda Facilities. The resource persons used in this study were those who were directly involved in the research, some of officer who post in Operation corps department that understand pregarding function all facilities in Andromeda. Researcer uses officer because they have know all facilities and understand about this research.

2.5 Data Collection Techniques

Data collection is performed to obtain the information needed to achieve the goals of the study. In this study, data collection techniques were conducted through observations, interviews, and document / literature searches. Primary data from observations and interviews (detailed interviews) is data collected and processed by a researcher from a research subject or subject. Secondary data, on the other hand, derived from books, documentaries, and literary studies can be obtained indirectly from the subject or subject**.**

2.6 Data AnalysisTechniques

Data analysis aims to find items or sections that contain smaller categories of research data. In this study, researchers used the source to obtain patterns that matched what they were studying. Based on existing problems, this research method uses his SWOT method. A SWOT analysis consists of several stages,such as identifying external and internal factors, processing a matrix of external and internal factors, and make some questionnaires (Kuncoro et al., 2021). From the results of the survey, the respondents can draw conclusions about the evaluation of existing indicators and put them together in a SWOT matrix. We then assess the external and internal factors by weighting the strategic factors on a scale of 1 (bad) to 5 (good). Weighting factor groups and inner and outer strategic factors with pairwise comparisons. When developing alternative strategies, use the SWOT Matrix to identify adjustment strengths and opportunities (SO strategy), strengths and threats (ST strategy), opportunities and weaknesses (WO strategy), and weaknesses and threats (WT

strategy). After creating a strategy, prioritize these options using the BORDA method.

2.7 SWOT Framework

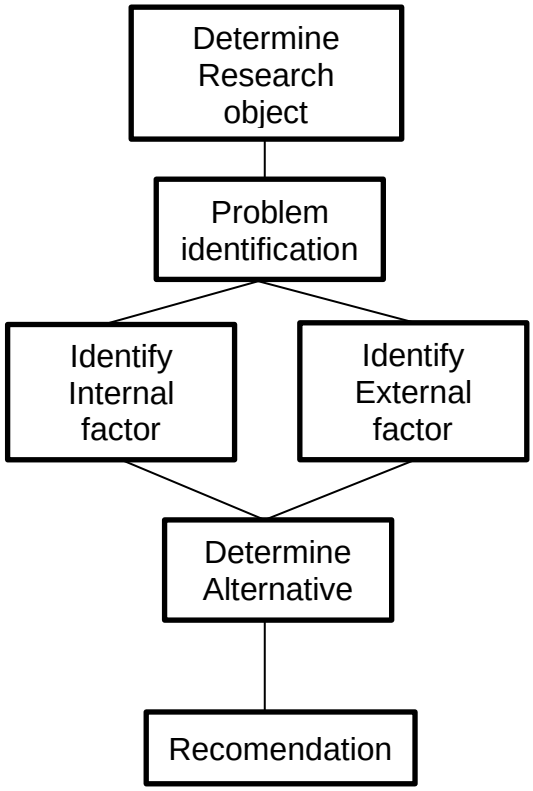

Figure 1. Research Framework

3. RESULTS AND DISCUSSION

This strategy development section presents an analysis of the results of the weighting criteria and alternative strategies for the development of Andromeda room in Indonesian Naval Academy using EFAS and IFAS SWOT weightings. Weight EFAS and IFAS using questionnaires given to officer in operation corps department Naval Academy to Development Strategy

3.1 Weighting of External Factors

After the opportunities and threats to external factors in the develop Andromeda empty room are known, then the EFAS weighting is carried out as in the following table:

Table 1. External Factor Weight

	External Factor	Rate	Weight	w*r
O1	Korelation with other instantion	4	0,2	0,8
O2	Supporting from Navy funding	3	0,25	0,75
O3	Facilities outside Indonesian Navy	1	0,15	0,15
				1,7
T1	pandemic *covid condition*	1	0,1	0,1
T2	uncertainty Schedule using facilities	1	0,12	0,12
T3	Priority of procurement	1	0,18	0,18
		JML	1	**0,4**

Based on the weighting table of external factors above, it can be seen that the weighting calculation is carried out with the aim of knowing how much the factors influence the strategy factor itself. The weighting of the strategic factors in the table is obtained from the total opportunity score of 1.7 and the total threat score of 0.4 so that the overall total of external factors is 2.1. The purpose of this rating is to provide a scale from 4 to 1 based on these factors.

The overall total value shows that the function is optimizing the Andromeda Building with cubicle facilities to support the operation corps cadet practice against external factors. The following is an analysis of opportunities and threats to the weights, ratings and scores that have been obtained:

a. Opportunity Analysis

Based on the results of the formulation of external factors, it is known that there are three opportunity factors. From all these criteria, the results obtained that the criteria that have the highest weight are correlation or cooperation with the institute outside the Navy with a weight of 0.80, while the criteria that have the lowest weight are sophisticated facilities owned by agencies outside the Navy with a weight of 0,15.

The measurement rating is from 1 to 4. A score of 1 indicates a less likely condition and a score of 4 indicates a very likely condition. The rating details are, 1 = less likely, 2 = somewhat likely, 3 = likely and 4 = very likely. Based on the answers from the expert answers in table 4.8 above, it can be analyzed on each criterion. The criteria for obtaining a rating are very likely, namely correlation with agencies outside the AAL. At rating three or included in the category of opportunity, namely the budget support provided by the Indonesian Navy to the institution. The last factor is the existence of sophisticated facilities owned by other agencies outside the Navy, which has a rating of one or less.

Furthermore, the criteria for the factor that has the highest score, which means the aspect that has the most opportunity is the existence of a correlation or cooperative relationship with agencies or work units outside AAL with a score of 0.80, while the one with the lowest score is sophisticated facilities owned by other agencies with a score of 0,15.

b. Threat Analysis

Based on the results of the weighting of external factors, it is known that there are three threat factors. The factor that has the highest weight is the procurement that is given based on a priority scale with a weight of 0.18, while the criterion that has the lowest weight is the existence of a virus pandemic that causes limited latte space with a weight of 0.10.

The measurement rating is from 1 to 4. A score of 1 indicates a less threatening condition and a score of 4 indicates a very threatening condition. The rating details are, 1 = very threatening, 2 = threatening, 3 = somewhat threatening and 4 = less threatening. Based on the answers from the respondents' answers in the table above, it can be analyzed completely on each criterion.

Based on the rating calculation, the criteria for obtaining a threatening rating are Procurement carried out by the institution depending on the priority scale. The factor that received a less threatening rating was the existence of a virus pandemic that caused limited exercise and practice space.

3.2 Weighting of internal factors

Internal Factors After the strengths and weaknesses of the internal factors in the development of Andromeda room are known, then the IFAS weighting is carried out as in the following table :

Table 2. Internal Factor Analysis

	Internal Factor	Rating	Weight	b*r
S1	Design like Sigma Warship	4	0,09	0,36
S2	Give actual condition to cadets	4	0,1	0,4
S3	give support education to cadets	4	0,05	0,2
S4	Operation corps department crews have high motivation to maintain the facilities	3	0,06	0,18
			1,14	
W1	Operation Using is not optimal	2	0,12	0,24
W2	The Software have a lot of trouble	2	0,11	0,22
W3	Lack of *cubicle* ficilities to support exercise	2	0,2	0,4
W4	Application never Updated	2	0,13	0,26
W5	Navigation tool in bridge do not work properly	1	0,08	0,08
W6	Lack of personel operation corps departement	2	0,06	0,12
		JML	1	**1,32**

a. Strength Analysis

Based on the internal factor weighting table above, it is known that there are four strength criteria. From these four criteria, it can be seen that the criterion that has the highest weight is that the Andromeda Building with bridge simulator facilities is able to provide a real picture for the operation corps cadets in terms of navigating during the practice implementation with a weight of 0.1. The lowest weight that shows the smallest weight criteria is the bridge simulator as a learning aid tool with a weight of 0.05.

Furthermore, the measurement rating starts from 1 to 4. A score of 1 indicates a less strong condition and a score of 4 indicates a very strong condition. This is indicated by a rating of 1 = less strong, 2 = somewhat strong, 3 = strong, and 4 = very strong. Can be analyzed in full on each criterion, namely the Bridge simulator is designed like a Sigma class KRI, Provides a real picture for cadets of operation corps, As a learning aid tool gets a rating of four, which is a very strong category of influence. At rating 3 with a strong category, namely high motivation of the Ministry of Energy and Mineral Resources personnel in the maintenance of the Andromeda Building.

The score is the multiplication between the weight and the rating. An important criterion and in good condition is a criterion that has a high score. And vice versa for criteria that are less important and in unfavorable conditions are criteria that have low scores. Based on the weighting of the internal factors above, it shows that the highest score is the Bridge simulator which provides a real picture for cadets in navigating with a value of 0.4. Furthermore, the criterion that has the lowest score is the high motivation of Ministry of Education personnel in the maintenance of the ndromeda Building with a value of 0.18. This means that this criterion is an aspect of strength but is in the least good condition and its weight is less important than other criteria.

b. Weakness Analysis

Based on the results of the weighting of internal factors, it is known that there are six criteria for weakness. From all these criteria, it can be seen that the criterion that has the highest weight is the lack of cubicle facilities as support for practice with a weight of 0.2, while the criterion that has the lowest weight is the lack of operation corps department personnel with a weight of 0.06.

The measurement rating ranges from 1 to 4. A score of 1 indicates a less weak condition and a score of 4 indicates a very weak condition. Rating ratings are, 1 = very weak, 2 = weak, 3 = somewhat weak, and 4 = less weak. Based on the answers from the expert answers in table 4.7 above, it can be analyzed

completely on each criterion. The criteria that get a rating of 2 are rather weak, namely the use of space that is not optimal, software that often experiences errors, lack of practice supporting cubicle facilities, bridge simulator applications that are rarely updated, lack of personnel in the department. Furthermore, those who get a rating of one are included in the less weak category, namely that the navigation equipment on the bridge simulator platform is not ready.

Based on the weighting of internal factors, the factor that has the highest score, which means it is the weakest aspect of weakness, is the bridge simulator application. rarely updated with a score of 0.26. Meanwhile, the one with the lowest score is that the navigation equipment on the bridge simulator platform is not ready with a score of 0.08.

Based on the results of calculations that have been carried out through SWOT analysis, the final scores and recapitulation of internal and external factors are obtained, as shown in the following table:

Table 3. Recapitulation of Internal dan Ekstrernal Factor

No	Factor	Term	Score
1.	Internal Factor	*Strenght (S)*	1,14
		Weakness (W)	1,32
2.	External Factor	*Opportunity (O)*	1,7
		Threat (T)	0,4

The next step is to looking for SWOT position analysis using weight calculation strategic:

Table 4. SWOT Quadrant Analysis

S	1,14	-0,18
W	1,32	
O	1,7	1,3
T	0,4	

From the calculation results, the x-axis is at -0.18 and the y-axis is at 1.3, so the position of the SWOT quadrant can be seen in the following figure:

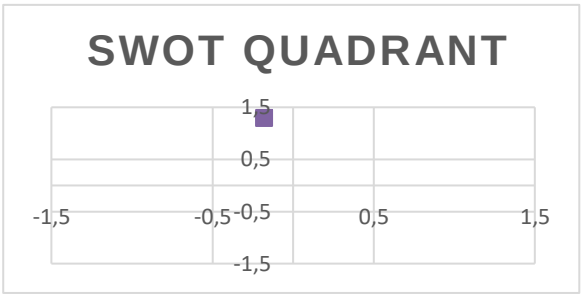

Figure 2. SWOT Quadrant

The results of the weighting of internal and external factors produce an alternative strategy that gets the highest score is weakness-opportunities (WO) as seen in Figure 2. Could be concluded as a strategy to take advantage of opportunities to overcome weaknesses.

Based on the results of the calculation recapitulation above, the next step is to determine the SWOT matrix to determine the strategies to be used which are analyzed using the SWOT matrix. The chosen strategy is a combination of strategies obtained from existing opportunities that are maximized to reduce or cover existing weaknesses so that the combination can be used as a strategy.

Quadrant III is a condition that has a very large opportunity, but on the other hand, faces internal constraints/weaknesses. The focus of the strategy in this condition is to minimize existing internal problems by maximizing existing opportunities through a review strategy to produce something new.

Based on the strategy formulation obtained to optimize the Andromeda Building with cubicle facilities to support the operation corps cadets, then the ranking of strategies from interviews and questionnaires by experts was carried out using the Borda Method. The following are the results of the analysis through the Borda Method for ranking strategies to the respondents.

Table 5. WO Strategies

NO	STRATEGY WO	CODE
1	Increase the number of operation Corps department Naval Academy personnel through coordination with Disminpersal.	WO1

2	Updating Aplication feature in *bridge simulator.*	WO2
3	Carry out upgrading of cubicle facilities according to standard provisions by adapting to the latest technological developments.	WO3
4	Improving the competence of operation corps department personnel through computer courses	WO4
5	Carry out navigation equipment updates in the bridge simulator	WO5

In the table above, it is shown that there were five strategies selected and the ranking of strategies was carried out through the Borda questionnaire which was filled out by respondents to obtain strategic priorities. The ranking starts from Roman numerals I for strategy sequence 1, Roman numerals II for strategy sequence 2, Roman numerals III for strategy sequence 3, Roman numerals IV for strategy sequence IV and Roman numerals V for strategy sequence 5. Following are the results of Borda's questionnaire for ranking strategies from the respondents:

Table 6. Calculation Strategies priority

RANK	STRATEGIES					n-1
	WO1	WO2	WO3	WO4	WO5	
I		1	3			4
II		2		1		3
III				1	1	2
IV	1			1	1	1
V	2				1	0
TOTAL	3	3	3	3	3	

The next step is to normalize by multiplying each frequency by (n-1) as in the calculation table below:

Table 6. Calculation of Strategic Priority Normalization

RANK	STRATEGIES				
	WO1	WO2	WO3	WO4	WO5
I	0	4	12	0	0
II	0	6	0	3	0
III	0	0	0	2	2
IV	1	0	0	1	1
V	0	0	0	0	0
AMOUNT	1	10	12	6	3
TOTAL	32				

WEIGHT	0,031	0,313	0,375	0,188	0,094
RANK	**5**	**2**	**1**	**3**	**4**

The weight value is obtained by dividing the number of normalizations for each strategy by the total number of normalizations. The normalization calculation for each weight is as follows:

Weight WO1=1/32=0.031

Weight WO2=10/32=0.313

Weight WO3=12/32=0.375

Weight WO4=6/32=0.188

Weight WO5=3/32=0.094

Total Amount = 1.00

From the calculation above, the order of strategic priorities can be seen in the following graph:

Figure 3. Strategy Priority Ranking Results

In determining strategic priorities, it aims to determine alternative strategies that must be implemented first according to the level of importance. Based on the graphic above, it is shown that the top priority with the highest weight of 0.375 is the WO3 strategy. Implementing cubicle facility upgrades according to standard provisions by adapting to the latest technological developments. The second priority with a weight value of 0.313 is the WO2 strategy, namely by rejuvenating the bridge simulator application features. In the third place with a weighted value of 0.188, namely WO4. Improving the competence of departmental personnel through computer courses. The next fourth order with a weight value of 0.094 is the strategy of implementing navigation equipment updates in the bridge simulator. In the fifth or last priority order with the lowest weight, namely 0.031, namely the WO1 strategy to increase the number of personnel from the Ministry of AAL through coordination with Disminpersal.

4. CONCLUSION

With the Borda method, the results of the global priority weights can be formulated, which shows that the strategic priority scales that can support the optimization of the Andromeda building with cubicle facilities to support the operation corps cadets are:

a. Carry out upgrading of cubicle facilities according to standard provisions by adapting to the latest technological developments. get the highest weight that is 0.375.

b. Carrying out the rejuvenation of the bridge simulator application features a weight of 0.313.

c. Improving the competence of Deppel personnel through computer courses has a weight of 0.188.

d. Carrying out navigation equipment updates in the bridge simulator gained a weight of 0.094.

e. Increasing the number of operation corps department Naval Academy personnel through coordination with Disminpersal through coordination with Disminpersal obtaining a weight of 0.031.

The strategy formulation obtained is expected to be able to optimize the Andromeda Building with cubicle facilities to support the operation corps cadets. This is very important because it can improve the quality of the use of the Andromeda Building and the quality of the Operation Corps AAL cadets who have the knowledge, competence, training facilities, alins alongins in accordance with the development of operation technology.

ACKNOWLEDGEMENT

The authors greatly acknowledge the support from Indonesia Naval Technology College STTAL Surabaya Indonesia for providing the necessary resources to carry out this research work. The authors are also grateful to the anonymous reviewers and journal editorial board for their many insightful comments, which have significantly improved this article.

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