SISHANKAMRATA DEVELOPMENT STRATEGY IN MAINTAINING THE SUSTAINABILITY OF INDONESIA'S STRATEGIC INTERESTS

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Abstract: *The development of that strategic environment can create both opportunities and threats for Indonesia. The integration of the main components, reserves, and support is the key to the success of Total People's Defense and Security System (Sistem Pertahanan dan Keamanan Rakyat Semesta; Sishankamrata) in defending Indonesia's strategic interests from all threats. For this reason, efforts are required to direct the development and fostering of the main components, reserves, and support planned in a state defense posture and guided by the concept of Sishankamrata. This study aims at developing a strategy for the Total People's Defense and Security System to face the development of the 21st century strategic environment. In this study, the SWOT analysis method, Interpretive structural modeling (ISM), and Balanced Scorecard (BSC) approach were used. Based on the results of the SWOT analysis on the development of Sishankamrata, there were 18 (eighteen) sub-strategies. Based on the results of the Interpretive structural modeling (ISM), it was discovered that the ST-1 sub-strategy, the formulation of defense policies expected that they do not overlap and be in line with the world maritime axis policy program, was the beginning of determining the development of the Sishankamrata strategy. Based on the implementation plan of Balanced Scorecard (BSC), it was uncovered that the financial perspective consists of 4 (four) sub-strategies; the internal process perspective consists of 5 (five) sub-strategies; the Growth & Development perspective consists of 6 (six) sub-strategies, and the Customer/User perspective consists of 3 (three) sub-strategies.*

Key words: *Sishankamrata (Total People's Defense and Security System), Strategic environment, SWOT analysis, Interpretive structural modeling (ISM), Balanced Scorecard (BSC)*

1. INTRODUCTION

The development of this strategic environment can generate both opportunities and threats for Indonesia which must be addressed by the state defense system (*sistem pertahanan negara; sishanneg*) being able to take advantage of Indonesia's opportunities and advantages to maximize the achievement of Indonesia's strategic interests and ward off all threats to Indonesia's strategic interests arising from the dynamics of the development of the strategic environment (Ministry of Defence: 2015).

The integration of the main components, reserves, and support is the key to the success of Total People's Defense and Security System (*Sistem Pertahanan dan Keamanan Rakyat Semesta; Sishankamrata*) in defending Indonesia's strategic interests from all threats (Sundari: 2019). For this reason, efforts are required to direct the development and fostering of the main components, reserves, and support planned in a state defense posture and guided by the concept of *Sishankamrata*. *Sishankamrata* can be understood as the consistency and suitability of the results of the implementation of the *Sishankamrata* in carrying out its function to prevent all threats to Indonesia's strategic interests from time to time.

Based on these conditions, this study aims at developing a total people's defense and security system to face the development of the 21st century strategic environment having the potential to threaten Indonesia's strategic interests. For this reason, this study will discuss the development of a strategic environment that affects Indonesia's strategic interests as a basis for developing a valid and reliable *Sishankamrata*-based state defense posture. In this study, the SWOT analysis method, Interpretive structural modeling (ISM), and Balanced Scorecard (BSC) approach were used. The SWOT Analysis method is used to formulate a *Sishankamrata* development strategy. The ISM method is used to design the mapping between sub-strategic components. The BSC method is used for strategy implementation planning.

There are several previous studies as a reference. Those researches, among others, are Navy Ability Development Strategy using SWOT Analysis-Interpretive structural modeling (ISM) (Susilo, et al., 2019). Maritime Strategy Development To Encounter The Threat of National Sea Security In Indonesia Territory (Susilo, et al., 2018). Development of SWOT-ISM based Reliability-centered maintenance (RCM) (Gupta, et al., 2018). The Development of

a Cleaner Production Model and Applied Management Solutions for the Pharmaceutical Industry (Zadeh, et al., 2018). Analytical Network Process in the Framework of SWOT Analysis for Strategic Decision Making (Case Study: Technical Faculty in Bor, University of Belgrade, Serbia) (Živković, et al., 2015). SWOT - AHP Model For Prioritization of Strategies of The Resort Stara Planina (Nikolića, et al., 2015). SWOT Analysis Application for Indications of The Strategy Action Chosen Enterprise In The Construction Sector (Czajkowska: 2016).

Other researches on ISM and BSC, including Interpretive Structural Modeling (ISM) of Travel and Tourism Enablers (Roy & Misra, 2016). Institutional development strategy through Interpretive Structural Modelling (ISM) for gillnet fisher group in Barsela Aceh, Indonesia (Rizal, et al., 2016). Using Interpretive Structural Modeling to Determine the Relation between Youth and Sustainable Rural Development (Panackal & Singh, 2016). Developing a Robust Strategy Map in Balanced Scorecard Model Using Scenario Planning (Jafari, et al., 2015). The Impact of the Implication of Balanced Scorecard Model (BSC) in Performance of the Post Company (Iranzadeh, et al., 2017). Using the Balanced Scorecard for Performance Evaluation: Empirical Evidence from the Listed Corporations in the Palestine Exchange (PEX) (Saad & Daraghma, 2016).

This study is limited to the security strategy in the development of the national defense posture. It is also limited to the strategy model with the SWOT-ISM-BSC business approach. This study is expected to provide input on the development of a national defense posture model. Moreover, it is also expected to be a reference in the context of defense strategy management.

This study consists of several parts. Section 2 describes the materials and research methodologies related to strategy theory, strategic management theory, total people's defense and security system (*Sishankamrata*), SWOT analysis theory, Interpretive Structural Modeling (ISM) theory, Balanced Scorecard (BSC) theory. This section also describes data collection and analysis, as well as flowchart diagrams. Section 3 describes the results and discussion of the study related to the development of the *Sishankamrata* model strategy, prioritization and mapping of sub-strategies, and implementation plans. Section 4 describes the conclusions from the study on the development of the *Sishankamrata* strategy in the context of the sustainability of Indonesia's interests in facing the dynamics of the 21st century strategic environment.

2. MATERIAL/METHODS

2.1. Strategy

Strategy is a word having many meanings, and all of them are relevant and useful to those tasked with setting strategies for companies, businesses, or organizations (Özleblebici, et al., 2015). The strategy comes from Greek, namely *Stratego*, which is defined as a plan to destroy the enemy by using resources effectively (Athapaththu: 2016). According to Ansoff (1969) in (Athapaththu: 2016) strategy is a guideline for decision making based on market scope, growth rate, competitive advantage, and synergy.

Currently, military forces face many challenges around the world. The five-step strategic risk assessment process should focus on several key issues such as (CSIS: 2013): 1) Understanding the strategic and operational environment and utilizing information; 2) Establishing strategic and operational conditions; 3) Projecting power; 4) Employing the power and ability to achieve strategic and operational objectives; 5) Protecting and maintaining power that is consistent with operational conditions; 6) Stopping military operations that are consistent with strategic and operational objectives.

2.2. Strategic Management

Strategic management is a set of managerial decisions and actions determining a company's long-term performance. It includes environmental scanning (both external and internal), strategy formulation (strategic or long-term planning), strategy implementation, and evaluation and control. Therefore, strategic management research emphasizes monitoring and evaluating external opportunities and threats by considering the company's strengths and weaknesses (Wheelen & Hunger, 2012).

Strategic management can be defined as the art and science of formulating, implementing, and evaluating cross-functional decisions enabling an organization to achieve its goals. This definition implies that the strategic management focuses on integrating management, marketing, finance/accounting, production/operations, research and development, and information systems to achieve organizational success (David: 2011). The strategic management process consists of three stages: (1) Strategy formulation; (2) Strategy implementation; and (3) Strategy evaluation. Strategy formulation includes developing a vision and mission, identifying external opportunities and threats to the organization, determining internal strengths and weaknesses, setting long-term goals, generating alternative strategies, and selecting specific strategies to pursue. (David: 2011).

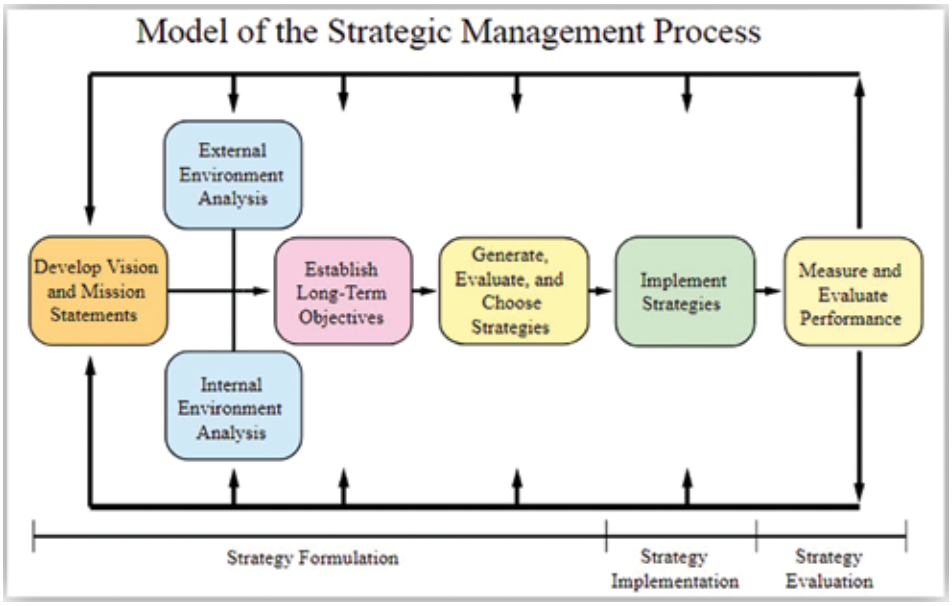

Fig. no. 1 Strategic Management Process
(David: 2011)

2.3. Total People's Defense and Security System *(Sishankamrata)*

When Indonesia claimed its independence, Indonesia has adhered to a total people's defense and security system *(Sishankamrata)* involving all components of the nation in fighting for and defending its independence from the invaders (Rinakit: 2005). The necessary capital to the success of *Sishankamrata* in achieving and maintaining Indonesian independence is the spirit of self-sacrifice and the integration of all components of the nation based on the Pancasila's noble values and love for the country to mobilize all of its resources as a defense force capable of warding off colonial powers. This concept is still clearly relevant to be applied in the current context in responding to various developments in the strategic environment possessing the potential to threaten Indonesia's strategic interests (Fatgehipon: 2017).

Sishankamrata is contained in the 1945 constitution of the Republic of Indonesia (UUD 1945) article 30, paragraph 2 stating that "State defense and security efforts are carried out through the total people's defense and security system conducted by the Indonesian National Army and the Indonesian National Police as a prime force, and the people are as a supporting force" (Reza: 2017). In its development, Law Number 3

of 2002 concerning State Defense Article 1 explains that "The national defense system is a comprehensive defense system involving all citizens, territories and other national resources, and is prepared beforehand by the government and is carried out in a total, integrated, directed, and continuous manner to uphold state sovereignty, territorial integrity, and the safety of the entire nation from all threats." Law Number 3 of 2002 further describes the Indonesian National Armed Forces (*Tentara Negara Indonesia; TNI)* as the main component and other national resources as a reserve and supporting component in increasing the strength and capability of the main components in confronting the military threats (Rabasa & Haseman, 2002). Meanwhile, further regulations regarding the reserve and supporting components of state defense in implementing the total people's defense and security system are regulated in Law Number 23 of 2019 concerning National Resource Management.

2.4. Strategic Environment

The strategic environment is an internal and external situation, both static (*Trigatra*) and dynamic (*Pancagatra*), influencing the achievement of the national goal. The aspect of *Trigatra* is a natural aspect, namely the geographic position and location of the country, the state and natural resources, the condition and the capacity of the population (Ramda & Supandi, 2020). Meanwhile, the aspect of *Pancagatra* is the social aspect /Ipoleksosbudhankam, ideology, politics, economy, socio-culture, as well as defense and security (Priyono, et al., 2017).

The discourse concerning the concept of a nation-state and Indonesian nationalism is currently in a dilemma between the two great forces of globalization and ethnic nationalism being something that must be recognized as a change in the strategic environment (Priyono, et al., 2017). This change also needs to realize that globalization with its free-market is a form of transnational neo-capitalism, or contemporary imperialism, and the tyranny of globalization which always tries to intervene in national policies and sovereignty. The biggest potential threat to the nation as a modern political community is when there is national disintegration by the weakening of the collective memory and the dysfunction of state institutions and decreasing the legitimacy of the nation's elite (Ministry of Defence: 2015).

The development trend of the strategic environment is increasingly unpredictable, thus placing upcoming developments full of uncertainty. The distance between countries is now no longer a barrier, while the nature of interdependence between countries

is getting bigger. The phenomenon or desire of separation within the country on the grounds of welfare and efforts to improve one's destiny will arise. The dynamic development of this strategic environment will directly or indirectly affect the shift in the national interests by the predicted threats to be faced by each country (Priyono, et al., 2017).

SWOT analysis is an analysis of the internal and external conditions of an organization which will then be used as a basis for designing strategies and work programs. The internal analysis includes an assessment of the factors of strength and weakness. Meanwhile, the external analysis includes opportunities and threats.

the organization to soften the external threat and even then turn the threat into an opportunity.

c. WO Strategy (Divestment/ Investment)

This cell represents the interaction between organizational weakness and outside opportunities. This kind of situation provides an option in an ambiguous situation. The opportunities available are very convincing but cannot be exploited because the existing strengths are not sufficient to work on them. The choice of decisions taken is (releasing existing opportunities to be used by other organizations) or forcing to work on those opportunities (investment).

Table 1. SWOT Matrix Analysis

SWOT Analysis Opportunity (O)		**External Factors**	
		Threat (T)	
Factor Internal	**Strength (S)**	SO Strategy	ST Strategy
	Weakness (W)	WO Strategy	WT Strategy

(Susilo, et al., 2019)

Informations:

a. SO Strategy (Comparative Advantages)

This cell is a meeting between strength and opportunity elements so that it provides the possibility for an organization to develop more rapidly.

b. ST Strategy (Mobilization)

This cell is an interaction between threat and strength. Here, the efforts must be made to mobilize resources which are the strength of

d. WT Strategy (Damage Control)

This cell is the weak condition of all cells because it is the meeting between organizational weakness and external threats, and therefore a wrong decision will bring catastrophic disaster to the organization. The strategy that must be taken is Damage Control (controlling losses) so that it does not get worse than expected.

2.5. Interpretive Structural Modeling (ISM)

Interpretive Structural Modeling (ISM) is a technique used in modeling that can synchronize the opinions of experts in providing a concrete picture of the hierarchical structure of the sub-elements of each system element and in finding key sub-elements and the character of each sub-element, as a useful knowledge base for planning an integrated and cross-sectoral agro-industrial development strategy (Abdullah, et al., 2014). ISM is a structuring tool in descriptive modeling techniques used primarily for assessment by a team but can also be used by a researcher (Gorvett & Liu, 2007). Structural models are generated to capture complex matters of a system through patterns designed using graphics and sentences. The contextual relationships between the sub-elements of the ISM technique can be grouped into several types and their interpretations (Sandbhor & Botre, 2014).

This ISM technique can be employed to perform program analysis by the vision and mission. Broadly speaking, the ISM technique is divided into two parts, namely: element classification and hierarchical arrangement. The first step needing to be done in the ISM analysis is to determine the elements corresponding to the existing problems (Attri, et al., 2013). Furthermore, sub-elements are arranged for each selected element. Selection of elements and arrangement of sub-elements are carried out from the results of discussions with experts. The results of the assessment are arranged in a Structural Self Interaction Matrix (SSIM) which is made in the form of a Reachability Matrix (RM) table by replacing V, A, X, O into the numbers 1 and 0. The element classification is based on the Structural Self Matrix (SSM) based on the VAXO system, namely (Jadhav, et al., 2015):

V if eij = 1 and eji = 0
A if eij = 0 and eji = 1
X if eij = 1 and eji = 1
O if eij = 0 and eji = 0

The matrix is then converted into a closed matrix. It is done to correct the matrix to meet the transitivity rule, namely if A affects B and B affects C, A must affect C. The value 1 means that there is a contextual relationship between the ith element and the jth element, while eij = 0 means that there is no contextual relationship between the ith element and the jth element. Then, the SSM is converted into a reachability matrix by changing the VAXO to 1 and 0. Furthermore,

testing the transitivity rule was carried out until a closed matrix occurs. The matrix having met the transitivity is continuing with its process to obtain the reachability matrix, to obtain Driver Power (DP) and Dependence (D) (Panackal & Singh, 2016).

2.6. Balanced Scorecard (BSC)

The concept of the Balanced Scorecard has long been developed by Robert S. Kaplan and David P. Norton. The concept of the Balanced Scorecard was developed to complement financial performance measurement (also known as traditional performance measurement) and as an essential tool for corporate organizations to reflect creative thinking in the era of competitiveness and organizational effectiveness (Isoraite, 2008). The Balanced Scorecard is an integrated performance management system connecting various goals and measures of performance and organizational strategy. The Balanced Scorecard is a strategic management system defining a strategy-based accountability system. The Balanced Scorecard translates the organization's mission and strategy into operational objectives and performance measures in four perspectives, a financial perspective, a customer perspective, an internal business process perspective, and a learning and growth perspective (Kaplan & Norton, 2001).

This concept introduces a company performance measurement system using certain criteria. These criteria are an elaboration of the long-term mission and strategy of the company classified into four different perspectives (Niven: 2003):

1. Financial perspective.

How we are shareholder-oriented.

2. A Customer perspective.

How we can become the most valuable main supplier for our customers.

3. Internal business process perspective

All best business processes must do, in the long and short term, to achieve financial goals and customer satisfaction.

4. Learning and growth perspective.

How we can consistently improve and generate value, especially concerning the ability and motivation of employees. In the Balanced Scorecard, the four perspectives become an inseparable whole. The four perspectives are also indicators of performance measurement complementing each other and have a causal relationship.

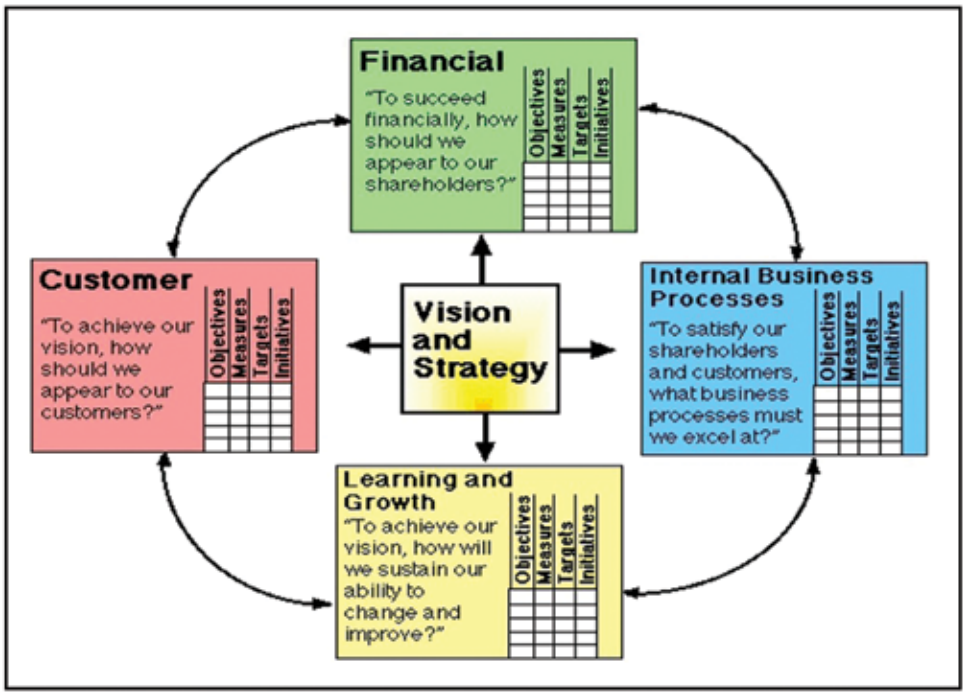

Fig. no. 2 Model Balanced Scorecard
(Kaplan & Norton, 2001)

2.7. PESTEL Analysis

The PESTEL analysis describes a framework of macro factors used in the scanning environment for components of strategic management. This analysis is part of the external analysis when conducting strategic analysis and/or providing a different picture of the macro factors that should be taken into consideration (Rastogi & Trivedi, 2016). PESTEL analysis is an analysis of the external environmental factors of a business covering the political, economic, social, technological, environmental, and legal fields. PESTEL is used to assess the market of a business unit or organizational unit (Song, et al., 2017). The direction of PESTEL analysis is a framework for assessing a situation, strategy or position, company direction, marketing plans or ideas. The factor of PESTEL plays an important role in creating profit value for a strategy usually occurring outside the control of an organization and normally taking into account threats and benefits (Strzelczyk & Chłąd, 2017).

The basis of the PESTEL analysis includes four factors (Rastogi & Trivedi, 2016):

1. Political.

These are factors which are basically how the government intervenes in the economy.

In particular, political factors include tax policies, labor laws, environmental laws, trade restrictions, rate, and political stability.

2. Economy.

Factors included in this aspect, such as economic growth, interest rates, exchange rates, inflation rates. These factors greatly affect how businesses operate and make decisions.

3. Social.

The factors included are aspects of culture and health awareness, population growth rate, age distribution, career, and emphasis on safety.

4. Technology.

The factors included technological aspects are research and development, automation, technology incentives, and the rate of technological change. Technological changes will affect cost, quality, and cause and will lead to innovation.

5. Environment/Ecology.

Whatever strategy and responsibility for the environment, it must be obeyed. Although this factor is relatively new, the environment has become a special concern for the last 15 years. Environmental factors can be used when doing strategic planning or trying to influence buyer's decisions such as geographic location factors.

6. Legal.

Legal factors include legal influences such as changes to existing or future laws (Examples: health and safety, job directions, human rights, corporate governance, and environmental responsibility).

PESTEL is used as an analysis of external factors on Green jobs. PESTEL is used to present the decision map. PESTEL is used to identify criteria for information systems research questions. PESTEL is used to evaluate factors as benefits or risks for the organization.

Table 2. PESTEL Analysis of the Development of *Sishankamrata*

NO	PESTEL CRITERIA	FACTOR ANALYSIS
1	Political	Infrastructure
		Government Policy
		Terrorism and Military Consideration
2	Economic	Economic Growth
		Natural Resources
		Wage Rates
3	Social	Demography
		Cultural Norms
		Education

NO	PESTEL CRITERIA	FACTOR ANALYSIS
4	Technological	Emerging Technologies
		Technological Maturity
		R&D Effort
5	Ecological	Pollution
		Workforce Health
		Climate Change
6	Legal	Regional Laws
		Law Environment
		Court System

(Alshaher: 2013); (Rastogi & Trivedi, 2016)

2.8. Method/Stages

The research stage began with data collection by conducting interviews with six expert personnel (E1; E2; E3; E4; E5; E6). The experts becoming experts in the field of strategic environmental analysis and formulation of defense strategy policies are the Directorate General of Strahan of the Ministry of Defense, BIN, BAIS TNI, and Pusjianstra TNI, Defense and intelligence observers, as well as Think Tanks engaged in defense.

Data collection from experts related to the analysis of the development of a security strategy to sustain Indonesia's strategic interests in the future. After all, data are collected, the data are divided into 2, namely external and internal analysis. To find out the strengths and weaknesses within internal conditions related to strategy development of the S*ishankamrata* development strategy, and to find out the opportunities and threats, a SWOT analysis is used.

After the analysis was carried out, it was extended by developing 4 types of strategies, namely: Strength-Opportunity (S-O) Strategy, Weakness-Opportunity (W-O) Strategy, Strength-Threat Strategy (S-T), and Weakness-Threat (W-T) Strategy. The overall strategy will derive several related sub-strategies. The sub-strategies obtained will be compiled into strategic steps by forming a strategic map using the ISM method. Furthermore, a strategy implementation plan was formed using the Balanced Scorecard (BSC) framework.

2.9. Flow Chart

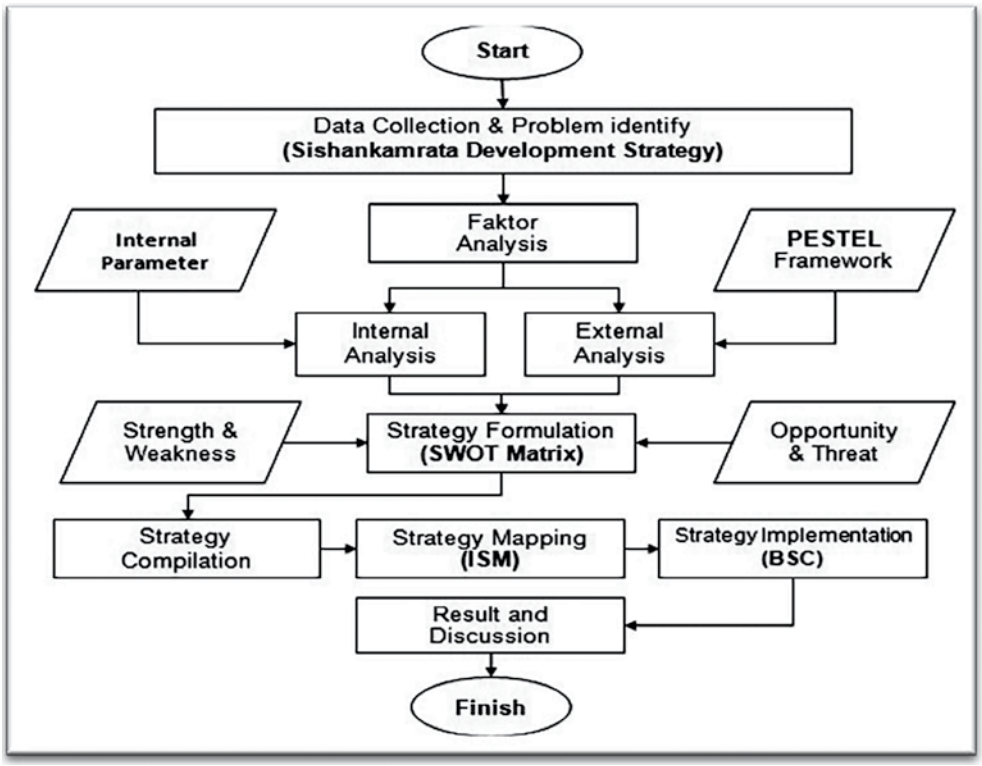

Fig. no. 3 Flowchart of Research

3. RESULT & DISCUSSION

3.1. SWOT Analysis – External Factor Analysis

Analysis of the external environment indicates the opportunities and threats faced in *Sishankamrata* development strategy in the context of sustaining Indonesia's interests in facing the 21st- century strategic environmental dynamics. The external analysis aims at gaining knowledge about new opportunities that can affect the *Sishankamrata* development strategy. The core of this analysis is to be able to provide comprehensive information about external conditions to be used as a form of input in the form of a strategic planning process for the development of a security system.

To analyze external factors, the PESTEL (Political, Economic, Social, Technology, Environment, and Legal) analysis model is used. In PESTEL analysis, several factors are affecting external conditions. These factors are described in the xx table below:

Table 3. Analysis of External Factors of the *Sishankamrata* Development Strategy

No	PESTEL Criteria	Factor Analysis	Opportunity	Threat
1	Political	Infrastructure	O1. Having a good basic infrastructure	
		Government Policy	O2. The state's free and active politics O3. World maritime axis policy	T1. Partial policy
		Terrorism & Military Consideration	O4. Experienced in facing the threat of radicalism and left-wing extremism	T2. The threat of global terrorism T3. Non-traditional threats
2	Economic	Economic Growth	O5. The increase of defense budget	T4.World economic uncertainty T5. China–United States trade war
		Natural Resources	O6. Abundant alternative resources O7. Export some Main Weapon System to Regional	
		Wage Rates		T6. Per capita income is still below standard
3	Social	Demography	O8. Abundant productive age population	T7. Threat of population explosion T8. Threat from the right and left-side ideology
		Cultural Norms	O9. High population militancy	T9. A high rate of social inequality
		Education	O10. The high-enough number of educated human resources	T10. The low level of the population education
4	Technological	Emerging Technologies	O11. Enhanced defense industry capability	
		Technological Maturity	O12. Technology transfer from friendly countries	
		R&D Effort	O13. The dynamic development of national technology	T11. Low R&D ability

No	PESTEL Criteria	Factor Analysis	Opportunity	Threat
5	Environment	Pollution		T12. The threat of a global epidemic
		Workforce Health	O14. The high life expectancy	
		Climate Change		T13. Global climate change
6	Legal	Regional Laws		T14. A Dispute in the Natuna region
		Law Environment		T15. Overlapping legal governance
		Court System	O15. Fairly good cyber human resources	T16. Cyber system and network threats

Based on Table 3 above, there are 15 (fifteen) points for the opportunity analysis factor and 16 (sixteen) points for the constraint/ threat analysis factor identified on external factors.

3.2. SWOT Analysis – Internal Factor Analysis

Analysis of the internal environment aims at identifying several strengths and weaknesses contained in the total people's defense and security system (*Sishankamrata*) in the context of the sustainability of Indonesia's strategic interests. Consideration of the strengths and weaknesses of *Sishankamrata* is used to identify the advantages of *Sishankamrata*, competitiveness, strategic acuity in the context of the sustainability of Indonesia's interests in facing the dynamics of the 21st century strategic environment. Internal factors consist of elements of the world's maritime axis, Trigatra, Nawacita, conditions and demographic aspects. These internal factors provide derivatives in the form of several parameters consisting of 1) Integrative Defense; 2) Defense Force Development; 3) Deployment of Defense Force; 4) Budgeting; 5) International Defense Cooperation; 6) National Resources.

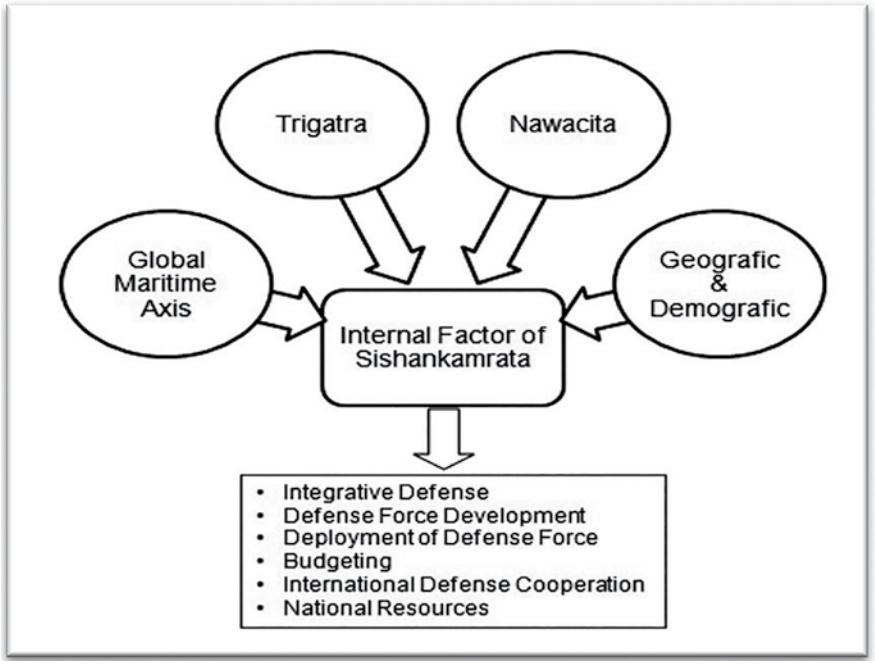

Fig. no. 4 Model Internal Factor Analysis

Table 4. Analysis of External Factors of the *Sishankamrata* Development Strategy

No	Analysis Factor	Strength	Weakness
1	Integrated Defense	S1.Solidity between generations S2.Popular support S3.Policy lines align with government programs	W1.Minimal soldiers' welfare W2.The composition of the soldiers is still *Jawasentris*.
2	Defense Force Development	S4.Abundant spare and supporting components S5.The largest military force in Southeast Asia S6.The synergy between the TNI and the people is quite good.	W3.Defense policies and strategies are still partial W4.Lack of soldiers at the NCO / Enlisted level W5.Inadequate facilities and infrastructure W6.The low utilization of the national defense industry W7.Low R & D aspects

No	Analysis Factor	Strength	Weakness
3	Deployment of Defense Force	S7. Good synergy between TNI and other stakeholders S8. Well combined operability S9. Having high mobility	W8. The existence of non-traditional threats W9. Main Weapon System still depends on non-alternative energy
4	Budgeting	S10. The country's economic capacity is quite good S11. The defense budget continues to increase every year	W10. Defense budget is still below standard (2% of GDP) W11. The defense budget is mostly for routine spending
5	International Defense Cooperation	S12. Joint training with Soldiers of other countries S13. Technology transfer from friendly countries	
6	National Resources	S14. Geographical position on world traffic lanes S15. As the largest maritime country in Asia S16. Having the largest defense industry in Southeast Asia S17. Abundant alternative energy	W12. Geographical position requires more supervision. W13. The geographical position is prone to crime at sea W14. The uneven spread of soldiers W15. Dependence on non-renewable energy W16. The defense industry still depends on foreign countries

Based on Table 4 above, there are 17 (fifteen) points for the strength analysis factor and 16 (sixteen) points for the weaknesses analysis factor identified on external factors.

3.3. SWOT Matrix

In a strategic plan, it is necessary to evaluate both external and internal factors. Analysis of the factors must produce the strength possessed by an organization, as well as find out the weaknesses existing in that organization. Meanwhile, the analysis of external factors must be able to identify the open opportunities to the organization and also be able to know the threats experienced by the organization concerned.

The SWOT matrix is a subjective analysis tool of business information classified into four parts to aid understanding, presentation, discussion, and decision-making. In this study, the SWOT matrix is employed to identify and describe how the opportunities and threats from the external environment in the organization in supporting *Sishankamrata* are anticipated with strengths and weaknesses.

Table 5. SWOT (SO-ST) Matrix Analysis

Strengths	Opportunities
S1. Solidity between generations S2. Popular support S3. Policy lines align with government programs S4. Abundant spare and supporting components S5. The largest military force in Southeast Asia S6. The synergy between the TNI and the people is quite good. S7. Good combined operability S8. Having high mobility S9. The country's economic capacity is quite good S10. The defense budget continues to increase every year S11. Joint training with Soldiers of other countries S12. Technology transfer from friendly countries S13. Geographical position on world traffic lanes S14. As the largest maritime country in Asia S15. Having the largest defense industry in Southeast Asia S16. Abundant alternative energy	O1. Having a good basic infrastructure O2. The state's free and active politics O3. World maritime axis policy O4. Experienced in facing the threat of radicalism and left-wing extremism O5. The increase of defense budget O6. Abundant alternative resources O7. Export some Main Weapon System to Regional O8. Abundant productive age population O9. High population militancy O10. The high-enough number of educated human resources O11. Enhanced defense industry capability O12. Technology transfer from friendly countries O13. The dynamic development of national technology O14. The high life expectancy O15. Fairly good cyber human resources

SO Strategy	
(SO)1. Infrastructure development is in line with government policy. (SO)2. Force solidity in support of the country's free and active politics. (SO)3. Additional productive age figures for the development of reserve and supporting components. (SO)4. A high life expectancy can be used to extend a soldier's productive life. (SO)5. The country's economic capability is supported by the Defense Industry component, and alternative resources can be utilized for the development of defense equipment. (SO)6. Military and economic power as well as free and active politics as balancing power in Southeast Asia in supporting policies on the world's maritime axis.	
Strengths	**Threats**
S1. Solidity between generations S2. Popular support S3. Policy lines align with government programs S4. Abundant spare and supporting components S5. The largest military force in Southeast Asia S6. The synergy between the TNI and the people is quite good. S7. Good combined operability S8. Having high mobility S9. The country's economic capacity is quite good S10. The defense budget continues to increase every year S11. Joint training with Soldiers of other countries S12. Technology transfer from friendly countries S13. Geographical position on world traffic lanes S14. As the largest maritime country in Asia S15. Having the largest defense industry in Southeast Asia S16. Abundant alternative energy	T1. Partial policy T2. The threat of global terrorism T3. Non-traditional threats T4. World economic uncertainty T5. China–United States trade war T6. Per capita income is still below standard T7. Threat of population explosion T8. Threat from the right and left-side ideology T9. High rate of social inequality T10. The low level of the population education T11. Low R&D ability T12. The threat of a global epidemic T13. Global climate change T14. A dispute in the Natuna region T15. Overlapping legal governance T16. Cyber system and network threats

ST strategy
(ST)1. Formulating defense policies to avoid the overlap and being in line with the policy programs of the world's maritime axis. (ST)2. Empowerment of the TNI's ability to face the global threat, traditional terrorism, ideological threats, global epidemics, and cyber system & network threats. (ST)3. The increase in the defense budget to support defense research. (ST)4. Utilizing the ability of the TNI, reserve and supporting components to resolve the disputed area of Natuna.

Table 6. SWOT (WO-WT).Matrix Analysis

Weaknesses	Opportunities
W1. Minimal soldiers' welfare W2. The composition of the soldiers is still *Jawasentris*. W3. Defense policies and strategies are still partial W4. Lack of soldiers at the NCO / Enlisted level W5. Inadequate facilities and infrastructure W6. The low utilization of the national defense industry W7. Low R & D aspects W8. The existence of non-traditional threats W9. Main Weapon System still depends on non-alternative energy W10. Defense budget is still below standard (2% of GDP) W11. The defense budget is mostly for routine spending W12. Geographical position requires more supervision. W13. The geographical position is prone to crime at sea W14. Uneven spread of soldiers W15. Dependence on non-renewable energy W16. The defense industry still depends on foreign countries	O1. Having a good basic infrastructure O2. The state's free and active politics O3. World maritime axis policy O4. Experienced in facing the threat of radicalism and left-wing extremism O5. The increase of defense budget O6. Abundant alternative resources O7. Export some Main Weapon System to Regional O8. Abundant productive age population O9. High population militancy O10. The high-enough number of educated human resources O11. Enhanced defense industry capability O12. Technology transfer from friendly countries O13. The dynamic development of national technology O14. The high life expectancy O15. Fairly good cyber human resources

WO strategy	
(WO)1. A gradual increase in the defense budget to 2% of GDP (WO)2. The acceptance of TNI soldiers by not concentrating on the Java region as the distribution of the composition of the soldiers. (WO)3. Development of domestic defense equipment by prioritizing alternative energy. (WO)4. The increase of the ability of defense equipment through technology transfer from friendly countries. (WO)5. Development of defense infrastructure with priority areas outside Java. (WO)6. Increasing the number of soldiers at the NCO/Enlisted level by taking advantage of the abundant productive age figures	
Weaknesses	**Threats**
W1. Minimal soldiers' welfare W2. The composition of the soldiers is still *Jawasentris*. W3. Defense policies and strategies are still partial W4. Lack of soldiers at the NCO / Enlisted level W5. Inadequate facilities and infrastructure W6. The low utilization of the national defense industry W7. Low R & D aspects W8. The existence of non-traditional threats W9. Main Weapon System still depends on non-alternative energy W10. Defense budget is still below standard (2% of GDP) W11. The defense budget is mostly for routine spending W12. Geographical position requires more supervision. W13. The geographical position is prone to crime at sea W14. Uneven spread of soldiers W15. Dependence on non-renewable energy W16. The defense industry still depends on foreign countries	T1. Partial policy T2. The threat of global terrorism T3. Non-traditional threats T4. World economic uncertainty T5. China–United States trade war T6. Per capita income is still below standard T7. Threat of population explosion T8. Threat from right and left-side ideology T9. High rate of social inequality T10. The low level of the population education T11. Low R&D ability T12. The threat of a global epidemic T13. Global climate change T14. A dispute in the Natuna region T15. Overlapping legal governance T16. Cyber system and network threats

WT strategy
(WT)1. Empowerment of the existing number of soldiers in overcoming the effects of globalization. (WT)2. Maximum use of the budget in supporting the operation of the TNI's Main Duties.

Based on the identification of various internal and external factors on Table 5 and Table 6, for the next step, it can be formulated strategic factors. The existing internal and external factors are then combined to determine an alternative strategy for the development of *Sishankamrata*. Based on the results of the SWOT matrix analysis, the SO Strategy consists of 6 (six) sub-strategies; The WO strategy consists of 6 (six) sub-strategies; ST strategy consists of 4 (four) sub-strategies; and the WT strategy consists of 2 (two) sub-strategies. Furthermore, all the strategic steps will be compiled into one, so that there are 18 (eighteen) sub-strategies of *Sishankamrata* development. The compilation of these strategies is described in Table 7.

Table 7. Formulation and Compilation of the *Sishankamrata* Development Strategy

Strategy Compilation
SO Strategy
(SO)1. Infrastructure development is in line with government policy. (SO)2. Force solidity in support of the country's free and active politics. (SO)3. Additional productive age figures for the development of reserve and supporting components. (SO)4. A high life expectancy can be used to extend a soldier's productive life. (SO)5. The country's economic capability is supported by the Defense Industry component, and alternative resources can be utilized for the development of defense equipment. (SO)6. Military and economic power as well as free and active politics as balancing power in Southeast Asia in supporting policies on the world's maritime axis.
ST strategy
(ST)1. Formulating defense policies to avoid the overlap and being in line with the policy programs of the world's maritime axis. (ST)2. Empowerment of the TNI's ability to face the global threat, traditional terrorism, ideological threats, global epidemics, and cyber system & network threats. (ST)3. The increase of the defense budget to support defense research. (ST)4. Utilizing the ability of the TNI, reserve and supporting components to resolve the dispute area of Natuna.

WO strategy
(WO)1. A gradual increase in the defense budget to 2% of GDP
(WO)2. The acceptance of TNI soldiers by not concentrating on the Java region as the distribution of the composition of the soldiers.
(WO)3. Development of domestic defense equipment by prioritizing alternative energy.
(WO)4. The increase of the ability of defense equipment through technology transfer from friendly countries.
(WO)5. Development of defense infrastructure with priority areas outside Java.
(WO)6. Increasing the number of soldiers at the NCO/ Enlisted level by taking advantage of the abundant productive age figures
WT strategy
(WT)1. Empowerment of the existing number of soldiers in overcoming the effects of globalization.
(WT)2. Maximum use of the budget in supporting the operation of the TNI's Main Duties.

3.4. Interpretative Structural Modeling (ISM)

Prioritization and strategy mapping begin with forming a hierarchical system between previously identified aspects. The formation of a hierarchical system using the Interpretative Structural Modeling approach. This method aims at planning the chosen strategy to be described in the implementation plan based on a hierarchical arrangement.

In the SSAT development strategy, the ISM method steps are as follows:

a. *Structural Self Interaction Matrix* (SSIM).

SSIM is a stage to determine the dominant variables from the results of the SWOT analysis to determine the level of the relationship between the sub-strategies.

b. *Reachability Matrix (RM).*

Furthermore, based on the table about the SSIM matrix, it is then made in the form of a Reachability Matrix (RM) table by replacing V, A, X, O into numbers 1 and 0.

Table 8. SSIM Model in Research

No	Code	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
1	(SO)1	O	O	O	A	O	O	V	A	A	O	O	A	V	A	O	O	O	-
2	(SO)2	O	A	O	O	O	O	O	O	A	O	A	A	V	O	O	O	-	
3	(SO)3	X	V	X	O	O	O	A	O	V	O	A	A	V	A	A	-		
4	(SO)4	O	V	V	O	O	O	V	O	V	O	V	O	O	O	-			
5	(SO)5	V	O	O	V	A	A	O	A	V	A	V	A	V	-				
6	(SO)6	O	O	O	O	A	O	O	A	X	A	X	A	-					
7	(ST)1	O	V	V	V	V	V	V	A	V	A	V	-						
8	(ST)2	X	X	O	O	A	V	O	A	X	A	-							
9	(ST)3	O	O	O	V	A	V	O	X	V	-								
10	(ST)4	A	O	O	A	O	A	A	A	-									
11	(WO)1	V	O	O	V	V	V	O	-										
12	(WO)2	O	O	O	X	O	O	-											
13	(WO)3	A	O	O	A	X	-												
14	(WO)4	A	O	O	O	-													
15	(WO)5	A	A	X	-														
16	(WO)6	X	V	-															
17	(WT)1	X	-																
18	(WT)2	-																	

Table 9. Reachability Matrix in Research

No	Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	DP	Level
1	(SO)1	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	3	16
2	(SO)2	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	18
3	(SO)3	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1	5	10
4	(SO)4	0	0	1	1	0	0	0	1	0	1	0	1	0	0	0	1	1	0	7	7
5	(SO)5	1	0	1	0	1	1	0	1	0	1	0	0	0	0	1	0	0	1	8	5
6	(SO)6	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	3	16
7	(ST)1	1	1	1	0	1	1	1	1	0	1	0	1	1	1	1	1	1	0	14	1
8	(ST)2	0	1	1	0	0	1	0	1	0	1	0	0	1	0	0	0	1	1	8	5
9	(ST)3	0	0	0	0	1	1	1	1	1	1	1	0	1	0	1	0	0	0	9	3
10	(ST)4	1	1	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	5	10
11	(WO)1	1	0	0	0	1	1	1	1	1	1	1	0	1	1	1	0	0	1	12	2
12	(WO)2	0	0	1	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	4	14
13	(WO)3	0	0	0	0	1	0	0	0	0	1	0	0	1	1	0	0	0	0	4	14
14	(WO)4	0	0	0	0	1	1	0	1	1	0	0	0	1	1	0	0	0	0	6	8
15	(WO)5	1	0	0	0	0	0	0	0	0	1	0	1	1	0	1	1	0	0	6	8
16	(WO)6	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	5	10
17	(WT)1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	1	5	10
18	(WT)2	0	0	1	0	0	0	0	1	0	1	0	0	1	1	1	1	1	1	9	3

Element structure in Table 9 above shows that the ST-1 sub-strategy, namely the formulation of defense policies to avoid overlap and being in line with the world maritime axis policy program, is the starting point for determining the *Sishankamrata* development strategy. *Sishankamrata*'s policies and strategies constitute unanimity in policies and strategies in the fields of foreign policy, domestic politics, national defense and national security. The deployment and use of defense forces are based on the *Sishankamrata* Doctrine and strategy implemented based on the consideration of threats faced by Indonesia.

The last structural element is the SO-2 sub-strategy, namely the solidity of the force in supporting the country's free and active politics. For the deployment and use of defense forces to be carried out effectively and efficiently, it requires synergy solidity between military elements and other military elements, as well as between military forces and non-military forces. Solidity between military elements is manifested in the integration of Trimatra, namely the integration of land forces, sea power and air power. Meanwhile, the integration between military and non-military forces are realized in the integration between the main components, the reserve components and the supporting components. Such solidity is required in the mobilization and use of defense forces, both in the context of dealing with traditional threats and non-traditional threats.

3.5. Map and Strategy Implementation Plan

The strategy map demonstrates how each performance can support the achievement of the organization's overall strategic goals. The strategy map helps organizations, especially in visualizing what is needed to carry out and support the strategy for developing a total people's defense and security system (*Sishankamrata*). The strategy map will make all organizational actors easier to monitor the progress of strategy implementation. The analysis of the results of the strategic map design connects the Balanced Scorecard with the designed strategy, namely the development of a total people's defense and security system (*Sishankamrata*).

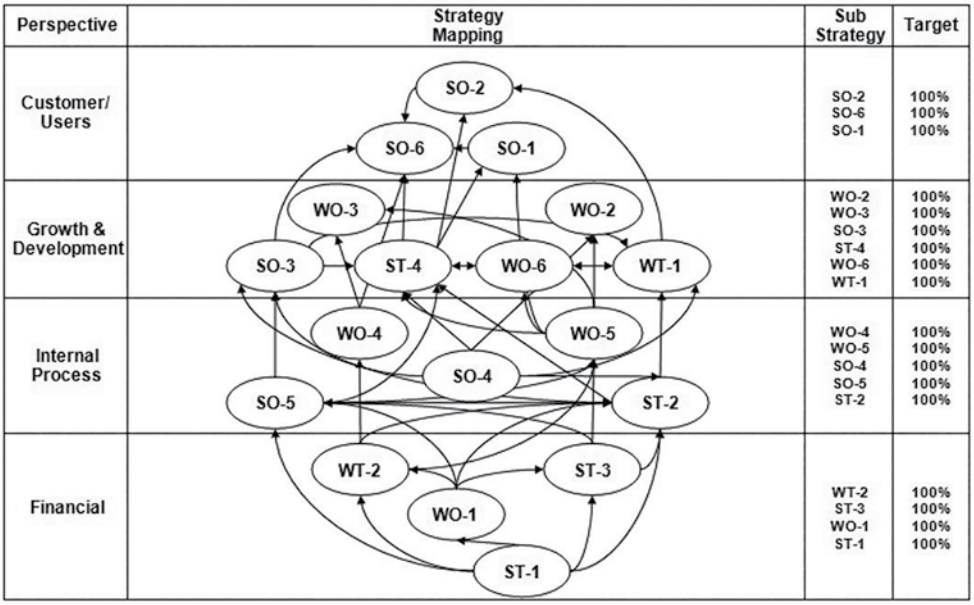

Fig. no. 5 *Sishankamrata* Development Strategy Map

A strategy map is a description of the vision and missions of the organization's goals and the steps needed to achieve the organizational goals. This map allows the organization to delegate responsibilities from the leadership level to individual executors. Strategy mapping is a diagram depicting how an organization creates value by linking strategic objectives explicitly regarding causal relationships with each other grouped under four Balanced Scorecard perspectives. Strategy mapping can also be interpreted as a strategic part of the Balanced Scorecard framework to describe strategies for value creation. In this study, strategy mapping is specifically used to translate the *Sishankamrata* development strategy plan.

Based on Figure 5, Strategy mapping within the balanced scorecard framework consists of 4 (four) perspectives. The financial perspective consists of 4 (four) sub-strategies: 1) Formulation of defense policies to avoid the overlap and being in line with the policy programs of the world's maritime axis (ST-1); 2) Gradual increase in defense budget up to 2% of GDP (WO-1); 3) Utilization of the budget maximally in supporting the operations of the TNI's Main Duties (WT-2); 4) Increasing the defense budget to support defense research (ST-3).

The internal process perspective consists of 5 (five) sub-

strategies: 1) The country's economic capability supported by the Defense Industry component, and alternative resources can be utilized for the development of defense equipment (SO-5); 2) Empowerment of the TNI's ability to face the global threat, traditional terrorism, ideological threats, global epidemics, and cyber system & network threats (ST-2); 3) High life expectancy can be used to extend the productive life of soldiers (SO-4); 4) Development of defense infrastructure with priority areas outside Java (WO-5); 5) Increasing the ability of defense equipment through technology transfer from friendly countries (WO-4).

The Growth & Development perspective consists of 6 (six) sub-strategies: 1) Increasing the number of productive age for the development of the reserve and supporting components (SO-3); 2) Utilizing the capability of the TNI, reserve components, and supporting components to resolve the territorial dispute of Natuna (ST-4); 3) Increasing the number of soldiers at the non-commissioned officer (NCO)/Enlisted level by utilizing the abundant productive age figures (WO-6); 4) Empowerment of the number of soldiers in overcoming the effects of globalization (WT-1); 5) Acceptance of TNI soldiers by not concentrating on the Java region as the distribution of the composition of soldiers (WO-2); 6) Development of domestic defense equipment by prioritizing alternative energy (WO-3).

The Customer/User perspective consists of 3 (three) sub-strategies: 1) Military and economic strength as well as free and active politics as balancing power in Southeast Asia in supporting policies on the world's maritime axis (SO-6); 2) Infrastructure development in line with Government policy (SO-1); 3) Force solidity in supporting the country's free and active politics (SO-2).

4. CONCLUSIONS

The development of this strategic environment can create both opportunities and threats for Indonesia. For this reason, it is necessary to develop a strategy for the total people's defense and security system to deal with the developments of the strategic environment in the 21st century allowing the potential to threaten Indonesia's strategic interests. Based on the results of the SWOT analysis on the development of *Sishankamrata*, there were 18 (eighteen) sub-strategies, distributed into the SO Strategy consisting of 6 (six) sub-strategies; The WO strategy consists of 6 (six) sub-strategies; ST strategy consists of 4 (four) sub-

strategies; and the WT strategy consists of 2 (two) sub-strategies.

Based on the results of the Interpretive structural modeling (ISM), it was discovered that the ST-1 sub-strategy, the formulation of defense policies expected that they do not overlap and be in line with the world maritime axis policy program, was the beginning of determining the development of the *Sishankamrata* strategy. The last structural element is the SO-2 sub-strategy, namely the solidity of the force in supporting the country's free and active politics. Based on the balanced scorecard implementation plan, it is found that the financial perspective consists of 4 (four) sub-strategies, the internal process perspective consists of 5 (five) sub-strategies, the growth & development perspective consists of 6 (six) sub-strategies, the customer/ user perspective consists of 3 (three) sub-strategy.

Future Work (Further Research)

- In further research, in supporting the strengthening of internal factors, Potter 5 Forces strategy analysis can be added.
- In further research, it is necessary to add a sensitivity analysis aspect to the *Sishankamrata* development strategy.
- Further research can add a dynamic system analysis model as a simulation of the implementation of the *Sishankamrata* development strategy.

5. ACKNOWLEDGEMENT

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