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Combine of Blue Ocean Strategy-System Dynamics for National Maritime Strategy in Indo-Pacific Region

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Abstract: The Indo-Pacific has become a hub for maritime geopolitical, security, trade, and environmental activities. The location and waters territorial within Indonesia's jurisdiction have led the countries to various maritime threats. This study aims to formulate, determine alternatives and priorities for the national maritime strategy to maintain the stability of the Indo-Pacific region in the 21st century. This study uses the integration of internal and external analysis (IFE & EFE), QSPM Matrix, and Analytical Hierarchy Process (AHP) methods. Based on the results of the canvas strategy with five Indo-Pacific countries, Indonesia has a competitive level value of 3.398 (67.95%) with a description of High Competitive. The National Maritime Strategy in the Indo-Pacific is in the Quadrant I category (Positive; Positive) which illustrates that the situation is very good because there are strengths used to seize profitable opportunities, namely the SO strategy with eight substrates. The scenario evaluation shows that from 2021 to 2026 the competitive value of the National Maritime Strategy (SO) as re-balancing in the Indo-Pacific region always increases. This research is expected to contribute to the concept of a national maritime strategy by Indonesia as a re-balancing in the Indo-Pacific region.

Keywords: Canvas Strategy, Indo-Pacific, Multicriteria-Decision Making (MCDM), Maritime Strategy, System Dynamics

1. Introduction

Areas and connectivity that ensure security at sea and the economic activities of every country that are affected by maritime stability and security are the foundation behind the emergence of the term Indo-Pacific as a new "region" in global political and security dynamics [1]. The idea of the Indo-Pacific is not entirely new, although it has certainly received a lot of attention in recent years. The Indo-Pacific has become a hub for maritime geopolitical, security, trade, and environmental activities. Indonesia's geopolitical and geostrategic conditions which are beneficial, become an added value for the country in planning its national security and defense figures, including defense strategies and postures thus they can play a central role in the Indo-Pacific region [2].

Indonesia's strategic role and awareness of the importance of the sea to improve the economy is an urgent need that requires a maritime concept to bring a stronger financial condition [3]. Indonesian waters are strategic for commercial activities, such as fishing, laying submarine cables and pipelines, exploitation of oil and gas, and conducting scientific research. However, the location and territorial waters within Indonesia's jurisdiction have brought the country to various maritime threats [4]. What is Indonesia's strategy in dealing with these threats? This study aims to formulate, determine alternatives and priorities for the National maritime strategy to maintain the stability of the Indo-Pacific region in the 21st century.

This research applies the integration between internal and external analysis methods (IFE & EFE), QSPM Matrix, and Analytical

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Hierarchy Process (AHP) to provide weight to these factors. Furthermore, SWOT analysis and Blue Ocean Strategy are used to determine the maritime strategy used to maintain the stability of the Indo-Pacific region. This research is important because the impact of developments in Asia-Pacific needs to get responses from Indonesia as a country with the largest sea area in Asia-Pacific. This research is also expected to contribute to the concept of a national maritime strategy by Indonesia as a re-balancing in the Indo-Pacific region. As a limitation, it does not explain the analysis of the vulnerability of relations between several Indo-Pacific countries nor the competitive analysis of various countries in the region.

There are several previous studies used, including Hong (2018), explaining the Trump Administration's Free and Open Indo-Pacific Strategy providing a strong framework to curb China's ambitions. Prayoga (2021), examines Indonesia's actions as a nonclaimant country in carrying out a defense strategy to prevent threats that can disrupt its territory, especially in the North Natuna Sea bordering the South China Sea as the main theater of this hegemonic war in the Indo-Pacific. Kireeva (2020), analyzes the Indo-Pacific strategies of Japan and the United States as the main strategic actors in the region and clarifies the similarities and differences in the strategies that characterize each. Soedarman et al. (2020), formulate a strategic partnership pattern between Indonesia and Australia in the field of defense cooperation.

Choong (2019), provides an assessment study of the Indo-Pacific and ASEAN strategies. Joesoef (2022), researches the strengthening of Indonesia's air defense system in facing challenges and military development in the Indo-Pacific region. Oktaviano (2020), discusses Indonesia's strategy outside the ASEAN Outlook within the framework of the complex theory of regional security and Indo-Pacific regional governance. Scott (2019), analyzes and evaluates Indonesia's struggle with the Indo-Pacific from three actors, namely Indonesian actors in the Indo-Pacific, its strategic discourse in the Indo-Pacific, and its Indo-Pacific diplomacy.

Then, Calabrese (2020) explains the US strategy which consists of three pillars: economy, governance, and security in the Indo-Pacific. Wilkins & Kim (2022), discuss the new prominence given to the "Indo-Pacific" concept in the strategic narrative championed

by the US and its closest allies, (Japan and Australia), and then juxtapose it with responses from other major regional powers. Barthwal-Datta & Chacko (2020), investigate India and Australia's respective strategic narratives about regional order in the Indo-Pacific. Shah (2020), gives the opinion that China is no longer in a position of siege because the strategic interests of Japan and India merge with China's interests in the Indo-Pacific. Kitaoka (2019), describes the vision of Indo-Pacific that is free and open. Jung et al. (2021), explain the Indo-Pacific Strategy and the Expansion of the US Alliance Network in the Sino-US Geostrategic Competition in the Indo-Pacific Region. Gopal & Alverdian (2021), explain the Imperative Maritime Security Cooperation between India and Indonesia, Status and Prospects in the Indo-Pacific. Agastia (2020), examines the conception of Indonesia's national role related to the Indo-Pacific concept. Mubah (2019), examines Indonesia's strategy in facing increasingly fierce competition between the United States and China in the Indo-Pacific region. Milner (2019), describes the changes in the regional and global environment facing Indonesia regarding the Indo-Pacific.

This article consists of several parts. Part two describes the theory of strategic management, Competitive Dynamics, Competitive Advantage, Alfred Thayer Mahan's Theory, and the conceptual framework in research. Part three describes the research methods, Analytical Hierarchy Process (AHP), Strategic Canvas, System Dynamics, Design, and stages of Research, Goals and Research Steps. Part four describes the results of the analysis and discussion of the research. Part five describes the conclusions of the study, the limitations and the gaps for further research.

2. Literatur Review

2.1. Strategic Management

Strategic management is the science of developing, implementing and evaluating functional decisions that will enable a company to achieve its goals. Usually, it focuses on the organization's process of setting goals, developing policies, and planning to achieve goals, as well as allocating resources to implement policies or plans for organizational goals. Strategic management is a series of long-term managerial actions that determine the company's performance [22]. Strategic management includes environmental monitoring, strategy formulation, strategic planning or long-term planning, strategy implementation, and evaluation and control [23]

Strategic management emphasizes observing and evaluating environmental opportunities and threats by looking at the company's strengths and weaknesses. Previously called business policy, strategic management includes long-term planning and strategy. According to David & David (2017), strategic management is the art and knowledge of formulating, implementing, and evaluating cross-functional decisions that enable an organization to achieve its objectives. The strategic management process includes 4 basic elements, they are: (1) environmental observation, (2) strategy formulation, (3) strategy implementation, and (4) evaluation and control.

Internal analysis is the process by which strategic planners examine the company's marketing and distribution, research and development, production and operations, company resources and employees as well as financial and accounting factors to determine where the company's strengths and weaknesses [25]. External analysis is a process carried out by strategic planners to monitor the environmental sector in determining opportunities and threats for the company. Strategic management also has a function and separate benefits to the community. The function of strategic management is to formulate, implement and evaluate decisions and actions that can be used to formulate and implement highly competitive strategies suitable for the company and environment to achieve goals [26].

2.2. Competitive Dynamics

Competitive dynamics are applied in a variety of contexts, from studies discussing the competition among species for survival to those that discuss how organizations compete with each other for dominance or studies that seek to establish a theoretical model of the game [27]. Competitive dynamics is the study of competition between companies or organizations based on specific competitive actions and reactions, organizational and strategic contexts, and the causes and consequences of these actions and reactions [28]. The purpose of competitive dynamic studies is to answer essential questions, such as: how do companies or organizations interact with each other when they are also competing with each other? Why do companies compete in certain ways? How competitive behavior can affect organizational performance, and vice versa [29]?

The study of competitive dynamics refers to the competitive actions of organizations. There are two intellectual roots of the micro focus of competitive dynamics. The conception of creative destruction is used to classify dynamic processes, in which organizations take action and react to each other in pursuit of market opportunities [30]. The competitive advantage of an organization depends on the actions and reactions that the organization takes against its competitors. The second concept is that of the Austrian School [31], [32]. This concept tends to view competition as a dynamic market process, which moves toward or away from equilibrium in the market. The temporary balance will make the organization's competitive advantage also temporary with limited exploitation opportunities in terms of time [33], [34]. First, competition is seen as a dynamic and interactive matter, while mutual action/reaction along with other actions is seen as the building block of competition. The interaction between the two organizations is the core of strategy and competition and the core of competitive dynamics theory [35]. Second, the focus of this field of study lies on the actual actions taken by the company, including: a) introduction of new products or promotional programs, b) entering new markets, c) changes to pricing policies, and relocation or redesign of facilities. Third, pairwise comparisons between companies or rivals regarding positions, intentions, perceptions, and resources are the core of analyzing competitors, which is an integral part of competitive dynamics.

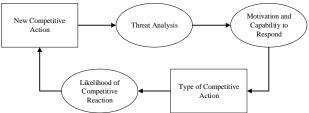


Fig 1. Competitive Dynamics Model. [36].

2.3. Competitive Advantage

The competitive advantage of a nation is created and preserved through natural processes derived from local industries. Differences in the advantages of a nation can also be seen based on national values, culture, economic structure, institutions, and the history of the nation itself. These will all contribute to competitive success thus there will be striking differences in the pattern of competitiveness in each nation. In other words, no nation is the most competitive in every industry [37].

Competitive advantage is one of the important factors in long-term business success. By knowing a competitive advantage, the company or organization will have more opportunities to gain a strategic advantage. Competitive advantage is the ability obtained through the characteristics and resources of a company or organizational unit to have a higher performance than others in the same industry. Competitive advantage comes from the ability of a company or organizational unit to take advantage of its internal strengths to respond to external environmental opportunities while avoiding external threats and internal weaknesses [38].

Competitive advantage is the ability obtained through the characteristics and resources of a company to have higher performance than others in the same industry or market. Furthermore, Porter proposed the Diamond Model (DM) which consists of four determinants (determining factors) National Competitive Advantage (NCA) [38]. These four attributes are: a) factor conditions; b) demand conditions; c) related and supporting industries, and firm strategy; d) structure, and rivalry.

First, factor conditions refer to the inputs used as factors of production, such as labor, natural resources, capital and infrastructure. Second, demand conditions refer to the availability of a domestic market that is ready to play an important role in generating competitiveness. Third, related and supporting industries refer to the availability of a series and the existence of a strong relationship between the supporting industries and the company. This relationship and support are positive which leads to an increase in the competitiveness of the company. Fourth, firm strategy, structure and rivalry refer to the strategies and structures that exist in most companies and the intensity of competition in certain industries. Structure goes along with strategy. Structures are built to carry out the strategy. The high intensity of competition (rivalry) encourages innovation.

2.4. A.T. Mahan's Theory

Maritime competitions are in many ways. The sea is an integral part of the territory of a country that cannot be divided but can be distinguished according to the legal regime that governs it. The sea can be used as much as possible for the welfare of the Indonesian people, but other countries also have utilization rights. Alfred Thayer Mahan, a United States Navy Senior Officer, in his book "The Influence of Sea Power upon History" put forward the theory that sea power is the most important element for the progress and glory of a country, which if these sea powers are empowered, it will improve the welfare and security of a nation [39]. According to Mahan in Lord (2021), countries with vast oceans have the potential to dominate the world. Furthermore, a country with the sea is in an advantageous position to be able to perform many functions, some of which are as follows: a) The sea as a trade route; b) The sea is a "huge" highway for transportation; c) The sea as a means of communication in all directions.

According to Mahan, six conditions must be fulfilled if the country wants to build sea power. The six conditions are geographical position, supporting physical attributes (natural wealth, coastline length), area, population, a national character that is in harmony with the sea, and the character of the government that is oriented to the sea [41]. These elements can be classified into three components, namely human resources, natural resources, and government policies. Mahan described sea power as the ability of a state to protect its political, economic, and military interests by using the sea [4]. Furthermore, Mahan's testing of naval strategy can be broadly divided into four areas: concentration of forces; the importance of the central position or line; interior line of movement to the central position; and the relevance of communication in employment [42].

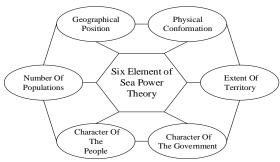


Fig 2. Sea Power Elements by A.T. Mahan. [42]-[44]

Sea power is not only limited to naval power but also includes all components of national maritime power which has a broader meaning related to control of international trade and economy by sea, use and control of marine resources, the use of naval power and the maritime economy as an instrument of diplomacy, deterrence and political influence in times of peace and the operation of the navy in times of war [45]. Thus, sea power for Indonesia as the largest archipelagic country in the world is very important where elements of it will become capital in building and utilizing national maritime power [46].

2.5. Conceptual Framework

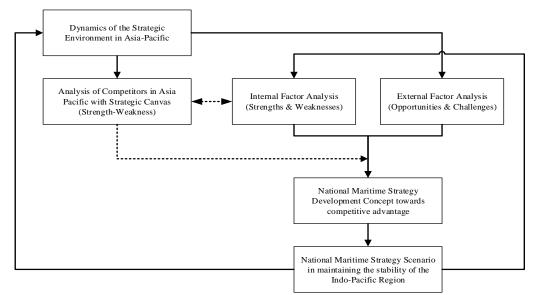


Fig 3. Conceptual framework of competitive assessment and national maritime strategy

This research consists of two stages. The first is identification of internal and external factors of the organization along with the dynamics of the developing strategic environment. The analysis of internal factors applies the maritime theory approach of Alfred

Thayer Mahan (A.T. Mahan). As an aspect of opportunities and challenges, the analysis of external factors uses a political/Legal, Demographic, Economic, Socio-Cultural, Global, Technology approach [47]–[49]. Furthermore, the key factors from external

and internal factors will be weighted and scored for the analysis of maritime development strategies.

The second is the results of internal factor analysis in the form of identifying strengths and weaknesses that will be used as criteria in the Strategic Canvas on the framework (BOS) to provide competitive value for countries in the Asia-Pacific. In this analysis, weighting is carried out by AHP and Scoring as an analysis of the competitive level of each country. The results of the analysis are taken into consideration in determining the concept of developing a national maritime strategy in maintaining the stability of the Indo-Pacific region as the third step with a scenario using system dynamics.

3. Material/ Methods and Procedure

3.1. SWOT Analysis

SWOT analysis is an assessment of the results of the identification of a situation to determine whether a condition is categorized as a strength, weakness, opportunity or threat. SWOT analysis is part of the planning process. The main point emphasized is that in the planning process, an institution requires an assessment of the current conditions and the future that will affect the process of achieving the goals of the institution. With the SWOT analysis, the characteristics of the main strengths, additional strengths, neutral factors, main weaknesses and additional weaknesses will be obtained based on the internal and external environmental analysis carried out [38].

SWOT analysis is a strategic planning technique that is beneficial for evaluating strengths and weaknesses, opportunities, and threats in an organization or company. At the organizational level, SWOT analysis can be used to analyze the company's growth along with the benchmarks for its success. While in projects, a SWOT analysis can be used to ascertain how well a project is performing based on initial projections [50], [51]. The SWOT analysis method is the right tool to find problems from four different sides [52], where the applications are: a) how strengths can take advantage of existing opportunities; b) how to overcome the weaknesses that prevent profits; c) how strengths can deal with existing threats; d) how to overcome the weaknesses that can make threats become real or create a new one.

The SWOT matrix can be used to clearly describe the external opportunities and threats faced by the company, and adjusted to the strengths and weaknesses it has. The SWOT (Strength-Weakness-Opportunities-Threats) matrix is an important tool to help managers develop four types of strategies, namely SO (strengths-opportunities), WO (weakness-opportunities), ST (strengths-threats), and WT (weaknesses-threats).

Table 1. SWOT Matrix Analysis [53], [54].								
Matrix	Strenght (S)	Weakness (W)						
SWOT								
Threat	ST	WT						
(T)	Take advantage of	Minimizing						
	the potential to face	weaknesses to face						
	threats	threats						
Opportunities	SO	WO						
(O)	Take advantage of	Overcoming						
	potential to get	weaknesses to get						
	opportunities	opportunities						

SO is a strategy determined based on the organization's way of thinking, by utilizing all strengths to seize and take advantage of opportunities as much as possible. WO is a strategy determined based on the utilization of existing opportunities by minimizing weaknesses in the organization. ST is a strategy determined based on the strengths that the organization has to overcome the detected threats. WT is a strategy implemented in the form of activities that are defensive and try to minimize existing weaknesses and avoid threats [55].

Table 2. IFAS and EFAS Matrix of SWOT [25].

Aspect	Weight	Rating	WxR
Aspect 1	X1	Y1	X1.Y1
Aspect2	X2	Y2	X2.Y2
Aspect 3	X3	Y3	X3.Y3

3.2. Analytical Hierarchy Process (AHP)

AHP is a decision support model developed by Thomas L. Saaty. This decision support model describes a complex multi-factor or multi-criteria problem into a hierarchy [56]. According to Saaty (2006), hierarchy is defined as a representation of a complex problem in a multi-level structure where the first level is the goal, followed by the level of factors, criteria, sub-criteria, and so on down to the last level of alternatives. With a hierarchy, a complex problem can be broken down into groups which are then arranged into a hierarchical form so that the problem will appear more structured and systematic.

AHP is more commonly used as a problem-solving method compared to others for the following reasons [58]: a) A hierarchical structure, as a consequence of the selected criteria, to the deepest sub-criteria; b) Taking into account the validity up to the tolerance limit for the inconsistency of various criteria and alternatives chosen by the decision maker; c) Taking into account the durability of the decision-making sensitivity analysis output. The main tool of AHP is a functional hierarchy with the main input being human perception. The existence of a hierarchy allows complex or unstructured problems to be broken down into subproblems, then arrange into a hierarchical form. There are 7 pillars used and must be considered in AHP modeling [59], including 1) Ratio scale, which is a comparison of two values (a/b) where the values of a and b are the same type (unit); 2) Pairwise comparisons; 3) The conditions for the sensitivity of the eigen vectors; 4) Homogeneity and clustering; 5) Synthesis; 6) Maintaining and reversing the order of weighting and ordering in the hierarchy; 7) Group considerations.

Humans instinctively can estimate simple quantities through their senses. The easiest process is to compare two things with a reliable comparison accuracy. For that, Saaty, set a quantitative scale of 1 to 9 to assess the comparison of the importance of an element to another.

Table 3 AHP Assessment Scale [57] [58] [60]

Table 5. AHP Assessment Scale [57], [58], [60].					
Importance Scale	Definition	Explanation			
1	Equally Important	Two activities contribute equally strongly to the goal			
3	More Important	One activity is slightly more important than the other			
5	Important	One activity is more important than the other			
7	Very Important	One activity is very important compared to other activities			
9	Very Much Important	One activity is very much important compared to other activities			
2, 4, 6, 8	Median				
Reciprocal		Describing the dominance of the second alternative over the first			

Steps for the AHP method are:

Create a pairwise comparison matrix [61].

$$A = a_{im} = \begin{bmatrix} \frac{1}{a_{12}} & a_{12} & \dots & a_{1n} \\ \frac{1}{a_{12}} & 1 & \dots & a_{2n} \\ \dots & \dots & \dots & \dots \\ \frac{1}{a_{1n}} & \frac{1}{a_{2n}} & \dots & 1 \end{bmatrix}$$
(Eq. 1)

i, $m = 1, 2, \dots, n = related$ criteria index.

- b. Create a criterion value matrix.
- c. Create a Sum Matrix for Each Row.
- d. Assessment of Consistency Index (CI) and Consistency Ratio (CR).

$$CI = \frac{\lambda maks - n}{n}; \qquad \dots (Eq. 2)$$

$$CR = \frac{CI}{RI} \qquad(Eq. 3)$$

N = Number of elements,

RI = Random Consistency Index.

If the CR ratio is 0.1 (ie 10%), the matrix is said to be consistent and the decision W is accepted. On the other hand, CR beyond that implies too many contradictions in the matrix. Anticipation for the latter situation is to review the matrix, then revise the weights loaded by the vector.

Table 4. Random Consistency Index Value

					00)			
1	2	3	4	5	6	7	8	9	10
0	0	0.58	0.9	1.12	1.24	1.32	1.41	1.45	1.49

3.3. Canvas Strategy on Blue Ocean Strategy (BOS).

Frameworks and analytical tools in blue ocean strategy will assist strategy implementation. There are three analytical tools, they are: the canvas strategy, the four-step framework, and the delete-reduce-increase-create scheme, they guide the implementation of blue ocean. The canvas strategy is a framework for action as well as a forecast for building a good blue ocean strategy. The strategy serves to summarize the current situation in an existing market [62]. In designing the canvas strategy, it is necessary to identify the related factors that influence it. Creating a canvas strategy is not making numbers or statistics, but having to make a big or broad picture so that it will be easy to read the strategy that will be developed. Several types of canvas strategies such as the pioneer-migrator-settler map canvas [63].

Canvas strategy is a diagnostic and action framework for building a good blue ocean strategy. The canvas strategy has two dimensions, namely a horizontal and vertical axis where the horizontal axis represents the range of factors used as an arena for competition and investment by the industry, while the vertical axis describes the level of supply that buyers get from competitive offers in the market. A canvas strategy as producing three things [64], they are: 1) Drawing a canvas strategy can show the strategic profile of an industry by clearly describing the factors (and possible future factors) that affect competition among industries: 2) Showing the strategic profile of the latest and potential competitors to identify those factors that become their strategic

place of investment; 3) Shows the company's strategic profile or company value curve that describes how the company invests in these factors in the future.

In this study, a canvas strategy is used to identify and analyze the current competition in the Indo-Pacific region. The identification of the factors in the Canvas Strategy applies SWOT analysis approach from the Strengths and Weaknesses aspect which is supported by the Analytical Hierarchy Process (AHP) method in the criterion-weighted model. Furthermore, a 1-5 Likert scale scoring assessment was carried out to provide competitive analysis for comparison.

3.4. System Dynamics

The fundamental of the System Dynamics methodology is systems analysis. A system is defined as a set of elements that interacts with each other. The components of a system are interrelated with different relationship patterns, while between the system and its environment (*system environment*), the relationship pattern is very limited. A system can consist of several sub-systems, to which the definition of the system also applies in it [65]. The interactions that occur in it all the time will affect the state of the system components. The structure of the system is determined by the relationship between the elements. The system boundary will separate the system from its environment [66].

System Dynamics attempts to explain the behavior of various actions in some systems. Such a system is referred to as a closed system (inherent). This does not mean ignoring the relationship between the system and its environment, but that any external variables which do not affect the system will also not be affected by the system itself [67]. In conjunction with the formation of the model structure following the previous scientific method, the model built through structural analysis (based on systems thinking approach) is possible to have many points of contact. In the systems thinking paradigm, the physical structure and decision-making structure above is believed to be built by interdependent elements and form a closed loop. The relationship of the interdependent elements is a feedback causal relationship and not a unidirectional cause-and-effect relationship [68].

There are two kinds of causal relationships, namely "positive" and "negative" causal relationships. Negative feedback is a process to achieve goals (goal seeking). This feedback tends to be a counterweight to any disturbance and always brings the system to a stable state. The main assumption in the System Dynamics paradigm is that persistent tendencies in any complex system originate from the causal structure that forms the system [69]. System Dynamics itself has four theoretical foundations: information-feedback theory, decision theory, computer simulation experiments, and mental model completion processes [70]. As a computer-oriented method, System Dynamics wants to provide a better understanding and predict numerous possibilities that will occur in various types of social systems [71].

Table 5. Symbol of System Dynamics [72]–[75].

Variable	Symbol	Explanation
Level		Presenting the accumulated quantity that accumulates over time, its value can change in line with changes in the rate
Rate	\boxtimes	Presenting a flow rate that can change the level value
Auxiliary		Presenting auxiliary variables containing formulations that can be input to the rate.

Five elements are describing the System Dynamics model; two elements constitute the building of feedback loops: level variables and flow variables. The others are complementary variables in the form of parameters, exogenous variables and intermediate variables [76]. There are several stages in modeling a model using System Dynamics. The steps taken in the System Dynamics model

approach are as follows: a) Problem identification and definition; b) System conceptualization; c) Formulation of the model; d) Behavioral analysis of the model; e) Model testing and development; f) Policy analysis.

Causative Loop Diagram (CLD) is a type of drawing language that relates various variables during a pie chart. The use of arrows can indicate cause and or impact variables. The head of the arrow indicates the cause, while the tip of the arrow indicates the effect. Every modeler must first understand the processes that occur in the universe (real world) so that the logical model will agree with reality. The method of understanding is done by characterizing the causal variables and or by distinguishing between the dependent and independent variables [77]. In this study, system dynamics analysis applies Stella 9 software.

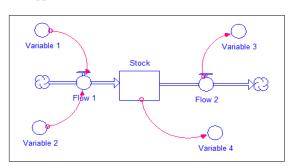


Fig 4. Stock and flow diagram on System Dynamics [65], [66], [72], [78].

3.5. Design/Steps

This article uses a sequential exploratory mix method research approach. The stages of the sequential exploratory mix method are that qualitative data is collected first, followed by quantitative data to interpret the qualitative findings [79]. Mix method research is useful to complement two research methods, namely qualitative and quantitative so that they can mutually reinforce each other from the results of their research. A theory or research result does not appear by itself, but is built by researchers and research participants [80]. This approach is used as an analysis in the first stage to identify criteria for internal and external related factors. The quantitative stage as the second stage is used to determine the value or score of the competitive level of the competitor's strategy and scenario analysis of the strategy used.

This study uses primary and secondary data. Primary data was obtained from questionnaires, and brainstorming with experts consisting of 6 personnel. While secondary data were obtained from previous research, journals, sources of news and information

in print media, archives, regulations and policies, official institutional documents, and official social media accounts. This research was carried out from October 2021 to March 2022 in the national maritime area which has direct borders with several neighboring countries in the Indo-Pacific.

Table 6. List of experts in the research

No	Subject	Total	Code
1	Ministry of Maritime Affairs staff	1	E-1
2	Naval Staff	1	E-2
3	Bakamla staff	1	E-3
4	Police Staff	1	E-4
5	Ministry of Marine Affairs and Fisheries	1	E-5
	staff		
6	Maritime Expert	1	E-6

3.6. Goals and Research Steps

To answer research questions and objectives, this article provides three research steps, namely:

- a. Identifying criteria. This step is to identify the external and internal factors influencing the national maritime strategy. Internal factor identification applies Alfred Thayer Mahan's theoretical approach from the theoretical and testing aspects. Identification of External Factors using political/Legal, Demographic, Economic, Socio-Cultural, Global, and Technological factors. After the external and internal factors have been identified, the next step is to provide weighting and assessment using SWOT analysis supported by the AHP method.
- b. Dynamic competitive analysis on the Canvas strategy and several countries. The first stage in the canvas strategy is the identification of competitive factors using factor analysis from SWOT on AT Mahan's internal factors. After the factors are identified, then weighting and scoring is carried out for each country in the Indo-Pacific. These countries are involved in the Quadrilateral, namely Japan, India, Australia, the US and countries outside of that, namely China, so that a competitive value is obtained from six countries in the Indo-Pacific.

Table 7. Indo-Pacific countries' competitive analysis.

Analysis	Weight	Indo	nesia	Chi	ina	Jap	an	Ind	lia	Austi	ralia	US	SA
Factor		Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value
n1													
n2													
n3													
Total													
Category					<u> </u>						<u> </u>		

c. National maritime strategy and dynamic system scenario. In this step, the strategies obtained are the results of the IFE and EFE analysis on the QSPM matrix with consideration of the weights and scores of previous internal and external factors. The strategies and substrategies that have been obtained are then given weights and scores to be analyzed with the Dynamic system on the Causal Loo Diagram and Stock-Flow Diagrams to provide sustainability values and scenarios from the National Maritime Strategy that will be implemented in the context of re-balancing power in the Indo-Pacific

Table 8. AHP Scale Value and Likert Score and Competitiveness Categories Value [73].

AHP Score	Likert Score	Value (%)	Categories	Colour
1-2	1	0-20	Very Low Competitive	
3-4	2	21-40	Low Competitive	
5-6	3	41-60	Medium Competitive	
7-8	4	61-80	High Competitive	
9	5	81-100	Very High Competitive	

4. Result and Discussion

4.1. External Environmental Analysis

The dynamics of the strategic environment continue to be colored by competition and the struggle for influence of big countries. This condition has also placed Indonesia at the center of global interest. The development of a strategic environment at the global, regional and national levels that is increasingly dynamic and complex has created threats, especially in the maritime aspect and potential threats to Indonesia's national interests, namely the development of the Indo-Pacific. The Indo-Pacific is an area that brings together the world's great powers, such as the US, Japan, Russia and the new super power, China. The Indo-Pacific is positioned as a right of interaction between these countries in the region, both bilaterally and multilaterally. The rapid development and change of the world demand a more active role for Indonesia in the world's strategic environment. This important role is not only through diplomatic channels, but also in the field of maritime security.

With its position on strategic sea trade and transportation routes, Indonesia faces challenges in managing maritime security which includes various dimensions including the dimensions of defense and security. In the relationship between the development of the strategic environment that surrounds Indonesia and the national policies pursued by the government, it becomes the main concern by continuing to focus on the influence of changes in the strategic environment on aspects of maritime security. In this research, the analysis of external factors applies a political/legal, demographic, economic, socio-cultural, global, technology approach [47]–[49].

Table 9. External Factor Analysis

ASPECT	OPPORTUNITIES (O)	THREATS (T)			
Demographic	(O1) Becoming a potential market	(T1) Foreign worker invasion			
Segment	(O2) Improving the nation's competitiveness	(T2) Income gaps in developing countries			
(DS)	(O3) Availability of productive labor	(T3) The target market of other countries			
	(O4) A good market share in the country				
Economic Segment	(O5) A growing digital economy	(T4) Unfinished Covid-19 pandemic			
(ES)	(O6) Wider marketing space through social media	(T5) Food and energy shortage			
	(O7) Developing into a global economic power	(T6) Trade war and the cold war			
		(T7) Potential to become a world economic power			
		(T8) Unstable global economic growth			
Political/Legal	(O8) As presidentil of the G-20	(T9) Conflict-prone multi-party politics			
Segment	(O9) As a balancing force in the Indo-Pacific	(T10) High cost of democracy			
(PS)	(O10)As the third largest democracy	(T11) Maritim axis change from west to east Asia			
	(O11)As the largest maritime nation in the Indo-Pacific	(T12) The radical right and radical left			
	(O12)Pancasila democracy as a role model for several				
	countries				
Sociocultural	(O13) Dynamic and tolerant culture	(T13) Cultures that are vulnerable to foreign			
Segment	(O14) Good gender equality	influences			
(SS)	(O15) Social media as a new public space	(T14) Social media use for negative things			
	(O16) National culture as a new tourism icon	(T15) Wide social gap			
	(O17) Easier international interaction	(T16) Consumptive lifestyle			
		(T17) Individualism			
Technological	(O18) Technology transfer from other countries	(T18) Lagging in defense technology			
Segment	(O19) Growing technology research funding	(T19) Hacking of State secret			
(TS)	(O20) Digital empowerment	(T20) Cybersecurity threats			
		(T21) Hoax news attack			
Global Segment	(O21) Frequent border violations	(T22) Russia and Ukraine War			
(GS)	(O22) The promotion of renewable energy	(T23) Threat of transnational war			
	(O23) Climate control as a global issue	(T24) Threat of maritime crime			
	(O24) Promising growth of world maritime technology	(T25) The threat of global terrorism after ISIS			

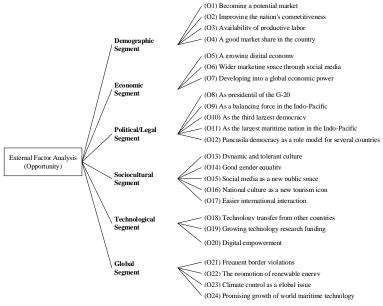


Fig 5. The Hierarchical Structure of the External Factor (Opportunity)

Table 10. Weighted Scores for External Factors (Opportunity)

Criteria	Opportunity Sub criteria	Code	Local Weight	Overall Weight	Rank
Demographic Segment	Become a potential market	01	0.197	0.030	19
(DS)	Increasing the nation's competitiveness	O2	0.394	0.060	4
0.152	Availability of productive workforce	03	0.169	0.026	21
	As a good market share in the country	04	0.239	0.036	14
Economic Segment (ES)	Increasing digital economy	O5	0.312	0.026	20
0.083	The wider marketing media space through social media	O6	0.198	0.016	24
	Become a world economic power	O7	0.490	0.041	11
Political/Legal Segment	As presidentil of the G-20	08	0.177	0.046	9
(PS)	As a counterweight in the Indo-Pacific	09	0.199	0.051	7
0.257	As the third largest democracy in the world	O10	0.123	0.032	16
	As the largest maritime nation in the Indo-Pacific	O11	0.285	0.073	2
	Pancasila democracy as a role model for several countries	O12	0.216	0.056	5
Sociocultural Segment	Dynamic and tolerant cultural structures	013	0.189	0.049	8
(SS)	Good gender equality	O14	0.122	0.031	17
0.257	Social media as a new public space	015	0.244	0.063	3
	National culture as a new tourism icon	O16	0.322	0.083	1
	Interaction among residents between countries is easier	O17	0.122	0.031	17
Technological Segment	Transfer of technology from other countries	O18	0.328	0.032	15
(TS)	The development of technology research funds that				
0.098	continue to grow	O19	0.411	0.040	12
	Empowerment of digitalization technology	O20	0.261	0.026	22
Global Segment (GS)	Border violations are still high	O21	0.282	0.043	10
0.152	Continuously promoted renewable energy production	O22	0.240	0.037	13
	Climate control is a global issue	O23	0.141	0.021	23
	The growth of world maritime technology is quite good	O24	0.337	0.051	6
		-	Score Total	1.000	

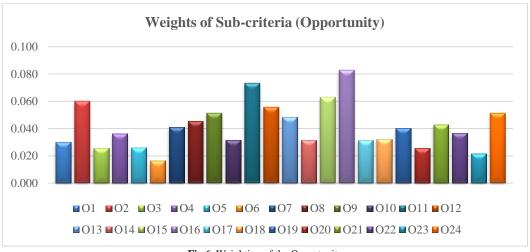


Fig 6. Weighting of the Opportunity

Based on the results of the analysis in Table 10 and Figure 6, there are five sub-aspects on the opportunity aspect that have the highest weight. The first is the National Culture Sub-aspect as a new tourism icon with a weight of 0.083 as the highest sub-aspect. National culture plays a key role in travellers [81]. The role of tourism in global cross-cultural exchanges and the influence of national culture on international tourism development gives a country a strategic position [82]. National culture can be a driver of behavioral intentions in tourism [83]. Therefore, Indonesia's national culture plays a key role in the development of national tourism.

The second is the opportunity as the largest maritime country in the Indo-Pacific with a weight of 0.073. Indonesia's ASEAN view on the Indo-Pacific marks its renewed foreign policy activism as a middle power [84]. Indonesia under the administration of

President Joko Widodo has played a strategic role in maintaining regional stability in the Indo-Pacific amid rising tensions between China and the United States (US) [20]. Diplomacy is pursued concerning Indonesia's relations with Australia, Japan, China, India, and the United States thus a closer synergy is needed for Indonesia with the Free and Open Indo-Pacific initiative [3]. With some of Indonesia's strategic roles in the Indo-Pacific in the era of President Joko Widodo, this will open up opportunities to become a great maritime country.

The third is the sub-aspect of social media as a new public space with a weight of 0.063. Social media is a rapidly growing area used to understand public opinion and landscape [85]. In the era of information and communication technology (ICT), Internet of Things (IoT), many kinds of big data, and technology is ubiquitous at human fingertips, urban geolocation data from social media

promises to expand understanding beyond just where people are. and what they do, but also what they value [86]. With the growth of social media as an information retrieval as well as a communication platform, the amount of travel-related information is greatly increasing, and social media is becoming a new means of promotions [87]. Thus, the existence of social media provides a new space to promote places and give respect to people.

The fourth, the sub-aspect of increasing nation's competitiveness with a weight of 0.06. Several aspects need serious attention for Indonesian educational institutions, especially in terms of students' self-confidence, mentality, communication, and skills. By improving these aspects, it is expected that students and graduates will have better preparation to enter the world of work in the globalization era, industrial revolution 4.0, and society 5.0 [88]. In the end, all these initiatives from the government and universities are a practice to achieve the goal of increasing the nation's global competitiveness [89].

The fifth is the Pancasila democracy sub-aspect as a role model for several countries with a weight of 0.056. Pancasila provides a philosophical foundation so that the 'ideology of tolerance'

becomes the most important value that can unite all elements of a pluralistic nation [90]. Had the devastating financial crisis of the second half of the 1990s not occurred, Asian leaders, including Indonesia, might have been able to dispel feelings of inferiority and colonial stigmatization, which in turn allowed them to present their country and political system, such as the Pancasila Democracy, as a convincing modernity and even as a political center in the new century (Asia) [91].

With the history of Pancasila being used as a tool of domination, Indonesia highlights how ideology can easily be interpreted in various ways to steer civic education away from the basic concept of democracy [92]. Philosophical wisdom illustrates that community life is a unity in the clump of harmony, togetherness and peaceful coexistence in one principle of kinship and cooperation. These basic values were later adopted by the founders of the nation as the fundamental source of ideology and *Pancasila* as the basis of the state which was determined as the source of all sources of norms in the administration of the state, democracy, and government [93].

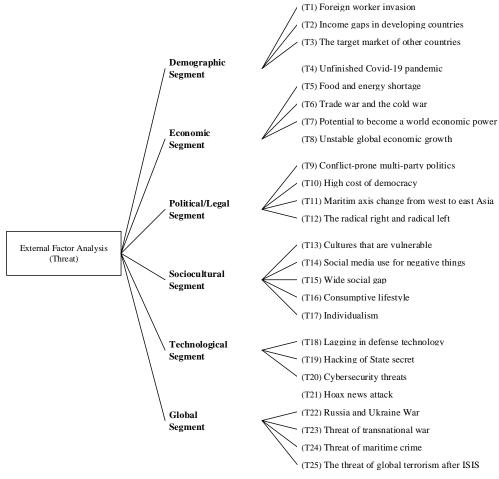


Fig 7. The Hierarchical Structure of the External Factor Analysis (Threat)

Table 11. Weighted Scores for External Factors (Threat)

Criteria	Threat	Code	Local Weight	Overall Weight	Rank
Demographic Segment	Foreign worker invasion	T1	0.312	0.047	9
(DS)	Income gaps in developing countries	T2	0.198	0.030	16
0.152	The target market of other countries	T3	0.490	0.075	3
Economic Segment (ES)	Unfinished Covid-19 pandemic	T4	0.177	0.015	23
0.083	Food and energy shortage	T5	0.199	0.017	22
	Trade war and the cold war	T6	0.123	0.010	25
	Potential to become a world economic power	T7	0.285	0.024	18
	Unstable global economic growth	T8	0.216	0.018	21
Political/Legal Segment	Conflict-prone multi-party politics	Т9	0.282	0.072	4
(PS)	High cost of democracy	T10	0.240	0.062	6

0.257	Maritim axis change from west to east Asia	T11	0.141	0.036	12
	The radical right and radical left	T12	0.337	0.087	1
Sociocultural Segment (SS) 0.257	Cultures that are vulnerable to foreign influences	T13	0.189	0.049	8
	Social media use for negative things	T14	0.122	0.031	14
	Wide social gap	T15	0.244	0.063	5
	Consumptive lifestyle	T16	0.322	0.083	2
	Individualism	T17	0.122	0.031	14
Technological Segment (TS)	Lagging in defense technology	T18	0.282	0.028	17
0.098	Hacking of State secret	T19	0.240	0.023	19
	Cybersecurity threats	T20	0.141	0.014	24
	Hoax	T21	0.337	0.033	13
Global Segment (GS) 0.152	Russia and Ukraine War	T22	0.282	0.043	10
_	Threat of transnational war	T23	0.240	0.037	11
	Threat of maritime crime	T24	0.141	0.021	20
	The threat of global terrorism after ISIS	T25	0.337	0.051	7
			Score Total	1.000	

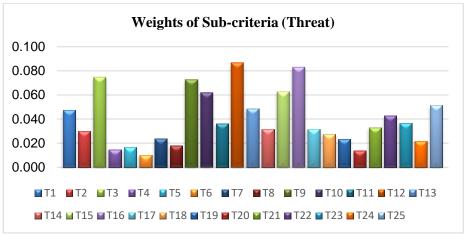


Fig 8. Weighting of the Threat

Table 11 and Fig 8 present five sub-aspects of the Threat with the highest weight, namely the 'Radical Right and Radical Left' with a weight of 0.087. Radical Left is pluralism and secularism in religion. While the Radical Right is religious radicalism and terrorism in the name of religion, using religious flags or in the name of religion [94]. The movement of these two groups exemplifies the global ideological struggle that is attacking Indonesia and destroying the Islam built by the ulema [95]. Radicalism is an understanding that requires a community system to be changed, replaced, and permeated to its roots [96].

The second is the threat of a consumptive lifestyle with a weight of 0.083. Consumerism occurs due to globalization and technological advances [97]. A consumptive lifestyle is one in which a person overbuys an item or service by prioritizing his or her wants over their needs, resulting in waste [98]. Consumerism makes a person lazy to work, loses fighting power, is wasteful, consumptive, and lacks the desire to keep improving [99].

The third is the threat of being a target market of other countries with a weight of 0.075. Indonesia has large market potential and is a target for other countries. Because Indonesia is a profitable potential market, ASEAN member countries will target it in the MEA free market. Foreign countries will look for gaps in how their products can suppress domestic products. The rapid growth of the digital economy, as evidenced by the expansion of ecommerce, has unintentionally created a fertile ground for imported products.

Fourth, multi-party politics are prone to conflict with a weight of 0.072. As a democracy, the challenge is the large number of political parties that make the country unstable. With the current state of political parties, political parties remain divided, and the rise of local political parties will only add to the complexity of the existing party system. And the risk is that when there are many political parties, the possibility of forming an opposition party or a balancing party for the election winner diminishes; if there is no opposition and balancer, there will be no checks and balances between the executive and legislative bodies; this condition is certainly very concerning because it could lead to a bad government authoritarian against policies that harm the interests of the people.

Fifth, the threat of social inequality is quite high with a weight of 0.063. Social inequality is an imbalance in society caused by the economy, a lack of employment, poverty, and poor health. It occurs in various countries, including Indonesia. The disparity in the social and economic fields indicates a disparity or imbalance between one community group and another. As a result, when they see other groups of people living comfortably and well, they feel injustice and jealousy. Socioeconomic disparities arise as a result of a group's unequal ability in the social and economic fields. This means that there is a group that can meet all of their requirements. However, some are unable to meet their basic needs. The large social gap demonstrates that economic growth has not been distributed evenly among Indonesians because infrastructure development has so far been concentrated on Java, leaving the rest of the country far behind.

4.2. Internal Factor Analysis

Table 12. Internal Factor Analysis.

Aspect	Strengths	Weaknesses
Geographical	(S1) As an international trade route	(W1) Maritime crime
Position (GP)	(S2) Local and foreign acculturation	(W2) Foreign cultural threats

	(S3) Rebalancing power	(W3) Vulnerable to military attack
		(W4) Border issues
Physical	(S4) Huge marine and fishery potential	(W5) High transportation cost
Conformity	(S5) Potential of maritime tourism	(W6) Disaster risk
(PC)	(S6) As a strategic trade route	(W7) Economic Inequality
	(S7) Great maritime power	
Extent of Territory	(S8) Abundant natural resources	(W8) Time zone difference
(ET)	(S9) Abundant culture	(W9) Uneven population
	(S10) Extensive network connectivity	(W10) Educational inequality
Number of	(S11) Potential market	(W11) High demand for food and energy
Population (NP)	(S12) Abundant workforce including security and	(W12) High health needs
	defense forces	(W13) Unemployment risk
	(S13) Positive impact on economic growth	(W14) Social conflict
	(S14) Entrepreneurship acceleration	
National Character	(S15) History as a great maritime nation	(W15) High influence of foreign culture
(NC)	(S16) State that believes in God	(W16) Corruption
	(S17) Good cooperation	(W17) Lack of maritime character education
Character of	(S18) Vision of the global maritime axis	(W18) Easily provoked by religious issues
Government (CG)	(S19) Democracy	(W19) The democratic model that often out of limits
	(S20) Civil supremacy	(W20) Conflict-prone multi-party politics

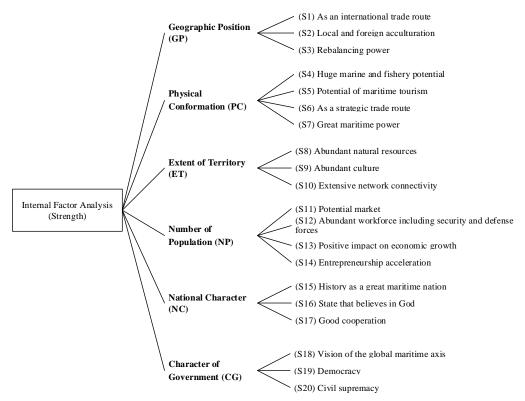


Fig 9. The Hierarchical Structure of the Internal Factor Analysis (Strength)

Table 13. Weighted Scores for Internal Factors (Strength)

Criteria			Local Weight	Overall Weight	Rank
Geographic Position (GP)	As an international trade route	S1	0.328	0.050	8
0.152	Local and foreign acculturation	S2	0.261	0.040	11
	Rebalancing power		0.411	0.063	6
Physical Conformation (PC)	Huge marine and fishery potential	S4	0.240	0.020	18
0.083	Potential of maritime tourism	S5	0.141	0.012	20
	As a strategic trade route	S6	0.282	0.023	17
	Great maritime power	S7	0.337	0.028	16
Extent of Territory (ET)	Abundant natural resources	S8	0.400	0.103	1
0.257	Abundant culture	S9	0.200	0.051	7
	Extensive network connectivity	S10	0.400	0.103	1
Number of Population (NP)	Potential market	S11	0.279	0.072	5
0.257	Abundant workforce including security and defense forces	S12	0.392	0.101	3
	Positive impact on economic growth	S13	0.165	0.042	9
	Entrepreneurship acceleration	S14	0.165	0.042	9

National Character (NC)	History as a great maritime nation	S15	0.400	0.039	12
0.098	State that believes in God	S16	0.400	0.039	12
	Good cooperation	S17	0.200	0.020	19
Character of Government (CG)	Vision of the global maritime axis	S18	0.548	0.083	4
0.152	Democracy	S19	0.211	0.032	15
	Civil supremacy	S20	0.241	0.037	14
			Score		
			Total	1.000	

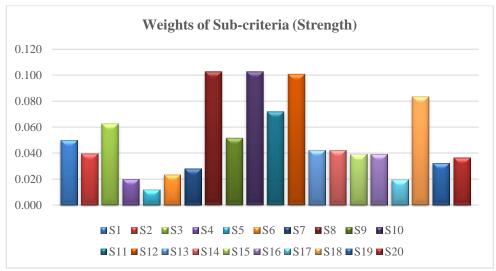


Fig 10. Weighting of the Strength.

In

Table 13 and Fig 10, there are five sub-aspects in the Strength with the highest weight. First, abundant natural resources and extensive network connectivity have the same weight of 0.103. Natural resources provide economic, ecological, and socio-cultural benefits [100]. Although Indonesia is not one of the world's most resource-intensive economies, the global natural resource boom has had a significant impact on its development [101]. As a maritime country, it can maximize its potential, including natural resources in the form of islands and seas, human, political, and cultural resources, and the potential formed by a strategic geopolitical environment [102].

Second, extensive network connectivity becomes the strength. Indonesia has an appeal regarding its position in Asia and its potential to build soft power and strengthen intra-Asian connectivity [103]. An important factor in a country's economy is its connectivity, services, and policy environment. Fast internet connections are essential for connectivity, and physical logistics remain critical for expanding the scope of people-to-people matching and e-commerce [104].

The third strength is the abundant workforce including security and defense forces with a weight of 0.101. In addition to the potential for natural wealth, Indonesia has an abundance of human resources. This is evident from the current state of Indonesia's demographic bonus. As a result, the productive age population in Indonesia is currently much larger than the non-productive age population. A large workforce, if properly utilized, can increase economic activity, which in turn improves the welfare of the community. Labor-intensive industrial facilities for export require plentiful, low-cost labor and are government-protected [105].

Fourth, the vision of the global maritime axis shows a weight of 0.083. The global maritime axis seeks to transform Indonesia into a large, strong, and prosperous maritime country by restoring Indonesia's maritime identity, safeguarding maritime interests and security, and empowering maritime potential to realize Indonesia's economic equality. Indonesia's identity as a maritime nation must be restored and strengthened [106]. To realize Indonesia as the world's maritime axis, Indonesia must be supported by at least five main policy pillars in terms of maritime sovereignty implementation [107]. The five pillars are protecting territorial integrity and expanding jurisdictions, ensuring defense and security, ensuring safety, responsibly managing resources, and projecting national interests through Indonesian leadership in the international world are all priorities [108].

Fifth, with a weight of 0.072, Indonesia is regarded as a potential market for investment. The growth of the middle class in Indonesia has an impact on purchasing power and increases demand for goods and services, giving the country a lot of room to grow. Indonesia is an appealing market for business actors because, in addition to its large population, it has a projected increase in the number of consumer incomes to the total public expenditure. Indonesia has high economic potential that has started to be noticed internationally. Indonesia, the largest economy in Southeast Asia, possesses several characteristics that place the country in an excellent position for rapid economic development. Moreover, there has been strong support from the central government in recent years to reduce Indonesia's reliance on (raw) commodity exports while increasing the role of the manufacturing industry in the economy. Infrastructure development is also the government's primary goal, and it must have a multiplier effect on the economy.

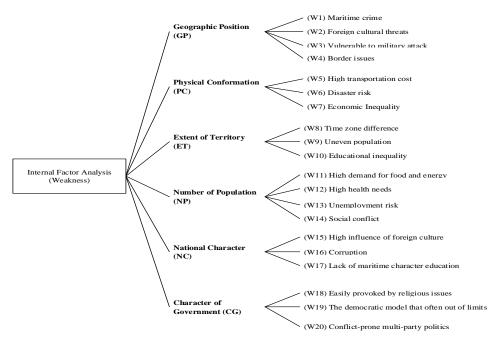


Fig 11. Hierarchical Structure of the Internal Factor Analysis (Weakness)

Table 14. Weighted Scores for Internal Factors (Weakness)

Criteria	Sub criteria	Code	Local Weight	Overall Weight	Rank
Geographic Position (GP)	Maritime crime	W1	0.239	0.036	12
0.152	Foreign cultural threats	W2	0.169	0.026	18
	Vulnerable to military attack	W3	0.394	0.060	7
	Border issues	W4	0.197	0.030	17
Physical Conformation (PC)	High transportation cost	W5	0.400	0.033	13
0.083	Disaster risk	W6	0.200	0.017	20
	Economic Inequality	W7	0.400	0.033	13
Extent of Territory (ET)	Time zone difference	W8	0.328	0.084	3
0.257	Uneven population	W9	0.411	0.106	1
	Educational inequality	W10	0.261	0.067	6
Number of Population (NP)	High demand for food and energy	W11	0.338	0.087	2
0.257	High health needs	W12	0.169	0.043	11
	Unemployment risk	W13	0.288	0.074	5
	Social conflict	W14	0.205	0.053	8
National Character (NC)	High influence of foreign culture	W15	0.198	0.019	19
0.098	Corruption	W16	0.312	0.031	15
	Lack of maritime character education	W17	0.490	0.048	9
Character of Government (CG)	Easily provoked by religious issues	W18	0.312	0.047	10
0.152	The democratic model that often out of limits	W19	0.198	0.030	16
	Conflict-prone multi-party politics	W20	0.490	0.075	4
			Score Total	1.000	

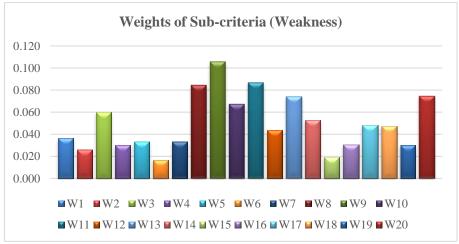


Fig 12. The Weighting of the Weakness

Table 14 and Fig 12 reveal five sub-aspects of weakness with the highest weight. First, with a weight of 0.106, the uneven population is the weakness. It is influenced by several factors, including differences in relief, climate, land, mineral resources, and accessibility. Indonesia has a large number of islands, and several small islands remain uninhabited even today. However, because Java is the country's capital and geographically more strategic than other islands, the majority of centers remain on the island. The population of Indonesia is unevenly distributed. Some islands are overpopulated, such as Java, which is home to more than half of Indonesia's population. There are also small islands, such as Papua, that are home to 15% of Indonesia's population. Many factors influence and contribute to the uneven population. One of them is the geographical location of each island, which causes people to flock in areas with high soil fertility.

The second is the high demand for food and energy with a weight of 0.087. Food is a basic need and a human right, and it has a significant meaning and role in the life of a nation. Food availability that is less than what is required can lead to economic instability. When food security is compromised, various social and political upheavals can occur. The food crisis may jeopardize economic and national stability. Indonesia's economic growth pattern has shifted from resource-driven and labor-intensive to one based on high productivity and innovation. One of the keys to achieving this is food and energy security. Economic growth and energy are inextricably linked. Economic growth necessarily requires additional energy requirements; however, access to energy will also encourage economic growth. If food security is disrupted, various social and political upheavals can occur. This critical condition may even jeopardize national stability, undermining the current government. Experience has shown that disruptions in resilience, such as rising rice prices during a monetary crisis, can cause social insecurity, jeopardizing economic and national stability.

Third, the difference in time zone becomes a weakness with a weight of 0.084. There is a time difference in Indonesia between the western, central, and eastern parts. The time difference in Indonesia has an impact on the activities of the people who live

there. Economically, the division of time will undoubtedly have an impact on the energy and efficiency of working hours. From the psychological and biological side, normal human routines typically begin after sunrise and end in the middle of the day. Because of variations in sunrise and sunset that cannot be controlled, each region begins its working hours at a different time

The fourth is the conflict-prone multi-party politics with a weight of 0.075. Choosing democracy as a political system implies accepting the philosophical viewpoint that humans are fallible creatures who make mistakes all the time. As a result, all decisions must be open to rational and argumentative debate. The power of a multi-party coalition is perplexing. Coalitions are loose and temporary. Solidarity is difficult to ensure; otherwise, it is prone to conflict due to differences in interests, which are not always easy to resolve. Multi-party coalitions are weak, slow, and wasteful. It is Weak because the coalition's solidity is easily eroded if members disagree, resulting in the withdrawal of support for the government. It is considered as slow because the decision-making process tends to be long-winded and must involve so many elites It is wasteful because the coalition requires the formation of a large cabinet for each member to obtain strategic positions in the government.

Fifth, the threat of unemployment is a weakness with a weight of 0.074. The global economy has entered a slump as a result of the Covid-19 pandemic. Unemployment rates have also risen sharply, particularly in Indonesia. This phenomenon occurs the company's policy during the pandemic, which implements efficiency strategies, such as cost efficiency for the workforce by regulating its employees' working hours. Unemployment and poverty are never-ending economic problems, particularly with the rapid flow of globalization. Unemployment is a major issue in modern society, and it is caused in general because the number of job seekers or job seekers is not proportional to the number of jobs that can absorb it. As a result, unemployment is high, resources are being left unused, and people's educational levels are declining. This situation causes an economic downturn, which has an impact on people's emotions including in daily life.

4.3. Dynamic competitive analysis on Strategy Canvas

Table 15. Competitive Value of Strength in Indo-Pacific Countries

No	Competitive Analysis of	w	Indo	nesia	U	SA	Ja	pan	In	dia	Aus	tralia	Ch	ina
110	Strengths	VV	R	S	R	S	R	S	R	S	R	S	R	S
	As an international trade													
1	route	0.050	3.833	0.191	4.000	0.200	4.000	0.200	3.000	0.150	2.750	0.137	3.750	0.187
	Local and foreign													
2	acculturation	0.040	3.333	0.132	3.250	0.129	3.500	0.139	3.250	0.129	3.500	0.139	3.000	0.119
3	Rebalancing power	0.063	3.333	0.209	2.500	0.156	3.500	0.219	3.250	0.203	3.000	0.188	3.750	0.235
	Huge marine and fishery													
4	potential	0.020	3.667	0.073	3.000	0.060	3.500	0.070	3.500	0.070	3.250	0.065	3.000	0.060
	Potential of maritime													
5	tourism	0.012	3.500	0.041	3.250	0.038	3.250	0.038	3.250	0.038	3.000	0.035	3.750	0.044
6	As a strategic trade route	0.023	3.333	0.078	3.000	0.070	3.750	0.088	3.000	0.070	2.500	0.059	3.500	0.082
7	Great maritime power	0.028	4.167	0.117	3.000	0.084	3.500	0.098	3.000	0.084	3.000	0.084	3.500	0.098
8	Abundant natural resources	0.103	3.667	0.377	3.000	0.309	3.000	0.309	3.000	0.309	2.750	0.283	3.500	0.360
9	Abundant culture	0.051	3.167	0.163	4.000	0.206	3.000	0.154	3.000	0.154	3.000	0.154	3.500	0.180
	Extensive network													
10	connectivity	0.103	3.333	0.343	3.250	0.334	3.250	0.334	3.250	0.334	3.000	0.309	3.750	0.386
11	Potential market	0.072	2.667	0.191	3.250	0.233	3.000	0.215	2.500	0.180	3.250	0.233	3.000	0.215
	Abundant workforce													
	including security and													
12	defense workforce	0.101	3.333	0.336	4.000	0.403	3.000	0.302	3.500	0.353	3.000	0.302	3.250	0.327
	Positive impact on													
13	economic growth	0.042	2.833	0.120	3.750	0.159	3.000	0.127	3.500	0.148	3.750	0.159	3.500	0.148
	Entrepreneurial													
14	acceleration	0.042	2.833	0.120	3.750	0.159	3.000	0.127	3.250	0.138	3.000	0.127	3.500	0.148
	History as a great maritime													
15	nation	0.039	3.667	0.144	3.750	0.147	3.000	0.117	3.250	0.127	3.750	0.147	3.250	0.127
16	State that believes in God	0.039	3.833	0.150	3.250	0.127	3.500	0.137	3.250	0.127	3.000	0.117	3.500	0.137
17	Good cooperation	0.020	3.333	0.065	3.250	0.064	3.000	0.059	3.000	0.059	3.000	0.059	3.500	0.068
	Vision of the world													
18	maritime axis	0.083	3.667	0.306	3.500	0.292	3.500	0.292	3.750	0.313	3.750	0.313	3.250	0.271
19	Democracy	0.032	3.500	0.112	3.000	0.096	3.500	0.112	3.250	0.104	3.000	0.096	3.000	0.096

20	Civil supremacy	0.037	3.500	0.128	3.250	0.119	3.500	0.128	3.000	0.110	3.000	0.110	3.000	0.110
		1.000		3.398		3.386		3.267		3.201		3.117		3.401
	Competitive V	alue (%)	67.955		67.715		65.341		64.013		62.332		68.016	
	Competitiven	ogg I ovol	High		High		High		High		High		High	
	Compeniiven	ess Level	Competi	tiveness	Competi	itiveness	Competi	itiveness	Competi	itiveness	Competi	tiveness	Competit	tiveness

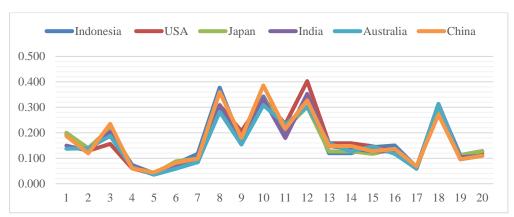


Fig 13. Strategy Canvas on Indo-Pacific countries

At Table 15 and Fig 13 indicate that Indonesia has a competitive value of 3.398 (67.95%) which is categorized as high competitiveness. In comparison to other countries, Indonesia has six advantages, including 1) Huge marine and fishery potential with a value of 0.073; 2) great maritime power with a value of 0.117; 3) abundant natural resources with a value of 0.377; 4) state

that believes in God with a value of 0.15; 5) Democratic with a value of 0.112; and 6) civil supremacy with a value of 0.128. In addition to having the highest score, Indonesia also has the lowest value among other countries, such as 1) Positive impact of economic growth with a value of 0.12; 2) and Entrepreneurial Acceleration Aspect with a value of 0.12.

4.4. Strategy and Scenario Development

Table 16. Weights and Scores for Internal Factors

No	Factors of Internal Strategy	Weight	Rating	Score
S	Strengths			
1	As an international trade route	0.050	3.833	0.191
2	Local and foreign acculturation	0.040	3.333	0.132
3	Rebalancing power	0.063	3.333	0.209
4	Huge marine and fishery potential	0.020	3.667	0.073
5	Potential of maritime tourism	0.012	3.500	0.041
6	As a strategic trade route	0.023	3.333	0.078
7	Great maritime power	0.028	4.167	0.117
8	Abundant natural resources	0.103	3.667	0.377
9	Abundant culture	0.051	3.167	0.163
10	Extensive network connectivity	0.103	3.333	0.343
11	Potential market	0.072	2.667	0.191
12	Abundant workforce including security and defense workforce	0.101	3.333	0.336
13	Positive impact on economic growth	0.042	2.833	0.120
14	Entrepreneurial acceleration	0.042	2.833	0.120
15	History as a great maritime nation	0.039	3.667	0.144
16	State that believes in God	0.039	3.833	0.150
17	Good cooperation	0.020	3.333	0.065
18	A vision of the world maritime axis	0.083	3.667	0.306
19	Democracy	0.032	3.500	0.112
20	Civil supremacy	0.037	3.500	0.128
Total		1.000		3.398
W	Weaknesses			
1	Maritime crime	0.036	3.333	0.121
2	Foreign cultural threats	0.026	3.667	0.095
3	Vulnerable to military attack	0.060	3.333	0.200
4	Border issues	0.030	3.333	0.100
5	High transportation cost	0.033	3.333	0.111
6	Disaster risk	0.017	3.333	0.056
7	Economic Inequality	0.033	3.667	0.122
8	Time zone difference	0.084	2.667	0.225
9	Uneven population	0.106	3.333	0.352
10	Educational inequality	0.067	3.333	0.224
11	High demand for food and energy	0.087	3.667	0.319
12	High health needs	0.043	2.833	0.123
13	Unemployment risk	0.074	3.667	0.272

14	Social conflict	0.053	3.167	0.167
15	High influence of foreign culture	0.019	3.333	0.064
16	Corruption	0.031	2.833	0.086
17	Lack of maritime character education	0.048	3.333	0.160
18	Easily provoked by religious issues	0.047	3.333	0.158
19	The democratic model that often out of limits	0.030	3.167	0.095
20	Conflict-prone multi-party politics	0.075	3.167	0.236
Total		1.000		3.287

According to the results of the questionnaire data analysis in Table 16, the total value of IFAS for the National Maritime Strategy is 0.110, consisting of a Strength value of 3.398 (64.68%) with the highest strength value of 0.377, namely abundant natural resources, and the lowest Strength value of 0.02, namely maritime

tourism potential. Furthermore, the value of the Weakness is 3.287 (65.75%), with the highest value of 0.352, corresponding to the uneven population, and the lowest value of 0.056, corresponding to the disaster risk.

Table 17. Weight and Scores for External Factors

No	Factors of External Strategy	Weight	Rating	Score
0	Opportunities	-		
1	Becoming a potential market	0.030	3.500	0.105
2	Improving the nation's competitiveness	0.060	2.833	0.170
3	Availability of productive labor	0.026	3.500	0.090
4	A good market share in the country	0.036	3.500	0.127
5	A growing digital economy	0.026	3.500	0.091
6	Wider marketing space through social media	0.016	3.500	0.058
7	Developing into a global economic power	0.041	2.833	0.116
8	As presidentil of the G-20	0.046	3.500	0.159
9	As a balancing force in the Indo-Pacific	0.051	3.667	0.188
10	As the third largest democracy	0.032	3.667	0.116
11	As the largest maritime nation in the Indo-Pacific	0.073	2.833	0.208
12	Pancasila democracy as a role model for several countries	0.056	3.667	0.204
13	Dynamic and tolerant culture	0.049	2.667	0.130
14	Good gender equality	0.031	3.167	0.100
15	Social media as a new public space	0.063	3.333	0.210
16	National culture as a new tourism icon	0.083	2.833	0.235
17	Easier international interaction	0.031	3.500	0.110
18	Technology transfer from other countries	0.032	3.500	0.112
19	Growing technology research funding	0.040	3.833	0.154
20	Digital empowerment	0.026	3.333	0.085
21	Frequent border violations	0.043	3.167	0.136
22	The promotion of renewable energy	0.037	3.000	0.110
23	Climate control as a global issue	0.021	3.333	0.071
24	Promising growth of world maritime technology	0.051	2.833	0.145
Total		1.000		3.229
T	Threats			
1	Foreign worker invasion	0.047	3.500	0.166
2	Income gaps in developing countries	0.030	2.833	0.085
3	The target market of other countries	0.075	2.500	0.187
4	Unfinished Covid-19 pandemic	0.015	3.000	0.044
5	Food and energy shortage	0.017	2.833	0.047
6	Trade war and the cold war	0.010	3.333	0.034
7	Potential to become a world economic power	0.024	3.000	0.071
8	Unstable global economic growth	0.018	3.333	0.060
9	Conflict-prone multi-party politics	0.072	3.000	0.217
10	High cost of democracy	0.062	2.667	0.165
11	Maritim axis change from west to east Asia	0.036	3.250	0.118
12	The radical right and radical left	0.087	3.000	0.260
13	Cultures that are vulnerable to foreign influences	0.049	3.000	0.146
14	Social media use for negative things	0.031	3.000	0.094
15	Wide social gap	0.063	2.667	0.168
16	Consumptive lifestyle	0.083	2.500	0.207
17	Individualism	0.031	3.000	0.094
18	Lagging in defense technology	0.028	3.667	0.101
19	Hacking of State secret	0.023	3.333	0.078
20	Cybersecurity threats	0.014	2.667	0.037
21	Hoax	0.033	2.667	0.088
22	Russia and Ukraine War	0.043	2.833	0.122
23	Threat of transnational war	0.037	3.000	0.110
24	Threat of maritime crime	0.021	2.833	0.061

25	The threat of global terrorism after ISIS	0.051	2.833	0.145
Tota	ıl	1.000		2.905

Table 17 presents the analysis of questionnaire results. The value for EFAS of the National Maritime Strategy is 0.324 which consists of an Opportunity of 3.229 (64.58%). The highest value was 0.235, corresponding to National culture as a new tourism icon, and the lowest value was 0.058, corresponding to Wider

marketing space through social media. Furthermore, the Threat value is 2,905 (58.11%), with the highest value of 0.260 corresponding to the Radical right and radical left and the lowest value of 0.034 corresponding to the Trade war and cold war.

Table 18. IFAS-EFAS Quadrant

S	\mathbf{W}	Quadrant	Axis
3.398	3.287	0.110	X
0	T	Quadrant	Axis
3.229	2.905	0.324	Y

Table 18 depicts that Strength (S) value has a difference from the Weakness (W) (+) by 0.110. Opportunities (O) value has a difference with the Threat (T) by (+) 0.324. The results of the identification of these factors can be described in the SWOT diagram in Fig 14 which is in Quadrant I.

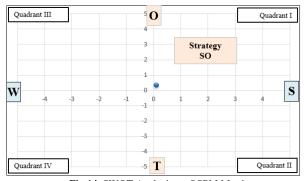
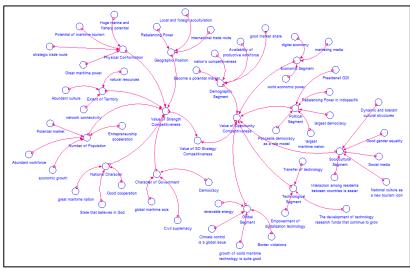


Fig 14. SWOT Analysis on QSPM Matrix

Table 14 shows that the National Maritime Strategy in the Indo-Pacific is in Quadrant I (Positive; Positive) which illustrates that the situation is excellent because there are strengths that are used to seize profitable opportunities, specifically the SO strategy. As a result, alternative strategy 1, which is development (aggressive strategy), can be used. This indicates that this position obtains a favorable situation. The general strategy that can be used in quadrant I is to use strength to take advantage of every opportunity that comes up. This position indicates that Indonesia's position as a rebalancing power is very strong and that it has the potential to be a balancing force in the Indo-Pacific region, which is dominated by two major powers, China and the United States. The sub-strategies include:

 Table 19. National Maritime Strategy towards Competitive Advantage in the Indo-Pacific.

No	SO Strategies	Strategies	Code
1.	S1; SO2; S6; S13; S11;	Taking advantage of Indonesia's strategic position as a trade route into a potential	
	O1; O4; O5	market, increasing the country's competitiveness, and strengthening the digital economy	
		to increase domestic market capacity, which has a positive impact on economic growth.	
2.	S2; S9 O2; O13	Acculturation of local and foreign cultures through the use of social media in improving	
		the competitiveness of a dynamic and tolerant nation	
3.	S3; S4; S5; S7; S15; S18;	Develop huge marine and fishery potential, potential of maritime tourism, maritime	
	O7; O9; O11	power, Vision of the world maritime axis, and the history as a great maritime nation,	
		become a global economic power and as the largest maritime country and balancing	
		force in the Indo-Pacific	
4.	S8; S10; S12; S14; O3;	Utilization of natural resources, network connectivity, development of a productive	SO-4
	O4; O7	workforce, and entrepreneurial acceleration to become a new economic force as a	
		balancing force in the Indo-Pacific.	
5.	S9; S19; S20; O8; O10;	O10; Civil Supremacy as a G-20 Presidency with abundant culture and a democratic	
	O12; O9	government based on Pancasila has the potential to become the world's largest	
		democracy as well as a balancing force between western and eastern democracies.	
6.	S16; S17; O14; O17; O16	Strengthening the value of religiosity, cooperation, and gender equality, as well as good	SO-6
		inter-country interaction, can lead to the development of national culture as a new	
		tourism icon.	
7.	S12; S8; S7; S18; O18;	Abundant natural resources, a skilled workforce supported by technology transfer,	SO-7
	O19; O20; O24; O21	increased research funds, and digital technology empowerment, as well as government	
		policies based on the world maritime axis, will encourage the advancement of maritime	
		technology in enforcing border violations at sea, which likely to occur.	
8.	S4; O8; O23; O24	The potential for renewable energy from the sea is large, and the G-20 presidency can	SO-8
		encourage the production of renewable energy as part of climate control.	



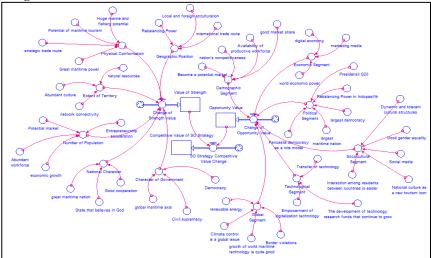
Figs 15. Causal Loop Diagram on National Maritime Strategy

Following the selection of variables and sub-variables in the SO Strategy, the next step is to establish relationships between variables and sub-variables using causal loop diagrams to translate each variable that affects the SO strategy of the maritime strategy in the Indo-Pacific. This stage aims to create a quantitative model for model simulation. The steps of the quantitative model include selecting the general quantitative structure of the model, determining the basic time unit for the simulation, identifying the functional forms of the model equation, estimating the parameters of the model equation, entering the equation into the simulation program, running the reference simulation, and establishing the

model equation. The steps employed previously validated expert opinion.

Figs 15 depicts the results of the examination of these relationships. The competitive value of the SO strategy, namely the National Maritime Strategy in the Indo-Pacific is influenced by the Strength (S) and Opportunity (O). Strength (S) is influenced by Mahan's Theory of Sea Power which includes Geographical Position, Physical Conformation, Extent of Territory, Number of Population, National Character, and Character of the Government. Furthermore, the Opportunities (O) are influenced by six subaspects, which are Political/Legal, Demographic, Economic, Socio-Cultural, Technology, and Globalization.

4.5. Prediction and scoring Scenarios



Figs 16. Stock Flow Diagram and Competitive Value of the National Maritime Strategy

System dynamics modeling of the national maritime strategy as a strategy of re-balancing in the Indo-Pacific was carried out by referring to the objectives and scenarios of each model. Model development was intended to determine behavioral patterns and relationships between variables that determine the suitability of the model with reality [73]. The model is used to identify and forecast the progression of existing opportunities and strengths to provide a competitive value for the national maritime strategy over

five years from 2021 to 2026. This scenario is assumed to be the result of a simulation with no intervention or activities to improve national competitiveness or Indo-Pacific competitiveness. System dynamics simulation was carried out employing Stella 9. The model simulation was performed to provide a mechanism for investigating how much the competitive value of the maritime strategy changes during the simulation period. Figure 17 illustrates the results of the simulation analysis.

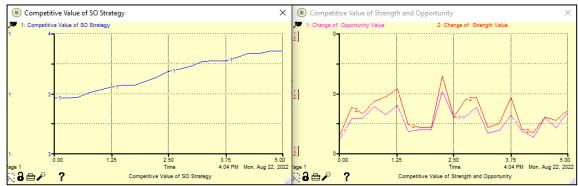


Fig 17. Competitive Value of Strategy, Changes in Opportunity, and Strength values in National Maritime Strategy

Table 20. Observations and Simulations for Competitive Values in the National Maritime Strategy

Time	Result of Competitive Value		Explanation	
(Year)	Nilai (1-5)	Percent (%)	Explanation	
0	3.23	64.60%	High Competitiveness	
1	3.26	65.20%	High Competitiveness	
2	3.3	66.00%	High Competitiveness	
3	3.36	67.20%	High Competitiveness	
4	3.4	68.00%	High Competitiveness	
5	3.43	68.60%	High Competitiveness	

The simulation results presented in Fig 17 and

Table 20 show that the competitive value of the National Maritime Strategy (SO) as rebalancing in the Indo-Pacific region increases from 2021 to 2026. The value is increasing from 3.23 (64.6%) in 2021 in the first year to 3.43 (68.6%) in the fifth year. However, the competitive level remains unchanged, namely High Competitiveness. In Fig 17, every year, the Opportunity value increases or changes, ranging from 0.02 (0.4%) in the first year (2021) to 0.07 (1.4%) in the fifth year (2026). On the one hand, as economic and global conditions remain stable, the value of Indonesia's strength continues to rise, rising from 0.03 (0.06%) in the first year (2021) to 0.07 (1.4%) in the fifth year (2021).

5. Conclusion

Indonesia's strategic role and awareness of the significance of the sea in improving the economy is an urgent requirement for achieving economic strength. To maintain the Indo-Pacific region's stability in the twenty-first century, Indonesia must formulate, determine alternatives, and prioritize its national maritime strategy. According to the findings of the strategy canvas research with five Indo-Pacific countries, Indonesia has a competitiveness level value of 3,398 (67.95%) with High Competitiveness. Indonesia has six factors that become advantages compared to several countries such as 1) Huge marine and fishery potential with a value of 0.073, 2) great maritime power with a value of 0.117, 3) abundant natural resources with a value of 0.377, 4) state that believes in God with a value of 0.15, 5) Democracy with a value of 0.112, and 6) civil supremacy with a value of 0.128. In addition to having the highest score, Indonesia also has the lowest value among other countries, such as 1) Positive impact of economic growth with a value of 0.12 and 2) Entrepreneurial Acceleration Aspect with a value of 0.12.

From the results of the quantitative SWOT matrix, the National Maritime Strategy in the Indo-Pacific is in Quadrant I (Positive; Positive) illustrates a good situation that there are strengths to seize profitable opportunities, which is the SO strategy. This position indicates that Indonesia's position as a re-balancing power is very strong and that it has the potential to be a balancing force in the Indo-Pacific region between two major powers, China and the United States. There are eight strategies including 1) taking advantage of Indonesia's strategic position as a trade route into a potential market, increasing the country's competitiveness, and strengthening the digital economy to increase domestic market capacity, which has a positive impact on economic growth (SO-

1); 2) acculturation of local and foreign cultures through the use of social media in improving the competitiveness of a dynamic and tolerant nation (SO-2); 3) develop huge marine and fishery potential, potential of maritime tourism, maritime power, Vision of the world maritime axis, and the history as a great maritime nation, become a global economic power and as the largest maritime country and balancing force in the Indo-Pacific (SO-3); 4) utilization of natural resources, network connectivity, development of productive workforce, and entrepreneurial acceleration to become a new economic force as a balancing force in the Indo-Pacific (SO-4); 5) civil supremacy as a G-20 Presidency with abundant culture and a democratic government based on Pancasila has the potential to become the world's largest democracy as well as a balancing force between western and eastern democracies (SO-5); 6) strengthening the value of religiosity, mutual cooperation, and gender equality, as well as good inter-country interaction, can lead to the development of national culture as a new tourism icon (SO-6); 7) abundant natural resources, a skilled workforce supported by technology transfer, increased research funds, and digital technology empowerment, as well as government policies based on the world maritime axis, will encourage the advancement of maritime technology in enforcing border violations at sea, which likely to occur (SO-7); 8) the potential for renewable energy from the sea is large, and the G-20 presidency can encourage the production of renewable energy as part of climate control (SO-8).

The scenario analysis shows that the competitive value of the National Maritime Strategy (SO) as rebalancing in the Indo-Pacific region increases from 2021 to 2026. The simulation results show an increasing trend, with the value increasing from 3.23 in 2021 (64.6%) in the first year to 3.43 (68.6%) in the fifth year. However, the competitive level remains unchanged in the category of 'High Competitiveness'.

6. Limitation and Future Work

This study suffers from some limitations. First, the dynamic competitive discussed each country's strengths, however, the aspects of Resources Dependence theory were not discussed. In future research, the dynamic competitive aspect of interdependent countries can develop aspects of the Resources Dependence theory. Second, this study did not address the critical factors that influence the existing dynamic competitive analysis. Thus, future research can identify and analyze these critical factors by assigning weight to each aspect. Third, In terms of strategic

management, this study only discussed strategy formulation; future research can provide analysis on strategy implementation and modeling by including Key Performance Indicators (KPI). Fourth, this study does not address the impact of risk analysis and risk mitigation if the threat scale in the Indo-Pacific increases. Future research into the impact and risk mitigation of these threats can be conducted.

Acknowledgement

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