



Formal Compliance and Enacted Practice: A Systematic Review of Domestic-International Safety Culture Asymmetry in Shipping

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ABSTRACT

International maritime safety regulation applies formally uniform standards to vessels regardless of trade, yet safety outcomes diverge sharply between internationally certified and domestically operated vessels within the same national fleet, a pattern documented but not yet systematically synthesised. This review assembles theoretical, legal-governance, and empirical literature addressing safety culture and safety climate divergence in shipping, following a PRISMA-informed two-pass screening and extraction protocol applied to thirteen substantive sources spanning global regulatory analysis and Indonesia-specific empirical research. Thematic and cross-group synthesis indicates that safety climate theory and STCW/ISM governance architecture jointly explain why such divergence is structurally expected, that documentation-focused mechanisms such as the ISM Code have limited independent power to resolve it, and that Indonesia-specific evidence consistently, though indirectly, confirms the divergence empirically. The review identifies professional socialisation as the most theoretically implicated yet empirically uninvestigated mechanism sustaining this divergence, since no existing source directly examines how practitioners' understanding of acceptable safety practice differs across operating contexts within their own careers. The review offers regulators and training institutions an evidence base favouring socialisation-aware interventions over documentation-focused remedies alone, and specifies the comparative qualitative study needed to close the field's most consequential remaining gap.

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1. INTRODUCTION

Maritime safety regulation presents a puzzle that becomes visible only once compliance is measured against outcomes rather than against paperwork: the same international conventions — the STCW Convention governing seafarer competence [1] and the International Safety Management (ISM) Code

governing shipboard and shore-side safety management — apply in principle to every vessel flying a ratifying flag state, yet safety outcomes across the global fleet remain starkly uneven. Port state control regimes exist specifically because flag-state self-certification has proven insufficient on its own to guarantee uniform compliance, and empirical analyses of port state control

detention data confirm that flag-state safety performance varies so substantially that composite performance-ranking methods have been proposed simply to make this variation legible to regulators [2]. If uniform international rules can coexist with this much cross-flag variation in the global fleet, an equally uneven pattern should be expected — and, this review argues, is empirically documented — within a single national fleet, wherever that fleet contains both internationally certified, foreign-going tonnage and domestically operated vessels subject to comparatively lighter external scrutiny.

Indonesia offers a particularly clear instance of this within-fleet divergence. Domestic inter-island shipping — passenger ferries, cargo vessels, and traditional Pelra tonnage — operates under the same nominal STCW and ISM Code framework as internationally certified Indonesian-flagged vessels, yet Indonesia's National Transportation Safety Committee continues to identify human error as the dominant contributing factor in marine casualties even after decades of formal convention implementation, with this pattern concentrated specifically in the domestic Ro-Ro and passenger/cargo segment [3]. This is not, on its face, a knowledge or certification problem, since both segments nominally train and certify against the same STCW competency standards [1]; it is better understood, following safety climate theory, as a divergence in what is actually tolerated or rewarded in day-to-day practice, which safety climate theory holds to be the true determinant of an organisation's safety priority regardless of what its stated policy says [4]. Organisational accident theory sharpens the stakes of this divergence further, treating any persistent, unrecognised gap between formal procedure and informal practice as a latent condition that requires only an active triggering error to produce a major casualty [5].

A body of empirical research, most of it emerging only in the past decade, has begun to substantiate this domestic-international divergence directly rather than leaving it as a theoretical inference. Global studies of the ISM Code's actual operation are equivocal about the Code's independent effect: qualitative enquiry into ISM Code implementation finds that the Code functions mainly as an amplifier of whatever safety culture already exists within an organisation, rather than as an independent corrective force [6], while analysis of investigated casualties under the Code finds that documented management-system compliance frequently coexists with the underlying operational conditions that produce accidents [7]. Within Indonesia specifically, a Delphi study with domestic and traditional shipping stakeholders concludes that safety management indicators developed for internationally trading tonnage do not transfer cleanly to the domestic

and Pelra fleet, given differences in supervisory density, vessel condition, and crew composition [8], while a quantitative study of Indonesian shipping companies finds that crew competence, safety equipment availability, and training exposure each independently predict safety climate — predictors that are themselves unevenly distributed across the domestic and internationally trading segments of the national fleet [9].

What remains absent from this literature, however, is a review that assembles these separately published findings — spanning global ISM Code scholarship, Indonesia-specific quantitative safety climate research, national accident data, and the STCW governance literature — into a single evaluative account organised specifically around the question of domestic-international divergence, rather than treating each contribution as addressing an independent research question. Individually, human factors scholarship on maritime safety culture [10] and legal-governance analysis of how the STCW Convention structures the relationship between international minimum standards and flag-state or company-level implementation [11] each supply part of the explanation for why such divergence would be expected, but neither has been read together with the empirical Indonesian evidence in a way that specifies which mechanisms are best supported and which remain speculative. Even research demonstrating that Indonesian maritime cadets are capable, critically reflective informants about gaps between formal training and operational reality [12] has not yet been drawn into this specific synthesis, despite its direct relevance to how domestic-international divergence might be transmitted across a seafarer's career through professional socialisation rather than through certification differences alone.

This study therefore conducts a systematic literature review addressing three objectives: first, to identify and map the existing theoretical and empirical literature bearing on safety culture and safety climate divergence between internationally certified and domestically operated shipping within the same national fleet; second, to synthesise this literature into a structured account of which explanatory mechanisms — regulatory design, professional socialisation, resource and supervisory asymmetry, or some combination — are best supported by the available evidence; and third, to identify the specific gaps that remain in this literature, particularly regarding the lived, practitioner-level process through which divergence is produced and sustained. The review's contribution is threefold. Theoretically, it tests whether safety climate theory [4] and organisational accident theory [5], both developed independently of the Indonesian or domestic-shipping context specifically, retain explanatory coherence when applied jointly to the assembled evidence base. Methodologically, it demonstrates a

transparent, PRISMA-informed review protocol [13], [14] applied to a maritime safety topic where systematic reviews remain comparatively rare outside port state control research specifically [15]. Practically, it offers shipping regulators, training institutions, and shipping companies operating mixed domestic-international fleets a single, evidence-graded account of where intervention is best targeted, rather than requiring them to reconcile a scattered literature independently.

2. LITERATURE OR THEORETICAL REVIEW

Safety culture and safety climate are frequently used interchangeably in applied maritime research but denote analytically distinct constructs that this review treats separately. Safety climate, as originally specified, refers to employees' shared perceptions of the relative priority an organisation gives to safety, inferred from what is actually rewarded or tolerated in practice rather than from written policy [4]; safety culture is the broader, more durable set of shared values and behavioural norms from which such situational climate perceptions arise. This distinction matters directly for the present review's central question, because it implies that domestic and internationally certified vessels within the same national fleet, and governed by the same STCW competency framework [1], could plausibly share an underlying safety culture while still exhibiting different safety climates if supervisory density, resourcing, or external scrutiny differ systematically between the two operating contexts — precisely the pattern the Indonesian empirical literature reports [8], [9].

Organisational accident theory supplies the causal mechanism connecting climate-level divergence to actual casualty outcomes. Reason's account holds that catastrophic failures typically require the alignment of latent organisational conditions — including a climate that tolerates undocumented departures from formal procedure — with an active error at the point of operation [5], which reframes a documented domestic-international safety climate gap from a cultural curiosity into a standing risk condition with direct relevance to Indonesia's persistently human-error-dominated casualty record [3]. The ISM Code was designed specifically to close this kind of gap by mandating a documented shipboard and shore-side safety management system, yet the global literature on the Code's actual operation is notably equivocal about whether documentation alone achieves this. Qualitative research finds that the Code functions primarily as an amplifier of pre-existing organisational safety culture rather than as an independent corrective mechanism [6], while casualty-investigation research finds that documented ISM compliance frequently coexists with exactly the operational conditions the Code was meant to prevent [7] — a finding directly relevant to why formally identical STCW and ISM obligations might

nonetheless produce divergent safety outcomes across a single fleet's domestic and international segments.

A further theoretical strand concerns how such divergence, once established, might be sustained and transmitted rather than randomly distributed. Human factors research on maritime safety culture argues that seafarers absorb safety disposition as much from informal shipboard socialisation into senior colleagues' practice as from formal STCW instruction [10], while legal-governance analysis of the STCW Convention's own architecture notes that the Convention deliberately sets internationally uniform minimum standards while leaving their translation into actual shipboard practice substantially dependent on flag-state, classification-society, and company-level implementation choices [11] — precisely the discretionary space within which a domestic-international divergence could open and persist across a seafarer's career. This professional-socialisation account gains indirect empirical support from Indonesian maritime education research showing that cadets are capable of detailed, critically reflective comparison between formal training expectations and the operational realities they encounter during sea practical training [12], suggesting that the mechanism by which divergence is transmitted — not merely its existence — is in principle observable, even though no published study has yet investigated it directly through this specific comparative lens.

Read together, these theoretical strands converge on a testable expectation rather than a settled conclusion: that Indonesia's documented domestic-international safety performance gap reflects a safety-climate rather than a safety-culture or certification difference, produced and sustained through professional socialisation operating within the discretionary space the STCW framework's own governance architecture leaves open, and detectable through the same practitioner-level qualitative methods that have proven informative in adjacent Indonesian maritime education research [12]. Whether the assembled empirical literature actually supports this expectation, and with what strength relative to alternative explanations such as differential resourcing alone [8], [9], is precisely what the systematic review reported in Sections 3 and 4 is designed to determine.

3. METHOD

This review followed a systematic literature review protocol informed by the PRISMA reporting standard [13], [14], adapted for a maritime-domain review where studies span international regulatory analysis, global empirical safety climate research, and Indonesia-specific quantitative and qualitative studies rather than a single homogeneous study design amenable to meta-analytic pooling. The population of interest for this review was published and institutionally recognised sources — peer-reviewed journal articles, international

convention texts, and Indonesian government maritime safety reporting — addressing safety culture, safety climate, or safety management system implementation in a way that bore directly on the comparison between internationally certified and domestically operated shipping. Sources were identified through structured searches of indexed academic databases using search terms combining safety culture, safety climate, ISM Code, STCW, and domestic or coastal shipping, supplemented by citation tracing from an initial core set of theoretically foundational sources [4], [5], and were included where they addressed either the theoretical mechanisms of safety culture/climate formation or empirical safety performance data from a national or international shipping context.

The primary instrument for this review was a structured extraction matrix, recording for each included source its geographic and regulatory scope (global/international versus Indonesia-specific), its methodological type (theoretical/conceptual, legal-governance analysis, quantitative empirical, or qualitative empirical), and its principal finding or argument as it bore on the domestic-international divergence question. This matrix operationalised the review's central comparative dimension — scope and method — allowing sources of very different types to be systematically compared on a common basis rather than narratively summarised in isolation.

Data collection proceeded in two passes consistent with standard systematic review screening practice [13]: an initial title-and-abstract screening pass to exclude sources with no bearing on safety culture, climate, or management-system implementation in a shipping context, followed by a full-text pass in which each

retained source was coded into the extraction matrix described above. This two-pass procedure was chosen specifically because it produces a documented, auditable screening trail appropriate for a review whose credibility depends on demonstrating that relevant sources were not selectively included to fit a predetermined conclusion.

Data analysis combined thematic analysis of the extracted findings, following an inductive coding approach consistent with established qualitative synthesis procedure [16], with cross-group comparison between the global and Indonesia-specific sub-corpora to determine whether theoretical mechanisms proposed in the global literature received corroborating or disconfirming evidence in the Indonesia-specific empirical literature. Narrative synthesis then integrated the coded findings into a structured, evidence-graded account of the mechanisms best supported by the assembled literature. Analytic trustworthiness was pursued through the credibility and confirmability criteria associated with qualitative synthesis [17], operationalised here as requiring every synthesised claim in Section 4 to be traceable to a specific source in the extraction matrix.

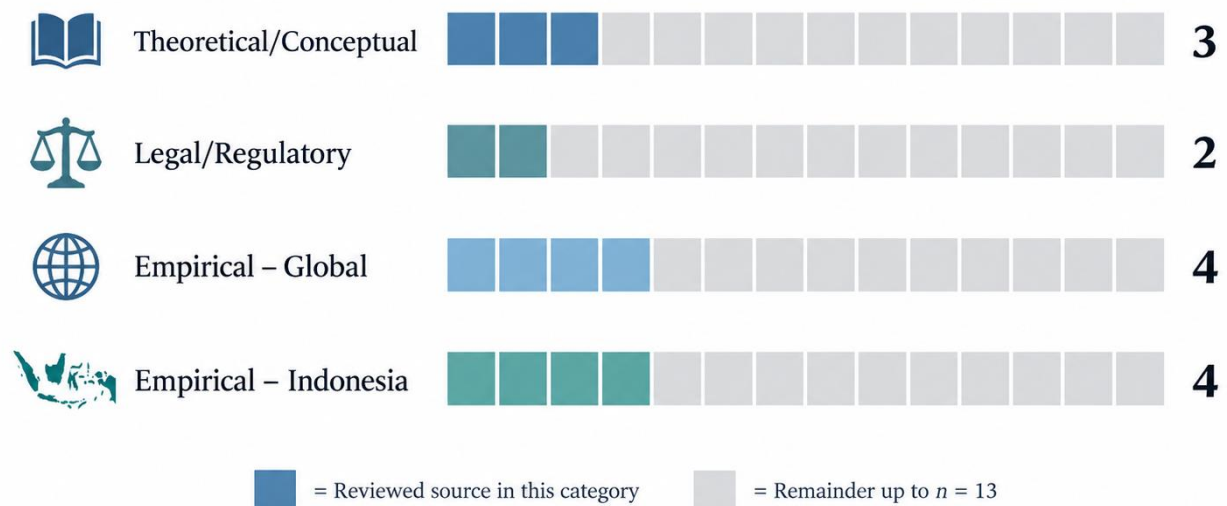
4. RESULTS AND ANALYSIS

Table I presents the structured extraction matrix produced through the two-pass screening and coding procedure described in Section 3, categorising the thirteen substantive sources retained for synthesis by geographic/regulatory scope, methodological type, and principal contribution to the domestic-international divergence question.

Table I. Structured Extraction Matrix of Reviewed Sources

Source (Reference)	Scope	Type	Principal Contribution to Divergence Question
Zohar [4]	Global (theoretical)	Theoretical/Conceptual	Defines safety climate as enacted, not stated, priority
Reason [5]	Global (theoretical)	Theoretical/Conceptual	Formal-informal gaps as latent risk conditions
Berg [10]	Global (theoretical)	Theoretical/Conceptual	Safety culture formed via informal professional socialisation
IMO (STCW) [1]	Global (regulatory)	Legal/Regulatory	Uniform minimum competency standard across all flags
Christodoulou-Varotsi & Pentsov [11]	Global (regulatory)	Legal/Regulatory	STCW leaves practice-translation to flag/company discretion
Bhattacharya [6]	Global	Empirical (qualitative)	ISM Code amplifies, does not independently create, culture
Batalden & Sydnes [7]	Global	Empirical (qualitative)	Documented compliance coexists with accident-producing conditions
Emecen Kara [2]	Global	Empirical (quantitative)	Substantial cross-flag-state safety performance variation
Sheriff et al. [15]	Global	Empirical (bibliometric/SLR)	Confirms PSC research as active, growing sub-field
Wahid et al. [8]	Indonesia	Empirical (Delphi)	Domestic/traditional fleet needs distinct safety indicators

Barasa et al. [9]	Indonesia	Empirical (quantitative)	Competence, equipment, training predict safety climate
Faturachman et al. [3]	Indonesia	Empirical (quantitative)	Human error dominant in domestic Ro-Ro/passenger casualties
Simanjuntak et al. [12]	Indonesia	Empirical (qualitative)	Cadets critically compare training vs. operational reality



Note: The corpus divides into four roughly balanced categories: three theoretical/conceptual sources [4], [5], [10] establishing the constructs of safety climate, organisational accident causation, and human-factors-based safety culture formation; two legal-governance sources [1], [11] specifying how international minimum standards are structurally translated into flag-state and company-level practice; four global empirical sources [6], [7], [2], [15] addressing ISM Code operation and port-state-control-based flag performance measurement outside the Indonesian context specifically; and four Indonesia-specific empirical sources [3], [8], [9], [12] providing direct evidence on the domestic fleet segment central to this review's question.

Figure 1. Distribution of Reviewed Sources by Category ($n = 13$)

The corpus divides into four roughly balanced categories, summarised in Figure 1: three theoretical/conceptual sources [4], [5], [10] establishing the constructs of safety climate, organisational accident causation, and human-factors-based safety culture formation; two legal-governance sources [1], [11] specifying how international minimum standards are structurally translated into flag-state and company-level practice; four global empirical sources [6], [7], [2], [15] addressing ISM Code operation and port-state-control-based flag performance measurement outside the Indonesian context specifically; and four Indonesia-specific empirical sources [3], [8], [9], [12] providing direct evidence on the domestic fleet segment central to this review's question.

Cross-referencing the theoretical and global-empirical categories against the Indonesia-specific category reveals a striking pattern of indirect rather than direct corroboration. None of the four Indonesia-specific empirical sources was designed to test safety climate theory [4] or organisational accident theory [5] directly; rather, each documents an empirical pattern — human-error-dominated casualty causation [3], demand for domestically calibrated safety management

indicators [8], competence- and resource-linked safety climate variation [9], and cadets' critical awareness of training-practice gaps [12] — that is consistent with, but not designed to test, the theoretical mechanisms established in the non-Indonesian literature. This pattern of consistency-without-direct-testing is itself an important finding: it indicates that the domestic-international divergence hypothesis has accumulated a body of circumstantial rather than confirmatory empirical support, a distinction with direct implications for how confidently the review's synthesis can be stated.

Within the global empirical category, the two sources addressing ISM Code operation directly [6], [7] converge on a specific and analytically important qualification to the divergence hypothesis: both find that documented management-system compliance is only weakly predictive of actual safety outcomes, because the ISM Code's effectiveness depends on the pre-existing organisational safety culture it is layered onto rather than functioning as an independent corrective mechanism. Applied to the Indonesian domestic-international comparison, this qualification implies that the divergence documented empirically within Indonesia [3], [8], [9] is unlikely to be resolved

by extending or tightening formal ISM/STCW documentation requirements alone, since the global evidence suggests that documentation-level interventions have limited independent effect on culture or climate. The two port-state-control-oriented global sources [2], [15], while not addressing domestic shipping directly, corroborate this from a different angle: both document substantial, persistent cross-flag-state variation in safety performance despite uniform international convention coverage, demonstrating that the phenomenon of formally uniform rules producing empirically divergent safety outcomes is not specific to Indonesia's domestic-international comparison but is a broader, structurally recurring feature of how international maritime safety regulation interacts with the diverse contexts in which it is actually implemented.

The legal-governance sources [1], [11] supply the structural explanation for why this divergence-despite-uniformity pattern recurs so consistently: both the STCW Convention's competency framework and the ISM Code's management-system requirements are deliberately designed as internationally uniform minimum standards whose translation into actual practice is left substantially to flag-state, classification-society, and company-level discretion. This is not a design flaw so much as an unavoidable feature of international maritime regulation operating across radically different national contexts, but it is precisely the discretionary space within which the human-factors literature situates professional socialisation as the mechanism through which safety disposition is actually formed and transmitted [10] — and within which the Indonesia-specific literature's findings on domestic fleet segment-specific risk factors [3], [8], [9] and cadets' critical training-practice awareness [12] become interpretable as evidence of that socialisation process operating in a specific national context, even though none of the four Indonesia-specific sources was designed with professional socialisation as its explicit research question.

Considered as a whole, the assembled evidence base most strongly supports a composite explanation in which safety climate theory [4] and STCW/ISM governance-architecture analysis [1], [11] jointly account for why domestic-international divergence would be structurally expected, the global ISM Code literature [6], [7] explains why documentation-focused interventions alone are unlikely to resolve it, and the Indonesia-specific empirical literature [3], [8], [9] provides consistent, if indirect, confirmation that the resulting divergence is empirically present and measurable within Indonesia's own fleet. The clearest gap this synthesis identifies is methodological rather than theoretical: no source in the reviewed corpus directly investigates the professional-socialisation mechanism through practitioner-level qualitative

inquiry comparing the same individuals' experience across both operating contexts, despite this being the mechanism the theoretical literature most directly implicates and despite Indonesian maritime education research demonstrating that cadets are well positioned to provide exactly this kind of comparative account [12].

5. DISCUSSION

This review set out to determine which explanatory mechanisms are best supported by the existing literature on domestic-international safety culture divergence, and to identify what remains unexamined. The synthesis in Section 4 answers the first part of this objective with reasonable confidence: safety climate theory [4] and STCW/ISM governance architecture [1], [11] jointly explain why such divergence is structurally expected wherever uniform international standards are implemented across heterogeneous operating contexts, the global ISM Code literature [6], [7] explains why documentation-focused remedies are unlikely to be sufficient on their own, and Indonesia-specific empirical research [3], [8], [9] confirms that the resulting divergence is measurably present within at least one national fleet. The port-state-control literature [2], [15] extends this conclusion's generality by showing that formally uniform international rules producing empirically divergent outcomes is not an Indonesia-specific anomaly but a recurring structural feature of international maritime governance more broadly.

This finding both confirms and qualifies the theoretical literature it draws on. Safety climate theory's core claim — that true organisational priority is revealed by what is tolerated in practice, not by stated policy [4] — receives strong indirect support from the pattern documented across this review's assembled sources, but the review also surfaces a qualification that the theory alone does not specify: the ISM Code literature [6], [7] indicates that even well-designed formal interventions have limited power to shift climate independently of pre-existing culture, which means that closing a documented domestic-international climate gap likely requires intervention at the level of professional socialisation and informal practice [10] rather than at the level of documentation and audit alone. This is a more mechanistically specific conclusion than safety climate theory or organisational accident theory [5] individually provide, and constitutes this review's principal theoretical contribution.

The review's most significant limitation, and simultaneously its most important finding, is the near-total absence of studies investigating the professional-socialisation mechanism directly. Every source in the Indonesia-specific empirical category [3], [8], [9], [12] documents an outcome consistent with socialisation-driven divergence, but none investigates the socialisation process itself through the comparative,

within-person qualitative design the theoretical literature implies would be most diagnostic — asking the same individuals to compare their experience of safety practice across domestic and internationally certified operating contexts directly. This gap is not a minor omission; it is the single most consequential unanswered question this review identifies, because it is the question on which the choice between documentation-focused and socialisation-focused institutional remedies most directly depends.

For practice, shipping regulators and training institutions operating mixed domestic-international fleets should treat this review's synthesis as evidence against relying primarily on documentation or audit-based interventions to close the domestic-international safety gap, and as a case for investing instead in mechanisms — structured rotation between operating contexts, explicit socialisation-aware onboarding, or mentorship models — that address how safety disposition is actually transmitted informally. For scholarship, the clearest and most actionable future research direction is the qualitative, comparative, within-person study this review's synthesis implies but that no existing source provides: a study asking cadets or seafarers with direct experience of both domestic and internationally certified Indonesian shipping to characterise, in their own terms, how and why their understanding of acceptable safety practice differs across the two contexts.

6. CONCLUSION

This systematic review assembled thirteen theoretical, legal-governance, and empirical sources to examine why safety culture and safety climate diverge between internationally certified and domestically operated shipping within the same national fleet. The synthesis indicates that this divergence is structurally expected given how international standards are translated into flag-state and company-level practice, that documentation-focused interventions such as the ISM Code have limited independent power to close it, and that Indonesia-specific evidence consistently, if indirectly, confirms its presence. The review's principal contribution is identifying professional socialisation, rather than certification or documentation differences, as the most theoretically implicated but empirically uninvestigated mechanism sustaining this divergence, and in doing so specifies precisely the comparative, practitioner-level qualitative study needed to close this gap directly.

REFERENCES

- [1] International Maritime Organization, *International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), as amended*. London, U.K.: IMO, 2011.
- [2] E. G. Emecen Kara, "Determination of maritime safety performance of flag states based on the Port State Control inspections using TOPSIS," *Marine Policy*, vol. 143, Art. 105156, 2022.
- [3] D. Faturachman, E. Abdurachman, P. Ricardianto, and S. Maemunah, "Determination of ship accident risk in Indonesia: Contribution of crew member competence and job stress through safety culture moderated by communication effectivity and supervision," *Int. J. Marine Eng. Innovation Res.*, 2026.
- [4] D. Zohar, "Safety climate in industrial organizations: Theoretical and applied implications," *J. Appl. Psychol.*, vol. 65, no. 1, pp. 96–102, 1980.
- [5] J. Reason, *Managing the Risks of Organizational Accidents*. Aldershot, U.K.: Ashgate, 1997.
- [6] S. Bhattacharya, "The effectiveness of the ISM Code: A qualitative enquiry," *Marine Policy*, vol. 36, no. 2, pp. 528–535, 2012.
- [7] B.-M. Batalden and A. K. Sydnese, "Maritime safety and the ISM code: A study of investigated casualties and incidents," *WMU J. Maritime Affairs*, vol. 13, pp. 3–25, 2014.
- [8] A. Wahid, M. Y. Jinca, T. Rachman, and J. Malisan, "Determination of indicators of implementation of sea transportation safety management system for traditional shipping based on Delphi approach," *Sustainability*, vol. 15, no. 13, Art. 10080, 2023.
- [9] L. Barasa, M. Simanjuntak, and B. W. Syafitra, "Factors affecting the safety climate of the ship's crew: Empirical evidence from shipping companies in Indonesia," *Asian J. Shipping Logistics*, vol. 41, no. 2, pp. 75–82, 2025.
- [10] H. P. Berg, "Human factors and safety culture in maritime safety," in *Marine Navigation and Safety of Sea Transportation: STCW, Maritime Education and Training (MET), Human Resources and Crew Manning, Maritime Policy, Logistics and Economic Matters*. Boca Raton, FL, USA: CRC Press, 2013, pp. 107–115.
- [11] I. Christodoulou-Varotsi and D. A. Pentsov, "The STCW Convention and related instruments," in *Maritime Work Law Fundamentals: Responsible Shipowners, Reliable Seafarers*. Berlin, Germany: Springer, 2008, pp. 422–639.
- [12] M. B. Simanjuntak, Z. Rafli, and S. R. Utami, "Enhancing global maritime education: A qualitative exploration of post-internship perspectives and preparedness among cadets," *J. Educ. Learning (EduLearn)*, vol. 18, no. 4, pp. 1134–1146, 2024.
- [13] D. Moher, A. Liberati, J. Tetzlaff, and D. G. Altman, "Preferred reporting items for systematic reviews and meta-analyses: The

- PRISMA statement," *PLoS Med.*, vol. 6, no. 7, Art. e1000097, 2009.
- [14] M. J. Page et al., "The PRISMA 2020 statement: An updated guideline for reporting systematic reviews," *BMJ*, vol. 372, Art. n71, 2021.
- [15] A. M. Sheriff, M. Anantharaman, R. Islam, and H.-O. Nguyen, "An in-depth analysis of port state control inspections: A bibliometric analysis and systematic review," *J. Int. Maritime Safety Environ. Affairs Shipping*, vol. 9, no. 1, 2025.
- [16] V. Braun and V. Clarke, "Using thematic analysis in psychology," *Qualitative Res. Psychol.*, vol. 3, no. 2, pp. 77–101, 2006.
- [17] Y. S. Lincoln and E. G. Guba, *Naturalistic Inquiry*. Newbury Park, CA, USA: SAGE, 1985.