

Analyzing Geoffrey Till's Post Modern Navy Enabler of Defence Industry: An Assessment of Leading Naval Industries in ASEAN

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Abstract

This article has three primary objectives. First, it attempts to revisit the analytical framework of Modern Navy and Post-Modern Navy offered by Geoffrey Till, the author of *Seapower: A Guide for the Twenty-First Century*. Second, it focuses on the enablers of defence industry, especially the naval components, of Malaysia, Singapore, and Indonesia. These regional navies are worth studying not only because nearby naval industries are growing rapidly, but also the Strait of Malacca on which they currently operate is one of the most sensitive and significant shipping lanes in the world. Third, from studying above mentioned navies, it outlines some policy recommendations for naval modernization in Thailand. The research methodology of content analysis of modern and postmodern navy was discussed. Moreover, it formulated the SWOT analysis to assess overall characteristics of strength, weakness, opportunity and threat of respective navies, especially their recent developments after the Cold War. The source of these data derived from various academic works, online news and data base, researches and dissertations, all of which were academic open-sources and were entirely not confidential. The sequence of this analysis stems from the theoretical framework of modern and post-modern navy and the next section is followed by proposing a thesis statement on an enabler of defence industry. This article used this defence industry enablers to analyze the naval industries consecutively and comparatively. Then, it forecasted the trends of naval technology and business for the future. Some policy recommendations and organizational directions for Royal Thai Navy's force modernization were discussed as potential outcomes of this research.

Key Words : Defence Industry, ASEAN, Post-Modern Navy, Naval Modernization

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1. Introduction to Geoffrey Till's Modern and Post Modern Navy: Roles and Characteristics

There are several books or academic works which describe the roles and functions of the armed services in societies. Some might analyze holistically as one military organization, while others might prefer looking at separate armed service. Geoffrey Till is the second type. He is a renowned British naval strategist and the author of *Seapower: A Guide for the Twenty-First Century*. [1] His book provides a very useful concept to understand the role and operations of the global navies. It provides an academic foundation of three types of states influencing the types of international navies. The first type of state is pre-modern state where the domestic agriculture is the primary industry of the nation. Pre-modern industry has a low level of cross-country dependency and low surplus supply from its production. The characteristics of good governance of these subsistent states are far from perfect and some have become fail states. Since the lawlessness is very common in these states, therefore social and economic progresses have been very limited. This type of states can be found in African continent, some part of Asia and South Pacific islands.

The second type of state is a modern one where industrial capabilities have been

largely developed and are driven mainly by realist thought which focuses on state-centric perception. They are very sensitive about the land or sea territory and usually skeptical on the relation of states that struggle on resource, influence, power. Most states in Asia-Pacific are of this type.

Third, post-modern states are some of the advanced economies where political and social institutions are well-established. They govern by state-of-the-arts information sophistication which constitutes the main stream globalization in current era. In term of international affairs, they concern less on what modern counterpart does. They are system-centered, give little attention about interstate borders and believe that interdependence such as international institutions and roles of liberal civil societies are the backbone of a more collaborative world. States within North America, North and Western Europe are among the prime examples of its kind. Till also stresses that these types of state are not mutually exclusive, a particular state can behave more than one pattern or result in a mixed feature, especially the modern and post-modern types.

After Geoffrey Till differentiates three types of states, He assesses that the navies, as an instrument of states, also vary by its owner as well. However, he sees that the

pre-modern type should be dismissed from the study because their navies are useless, and sometimes non-existent, these navies are not able to respond to the threats in a modern world. Therefore, there are two kinds left here to discuss. Generally, both modern navy and post-modern navy seem

to perform quite similar operational roles and missions. However their mission analysis differs significantly. Moreover, they are shaped by a very far spectrum of philosophical thought, modern navy by the realist and the post-modern the liberalist. Two types of navy are elaborated in the Table 1 below.

Table 1 The Analysis of Geoffrey Till and Author toward the Role and Operation of Modern and Postmodern Navy

Modern Navy in the Modern State (realist-driven) (Geoffrey Till)	Post-Modern Navy in the Post-Modern State (liberalist-driven) (Geoffrey Till)	Author's Analysis
Nuclear deterrence and ballistic missile defence. They stress that state is the sole manager of international conflicts and plays the main role in national defence.	Did not mention.	The modern navy prioritizes national security and missile defence. Their threat perceptions are based upon the fact that the opposition state or government is the challenge of their survival.
Sea control The modern navy takes the word “control” literally as their primary mission statement. Their perception is that an open sea battle is the most prominent form of operation, this Mahanian force preparation of ship-to-ship will assess the capability that their navies must be most	Sea control The post-modern navy shifts from the more aggressive word “control” to a more relaxed “direct” or “supervise” approach. Still, they believe that the sea operation is a paramount mission of the navy, but they observe that the littoral safety concerns should not be overlooked. They calculate	The post-modern navy does not abandon the defence mission or traditional security challenges; rather their missions are much more diversified. The Post-Cold war era experiences less state conflicts than before, but non-traditional threats expose themselves more than ever in terms of

Modern Navy in the Modern State (realist-driven) (Geoffrey Till)	Post-Modern Navy in the Post-Modern State (liberalist-driven) (Geoffrey Till)	Author's Analysis
ready and even superior. Not only this type of force development demands a very huge amount of defence budget, but also it is much more vulnerable to reach a dangerous regional arms race in the near future, which may culminate in a security dilemma as realist theorists usually warn.	that a post-modern navy is much more ready to respond to the incidents near the shores, such as asymmetric warfare, transnational or domestic terrorism, or nowadays low-intensity conflicts. By this way, the post-modern navies are geared towards internationalization of commerce and globalization, making sure that the sea and territorial water are safe not only for their state, but also for everyone, except their enemy. This is main principle of freedom of navigation and free passage.	non-state actors. While the modern type is controlled by their own top-down style of bureaucracy, the post-modern navy approach comes with more lateral international navies to collectively accomplish the missions together.
Narrower concepts of maritime power projection The modernists disagree with the role of liberal interventionism and collective actions. Instead, they prioritize the role of traditional naval firepower, ship-to shore movement, with advanced weapon technology, but the	Expeditionary Operations The post-modernists sees that the land or ashore territory as the main source of maritime disorder, solving the problem at sea is merely treating the symptom of the problem. They should tackle problem at land and act as a guardian of a safe sea trade and secure	The modern navy relies on the principle of statism and views the traditional security as their primary mission. The post-modernist analyzes that the root causes of the problems come from those land-based political, economic decision makers. They do not hesitate to

Modern Navy in the Modern State (realist-driven) (Geoffrey Till)	Post-Modern Navy in the Post-Modern State (liberalist-driven) (Geoffrey Till)	Author's Analysis
international trading system seems to be overlooked.	shorelines, which forms an integral part of globalization.	take part in politics and or influence the policy issues to ensure smooth trade and globalization.
Good order at sea The modern navy stresses on the defence of national interest and territorial integrity, but less on matters far from their state's physical reach. They also avoid the foreign participation, international agreement and view it as a violation of their sovereignty.	Good order at sea They stress that good order at sea and land contributes to economic growth and sustainable globalization. They regard non-traditional security such as the international crime, environmental degradation, and international terrorism as challenges to globalization.	The post-modern navy views a bigger picture than their modern counterpart. The post-modern navy calculates that their naval role are much diversified, not only to face traditional security but to ensure an entire systems of globalization as well.
Maritime Consensus The modern navy tends to concern about mutual agreement or dialogue which will influence their operations or render the freedom of action. They are not willing to sacrifice or negotiate any challenges affecting their decisions. When it comes to multilateral agreements the collaboration will be very limited. Therefore, bilateral cooperation on some very specific issues is much more preferred. They believe	The maintenance of maritime consensus The post-modern navy does not limit its role to a top-down type of bureaucracy but they are willing to collaborate laterally with international navies and are very open to citizen's criticism. This democratic navy will support the ongoing globalization and institutionalize the maritime agenda as their platform to mitigate future state conflicts which is likely to derive from	The post-modern navy maintains its inclusiveness, openness and interdependence as their concept of operations, plus they comply with international norms, agreements and welcome people's criticisms. These characteristics are difficult to accept for the modern navy as they think they are politically isolated, focusing narrowly with the conventional means of bureaucracy.

Modern Navy in the Modern State (realist-driven) (Geoffrey Till)	Post-Modern Navy in the Post-Modern State (liberalist-driven) (Geoffrey Till)	Author's Analysis
that nation state and conventional conception of national interest, as realists argue, is what determines their security agenda.	the worrisome concept of balance of power.	

Geoffrey Till's work presented here states that the role and responsibilities of navies of each type, while sharing some similarities, are very complex and worth scrutinizing. When a nation is going to face imminent threats or crisis, the navy at sea is on the first line of defence. Naval officers are very far away from the public and media so less and less people will know how they work at sea. There have been growing concerns or questionings about how the navy implements their duties and how they make some strategic decisions, especially as in the case of submarine procurement of Thailand. One group believes that submarine procurement is inevitable; another believes that a submarine fleet is entirely useless and unnecessary. These two sides fight endlessly to convey the ideas in which they believe. The author strongly believes that adopting

this theoretical framework shall yield a more precise and objective understanding of argument from each side and provides a clearer direction of naval force development.

2. The Arguments on Post-Modern Navy Enabler of Defence Industry: An Assessment

The previous section discussed the roles and responsibility of two kinds of navies. Geoffrey Till also proposed that these navies are driven by enablers to perform their missions. The defence industry enablers are one of the two criteria for analysis. This article in Table 2 will focus more about the defence industry enablers, which is the second enabler as the Force Preparation of the navies. The first and second rows are drawn from Geoffrey Till's proposal, while the right row is the author's analysis.

Table 2 The Analysis of Geoffrey Till and the Author toward the Enablers of Defence Industry

Modern Navy in the Modern State (realist-driven) (Geoffrey Till)	Post-Modern Navy in the Post-Modern State (liberalist-driven) (Geoffrey Till)	Author's Analysis
<p>A Balanced Fleet</p> <p>In an unforeseeable future, the modern navy maintains its force readiness based on military capability and its independence. They are called an all-round capability balanced fleet seeking to do all missions by themselves. They will not be technologically or functionally specialized nor consent to let any navies to meddle with their own state affairs or sovereignty.</p>	<p>Contributory Fleets</p> <p>The Post-modern navy is aware of the scenario where they might face an intense budget cut or limited resource which impedes them to perform all ranges of mission as before. Hence, They seek operational collaborations of which several navies rely on a more complex alliance system, interdependent navies. They avoid being a stand-alone force which usually comes with a great deal of financial requirement.</p>	<p>The Use of Force</p> <p>Each navy has their own way of the use of force. The modern navy tends to operate their mission by a stand-alone pattern with their all-round capability, including surface warfare, air transportation, and submarine warfare. The post-modern counterpart chooses to collaborate with other organization or even other state's navies. They sometimes accept that each party has to offer their own specialization to mutually accomplish the mission.</p>
<p>An indigenous defence industrial maritime base</p> <p>A modern navy wishes that all operational options are open for them. They are determined to maintain and own a secure domestic maritime base at their disposal and they are also ready to sacrifice international trade or collaboration to</p>	<p>An open defence market</p> <p>The post-modern navy attitude is shaped by a liberal “laisses-faire” toward the maintenance of a defence industrial base together with a free market approach. A government of post-modern nation feels free to procure foreign supply if they are cheaper or</p>	<p>The Force Preparation</p> <p>On one hand, the modern navy adopts realist's self-help tradition both their defence economy and military capability, there are reluctant to rely on international armament collaboration and point out that foreign suppliers are unlikely to be more sustainable than their domestic source. They seek to</p>

Modern Navy in the Modern State (realist-driven) (Geoffrey Till)	Post-Modern Navy in the Post-Modern State (liberalist-driven) (Geoffrey Till)	Author's Analysis
<p>maintain this objective. Therefore, the defence industry of a modern navy tends to be more isolated and protected. Free trade and globalization are less important for them.</p>	<p>faster than their domestic source. They are less concerned about the strategic vulnerability where arms market will be more competitive than ever. This is the very economic concept of an open economy that fits well with a full-blown globalization era.</p>	<p>develop their competitiveness by enforcing several policy mechanisms such as, local content, local sourcing priority, protectionism to support domestic markets. On the other hand, The post-modern navy tends to be more liberal towards armament business. Although they feel some pressure from losing their options but they understand the strategic choice to relocate their defence industrial base to a more suitable or profitable place. The government of post-modern nation realizes that it is a normal business practice of comparative advantage when it comes to defence procurement.</p>

From Geoffrey Till's Analysis, the author agrees with the notion of The Use of Force. The author, however, disagrees with the proposal of The Force Preparation, the defence industry enablers. The author revisits this argument by stating that the enablers of defence industry of which

Geoffrey Till presents might seem to be readily understandable, providing clearly distinctive characteristics, where the enabler of modern navy is shaped from realist's school of thought (maintaining and investing the defence industrial base at their disposal) and post-modern a liberalist side (liberating

the arms business, prioritizing industrial relocation and procuring foreign equipment). My argument here is that the enablers of defence industry are not entirely separated and these two schools of thought will be discussed.

First, in term of the phenomenon, splitting the enablers of defence industry into two categories does not seem reasonable in the real world practice. Almost all countries in the world, both modern states and post-modern states, demonstrate a mixed practice and are shaped by the characteristics of both enablers, trying their best to applying various means to reach an end. Most countries keep their defence industrial base politically and strategically secure, sometime even subsidizing it, and at the same time, they look for export, import, technological collaborative opportunities worldwide, as if the distinction between realism and liberalism, as Geoffrey Till proposes, has become very blurred and unrealistic.

Moreover, when Geoffrey Till states that the modern navy stresses on developing in-house military industrial base, this seems to be an incorrect information. From my observation, even the most isolated economies in the world like North Korea, Myanmar, Laos or Pakistan, when it comes to the defence industry, they usually

welcome and depend heavily on foreign arms companies and states to collaborate and trade. These nations have some very strong ties among each other and outsiders like China, Russia, Iran, and Libya. We also notice that North Korea or Libya are, frequently off-the-record, one of the major arms exporters of the world, without considering their realism or liberalism inclinations of their foreign or international trade policy. When we consider some post-modern states, of which most of them are developed nations, these states clearly show how sustainable and powerful their defense industries are, and their market shares or exports are extremely enormous. In other words, the types of the states or their navies, modern or post-modern, have almost nothing to do with the armament policy or defence industrial base in which they are implementing it.

Some post-modern states even show more realists' practice in arms business. When these nations have to make decision on which weapon systems are to make or to buy, with their immensely sustainable domestic industrial base, they have given priority to local market first. These protectionism are not just an ad-hoc policy, they are laws on which federal governments have to abide by, such as Buy American Act [2], South Korean Offset Policy [3], or the existence of ST Engineering [4], a state-owned

company. All these legal frameworks and institutions enforce federal government to procure domestic equipment first. If the required equipment is not available, then the armed service will have to defend their staff requirements to the Congress or the

Parliaments to import or decide to make an investment on R&D to make their own. This is far from a liberal way of doing business. We can see that the Geoffrey Till's statement of enablers of the defence industry is still a myth which cannot be overlooked.

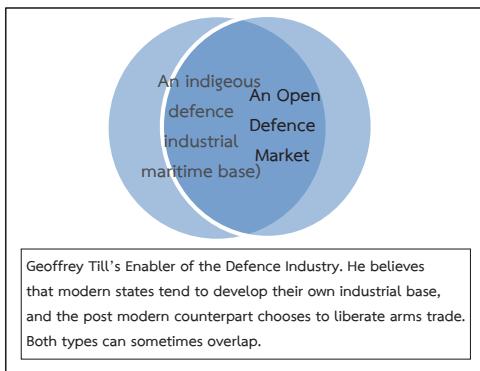


Figure 1 Geoffrey Till's Enabler of the Defence Industry.

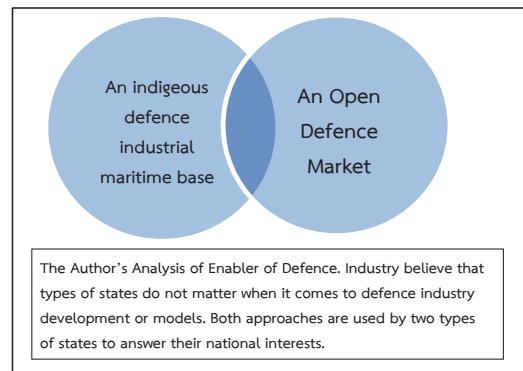


Figure 2 The Author's Analysis of Enabler of the Defence Industry.

3. The Analysis of Defence Industry Characteristics of Malaysia, Indonesia, Singapore.

In this section, I analyze defence industrial capability and characteristics of each case study, especially the naval component. Factors presented here came from my observation and prediction as to ways to adopt the concepts of modern navy and postmodern navy into the future development of the navies. These factors comprise, state policy and directions [5], naval industrial capabilities [6], defence budget trends [7], responsible organization for naval equipment development, naval

equipment export profiles [8], international collaborations, international arms market competitions, and my personal prediction about how each member state correlates with Geoffrey Till's enablers of defence industry of both modern and post-modern navy.

For the purpose of effective data interpretation, this table is shaded by descriptive explanations and color tone to identify the performance or capability. The green means they are well-developed, yellow means they are improving and getting better, the red means they lack the readiness or possess a modest capability.

Table 3 The Author's Analysis of the Defence Industry of the Regional Navies

	Malaysia	Indonesia	Singapore
State policy and directions	Its offset policy and industrial promotion program are very determined and sustainable.	Its offset policy is somewhat unclear and difficult to implement, but the countertrade is still effective.	It does not currently run offset policy. However, with well-developed infrastructure and excellent human capital, the defence industry, is a world-class supplier.
Naval industrial capabilities	Very modest	Developing	Quite sustainable.
Defence budget trends	Its trend is steady, but the real value is a very small portion of the whole national budget.	It seems that the trend is rising, but a large amount of budget is devoted to military personnel and welfare.	Its trend is steady at three percent of GDP, holding the highest budget defence budget allocation among all ASEAN member states. It has the greatest investment in defence industry.
Responsible organization for naval equipment development	None (but there is one department of naval equipment within STRIDE, mainly used for foreign equipment acceptance)	PT PAL Indonesia (Persero) is responsible for shipbuilding and naval development. It operates business on merchant ships, naval and submarine vessels, and energy business.	Found in 1968, the ST Marine, a naval subsidiary of ST Engineering, is an advanced naval and commercial shipbuilding company. It is a major player in defence industry in Southeast Asian region of which its core capability spans turnkey shipbuilding and repairs, ship design, and project management.

Naval equipment export profiles	Malaysia exported two small amphibious ships to UAEs and exported a patrol craft to Bangladesh.	Indonesia exported two large strategic sealift vessels (SSV) to Philippine navy. Nowadays, Indonesia plans to expand its business opportunity to many other states in African continent.	ST Marine has a very extensive export profile. From 1978, the majority of them has been patrol crafts, oil transportation ships, littoral mission ships, and landing ship tanks to several countries (Brazil, Nigeria, Taiwan, Bangladesh, Brunei, Philippines, Sweden, Thailand, UAE)
International Collaborations	Malaysia is enhancing its industrial collaboration strategy through offset program administered by a state organization called TDA (Technology Depository Agency)	Indonesia's international collaboration is very strong and ambitious. The most notable program is a domestic submarine construction with South Korean DSME.	The naval shipbuilding industry of ST Marine and other private organizations is developed and world-class. The strength of Singapore, among others, is that many academic universities, central government, and private sectors takes the military industry very seriously. Singapore soon will take further step from traditional weapon platform design and production to advanced sub-systems such as naval sensors, autonomous vessels, empowered by data analytics and machine learning technique.

International arms market competitions	Competition is very low since Malaysia has been very unsuccessful in terms of export.	Competition is very low since Indonesia's PT PAL primarily aims at serving the armed force of Indonesia, which is responsible for a large area of its territorial waters.	ST Engineering has been experiencing an intense competition as a latercomer in armament market. Due to its limited territorial water, the primary success factor of shipbuilding is with foreign market opportunity.
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4. Data Presentation by SWOT: Forecasting the Future Naval Industry

From the table in previous page, we can integrate all findings into SWOT matrixes

to figure out their strength, weakness, opportunity, and threats in order to synthesize some naval modernization policy and recommendations.

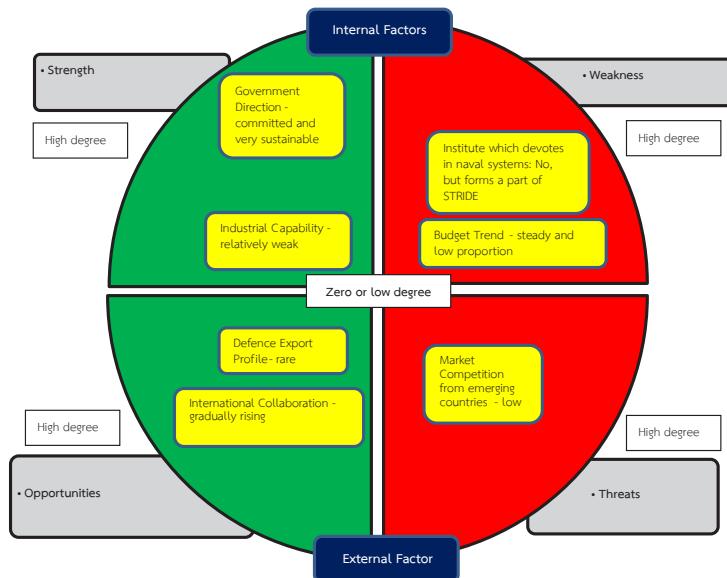


Figure 3 A Malaysian example has a mixed characteristic of modern and post-modern navy. It attempts to achieve a sustainable defence industrial base by implementing a state policy called offset or ICP (Industrial Collaboration Programmes) but the government still lacks the support for budget and infrastructure development. There aren't many ships in its Navy so the domestic requirement is not sustained. The Malacca Strait forces Malaysian Navy to fully aware its non-traditional warfare and threats. This nation should continue its international collaboration as a strategic force development scheme.

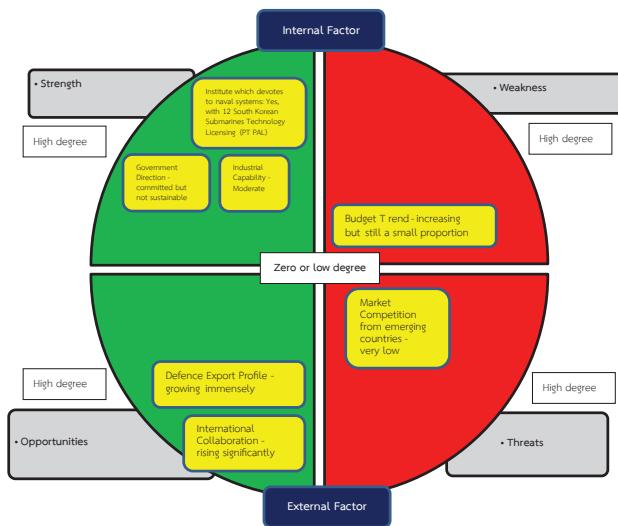


Figure 4 Indonesian Navy manifests itself as more of a modern navy character. The State-owned enterprise PT PAL is the national primary maritime industrial base originally used for its domestic Navy. Lately, PT PAL has revealed some export profile to extend their capability and its offset program is doing well. Its Navy is rather a balance fleet since it clearly concerns both surface and sub-surface technological superiority. Noted program is a technology transfer submarine construction program from South Korea. Although Indonesia frequently claims that it is a maritime nation, its naval leadership tends to perform their duty within the Navy at sea but they aren't able reach out or tackle sea problems at central government or influence land-based political, economic decision makers, like those in post-modern navies usually do.

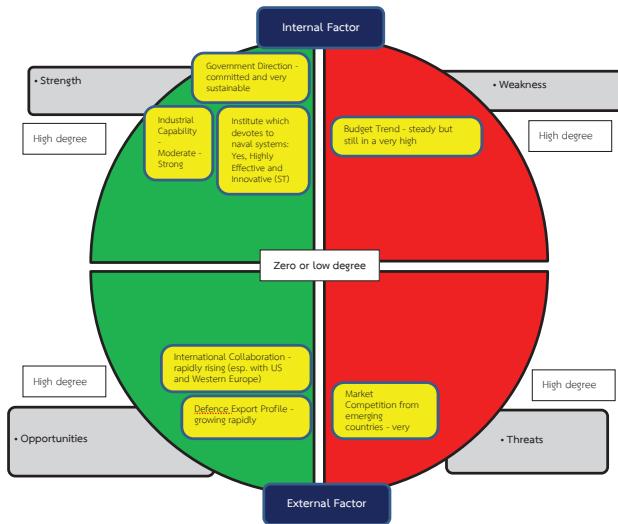


Figure 5 Overview: Singapore naval triple helix, its defence industry, academic institutions, and central government exhibit themselves as both modern navy and post-modern navy character. While it is determined to sustaining a domestic industrial base, it has been, among other countries, a very open and effective government. It uses a private sector style of ST Marine to run merchant and naval shipbuilding business overseas. Its industrial infrastructure and human capital are very well-performed. Singapore obtains the highest amount of defence budget within the region.

5. Some Policy Recommendations for Future Royal Thai Navy Force Modernizations

The dichotomy of modern and post-modern navy does not force navies to choose what roles they take or how they represent themselves. Rather, it outlines challenges the navies will be facing in a much more complexed world in which politics, economics, social problems converge with one another and shed the light on how the navy prioritizes or respond to each incident at times.

Also, it conveys a significant message that the naval leadership should calculate other land-based domestic politics, international politics, world environmental degradation, social issues, health or human security and globalization as their everyday waves and winds. In the era of COVID-19 outbreak, this crisis arguably forces the globalization to shrink and undermines the traditional ‘modern’ role of naval forces. The navy must think beyond the horizon

especially during the difficult time. If we assume that this incident affects globalization, failing international business, and disrupting sea line logistics, it is possible that navies are forced to perform a more ‘independently excluded’ modern navy rather than an ‘open and collaborative’ post-modern character. Royal Thai Navy and its naval industrial establishment is no exception. We might synthesize some policy recommendations for them to take away.

Policy recommendations will be separated into two parts. The first part considers each characteristic in which each example country took in the previous section, but this section will look at a Thai case as to what it is currently taking place and what it should have been taking place. The second part broadens some other recommendations regarding naval roles and industrial development. Both parts are my analysis and prediction which are based on, and are influenced by, the concept of postmodern navy discussed in the earlier section.

Table 4 Policy Recommendations for Royal Thai Navy Force and Industry Development

	What it is currently taking place	What it should have been taking place
State policy and directions	Import is still a primary weapon acquisition method.	The navy should study defence import policy guideline from South Korea, Indonesia or Malaysia to attain a Make or Buy strategy.
Naval industrial capabilities	The navy sustains its independency on small patrol crafts, but lacks capability to advanced weapon systems or larger vessels. Only few domestic private industries invest in weapon program.	The navy should use offset procurement as a means to access and absorb high technology from abroad. [9]
Defence budget trends	Due to the COVID-19 outbreak, the defence budget is in decline and consistently shared with other ministries.	The government should initiate domestic defence investment, instead of imports, to stimulate economic growth and job creation.
Responsible organization	These are a handful of private industries and Bangkok Dock as a sole state-owned enterprise.	In comparison with PT PAL and ST Marine, Bangkok Dock and other shipbuilding business need to receive orders from Thai and overseas government.
Naval equipment export profiles	In the year 2006, A Thai company called Marsun [10] constructed and delivered two M39 patrol boats on the site of Karachi Shipyard and Engineering Works in Pakistan.	Naval shipbuilding is one of the main priorities in international market. High-income countries in Middle East are very important customers since they usually operate smaller vessels. For exporting to lower-income countries, Thai government needs to prepare banking service or soft-loans for them to ease their decision-making for import or loans.
International Collaborations	There is currently very limited opportunity with foreign engagements.	Thai government needs to prepare for foreign protectionism scheme.
International arms market competitions	Thai defence export profiles are very low.	Thai government must insist on finding markets for smaller vessels.

The second part of recommendations regarding naval responsibilities and industrial development based on Geoffrey Till's modern and post-modern navy is discussed below.

1. **Export strategy** for both naval and merchant ship is necessary. It will drive national economy forward during this difficult time. Shipbuilding is a lucrative business and high paid job positions are involved. Patrol boats or offshore patrol vessels should be a national export priority.

2. In terms of force modernization, a **detailed roadmap or masterplan** should dictate the development direction of the navy. It has been, for a very long time, several occasions where force development depends on the leadership on the top. It changes continuously when a chief of navy retires and a new chief assumes office. A long-term White Paper should be the best solution here for it outlines a solid commitment as to what to make or buy. It demonstrates direction, lay down strategy, prioritize, for how much and when or why to invest. The White Paper is designed to inform the public and private industries and stakeholders as well. The more players in the domestic market, the better the competition between them occur, the less the government will have to spend on defence procurement. By this way, it will eventually eliminate middlemen as the government has transparency throughout the process.

3. **A navy's engagement of activities on land** is said to be one of the requirements of the post-modern navy. Many serious catastrophes can be nipped in the bud if they are detected early enough. An active

navy should pay more attention on what political or social actors are planning to do with tasks to which the navy normally executes; sometimes the defence affairs are merely a result but not the root cause of the problem. This requires visionary leaders at all levels. Activities the navy should engage to inform the public, and gather information, range from, their functional public relations, academic conference, media Q&A, public hearings, negotiations with conflicting parties.

4. **“Navy in Contingency” Concept.** Geoffrey Till predicts that the development of state and the navy are linear from modern and post-modern. It would be particularly true if COVID-19 would not occur. We can see that an already globalized world is tremendously disrupted by it. During this difficult time of the outbreak, we are not able to comprehend the long-term severity of it. However, I believe that there are some missions only the navy could do to help vulnerable people during this crisis. The navy should be prepared to dispatch ships or helicopters in areas where it is nearly difficult to access to deliver vaccines, foods, or supplies, such as remote or small islands, oil rigs, areas on a lock-down order from government. Moreover, the navy is the only one organization to provide physical security and build investor's confidence when it comes to merchant ship navigation and port security in order to drive international trade of a nation.

5. **The navy should monitor regional and outside navies closely.** Although international laws and various international regimes might guarantee mutual peace in

these areas, these are times where individuals, small units of ships may make mistakes by unintentional or intentional trespassing, skirmishing with one another, or provocation from each side. These incidents happen many times. The navy should train and educate their personnel, especially their naval officers, on the rule of engagement, negotiation tactics, international laws, proportional acts in order to ease the situation.

6. A collective work arrangement of international navies might be the best solution to provide long-term peace in Southeast Asian waters. The balanced fleet modern navies traditionally receive orders from their commanders and execute them as a top-down style, but the post-modern platform keeps balance between their top-down approach and a more lateral approach in which they build their mutual trusts among international navies. As they are mature for their interoperability and joint military doctrines, it might create an ASEAN Naval Force or ASEAN Multi-Task Force.

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