

01-04-2026

Surface combatants in contested waters: An opinion on the strategic, industrial, and doctrinal implications of the ASEAN warship build-up

Bintang Pratama

To cite this article: Pratama, B. (2026). Surface combatants in contested waters: An opinion on the strategic, industrial, and doctrinal implications of the ASEAN warship build-up. *Journal of Maritime Defense Technology*, 1(1), 13–23.

<https://journal.privietlab.org/index.php/JMDT/article/view/1933>

To link to this article: <https://journal.privietlab.org/index.php/JMDT/article/view/1933>



Follow this and additional works at: <https://journal.privietlab.org/index.php/JMDT>
Journal of Maritime Defense Technology is licensed under a Creative Commons Attribution 4.0 International License.

This JMDT: Original Article is brought to you for free and open access by Privietlab. It has been accepted for inclusion in Journal of Maritime Defense Technology by an authorized editor of Privietlab Journals

Full Terms & Conditions of access and use are available at: <https://journal.privietlab.org/index.php/JMDT/about>

Surface combatants in contested waters: An opinion on the strategic, industrial, and doctrinal implications of the ASEAN warship build-up

Bintang Pratama

Faculty of Engineering, Binus University, Jl. KH. Syahdan No. 9 Palmerah, Jakarta, Indonesia, 11480,
Indonesia
email: bintangpratama1610@gmail.com

Received 30 January 2026

Revised 17 March 2026

Accepted 1 April 2026

ABSTRACT

The Association of Southeast Asian Nations (ASEAN) is in the midst of a synchronized, asymmetric, and analytically underexamined warship build-up. Between 2024 and 2026, Singapore launched RSS Victory as the first of six Multi-Role Combat Vessels with autonomous-warfare integration, Indonesia commissioned KRI Brawijaya-320 as the largest principal surface combatant in Southeast Asia, the Philippines awarded a contract for new frigate (Full Complement) batches under its Re-Horizon 3 program, Malaysia advanced the long-delayed Maharaja Lela-class frigate program with the launch of KD Raja Muda Nala, and Vietnam, Thailand, and Brunei continued discrete but consequential surface fleet renewal. These trajectories are typically reported as distinct national stories. This opinion article argues that they are best understood as a regional phenomenon with shared strategic logic but divergent industrial and doctrinal implementations. The article advances three claims: (a) the contemporary ASEAN warship build-up reflects a hedging-driven, multi-vector procurement pattern rather than a classical arms race; (b) the dominant industrial signature—East Asian and European shipbuilders supplying heterogeneous platforms across ASEAN—creates a structural fragmentation problem that limits the regional bloc's collective deterrent value; and (c) the strategic future of the surface combatant in ASEAN waters will be determined less by tonnage and firepower than by autonomy, networked integration, and the political-economic sustainability of local industrial bases. The article concludes with five policy recommendations for ASEAN navies, defense ministries, and the regional industrial ecosystem.

Keywords: ASEAN naval modernization; surface combatants; frigates; hedging strategy; South China Sea; defense industrial base; autonomous warfare

priviet lab.
RESEARCH & PUBLISHING



1. INTRODUCTION

On July 2, 2025, the Indonesian Navy commissioned KRI Brawijaya-320, a 143-meter Fincantieri-built Pattugliatore Polivalente d'Altura (PPA) frigate, in the Italian port of Muggiano. Two months later, the warship completed a 9,000-nautical-mile maiden voyage with calls in Türkiye, Egypt, Saudi Arabia, the United Arab Emirates, and Sri Lanka before its ceremonial reception in the Sunda Strait by the First Fleet corvettes (Defence Security Asia, 2025a; The Southeast Asia Desk, 2025). Four months later, on October 17, 2025, the Republic of Singapore Navy launched the RSS Victory, the first of six 150-meter Multi-Role Combat Vessels (MRCV) built by ST Engineering Marine at the Benoi shipyard, designed from the keel up to act as a mother ship for uncrewed aerial, surface, and underwater systems (Defence Security Asia, 2025b; Indo-Pacific Defense Forum, 2025a). On December 19, 2025, the Philippine Department of National Defense issued a Notice of Award to HD Hyundai Heavy Industries (HD HHI) for two additional frigates under the Re-Horizon 3 modernization program, with the contract signing and Notice to Proceed released by December 26, 2025 (Philippine Defense Resource, 2025). In Lumut, Malaysia, the long-delayed Maharaja Lela-class frigate program achieved a critical milestone when KD Raja Muda Nala was launched on May 9, 2025 (Malay Mail, 2025).

These events are not isolated from each other. They are the visible peaks of a regional surface combatant build-up that, taken together, may constitute the most significant simultaneous fleet expansion in Southeast Asia's history. Yet the academic, policy, and industrial literature on ASEAN naval modernization continues to treat each national program as a discrete story, with comparative regional analyses appearing chiefly in defense journalism and policy briefings rather than in peer-reviewed scholarship. This opinion article addresses this gap. It argues that the current ASEAN warship build-up should be read as a coherent regional phenomenon with shared strategic drivers, divergent industrial signatures, and ambiguous deterrent value, and that understanding it as such has substantial implications for both the bloc's collective security posture and the trajectories of its constituent national defence industries.

The argument proceeds in five steps. The first develops a conceptual framework based on hedging theory, the balance-of-threat literature, and the resource-based view of defense industries. The second provides a comparative mapping of the contemporary ASEAN surface-combatant landscape, with particular attention to programs initiated or advanced between 2023 and 2026. The third advances the central proposition that ASEAN's warship modernization is structurally fragmented in ways that limit its collective deterrent effect. The fourth examines the implications for autonomous and networked warfare, drawing on the Singaporean MRCV and Indonesian KSOT autonomous submarine programs as inflection points for change. The fifth section concludes with five policy recommendations for ASEAN navies, defense planners, and the regional industrial ecosystem.

2. CONCEPTUAL FRAMEWORK

2.1. Hedging, Not Balancing: Why ASEAN's Warship Build-Up Is Not an Arms Race

A persistent misreading of contemporary ASEAN naval modernization is its characterization as an arms race driven by direct counterbalancing against the People's Republic of China. Framing is intuitive but conceptually imprecise. Classical balance-of-power and balance-of-threat theory (Walt, 1985) predicts that states facing a rising and threatening neighbor will either internally balance through arms accumulation or externally balance through alliance formation with other states. The ASEAN pattern resembles neither of these. Instead, it conforms more closely to what the scholarly literature has come to call hedging: the deliberate cultivation of multiple, partially contradictory strategic relationships to preserve maximum strategic optionality under conditions of structural uncertainty (Kuik, 2008; Goh, 2005).

Empirically, ASEAN's hedging posture is visible in the diversity of suppliers from which its navies acquire surface combatants. Indonesia procures from Italy (Fincantieri PPA frigates), the Netherlands (Damen for Sigma-class corvettes, combat system integration via Thales Netherlands), South Korea (Type-209/Chang Bogo submarines from Daewoo), Turkey (recent acquisitions and partnerships), and the

United Kingdom (legacy Bung Tomo-class). The Philippines diversifies between South Korean shipbuilders (HD HHI for both frigates and corvettes) and partnerships with the United States, Japan, France, and Australia for surveillance and joint exercises ([Philippine Defense Resource, 2025](#)). Singapore combines indigenous shipbuilding via ST Engineering Marine with combat system integration through Thales and Saab and platform partnerships with European and American firms ([Defence Security Asia, 2025b](#)). Malaysia's Maharaja Lela-class program uses the Naval Group of France as the design authority while building locally through Boustead Heavy Industries. Vietnam diversifies among Russian, Dutch, and increasingly Korean suppliers of oil.

This pattern is not a procurement signature of a regional bloc preparing for a collective conflict. This is the signature of states that wish to retain the option of cooperating, deterring, or distancing themselves from any particular external power as conditions evolve. The implication for the analysis of ASEAN warship modernization is that platform acquisitions should be read primarily as signals of strategic autonomy and secondarily as instruments of direct deterrence.

2.2. The Resource-Based View and the Defense Industrial Question

The second analytical anchor is provided by the Resource-Based View (RBV) of strategic management, originally formulated by [Barney \(1991\)](#) and [Wernerfelt \(1984\)](#), and subsequently extended to defense industrial contexts ([Boezer et al., 1997](#)). The RBV holds that a sustained competitive advantage derives from resources that are valuable, rare, inimitable, and non-substitutable. Applied to the defense industries of ASEAN states, this framework yields a clear and uncomfortable observation: the warships entering service across the region are, in the main, foreign-designed platforms assembled or maintained locally. Their strategic value to the buyer is significant, but the underlying design authority, combat system source code, and integration know-how—the genuinely VRIN resources—remain largely with the supplier.

Singapore is a partial exception, with the MRCV program representing the culmination of a multi-decade national investment in indigenous warship design, systems integration, and the cultivation of a sovereign defense-industrial ecosystem ([Defence Security Asia, 2025b](#)). Indonesia's PT PAL Indonesia is approaching but has not yet achieved comparable status, with the indigenous Combat Management System (CMS) and KSOT autonomous submarine program representing important steps in that direction. The Philippines, Vietnam, Malaysia, and Thailand remain primary acquirers with limited domestic design authority. This industrial heterogeneity has substantial implications for the long-term sustainability and sovereignty of regional warship build-ups.

2.3. Surface Combatants in the Age of Autonomy

The third conceptual anchor concerns the transformation of the surface combatant itself. The historical model of the warship as a self-contained platform combining propulsion, sensors, weapons, and crew is being progressively displaced by a network-centric model in which the warship functions as a node within a distributed system that includes uncrewed aerial vehicles (UAVs), uncrewed surface vessels (USVs), uncrewed underwater vehicles (UUVs), satellite-based intelligence, and shore-based command and control architectures ([Defence Security Asia, 2025b](#); [Krepinevich, 2023](#)). The Singaporean MRCV was explicitly designed around this model, serving as a mothership for autonomous systems. Indonesian PPA frigates and Korean-supplied Philippine frigates are nominally crewed platforms with growing modular and unmanned systems integration capabilities. This implies that comparisons of regional naval capabilities based purely on hull count, tonnage, or main armament are increasingly misleading; what matters is the integration depth between crewed platforms and their unmanned and networked complements.

3. COMPARATIVE MAPPING OF THE CONTEMPORARY ASEAN WARSHIP LANDSCAPE

To support the analysis that follows, this section provides a comparative mapping of surface combatant programs across the most active ASEAN navies, drawing on open-source reports from 2023

to early 2026. The mapping is necessarily selective and aggregated; readers interested in fully granular order-of-battle assessments are referred to specialized publications such as Naval News, Asian Military Review, and the IISS Military Balance.

3.1. Singapore: The Network-Centric Vanguard

The Republic of Singapore Navy operates the smallest fleet among the major ASEAN navies in nominal hull count, but it is the most technologically advanced. The launch of the RSS Victory on October 17, 2025, marked the beginning of the MRCV-class transition. The Victory-class is a 150-meter, multirole vessel with a reported range of over 7,000 nautical miles—more than double that of the existing Formidable-class frigates—and is designed explicitly to integrate uncrewed aerial, surface, and underwater systems alongside conventional weapons, including remotely controlled munitions and surface-to-air missiles (Defence Security Asia, 2025b; Indo-Pacific Defense Forum, 2025b). The program calls for six MRCVs, with the RSS Valor expected to launch in the second half of 2026, and the construction cycle achieving a 12-month keel-laying-to-launch tempo enabled by 3D digital modeling and smart-yard automation (Defence Security Asia, 2025b).

Two features make the Singaporean program analytically distinctive in ASEAN. First, ST Engineering Marine's role as a primary shipbuilder—working with Thales and Saab as systems integrators—represents a relatively mature sovereign-industrial signature, with implications for technology export potential to neighboring states. Second, the explicit unmanned warfare orientation of the design positions Singapore as the regional pioneer of network-centric surface warfare, with comparative implications for how other ASEAN navies will need to evolve their force structures over the coming decade.

3.2. Indonesia: From Refit to Tier-One Aspiration

The Indonesian Navy's contemporary surface combatant trajectory has been profoundly reshaped by the acquisition of two Italian PPA frigates from Fincantieri, Italy. KRI Brawijaya-320 was commissioned in Italy on July 2, 2025, arrived in Indonesian waters on September 4, 2025, and is now permanently stationed under the Fleet Command II in Surabaya. The KRI Prabu Siliwangi-321 is scheduled for delivery in March 2026 (Antara News, 2025). The two warships—originally constructed for the Italian Navy and later sold to Jakarta at a combined contract value of approximately USD 1.39 billion—are armed with a 127 mm naval gun, 76 mm Leonardo Super Rapid guns, a Rheinmetall Millennium 35 mm close-in weapon system, Lionfish remote weapon stations, and B515/3 triple torpedo launchers, with Leonardo Kronos radar, Elt Roma Zeus electronic jammer, and Saab communications systems. Jakarta has expressed interest in upgrading the Light+ configuration to the Full configuration and installing Aster 30 air defense missiles.

Beyond the PPA acquisition, Indonesia's R41 modernization program is comprehensively refurbishing 41 vessels, including legacy Bung Tomo-class corvettes and Sigma-class platforms, with November 2025 marking the launch of major upgrades to KRI Bung Tomo (357) and KRI John Lie (358) using Thales Netherlands as the combat system integrator and PT Len Industri as the mission system integrator. The October 2025 commissioning of KRI Belati-622, a 60-meter fast-attack craft built domestically by Tesco Indomaritim with a hybrid water-jet/propeller propulsion system, further illustrates the indigenous shipbuilding trajectory. Some defense analysts have argued that Indonesia, with the PPA acquisition, is positioned as a candidate tier-one naval power within ASEAN, with future possibilities for destroyers or even larger principal surface combatants (Defence Security Asia, 2025a).

3.3. The Philippines: From Constabulary to Combat Force

The Armed Forces of the Philippines have undertaken what is arguably the most ambitious procurement program among the ASEAN claimant states. Under the Revised AFP Modernization Program and its successor, Re-Horizon 3 phase, the Philippine Navy has procured Jose Rizal-class frigates from HD HHI of South Korea (commissioned 2020–2021), Miguel Malvar-class frigates (originally designated as corvettes), two corvettes also from HD HHI under the Corvette Acquisition Project, and

six offshore patrol vessels with delivery between 2025 and 2029 ([Global Security, 2021](#); [Philippine Defense Resource, 2025](#)). On December 19, 2025, a Notice of Award for two additional frigates under the Frigate (Full Complement) Acquisition Project was issued in favor of HD HHI, with the contract signing and Notice to Proceed released by December 26, 2025, and delivery expected by 2029 ([Philippine Defense Resource, 2025](#)).

The Philippine trajectory is analytically significant for two reasons. First, it represents the clearest case within ASEAN of a navy transitioning from a constabulary-oriented to a combat-oriented force structure, driven by sustained Chinese pressure in the West Philippine Sea and the broader Comprehensive Archipelagic Defense Concept ([Indo-Pacific Defense Forum, 2025a](#)). Second, the concentration of Philippine procurement with a single foreign shipbuilder (HD HHI) creates both efficiency gains—through interoperability and shared training pipelines—and dependency risks, particularly given the limited indigenous shipbuilding capacity of the Philippines.

3.4. Malaysia: Recovery from Delay

The Royal Malaysian Navy has faced significant challenges with its Maharaja Lela-class (formerly Second Generation Patrol Vessel/Littoral Combat Ship) program, originally contracted in 2014 for six vessels but plagued by cost overruns, delays, and corruption allegations. The May 9, 2025, launch of KD Raja Muda Nala marks an important inflection point, with the 3,100-ton, 111-meter frigate designed by the Naval Group of France and built by Boustead Heavy Industries Corporation at the Lumut Naval Shipyard ([Malay Mail, 2025](#)). The Deputy Defence Minister confirmed that the delivery of the first LCS will begin in 2026, with three Littoral Mission Ships scheduled for 2027 ([Malay Mail, 2025](#)).

The Malaysian case offers important lessons for the broader ASEAN literature on local-built defense industrial programs. It illustrates both the strategic value and the operational risks of pursuing indigenous shipbuilding capability under conditions of a constrained budget, complex foreign technology partnerships, and domestic political-economic pressures. The eventual completion of the Maharaja Lela-class program, however delayed, suggests that ASEAN states can sustain ambitious local-build programs through political turnover, but at the cost of substantial calendar and cost overruns.

3.5. Vietnam, Thailand, and Brunei: Discrete but Consequential

The Vietnam People's Navy continues to operate a fleet built around four Kilo-class submarines, Gepard-class frigates (Russian design), and a growing inventory of indigenous and Russian-supplied missile-patrol craft. Vietnam's strategic posture remains the most confrontationally hedged within ASEAN, with sustained Chinese pressure in the South China Sea and concurrent diplomatic outreach to the United States, Japan, India, and increasingly, the Republic of Korea. Joint patrols with the Chinese Navy in the Beibu Gulf in November 2025 illustrate the depth of Vietnam's hedging posture.

The Royal Thai Navy operates the largest aggregate fleet in mainland Southeast Asia, with the HTMS Chakri Naruebet helicopter carrier, multiple Chinese-supplied Type 071 amphibious assault platforms, and a mix of older surface combatants in its arsenal. However, comparative analyses suggest that the Thai fleet, while numerically substantial, lacks the advanced systems integration found in the Singaporean MRCV and Indonesian PPA programs ([Defence Security Asia, 2025b](#)). The Royal Brunei Navy operates a small but professional patrol force with limited principal surface combatants and a strategic emphasis on coastal defense and constabulary missions.

4. THE CENTRAL PROPOSITION: FRAGMENTED MODERNIZATION, LIMITED COLLECTIVE DETERRENCE

The foregoing mapping supports the central proposition of this article: the contemporary ASEAN warship build-up, however impressive in the aggregate, is structurally fragmented in ways that limit its collective deterrent value. The three dimensions of fragmentation deserve elaboration.

4.1. Industrial Fragmentation

The first dimension is industrial. The principal surface combatants entering ASEAN service over the next five years will originate from at least five distinct industrial bases: South Korea (HD HHI for the Philippines), Italy (Fincantieri for Indonesia), France (Naval Group as design authority for Malaysia), Singapore (ST Engineering Marine for the MRCV), and indigenous yards of varying capability across the region. These platforms operate with different combat management systems (Thales TACTICOS, Leonardo ATHENA, Saab 9LV, and Hanwha CMS variants), missile families (MBDA Aster, Boeing Harpoon, Saab RBS-15, Korean SSM-700K Haeseong, and Italian Otomat/Teseo), and sensor fits across radars, sonars, and electronic warfare systems.

This implies that even if ASEAN navies wish to operate jointly in defense of regional sea lines of communication or in cooperative responses to non-traditional threats, the operational and logistical burden of integrating across such heterogeneous platforms would be substantial. Joint exercises, such as the long-running Singapore-Malaysia Exercise Malapura, the Five Power Defence Arrangements (FPDA) Exercise Bersama Lima, and multilateral exercises involving the Philippines, the United States, Japan, France, Australia, and others ([Indo-Pacific Defense Forum, 2025b](#)), demonstrate that operational interoperability can be partially achieved through training and procedures, but the underlying system heterogeneity creates persistent friction.

4.2. Doctrinal Fragmentation

The second dimension is doctrinal in nature. ASEAN navies are pursuing surface combatant modernization under different national strategic doctrines that do not necessarily compose a coherent regional concept. Singapore's MRCV program is built around a network-centric, autonomy-augmented operational concept oriented toward the protection of strategic sea lines of communication and integrated regional deterrence. Indonesia's PPA acquisition is framed under the Perisai Trisula Nusantara policy as an instrument of archipelagic defense with four-dimensional combat capability (anti-air, anti-surface, anti-submarine, and electronic warfare). The Philippines is implementing the Comprehensive Archipelagic Defense Concept (CADC) as an explicit territorial defense doctrine oriented toward the West Philippine Sea ([Indo-Pacific Defense Forum, 2025a](#)). Malaysia and Thailand have pursued more traditional, coastal-defense-oriented doctrines, whereas Vietnam combines defensive sea denial with sustained diplomatic hedging. These doctrines are not incompatible, but neither are they harmonized into a regional concept of operations, with the partial exception of the FPDA's narrow focus on the defense of Malaysia and Singapore.

4.3. Industrial-Strategic Asymmetry

The third dimension of fragmentation is asymmetry between industrial capability and strategic ambition. Singapore combines a comparatively small national footprint with deep sovereign industrial capability; the result is a navy that punches well above its weight on a tonnage basis. Indonesia and the Philippines have large strategic stakes as archipelagic states bordering contested waters, but limited indigenous industrial capacity to sustain ambitious fleets without sustained foreign partnerships. Malaysia is attempting to build indigenous capabilities under significant calendar and cost stress. Vietnam is pursuing capability primarily through foreign acquisition, with limited domestic build capacity. The result is that the relationship between strategic interest and industrial capability is poorly aligned across the region, with consequences for both deterrence credibility and long-term sustainability in the region.

5. THE AUTONOMY QUESTION: WHAT SURFACE COMBATANTS MEAN IN THE AGE OF UNMANNED WARFARE

The most consequential question facing ASEAN naval planners over the next decade is not how many surface combatants to acquire but how to integrate them with the rapidly proliferating ecosystem of unmanned systems. Three case studies illustrate these analytical stakes.

5.1. The Singaporean MRCV as Mother Ship

The MRCV program is a regional outlier in its explicit design-level orientation toward autonomous systems. The Victory-class is being built to launch and recover uncrewed aerial vehicles, uncrewed surface vessels, and uncrewed underwater vehicles, with combat management integration that allows operators to command both crewed and uncrewed assets through a common interface ([Defence Security Asia, 2025b](#); [Indo-Pacific Defense Forum, 2025b](#)). The August 2025 Memorandum of Understanding between Strategic Marine of Singapore and the U.S.-based Eureka Naval Craft for the joint development of the Aircat Bengal MC—a 36-meter Modular Attack Surface Craft based on a Surface Effect Ship hull—further illustrates Singapore's positioning as a regional leader in modular, semi-autonomous platforms ([Army Recognition, 2025](#)).

5.2. The Indonesian KSOT and the Underwater Vector

Indonesia's parallel investment in the Kapal Selam Otonom (KSOT) autonomous submarine program, with the public unveiling of the KSOT-008 prototype at the TNI 80th anniversary parade on October 5, 2025, indicates that the regional shift toward autonomy is not limited to surface platforms only. The KSOT-008 is reported to have a length of 15 m, submerged endurance of 72 h, maximum speed of 20 knots, and operational range of 200 nautical miles. Three configurations—surveillance, one-way attack, and torpedo-launch variants—have been announced, with reported partnerships involving Diehl Defence of Germany. The implication for the ASEAN surface combatant question is that the relationship between crewed warships and unmanned underwater platforms will shape the underwater domain in ways that surface-only modernization metrics cannot.

5.3. The Philippine Multilateral Integration Vector

Although the Philippines is less industrially advanced than Singapore or Indonesia, it has pursued an alternative path to network-centric capability through deep multilateral integration. The October 2025 multinational exercises that brought together U.S., Philippine, Japanese, French, Australian, Canadian, and other forces in joint live-fire, anti-submarine, anti-aircraft, and surveillance operations illustrate how a smaller navy can achieve network-centric effects by integrating into allied capability stacks. This is a different solution to the same underlying problem: how do mid-sized navies achieve the operational effects of network-centric warfare under industrial and budgetary constraints?

5.4. Implications for the Other ASEAN States

For Malaysia, Thailand, Vietnam, and Brunei, the autonomy question is more pressing. These states face the prospect of operating crewed platforms that, however individually capable, may struggle to interoperate effectively with the more network-centric forces of Singapore, Indonesia, and the Philippines as the regional capability gap widens. The strategic question is whether these states can acquire affordable, modular, and interoperable unmanned systems from regional or external suppliers to bridge that gap, or whether they will accept a stratified regional naval capability landscape in which a few states operate genuinely modern forces while others operate legacy platforms with limited network integration.

6. POLICY RECOMMENDATIONS

Five policy recommendations are proposed. They are primarily addressed to ASEAN defense planners and industrial stakeholders, with secondary applicability to scholars and policy researchers in maritime security.

6.1. Recommendation One: Operational Interoperability Without Industrial Harmonization

Given the structural difficulty of harmonizing ASEAN's heterogeneous defense industrial bases, the realistic near-term objective should be operational interoperability through standardized procedures, data-link protocols, and joint training rather than platform harmonization. ASEAN navies should accelerate the development of common operating procedures for joint maritime domain awareness, search and

rescue, and constabulary missions, with explicit provisions for heterogeneous combat management systems and sensor fits already in service or on order. The ASEAN Defence Ministers' Meeting (ADMM) and ADMM-Plus frameworks provide appropriate institutional venues for this work.

6.2. Recommendation Two: A Regional Approach to Autonomy

The proliferation of autonomous systems across ASEAN—the Singaporean MRCV, the Indonesian KSOT, and growing interest in unmanned surface vessels across the region—creates a window of opportunity for the development of regional standards on the doctrinal, legal, and ethical frameworks governing unmanned naval systems. ASEAN should consider initiating a working-level dialogue on autonomous maritime systems with the dual objective of fostering interoperability among regional autonomous platforms and articulating shared positions on the international legal frameworks emerging around autonomous lethal systems. This would also provide a constructive Southeast Asian contribution to the broader Indo-Pacific debate on responsible AI in defense ([Defence Security Asia, 2025b](#)).

6.3. Recommendation Three: Realistic Defense Industrial Cooperation

Notwithstanding the structural difficulty of pan-ASEAN defense industrial harmonization, more limited and realistic cooperation is feasible and would be analytically and economically productive in the near term. Specific opportunities include technology-transfer alignment among Indonesian, Malaysian, and Singaporean shipyards on subsystems such as combat management software, sensors, and unmanned-systems control architectures; joint training programs for naval architects, marine engineers, and defense software developers; and regional cooperation on the maintenance, repair, and overhaul (MRO) ecosystem, including leveraging regional yards for both ASEAN and partner-nation MRO contracts. The recent U.S. Navy effort to establish a Singapore-based lead maintenance activity for Indo-Pacific operations between 2027 and 2031, with possible work in Malaysia, Vietnam, Indonesia, the Philippines, Thailand, and other partners, further illustrates the practical importance of regional MRO cooperation.

6.4. Recommendation Four: Doctrinal Conversation Without Doctrinal Convergence

ASEAN's doctrinal heterogeneity is unlikely to converge, and convergence may not be desirable, given the divergent geographies and strategic situations of member states. What is feasible and useful is a sustained doctrinal conversation: a structured academic and policy dialogue on archipelagic defense, sea denial doctrine, the role of surface combatants in hedging strategies, and the integration of unmanned systems into national operational concepts. Existing institutions, including the S. Rajaratnam School of International Studies (Singapore), Universiti Pertahanan Nasional Malaysia, the Indonesian Defense University (Universitas Pertahanan), the Philippine Naval Operations and Training Doctrine Command, and the Royal Thai Navy War College, could anchor such a dialogue. The scholarly community studying ASEAN maritime security would benefit from sustained comparative work.

6.5. Recommendation Five: Scholarly Agenda and Empirical Inquiry

Finally, the contemporary ASEAN warship build-up offers a rich empirical setting for scholars in international security, defence economics, and strategic studies. Specific research opportunities include the following: quantitative analysis of the lifecycle cost differentials across procurement strategies (single-supplier versus multi-supplier portfolios); structural equation modeling of the determinants of indigenous defense industrial capability across comparable Southeast Asian states; bibliometric mapping of the emerging literature on archipelagic defense doctrine; comparative case studies of technology-transfer governance in major ASEAN naval procurement contracts; and political-economy analyses of the relationship between defense industrial investment and national strategic posture. Sustained engagement by Indonesian, Singaporean, Filipino, Malaysian, Vietnamese, and Thai scholars with this agenda would substantially elevate the quality of regional debates on naval modernization.

7. DISCUSSION AND ANTICIPATED COUNTERARGUMENTS

Three counterarguments deserve direct engagement with this claim. First, some readers may argue that framing ASEAN naval modernization as hedging-driven rather than balancing-driven understates the role of Chinese pressure as a unifying threat perception. The responses are empirical and theoretical. Empirically, the diversity of ASEAN supplier choices and the persistence of significant intra-ASEAN engagement with China—including the November 2025 China-Vietnam joint Beibu Gulf naval patrol, the Indonesia-China Joint Maritime Cooperation Agreement of November 2024, and Thailand's deepening economic engagement with Beijing—indicate that no ASEAN state is pursuing a posture of pure balancing vis-à-vis China. Theoretically, the hedging literature explicitly recognizes that hedging is consistent with significant internal military build-up; the distinction lies in the diversification of supplier relationships and deliberate avoidance of binding alliance commitments (Kuik, 2008).

Second, some may contend that focusing on industrial fragmentation underweights the value of supplier diversity as a deliberate strategic choice. The response is that diversity has both benefits and costs for the firm. Diversity reduces dependency on any single supplier and preserves strategic optionality; however, it also increases lifecycle costs, training burdens, and operational integration friction. Both effects are real; the policy question is whether the marginal benefit of additional diversity outweighs the marginal cost of diversity. For most ASEAN navies, the analysis suggests that the current degree of supplier heterogeneity is approaching or exceeding the optimum, and that further procurement decisions should give greater weight to the economies of integration.

Third, some may question whether the focus on autonomy and network-centric warfare is premature for many ASEAN navies that have yet to fully field their current generation of crewed surface combatants in their fleets. The response is that autonomy is not a future technology but an unfolding present phenomenon. The Singaporean MRCV is launching with autonomy integration as a baseline requirement, the Indonesian KSOT is operating prototype platforms, and commercial maritime autonomy is advancing rapidly. ASEAN navies that defer engagement with autonomy face the prospect of operating fleets that are doctrinally and technically obsolete relative to the regional standard ten years from now. The recommended posture is not premature acquisition but proactive engagement with doctrine, training, and selective acquisition, aligned with national strategic objectives.

8. LIMITATIONS

This opinion article does not present a primary empirical analysis. It synthesizes open-source reporting, policy literature, and conceptual frameworks. The empirical reach of any open-source assessment of contemporary defence procurement is necessarily limited by the classification of relevant primary sources and the strategic communication objectives of the actors involved in naval modernization. The mapping of national programs was selective and aggregated. Specific platform performance data, particularly for systems that are still in development or have yet to enter service, should be treated as provisional. The author attempted to triangulate reputable defense journalism, official statements, and policy literature, but the inherent limitations of open-source analysis apply.

Future research should pursue the empirical agenda outlined in Recommendation Five with greater methodological rigor than this opinion piece can provide. Particular value would attach to multi-country comparative case studies of technology-transfer governance, quantitative defense-economic analyses of regional procurement patterns, and longitudinal studies of the relationship between platform acquisition and strategic posture in ASEAN Claimant and Non-Claimant States.

9. CONCLUSION

Surface combatants are not, in 2026, the obsolete instruments of twentieth-century naval warfare that some autonomy enthusiasts have predicted. The launches of RSS Victory, KRI Brawijaya-320, and KD Raja Muda Nala, alongside the Philippine, Vietnamese, and Thai modernization programs,

demonstrate that crewed warships remain central to ASEAN states' strategic postures. What is changing is the analytical lens through which these platforms are understood. A surface combatant in 2026 is no longer best characterized by its tonnage or main armament, but by its position within a network of crewed and uncrewed assets, its integration with regional and external partners, and its relationship with the industrial base that sustains it.

This opinion article argues that the contemporary ASEAN warship build-up is best understood as a hedging-driven, multi-vector procurement pattern with substantial collective deterrent ambition but limited collective deterrent realization due to industrial, doctrinal, and capability fragmentation. The strategic future of ASEAN sea power will be determined not by the count of hulls or the throw-weight of missiles but by the depth of regional cooperation on interoperability, autonomy, and industrial collaboration. The window for thoughtful regional engagement with these questions is open but narrow. The choices made by ASEAN defense planners and industrial stakeholders over the next five years will shape Southeast Asia's maritime security architecture for a generation.

The opinion advanced here is offered as a contribution to that strategic conversation, in the conviction that careful comparative analysis, grounded in conceptual frameworks and attentive to the diverse circumstances of ASEAN member states, can modestly but consequentially inform the choices that ultimately matter for the people of Southeast Asia and the broader Indo-Pacific.

Ethical Approval

Not Applicable

Informed Consent Statement

Not Applicable

Authors' Contributions

Not Applicable

Disclosure Statement

No potential conflict of interest was reported by the author(s).

Data Availability Statement

The data presented in this study are available on request from the corresponding author due to privacy reasons.

Funding

This study did not receive any external funding.

Notes on Contributors

Bintang Pratama

Bintang Pratama is affiliated with the Faculty of Engineering, Binus University, Jakarta.

REFERENCES

- Antara News. (2025, November 13). *Indonesian Navy to receive second Italian-built frigate in March 2026*. <https://en.antaranews.com/news/391541/indonesian-navy-to-receive-second-italian-built-frigate-in-march-2026>
- Army Recognition. (2025, August 21). *Singapore and U.S. launch first modular attack vessel for Indo-Pacific security*. <https://armyrecognition.com/news/navy-news/2025/singapore-and-us-launch-first-modular-attack-vessel-for-indo-pacific-security>
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Boezer, G., Gutmanis, I., & Muckerman, J. E., II. (1997). The defense technology and industrial base: Key component of national power. *Parameters*, 27(2), 26–51. <https://press.armywarcollege.edu/cgi/viewcontent.cgi?article=1826&context=parameters>
- Defence Security Asia. (2025a, September 6). *Historic arrival: KRI Brawijaya-320 joins Indonesian Navy as nation's most powerful combat ship*. <https://defencesecurityasia.com/en/kri-brawijaya-320-indonesia-first-ppa-warship-indo-pacific-naval-power/>
- Defence Security Asia. (2025b, December 7). *Singapore's AI-driven multi-role combat vessel RSS Victory: Redefining Southeast Asia's naval warfare paradigm*. <https://defencesecurityasia.com/en/singapore-ai-mrcv-rss-victory-autonomous-naval-warfare/>
- Global Security. (2021). *Philippine corvette acquisition project*. <https://www.globalsecurity.org/military/world/philippines/brp-ffg-2021.htm>
- Goh, E. (2005). *Meeting the China challenge: The U.S. in Southeast Asian regional security strategies* (Policy Studies No. 16). East-West Center Washington. <https://www.files.ethz.ch/isn/26086/PS016.pdf>
- Indo-Pacific Defense Forum. (2025a, April 16). *Archipelagic defense doctrine anchors Philippines' territorial sovereignty*. <https://ipdefenseforum.com/2025/04/archipelagic-defense-doctrine-anchors-philippines-territorial-sovereignty/>
- Indo-Pacific Defense Forum. (2025b, November 4). *Singapore launches "largest and most complex warship"*. <https://ipdefenseforum.com/2025/11/singapore-launches-largest-and-most-complex-warship/>
- Krepinevich, A. F., Jr. (2023). *Archipelagic defense 2.0*. Hudson Institute. <https://www.hudson.org/archipelagic-defense-2-taiwan-china-japan-australia-deterrence-us-navy-andrew-krepinevich-jr>
- Kuik, C.-C. (2008). The essence of hedging: Malaysia and Singapore's response to a rising China. *Contemporary Southeast Asia*, 30(2), 159–185. <https://doi.org/10.1355/CS30-2A>
- Malay Mail. (2025, May 2). *Malaysia's ageing navy to get major upgrade with five new combat and three mission ships, says deputy defence minister*. <https://www.malaymail.com/news/malaysia/2025/05/02/malaysias-ageing-navy-to-get-major-upgrade-with-five-new-combat-and-three-mission-ships-says-deputy-defence-minister/175346>
- Philippine Defense Resource. (2025, September 7). *Frigate (full complement) acquisition project of the Philippine Navy*. <https://www.phdefresource.com/2025/09/frigate-full-complement-acquisition.html>
- The Southeast Asia Desk, & Berna, V. (2025, September 22). *KRI Brawijaya-320 strengthens Indonesia's naval power*. *The Southeast Asia Desk*. <https://www.thesoutheastasiadesk.com/p/kri-brawijaya-320-strengthens-indonesias>
- Walt, S. M. (1985). Alliance formation and the balance of world power. *International Security*, 9(4), 3–43. <https://doi.org/10.2307/2538540>
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171–180. <https://doi.org/10.1002/smj.4250050207>