ANALYSIS SYSTEM AND EVALUATION OF KRI ELEMENT REDUCTION OF TASKS AS A MEANS OF NATIONAL DEFENSE

Didit Herdiawan [1], Joni Widjayanto [2], Benny Sukandari ,   Okol Sri Suharyo [4]

[1,4] Indonesia Naval Technology College, STTAL Surabaya Indonesia
[2] Indonesia Defense University, Unhan Jakarta Indonesia
[3]Indonesia Naval Staff and Command College, Seskoal Jakarta Indonesia

ABSTRACT

KRI is one of the main components possessed by the Indonesian Navy which has the main task of security and national defense at sea. The Termination of Operation KRI over the age of 40 results in a lack of existing KRI, so there is a need for research that represents an evaluation and analysis of the work system so that the main tasks can still be carried out. The SWOT and CIPP analysis in this study aims to identify several factors that influence the achievement of the main tasks. The results obtained are in Quadrant I (+; +) which states the status "on the track".

Keywords *: KRI, SWOT, CIPP.*

1.   INTRODUCTION.

Based on Perkasal No. 5 of 2016 dated 26 April 2016 concerning the Basic Policy of the Navy's Development towards Minimum Power (MEF), it is necessary to adjust the Alutsista condition which is over 40 years old. The PUS process of some KRIs that are being carried out so far has resulted in a reduction in the number of the Republic of Indonesia Warship (KRI) as an element of the Armada. As a result, there was a decrease in the strength of both the number and the man himself.

The need for a system analysis and evaluation by reducing the number of KRIs to the achievement of the implementation of the main tasks of the Navy as a means of national defense at sea. Following are some research on strategies in analyzing these problems with the SWOT and CIPP methods:

Tabel. 1. Review of Journal.

Study	Focus	Country	Method
Luis E. et al (2019)	Measuring Performance Using SWOT Analysis and Balanced Scorecard	Chile	SWOT,BS
Lian Zhikang (2017)	Research on Development Strategy of Automobile Reverse Logistics Based on SWOT Analysis	China	SWOT
Malgorzata (2016)	SWOT analysis for Planned Maintenance strategy – a case study	Pholand	SWOT,TPM
Nurhayati (2019)	Evaluation and analysis of leadership education and training system civil servants in the indonesia navy	Indonesia	SWOT,CIPP
Amy M. et al (2019)	The current state of evaluator education A situation analysis and call to Action	Australi	CIPP
Cheryl N. et al (2020)	Assessing competency-based evaluation course impacts: A mixed methods case study	Canada	CIPP
Warren A. et al (2000)	Evaluating the role of waivers in systemic school reform	USA	CIPP
James Bill et al (2018)	An evaluation of stakeholder capacity in the implementation of millenium village primary school meal project	South Africa	CIPP

(Source :Published by Elsevier Ltd)

The results of the review above illustrate that the need for a strategy in analyzing the system and evaluation of the reduced number of KRIs that will affect the performance of the Navy in carrying out its main tasks. The method used by researchers is the SWOT analysis and CIPP in order to identify the influential factors and interpret the achievements of the programs that have been implemented. Components evaluated include Crew, KRI, maintenance, operations, tasks. The final result will get implications and recommendations that must be carried out on the evaluation results (PUS) of reducing the number of KRIs aged 40 years and over.

2.   MATERIALS AND METHODS
2.1.   System Theory

In the 1920s the character Ludwig Von Bertalanffy developed the system paradigm. The system is defined as the overall interaction between elements of an object within a certain environmental boundaries that work to achieve the goal. According to (Daellenbach, 2005) the system as an organized collection of components that have relationships between components. Each component contributes to the behavior of the system and each component is influenced by components that are in the system. There are no independent components that affect the system.
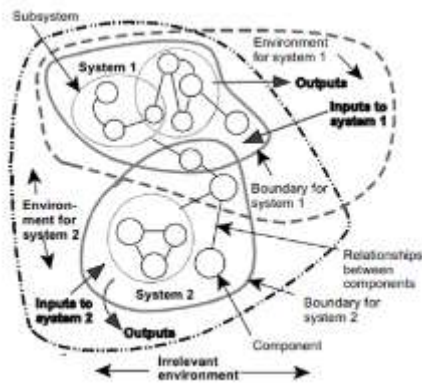
Figure .1 Environment, Systems, Subsystems, and Components.
(Source: Daellenbach, 2005)

2.2 CIPP (Context Input Process Product Evaluation)

The CIPP evaluation model is a program evaluation model developed by Daniel Stufflebeam and his colleagues in the 1960s. The CIPP (Context Input Process Product Evaluation) evaluation model is an approach that focuses on decisions to evaluate and emphasize providing systematic information for program management and operations (Stufflebeam, 2002).

The CIPP evaluation model is more widely used by evaluators because this evaluation model is more comprehensive when compared to other evaluation models (Octavianus Barusu, 2014). The core concept of the CIPP model is context evaluation, input, process, and product. In context evaluation, evaluators assess needs, problems, assets, and opportunities, coupled with relevant contextual and dynamic conditions. Decision makers use context evaluation to set goals and set priorities. Context Evaluation evaluates clearly the program objectives to be achieved. Context evaluation comes from the actual environment with the expected conditions. The purpose of context evaluation is to find out the strengths and weaknesses of a program (Erlina, 2016).

2.3 Concept of Strength, Weakness, Opportunity, Threat (SWOT) Analysis.

SWOT analysis is the most common technique that can be used to analyze strategic cases (Hill & Westbrook, 1997). SWOT is a tool often used to analyze internal and external environments to achieve systematic approaches and support for decision situations (Wheelen & Hunger, 1995). SWOT is an acronym for strength (S), weakness (W), opportunity (O) and threat (T). The first two factors (strengths and weaknesses) are related to internal organizational factors, while opportunities and

threats cover the broader context or environment in which the entity operates (Collins-Kreiner & Wall, 2007).

Internal and external factors are referred to as strategic factors, and are summarized in the SWOT analysis. Strengths and weaknesses are factors in the system that allow and hinder the organization from achieving its goals. Opportunities and threats are considered as external factors that facilitate and limit the organization in achieving its respective goals (Wasike, et al., 2010).

In figure and table 2. the SWOT analysis shows the right strategies in the four SO, ST, WO and WT categories. The strategy, identified as SO, involves exploiting opportunities using existing strengths. ST is a strategy related to the use of force to eliminate or reduce the effects of threats. Likewise, the WO strategy seeks to benefit from the opportunities presented by external environmental factors by paying attention to their weaknesses. The fourth and final is WT, where organizations try to reduce the impact of threats by considering their weaknesses (Yuksel & Dagdeviren, 2007).

Furthermore, in this study, the SWOT analysis method is used to identify and formulate strategies for developing a combat training center

Table. 2. SWOT analysis

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: Yuksel & Dagdeviren, 2007).

Figure. 2 Quadrant SWOT
(source: bps.go.id)

Quadrant I (+, +)

This position indicates that your company or organization is in a strong position and is on the track. All you need to do is expand, enlarge and accelerate the growth of the company

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Quadrant II (+, -)

If your company is in this column, you should be vigilant. Even though your company's position is good enough, but in reality you will face challenges ahead. One strategy that can be done is to diversify the strategy by looking for new opportunities that have not been touched before.

Quadrant III (-, +)

This quadrant reflects that the company's performance is below average but there are opportunities that are still open. In this position, it takes courage to change the strategy so far carried out by the organization because the old methods are likely to be outdated

Quadrant IV (-, -)

Entering this quadrant proves the condition of the company is no longer as expected. In difficult situations like this, what you need is to survive while maintaining internal performance so that the wheels of the organization continue to run.

2.4. Flow diagram.

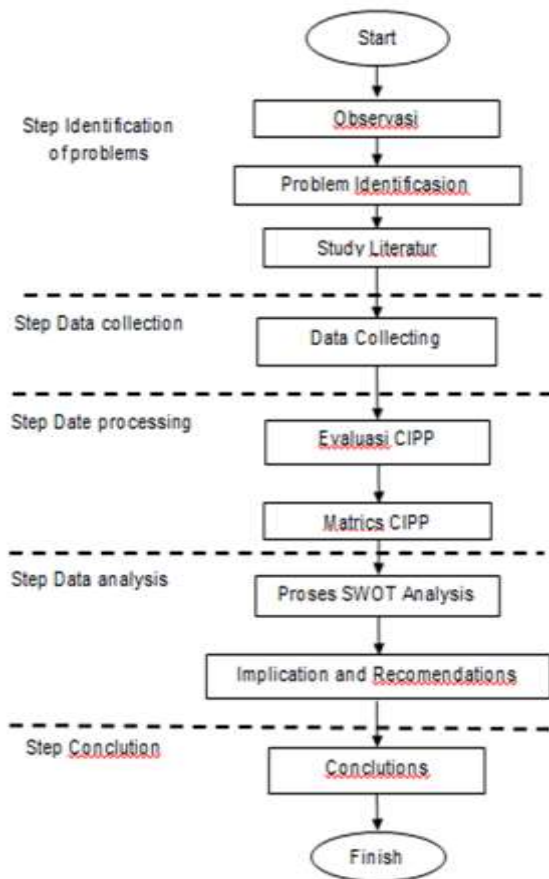An outline of all research activities is illustrated in a flowchart as in the following figure:

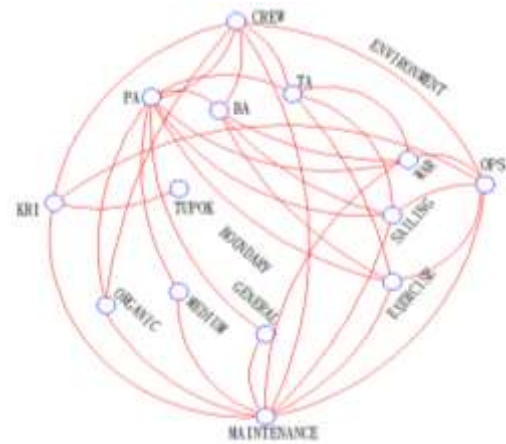Figure 3: Research Flowchart

3. RESULT AND DISCUSSION.

Figure: 4. Analysis system

3.1 System Elements

There are several elements that make up a system, namely: objectives, inputs, processes, outputs, limits, control mechanisms and feedback as well as the environment. Following is an explanation of the elements that make up the system above:

a. The goal is to be able to carry out its main tasks. This goal is the motivator that directs the system. With out any purpose, the system becomes undirected and uncontrolled. Of course, the purpose of one system with another system is different.

b. Input system is everything that enters the system and then becomes processed material. Input can be tangible (physically visible) or invisible. As input, among others: KRI, Crew and others.

c. The process is a part that makes changes or transformation from input into useful and more valuable outputs, for example maintenance and operations (patrol / training).

d. Output is the result of processing. In information systems, the output can be in the form of information, suggestions, printed reports, and so on. For the above system the output is in the form of successfully carrying out its main tasks.

e. The so-called boundary system is a separator between the system and regions outside the system (environment). The system boundary determines the configuration, scope, or capability of the system. Control mechanism

(control mechanism) is realized by using feedback, which samples output. This feedback is used to control both input and process. The aim is to set the system to run in accordance with the objectives.

f. The environment is everything that is outside the system. The environment can affect the operation of the system in the sense that it can harm or benefit the system itself. Adverse environments, of course, must be detained and controlled so as not to interfere with the continuity of the operation of the system, while the beneficial ones must continue to be maintained, because it will spur on the survival of the system.
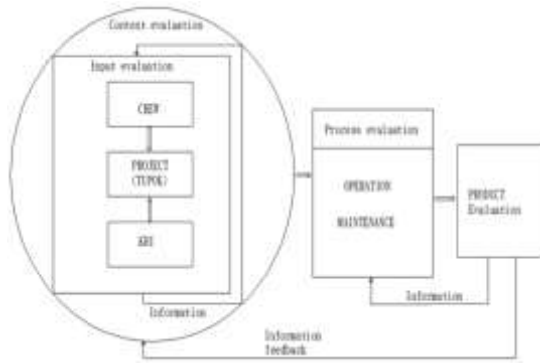
3.2 Evaluation with CIPP.

Figure :5 Flowchart Evaluation.

From the diagram above it can be explained through the CIPP matrix.

Tabel.3 Matrix CIPP

No.	Aspec	Indicator	Sub indicator
1.	Contexs	Readiness of the KRI	-The existence of PUS, decreased the number of KRIs -KRI readiness components include Crew, Materials (Platform, Sewaco, Logistics)
2.	Input	a. Crew	- Fulfillment of Crew numbers based on Crew List (DSP) -Lack of personnel due to the expansion of the new Armada, Lantamal and KRI. -Family problems result in not participating in assignments (sick / deceased) -Crew who carry out education to support a career.
		b. KRI	-Availability of materials such as spare spare parts. - Equipment readiness which includes; Platform, sewaco and logistics. -There is a JOP and JOG Treatment schedule -The existence of a kind of ship that has technical conditions READY

3.	Process	a. Operational	- Consistent training will determine success in carrying out the task. - Do warfare when needed by the state -Patrol / sail in order to secure the jurisdiction.
		b. Maintenance	-Organic care is a treatment that is carried out every day. -Medium care that is medium level care -General care that is GO treatment, Docking.
4.	Product	Success of implementing assignments	-KRI Ready to Combat. - There is PUS on old KRI -Full Personnel - Procurement of new KRI

3.3 SWOT Analysis.

In this study began with the stage of data collection by means of literature study and observation. From the results of the data obtained through research documents, observations and some literature, internal and external factors can be formulated. Based on the analysis of internal factors, 9 strengths and 8 weaknesses were obtained. While the analysis of external factors obtained 6 opportunity factors and 6 threat factors.

Tabel. 4 Score of Strength.

No	Strength	bobot	rating	score
1	KRI is one of the main tools of national defense	0.166	4	0.664
2	The office is at the same time the crew resting place while sailing	0.083	3	0.249
		0.126	5	0.63
3	Logistics availability is fulfilled	0.083	3	0.249
4	Availability of entertainment and sports facilities	0.125	3	0.375
5	Have extinguishers and fire extinguisher	0.126	4	0.504
6	The availability of weapons meets the standards	0.083	3	0.249
7	The availability of repair shops and equipment for repairs	0.083	3	0.249
8	Availability of bakes and medical devices	0.125	4	0.5
9	Professional crew in their field			
			total	3.669

Tabel.5 Score of Weakness

No	Weakness	bobot	rating	score
1	Many KRIs are over 40 years old	0.142	3	0.426
2	Many room facilities are damaged	0.142	2	0.284
3	Charging water is scheduled simultaneously	0.096	1	0.096
4	Late APAR spare parts and damage to the fire hose	0.142	2	0.284
5	Ammunition Limitations	0.097	2	0.194
6	Maintenance workshops and equipment need additional budget	0.142	2	0.284
7	Stock of medicines is limited	0.097	2	0.194
8	Lack of Crew as a man	0.142	3	0.426
			total	2.188

Tabel. 6 Score of Oportunity

No	Opportunity	bobot	rating	score
1	The Government's vision is to make Indonesia the world's maritime axis	0.15	5	0.75
2	The development of the Navy towards the strength of the MEF	0.2	4	0.8
3	New Armada Added	0.15	3	0.45
4	Procurement of new KRI	0.15	4	0.6
5	The existence of Transfer of Technology	0.2	3	0.6
6	Add new crew	0.15	4	0.6
			total	3.8

Tabel. 7 Score of Threats

No	Threats	bobot	rating	score
1	The political situation heats up with the South China Sea dispute.	0.143	2	0.286
2	The number of KRI has not been included to secure the entire border	0.143	3	0.429
3	KRI is prone to accidents, drowning, fires	0.214	3	0.642
4	JOP and JOG schedules that are not synchronous	0.143	1	0.143
5	Dependence with foreign countries	0.143	3	0.429
6	Limited ability of independent logistic support	0.214	3	0.642
			total	2.571

After strengths, weaknesses in internal factors and opportunities, threats to external factors are known, then the weighting is carried out as in the table above.

the processing results are then continued to determine the position of the strategic quadrant by inserting into the weight score table by placing the Strength (S) and Weakness (W) values in the Internal column and the difference in value between (S) and W as the X axis. As for the Opportunity (O) value and Treats (T) are placed in the external column and the difference between O and T as values on the Y axis.

Tabel. 8 Quadrant Processing

Internal (X)	Nilai	Eksternal (Y)	Nilai
Strenght Weaksness	3,669 2,188	Opportunity Threats	3,8 2,671
Selisih Nilai	**1,481**		**1,229**

we can find that the X-axis value (1,481) is positive(+) and the Y-axis value (1,229) is positive(+)
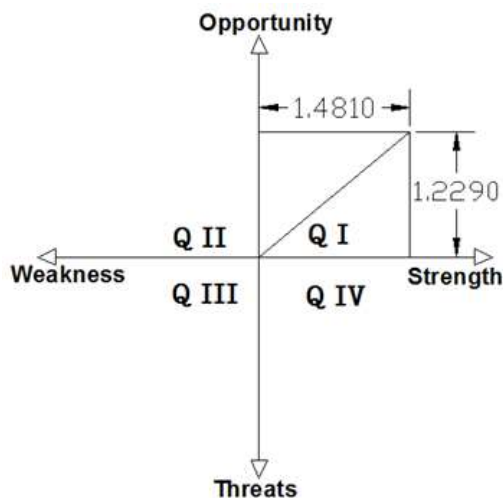
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Figure. 6 Quadrant SWOT

Judging from the strategy quadrant image, the strategy position is located in Quadrant I (+, +), this shows that this position indicates that the organization is in a **strong** position and is **on the track**.

4. CONCLUSION

From the analysis above, it is obtained the factors that influence the implementation of Navy's internal and external tasks. A reduction in the number of KRIs due to PUS does not affect its function as a tool of national defense. The SWOT analysis results are correct and on the track.

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