

OPTIMIZING BUSINESS LAW TO STRENGTHEN BLUE ECONOMY MSMEs IN MANADO: EXAMINING THE NOVELTY OF REGULATORY MODELS FOR ENHANCING COMPETITIVENESS

Chrestotes Wiltheo Lang ^{a)}, Siti Harwianti Santoso ^{a)}, Imam Santoso ^{a)}

^{a)} *Primaniyarta Academy of Business and Finance, Manado, Indonesia*

^{*)}Corresponding Author: chrestotes.lang@abkprimaniyarta.ac.id

Article history: received 19 June 2026; revised 05 July 2026; accepted 01 August 2026

DOI: <https://doi.org/10.33751/jhss.v10i01.430>

Abstract: Indonesia's blue economy roadmap projected the maritime sector to contribute 15% to national GDP by 2045, yet its realisation rested on Micro, Small, and Medium Enterprises (MSMEs) that constitute more than 90% of marine and fisheries actors. In Manado, a strategic coastal city facing the Pacific trade route, MSMEs encountered a persistent regulatory mismatch: business law remains terrestrial-oriented and fails to accommodate the spatial, traceability, and digital-transaction characteristics of the blue economy. This study examined how an adaptive regulatory model conceptualised as a Smart Regulatory Framework can be constructed to strengthen Manado's blue-economy MSMEs and elevate their national and international competitiveness. Employing a juridical-normative method reinforced by a socio-legal approach and Economic Analysis of Law, the study integrated statute, conceptual, and comparative approaches, the latter drawing on blue-economy governance in Norway and Seychelles and on cross-sectoral regulatory sandbox practice. The study proposes a tri-pillar adaptive regulation integrating certainty of marine spatial utilisation, digital transaction security, and a transitional blue standard aligned with internationally recognised sustainability requirements, designed to reduce transaction costs and to operationalise law as a tool of social engineering for sustainable coastal development. Because this study is a normative-conceptual model construction rather than an impact evaluation, these effects are advanced as projected consequences that require ex-post validation once the model has been piloted.

Keywords: Smart Regulatory Framework, Blue Economy, MSMEs, Regulatory Sandbox, Manado

I. INTRODUCTION

Indonesia, as the world's largest archipelagic country, places the maritime sector as one of the main pillars of economic transformation toward the Golden Indonesia Vision 2045. Through the Indonesia Blue Economy Roadmap 2023–2045, the government projects the contribution of the blue economy to national Gross Domestic Product (GDP) to increase from the existing 6% in 2022 to 15% by 2045 (Bappenas, 2023; Kemenko Marves, 2023). This ambitious increase is inseparable from the estimated value of Indonesia's marine economy, which reaches USD 280 billion per year, while the sector's realized contribution in 2022 was only USD 79 billion, or approximately 28% of its total potential (Bank Dunia, 2019; Kemenko Marves, 2023). This disparity between potential and achievement provides the point of departure for the urgent need to restructure the blue economy ecosystem, including its regulatory dimension.

At the micro level, the backbone of the blue economy ecosystem rests on Micro, Small, and Medium Enterprises (MSMEs). Data from the Ministry of Marine Affairs and Fisheries indicate that more than 90% of the 4.77 million business actors in the marine and fisheries sector are MSMEs (KKP, 2025). Blue economy MSMEs operate across a long value chain, ranging from

capture fisheries and aquaculture to seafood processing and marine tourism, and structurally support food security and coastal employment (Pauli, 2010; Voyer et al., 2018). However, this quantitative dominance has not translated into competitive advantage in global markets, mainly because of institutional constraints and the business-law framework surrounding these enterprises (Porter, 1985; OECD, 2021).

The fundamental problem lies in the terrestrial-oriented character of Indonesian business regulation, namely a legal framework designed on the assumption of land-based economic activities and subsequently imposed on activities conducted in marine space. Consequently, regulation tends to fail to accommodate the unique characteristics of the maritime sector, such as resource uncertainty, the spatial mobility of business actors, the complexity of permits for marine-space utilization, and the traceability standards for seafood products demanded by international markets (Silver et al., 2015; Voyer et al., 2018). Following the enactment of Law Number 6 of 2023 on Job Creation, risk-based licensing simplification began to be implemented; however, its application to coastal MSMEs is often constrained by overlapping central-regional authority and the absence of legal instruments that bridge MSMEs' transition to the digital economy (Wiriadinata, 2022). From the perspective of

Kusumaatmadja's (2002) development law theory, this situation demonstrates the failure of law to perform its function as a tool of social engineering and instead turns it into a source of transaction costs that inhibits MSME efficiency.

The context of Manado City illustrates this contradiction concretely. As the capital of North Sulawesi Province, Manado faces waters that fall within Fisheries Management Area WPPNRI 716, covering the Sulawesi Sea and the waters north of Halmahera, while the fishing grounds of WPPNRI 715 in the Maluku Sea are reached through the nearby port of Bitung. Situated on this seaboard and connected to Pacific trade routes, Manado has a significant population of blue economy MSMEs, ranging from cakalang fufu processing and seaweed industries to Bunaken marine ecotourism. Nevertheless, its regional competitiveness index remains suboptimal, and the export contribution of locally processed seafood products remains relatively small compared with its geo-economic potential. The gap between geographic potential and economic performance reflects a regulatory mismatch, namely an inconsistency between regulatory design and the actual needs of business actors in the field (Allen, 2019). Without intervention at the local regulatory level, Manado's blue economy risks remaining a political narrative rather than being translated into measurable improvements in MSME welfare.

Academic discourse on this issue has developed in several directions, yet significant room for novelty remains. First, Silver et al. (2015) mapped the competing discourses at work in international oceans governance, including the tendency to frame the blue economy as a market-oriented investment opportunity, but did not address the business-law dimension at the local level. Second, the OECD (2021) mapped MSME digital transformation in general but did not discuss the specific characteristics of the maritime sector, which requires traceability instruments and certainty of marine spatial rights. Third, legal studies in Indonesia, including Wiriadinata (2022), have discussed legal protection for MSMEs in the digital era but have not integrated blue-economy sustainability as a regulatory-design variable. Fourth, the regulatory sandbox concept adopted by the Financial Services Authority through OJK Regulation Number 3 of 2024 has so far been limited to financial technology innovation and has not been extrapolated to the blue economy sector, even though its logic of regulatory experimentation is conceptually relevant to maritime MSME innovation (OJK, 2024; CIPS, 2023).

Building on this body of knowledge, this study positions its novelty in the construction of a Smart Regulatory Framework for blue economy MSMEs in Manado City, an adaptive regulatory model that integrates three pillars that have previously operated separately: certainty of marine spatial rights for small-scale business actors, digital transaction security for seafood exports, and a transitional sustainability standard aligned with internationally recognised requirements (blue standard). This approach positions law not merely as an administrative instrument, but as legal engineering that measurably reduces transaction costs as conceptualized in the Economic Analysis of Law (Posner, 2014; Cooter & Ulen, 2016).

Based on this background, the study proposes two main research questions: (1) How can a novel adaptive and inclusive business-law regulatory model be constructed to strengthen the blue economy MSME ecosystem in Manado City? and (2) What are the implications of this new regulatory model for improving

the competitive advantage of Manado's blue economy MSMEs at the national and international levels? The study aims to formulate an adaptive regulatory framework based on a synthesis of development law theory and competitive advantage theory, while also providing practical policy recommendations for the Manado City Government in developing local legal instruments capable of transforming blue economy MSMEs into a globally competitive coastal economic force.

II. RESEARCH METHODS

This study employed a juridical-normative method reinforced by a socio-legal approach. This combination was selected because the issue under examination concerns the consistency and effectiveness of business-law regulation for blue economy MSMEs, a problem that cannot be answered solely through the examination of legal norms (*lex lata*), but also requires empirical confirmation of how law operates in practice (Marzuki, 2017; Disemadi, 2023). The juridical-normative approach was used to examine the applicable business-law framework, while the socio-legal approach was used to identify regulatory mismatches between regulatory design and the operational realities of coastal MSMEs in Manado. The analysis was further supported by the Economic Analysis of Law perspective to assess regulatory efficiency through a qualitative examination of transaction costs borne by MSME actors (Cooter & Ulen, 2016; Posner, 2014).

Research Approach

The study applied three complementary approaches. First, the statute approach was used to examine vertical and horizontal consistency among Law Number 6 of 2023 on Job Creation, Law Number 32 of 2014 on Marine Affairs, Law Number 20 of 2008 on MSMEs, OJK Regulation Number 3 of 2024 on Financial Sector Technology Innovation, and Manado City regional regulations relevant to the empowerment of maritime-sector MSMEs. Second, the conceptual approach was used to build the Smart Regulatory Framework through a synthesis of digital business-law doctrine, Kusumaatmadja's (2002) development law theory, Porter's (1985) competitive advantage theory, and blue-economy sustainability principles. Third, the comparative approach was applied along two clearly separated tracks. The first examined blue-economy governance in jurisdictions with greater institutional maturity, namely Norway (integrated ocean policy) and Seychelles (blue financing), in order to derive institutional design references. The second examined regulatory sandbox practice itself. It must be stressed that no jurisdiction has so far operated a sandbox dedicated to the blue economy sector, so comparison on this second track was necessarily cross-sectoral, drawing on the financial-services sandbox under OJK Regulation 3/2024 and its theoretical treatment by Allen (2019). Separating the two tracks matters because it makes clear that transposing sandbox logic to the maritime sector is a conceptual extrapolation rather than the replication of a tested model.

Data Sources and Types

This study combined secondary and primary data. Secondary data consisted of three layers of legal materials based on the classification of Soekanto and Mamudji (2015). Primary legal materials included relevant legislation and international legal instruments, including UNCLOS 1982, the Job Creation Law, the Marine Affairs Law, the MSME Law, technical ministerial

regulations, and regional regulations of Manado City. Secondary legal materials included reputable legal journals, academic papers, books, and policy reports, including the Indonesia Blue Economy Roadmap 2023–2045 (Bappenas, 2023) and the OECD (2021) publication on MSME digital transformation. Tertiary legal materials were used on a limited basis to clarify terminology. Primary data were collected through in-depth interviews and focus group discussions with key actors in Manado City to validate normative findings against empirical practice.

Data Collection Techniques

Data were collected through three mutually complementary techniques. First, library research was conducted systematically on legal materials and scientific literature. Second, in-depth interviews were conducted with key informants selected through purposive sampling based on the following criteria: (a) possessing authority or direct experience in regulating blue economy MSMEs; (b) being actively involved for at least three years in Manado's maritime ecosystem; and (c) understanding both regulatory and business-operational dimensions. Informants represented the municipal and provincial marine and fisheries offices, the Manado Chamber of Commerce and Industry (KADIN

Manado), associations of seafood-processing and marine-tourism MSMEs, and local business-law practitioners. Third, focus group discussions brought together legal academics, practitioners, and regulators to assess the feasibility of the proposed regulatory model. Source and technique triangulation were applied to ensure the credibility of the findings.

Primary data were collected through semi-structured in-depth interviews conducted between May and July 2026. Eight key informants were selected using purposive sampling, comprising representatives of the North Sulawesi Provincial Marine and Fisheries Office (1), the Manado City Cooperatives and MSMEs Office (1), KADIN Manado (1), seafood-processing MSMEs (1), Bunaken marine-tourism MSMEs (1), a seaweed cooperative (1), a business-law practitioner (1), and a legal academic (1). Each interview lasted approximately 45–90 minutes. The findings were subsequently validated through a Focus Group Discussion held in July 2026 in Manado City, involving regulators, academics, practitioners, and MSME representatives. The composition of informants is set out in Table 1.

Table 1. Composition of Key Informants

Code	Institution / Informant	Participants
G1	North Sulawesi Provincial Marine and Fisheries Office	1
G2	Manado City Cooperatives and MSMEs Office	1
G3	Manado Chamber of Commerce and Industry (KADIN)	1
M1	Seafood Processing MSME Association	1
M2	Bunaken Marine Tourism MSME	1
M3	Seaweed Cooperative	1
L1	Business Law Practitioner	1
A1	Legal Academic (FGD participant)	1
	Total	8

Source: Authors, 2026. Informant identities are anonymised in accordance with the consent obtained prior to data collection.

Interviews followed a protocol organised around four themes derived from the statutory analysis: licensing experience, central–regional coordination, certification and market access, and digital-instrument adoption. All informants were briefed on the purpose and use of the study and consented to participate on an anonymised basis. Coding was conducted manually and deductively against the three transaction-cost typologies used in the analytical framework, with additional inductive codes generated where field accounts did not fit the initial categories. Given the small and purposively bounded population of regulators and lead associations governing blue-economy MSMEs in Manado, thematic saturation was assessed pragmatically: data collection ceased once successive interviews within each category no longer produced new regulatory barriers, and the resulting map was submitted to the FGD for collective verification. The limited number of interviewees is acknowledged as a constraint on the generalisability of the empirical component and is addressed in the future research agenda.

Data Analysis Techniques

The data were analyzed qualitatively and prescriptively through stages referring to the model of Miles, Huberman, and Saldaña (2014). The first stage was data reduction: identified

regulatory barriers were classified according to transaction-cost typologies, namely search and information costs, bargaining and contracting costs, and monitoring and enforcement costs, as theorized in the Economic Analysis of Law (Cooter & Ulen, 2016). The second stage was data display through a comparative matrix between *das Sollen* (applicable norms) and *das Sein* (practice in the field) to systematically map regulatory mismatch. The third stage was theoretical verification, which tested the consistency of the draft model against competitive advantage theory (Porter, 1985) and development law theory (Kusumaatmadja, 2002). The fourth stage was model construction, namely the formulation of the Smart Regulatory Framework as a *lex ferenda* proposition based on legal-engineering principles. The entire analytical process was iterative: empirical findings were repeatedly tested against the theoretical framework, and vice versa, to ensure the internal coherence of the resulting model.

Research Location and Object

The study focused on the coastal area of Manado City, North Sulawesi Province, based on the following considerations: (a) the waters off Manado fall within Fisheries Management Area WPPNRI 716, comprising the Sulawesi Sea and the waters north of Halmahera, which is highly productive, while the adjacent

WPPNRI 715 in the Maluku Sea is accessible through the port of Bitung; a WPPNRI is a fisheries management area delineated over waters rather than an administrative unit encompassing a city's territory, so the reference here is to the sea area on which Manado's blue economy MSMEs operate; (b) it has a significant population of blue economy MSMEs but has not yet achieved optimal regional competitiveness; and (c) it directly faces Pacific trade routes, providing strategic access to export markets. The research objects included business-law norms governing blue economy MSMEs, administrative licensing practices, and the empirical experiences of MSME actors in accessing national and international markets. Limiting the locus to one city was intended to enable in-depth contextual analysis while providing a regional regulatory model that may be transposed to other coastal regions with similar characteristics..

III. RESULTS AND DISCUSSION

A. Construction of the Novel Business-Law Regulatory Model for Blue Economy MSMEs in Manado City

1. Diagnosing Regulatory Mismatch in Maritime MSME Regulation

Before a new regulatory model can be formulated, it is necessary to identify precisely where existing regulations fail to address the needs of blue economy MSMEs. An analysis of the existing legal framework compared with practices in Manado City reveals four persistent dimensions of regulatory mismatch. These dimensions are not isolated technical problems; rather, they reinforce one another and generate accumulated transaction costs that exceed the capacity of MSME actors to absorb.

The mapping of these four dimensions was developed through a critical reading of the applicable legal framework and cross-checked against in-depth interview findings from key informants representing the North Sulawesi Provincial Marine and Fisheries Office, the Manado City Cooperatives and MSMEs Office, associations of seafood-processing MSMEs, marine-tourism business actors in the Bunaken area, seaweed-farming cooperatives, and business-law practitioners in Manado City. A consistent pattern emerging from the interviews was that cumulative compliance burdens constitute a major obstacle to business formalization, leading some MSME actors to remain in the informal sector as a pragmatic adaptation to regulations perceived as excessively complex. This pattern intersects with a broader phenomenon among MSMEs in Manado City. A study by Rawis, Panelewen, and Mirah (2016) of small-scale culinary enterprises in Manado—though outside the blue economy sector—found that profit capacity exceeding the Regional Minimum Wage does not by itself translate into connection with the productive MSME-development policy ecosystem. That finding is used here as comparative context on the limited reach of MSME policy in Manado, not as direct evidence of compliance burdens in the maritime sector; the compliance-burden pattern reported above rests solely on the interview data collected for this study. The specific findings for each mismatch dimension below synthesize normative analysis and empirical field confirmation.

The first dimension is spatial mismatch. Law Number 6 of 2023 on Job Creation simplifies business licensing through a risk-based approach operated through the Online Single Submission (OSS) system, but the system is designed on the assumption of

land-based business activities. Meanwhile, the utilization of marine space is regulated separately through Government Regulation Number 21 of 2021 on Spatial Planning Administration and marine-space licensing instruments issued by the Ministry of Marine Affairs and Fisheries. Seaweed-farming MSMEs or coastal fish farmers in Manado who wish to formalize their businesses must therefore pass through two parallel licensing regimes: a Business Identification Number through OSS for business legality, and a separate marine-space utilization permit. The two regimes are not integrated into a single window, making formalization costly in terms of both time and information. Interviews with managers of coastal seaweed cooperatives in Manado confirmed this experience: the parallel formalization of marine-space utilization permits and Business Identification Numbers is perceived as lengthy and lacking a transparent timeline, prompting some cooperative members to operate without formal marine-space permits to avoid administrative burdens.

The second dimension is bureaucratic mismatch arising from overlapping central-regional authority. Following the enactment of Law Number 23 of 2014 on Regional Government, marine and fisheries affairs were transferred to provincial governments, while MSME affairs remained under district/city authority. Blue economy MSMEs in Manado City, which substantively fall within both areas of authority, must interact with the Manado City Cooperatives and MSMEs Office, the North Sulawesi Provincial Marine and Fisheries Office, and vertical agencies of the Ministry of Marine Affairs and Fisheries. The absence of a formal coordination instrument among the three places MSMEs in the position of residual cost bearers, responsible for the cost differentials arising from institutional fragmentation that should otherwise be borne by the state. A prominent finding from the focus group discussion was the convergence of views among regulators and business actors that no formal inter-agency coordination forum currently exists for the regulation of blue economy MSMEs, resulting in business actors frequently receiving inconsistent technical guidance from competent agencies. A similar pattern was found by Rares (2015) in a study on the management of Bunaken National Park, which confirmed that the weak institutional structure of the North Sulawesi Provincial Government in coordinating stakeholders contributes to persistent inefficiency in coastal-area management.

The third dimension is standards and traceability mismatch. The main export destinations for Indonesian seafood products—the European Union, the United States, and Japan—have progressively applied Catch Documentation Scheme requirements and sustainability certification from institutions such as the Marine Stewardship Council and the Aquaculture Stewardship Council. Through Minister of Marine Affairs and Fisheries Regulation Number 7/PERMEN-KP/2019, Indonesia has regulated the issuance of Good Fish Handling Practice Certificates as part of its seafood quality-assurance system; however, this instrument is designed for large-scale business actors with adequate administrative capacity. MSMEs processing cakalang fufu in Manado, for example, rarely access such certification because there is no legal instrument that bridges traceability requirements for micro-scale enterprises. Consequently, MSME products remain confined to domestic markets or enter export markets through large corporate intermediaries, substantially eroding their margins. Interviews with managers of seafood-processing

associations in Manado confirmed this pattern: MSME actors seeking export-market access generally can do so only through supply-chain arrangements with large exporting corporations that already possess international certification, thereby transferring part of the value added from primary producers to intermediaries.

The fourth dimension is financial–digital mismatch. OJK Regulation Number 3 of 2024 on Financial Sector Technology Innovation has opened a regulatory sandbox for experimentation with digital financial instruments, but this space is accessible only to providers in the financial-services sector. Blue economy MSMEs, as end-users of these instruments, have no equivalent experimentation pathway for blockchain-based business-model innovation, export smart contracts, or blue-financing schemes. Yet such innovation is urgently needed to bridge MSMEs into global

markets. Business-law practitioners emphasized that instruments such as smart contracts and blockchain-based traceability have begun to be adopted by some large-scale actors in the seafood-processing sector, while blue economy MSMEs in Manado lack a regulatory experimentation pathway equivalent to that facilitated by OJK Regulation 3/2024 in financial services—a regulatory-access gap that directly constrains innovation at the micro-enterprise level. This finding is consistent with Hidayat et al. (2019), whose SWOT study of Manado marine ecotourism in the Industry 4.0 era emphasized the need to transform management systems toward digital-based models as a prerequisite for the competitiveness of local maritime stakeholders. The mapping of these four dimensions is presented in Table 2.

Table 2. Mapping of Regulatory Mismatch among Blue Economy MSMEs in Manado City

Mismatch Dimension	Das Sollen (Applicable Norm)	Das Sein (Reality in Manado)	Dominant Transaction-Cost Typology
Spatial	Law 6/2023 (OSS-RBA) and Government Regulation 21/2021 regulate business licensing and marine-space permits under two separate regimes.	Coastal aquaculture MSMEs in Manado must follow two parallel licensing regimes without single-window integration.	Search & information costs
Bureaucratic (Central–Regional)	Law 23/2014 assigns marine affairs to provinces and MSME affairs to districts/cities.	Three institutions (City Cooperatives/MSMEs Office, Provincial Marine and Fisheries Office, and the Ministry) handle one blue economy MSME without formal coordination.	Bargaining & contracting costs
Standards & Traceability	Ministerial Regulation 7/2019 regulates fish-handling certification; international markets require CDS and blue standards.	Cakalang fufu and other seafood MSMEs in Manado access export markets through corporate intermediaries, reducing margins.	Monitoring & enforcement costs
Financial–Digital	OJK Regulation 3/2024 opens a regulatory sandbox for financial innovation, limited to the financial-services sector.	Blue economy MSMEs have no regulatory experimentation pathway for blockchain, smart contracts, and blue financing.	Search & monitoring costs

Source: Processed from statutory analysis and field study findings, 2026.

2. Theoretical Synthesis: From Law as Social Engineering to the Smart Regulatory Framework

The diagnosis above confirms that Indonesian business law, as applied to blue economy MSMEs in Manado, has failed to perform its function as an instrument of social renewal in the sense proposed by Kusumaatmadja (2002). Instead of acting as a catalyst for the transformation of traditional MSMEs into digital-ready and sustainable business actors, law operates as a source of friction that multiplies transaction costs. This condition is consistent with Cooter and Ulen's (2016) theorization that regulation which creates transaction costs exceeding the surplus value it generates is economically inefficient and, in the context of MSMEs, ultimately produces structural exclusion from markets.

To address this deficit, the study synthesizes three theoretical frameworks into an operational whole. First, Kusumaatmadja's development law theory provides the normative foundation that law must actively direct socio-economic change rather than stop at

a cognitive function. Second, the Economic Analysis of Law (Posner, 2014) supplies evaluative metrics: regulatory efficiency is assessed through its ability to reduce transaction costs across three standard typologies—search and information costs, bargaining and contracting costs, and monitoring and enforcement costs. Third, regulatory sandbox logic (Allen, 2019; OJK, 2024) provides the procedural instrument: regulators are given space to test rules in a controlled environment before general application, allowing adaptation to be evidence-based rather than assumption-driven.

These frameworks are not accorded equal weight. Development law theory and the Economic Analysis of Law together form the principal theoretical foundation of this study: the former supplies the normative justification for regulatory intervention, the latter the criterion by which any proposed intervention is judged. Regulatory sandbox logic enters at a lower level of abstraction, as the procedural mechanism through which the framework is to be tested rather than as an independent theory. Porter's diamond model, applied in Section B.2 below, functions solely as an analytical lens for reading the competitiveness

consequences of the model once constructed; it does not participate in the construction itself. Blue-economy literature and global value chain analysis are used as contextual and interpretive references. Stating this hierarchy explicitly is necessary because the central theoretical contribution claimed here is narrow and specific: the operationalisation of development law theory through transaction-cost criteria in a maritime regulatory setting.

The synthesis of these three frameworks produces the concept of the Smart Regulatory Framework (SRF) as a regulatory model that is simultaneously: (a) development-oriented, encouraging MSMEs to scale up; (b) economically efficient, reducing transaction costs in each typology; and (c) procedurally adaptive, allowing revision based on pilot-test outcomes. SRF therefore differs from a purely deregulatory approach that treats simplification as the ultimate objective, as reflected in the general direction of the Job Creation Law. Instead, SRF treats simplification as a consequence—not the objective—of regulatory design based on transaction-cost mapping.

Comparative justification for this concept is drawn from two jurisdictions with strong maritime orientation whose practice is frequently invoked in blue-economy policy discourse (Bappenas, 2023; Voyer et al., 2018). Through its integrated ocean policy, Norway combines marine conservation areas with coastal economic-empowerment zoning within a single legal framework, enabling fisheries MSMEs to operate within a predictable legal space (Voyer et al., 2018). Seychelles, through the issuance of its Blue Bond in 2018, developed a regulatory architecture that provides certainty for investors and beneficiary MSMEs by embedding sustainability clauses within the financial instrument itself. It should be noted that both serve as comparators at the level of blue-economy institutional design, not as instances of sandbox regulation in the maritime sector, which remains unavailable in any jurisdiction. Subject to that qualification, these two experiences demonstrate that adaptive regulation for the blue economy is not merely a theoretical aspiration but an operationalized practice, and therefore may be transposed to the Indonesian context—particularly Manado—with modifications suited to the domestic legal structure.

3. Construction of the Three Pillars of the Smart Regulatory Framework

Based on the theoretical synthesis and comparative justification above, the Smart Regulatory Framework for blue economy MSMEs in Manado City is constructed around three substantive pillars and one procedural mechanism. The three substantive pillars address the principal dimensions of regulatory mismatch identified in Table 2, while the procedural mechanism functions as an implementation instrument through which all three pillars can be tested and iteratively refined.

The first pillar, Certainty of Marine Spatial Utilisation for MSMEs, directly responds to spatial mismatch. The existing instrument governing access to marine space is the Marine Spatial Utilisation Activity Suitability (KKPRL) under Ministerial Regulation Number 28 of 2021, which applies uniform procedural and documentary requirements irrespective of business scale. The regulatory gap lies in the absence of any differentiated pathway for micro and small enterprises, whose formalisation costs are disproportionate to their turnover. The reform proposed here is an MSME-specific Marine Spatial Utilisation Suitability Certificate (SKPRL-UMKM), conceived not as a new category of right but as

an affirmative procedural variant of the existing KKPRL, integrated with the Business Identification Number in OSS. It is proposed with three characteristics: an initial five-year duration renewable through a simplified administrative evaluation in the absence of violations, a maximum utilisation area determined progressively according to micro and small business scale, and levy relief during the first five years as an incentive for formalisation. Doctrinally, this construction draws on the preferential principle under Law Number 20 of 2008 on MSMEs and the empowerment mandate under Law Number 7 of 2016 on the Protection and Empowerment of Fishers, Fish Farmers, and Salt Farmers, while meeting the imperative of legal certainty required by the Marine Affairs Law.

In the normative hierarchy, the SHPRL-UMKM instrument should be established through three complementary layers of regulation in accordance with the *lex superior* principle under Law Number 12 of 2011 on the Formation of Laws and Regulations. First, the procedural architecture of the certificate could be accommodated through amendment of the Minister of Marine Affairs and Fisheries Regulation on marine spatial planning, since SKPRL-UMKM is framed as a variant of an instrument that regulation already governs. It should be stressed, however, that a ministerial regulation can carry only the procedural dimension. The substantive elements—preferential treatment on the basis of business scale and relief from local levies—require higher-order bases, respectively in Law Number 20 of 2008 in conjunction with Law Number 7 of 2016, and in Law Number 1 of 2022 on Financial Relations between the Central Government and Regional Governments, which authorises regional heads to grant levy relief for the empowerment of micro and small enterprises. Determining the precise regulatory level sufficient to establish each element is a question of legislative drafting that warrants dedicated doctrinal study and is not settled here. Second, spatial implementation at the provincial level should be regulated through a North Sulawesi Governor Regulation, considering that marine and fisheries affairs are provincial-government competencies following Law Number 23 of 2014. Third, the MSME-empowerment dimension should be set out in a Manado City Regional Regulation on the Empowerment of Blue Economy MSMEs, which would simultaneously regulate levy incentives and data integration with OSS. This three-layer construction avoids the risk of jurisdictional overreach and can be implemented concretely in the short term (1–2 years) without waiting for statutory amendment.

Constitutional Test of the First Pillar. Any proposal conferring certainty over marine space in Indonesia must first be tested against the constitutional precedent that constrains it. In Decision Number 3/PUU-VIII/2010, pronounced on 16 June 2011, the Constitutional Court annulled the provisions of Law Number 27 of 2007 on the Management of Coastal Areas and Small Islands that established Coastal Waters Concession Rights (HP-3), holding them contrary to Article 33 of the 1945 Constitution. The legislature responded through Law Number 1 of 2014, replacing the concession construction with a licensing regime. The consequence binds any subsequent proposal: a legal construction resembling the grant of a proprietary right over coastal waters to business actors would confront that decision directly.

The *ratio decidendi* nonetheless indicates the room that

remains. The Court did not prohibit the utilisation of marine space by business actors; what it prohibited was the grant of concessionary or other agrarian-type rights over coastal areas to private parties, because such a construction opens the way to privatisation and enclosure of marine space at the expense of the constitutional rights of traditional fishers and coastal communities. What was held unconstitutional, in other words, is the proprietary and exclusionary character of the right, not the certainty of utilisation as such.

SKPRL-UMKM is accordingly constructed as an affirmative licensing variant rather than a proprietary right, and differs from the annulled HP-3 in four respects. First, it is non-transferable: it may not be assigned, traded, inherited, or pledged, because what is certified is the suitability of a utilisation activity rather than control over the marine space itself. Second, it is bounded and revocable, subject to periodic evaluation, a maximum area proportionate to micro and small business scale, and withdrawal where the activity is not carried out or causes ecosystem damage. Third, eligibility is confined to micro and small enterprises and coastal cooperatives, so that the instrument operates as affirmative action for precisely the group the Court sought to protect rather than as a channel for accumulation by larger capital. Fourth, it does not displace the access of customary communities and traditional fishers to fishing grounds, and is proposed with an express clause preserving those rights as affirmed in the same decision. The novelty proposed here therefore lies not in creating a new right over the sea, which is constitutionally foreclosed, but in engineering a licensing architecture that delivers comparable certainty within the limits the Court has set.

The second pillar, Digital Transaction Security and Distributed-Technology-Based Traceability, addresses standards and financial-digital mismatches. This pillar consists of two interrelated components. The first is legal recognition of blockchain-based traceability as a means of proving the origin of seafood products equivalent to conventional administrative documents. The second is regulation of smart contracts for MSME export transactions, incorporating sustainability clauses, progressive payments, and automated arbitration mechanisms. Both components should be supported by local regulations referring to Law Number 27 of 2022 on Personal Data Protection and Law Number 11 of 2008 in conjunction with Law Number 19 of 2016 on Electronic Information and Transactions, ensuring that MSME actors using these technologies receive legal protection equivalent to that available to large corporations that adopted them earlier.

The third pillar, the Blue Standard as MSME Sustainability Certification, is a strategic response to the international-market exclusion experienced by seafood-processing MSMEs in Manado. The Blue Standard is conceived not as a competing international certification but as a transitional local compliance standard, developed by the local government in cooperation with the Ministry of Marine Affairs and Fisheries and business associations, and deliberately aligned with internationally recognised sustainability requirements. It is designed to: (a) accommodate micro-scale characteristics through procedures and administrative requirements that are simpler than those of MSC or ASC; (b) structure MSME practice and documentation so as to build a verifiable compliance record, which over the longer term may support the pursuit of equivalence arrangements with

international certification bodies, recognising that such recognition rests entirely with those bodies and cannot be conferred by domestic regulation; and (c) serve as a prerequisite for MSMEs to access blue-financing schemes developed by regional banks. This pillar transforms sustainability into a competitive advantage rather than an additional compliance-cost burden—an inversion of logic that lies at the core of SRF's novelty.

The three pillars are implemented through a proposed procedural mechanism, a Blue Regulatory Sandbox, which does not currently exist in any Indonesian region and is advanced here as a reform proposal. The mechanism adopts the logic of OJK Regulation 3/2024 on financial sandboxes but adapts it to the characteristics of the maritime sector. It would be administered by a consortium of the Manado City Government and the North Sulawesi Provincial Marine and Fisheries Office, with technical support from the Ministry of Marine Affairs and Fisheries. The pilot period is set at 12 to 18 months, with mandatory periodic evaluation and a clear exit framework: successful innovations would be adopted into permanent regulation, while unsuccessful ones would be discontinued with proportionate compensation for participating MSMEs. This mechanism ensures that the SRF does not become a static set of rules that quickly becomes obsolete, but instead remains a framework continuously updated on the basis of empirical findings in accordance with the principle of evidence-based regulation that characterizes modern regulatory standards (Allen, 2019).

The 12–18-month duration is not arbitrary but is supported by four mutually reinforcing technical-normative justifications. First, the blue economy sector has seasonal cycles that differ from the financial-services sector; capture fisheries, aquaculture, and marine-tourism activities in Manado are affected by the east and west monsoons, which have significantly different production characteristics. A minimum duration of 12 months ensures coverage of one complete seasonal cycle, making the pilot results representative enough to be extrapolated into permanent regulation. Second, the technology-adoption curve among MSMEs requires a structured digital-literacy assistance phase before blockchain-based traceability and smart-contract systems can be operated independently; extending the period to 18 months allows for an initial assistance phase of 3–6 months followed by approximately 12 months of autonomous operation. Third, this range is consistent with the parameters of OJK Regulation 3/2024, which establishes a maximum one-year sandbox period for the financial-services sector with an extension option, so the Blue Regulatory Sandbox does not create a regulatory precedent that deviates from a sandbox framework already recognized in Indonesia. Fourth, the Regional Revenue and Expenditure Budget (APBD) operates on an annual cycle, so a 12-month duration ensures one complete fiscal cycle for operational funding, while an additional six months provides budget-transition space for final evaluation and recommendations for permanent adoption. Thus, the 12–18-month range results from triangulating ecological sector characteristics, business actors' adoption capacity, the existing regulatory framework, and the realities of regional financial administration.

The feasibility of the three pillars and the proposed Blue Regulatory Sandbox mechanism was assessed through a focus group discussion involving legal academics, business-law practitioners, representatives of MSME associations, and local

regulators. The FGD consensus confirmed the relevance of all pillars to the actual problems faced by blue economy MSMEs in Manado, while emphasizing two implementation prerequisites. First, the second pillar on digital-transaction security requires a structured digital-literacy assistance program for MSME actors so that the adoption of blockchain-based traceability and smart contracts does not deepen the gap between digitally literate and digitally disadvantaged enterprises. Second, the third pillar on the Blue Standard requires a transition-financing framework, either in the form of initial certification subsidies or cooperative certification mechanisms, so that compliance costs do not become an additional burden that further marginalizes micro-scale actors. These two considerations are incorporated as implementation prerequisites that should proceed in parallel with the preparation of regional legal instruments and constitute part of the basis for the practical recommendations formulated in the closing section.

B. Implications of the Smart Regulatory Framework for the Competitiveness of Manado's Blue Economy MSMEs

Before presenting the implications analysis, an important methodological clarification is necessary for interpreting this entire section. Because the Smart Regulatory Framework is a prospective normative-conceptual construction and has not yet

become an enacted and implemented regulation, the implications analyzed in the following three subsections are methodologically projective. They are deduced from the theoretical framework in Section A and supported by empirical comparators from Norway and Seychelles. Validation of the actual magnitude of these implications requires an ex-post impact assessment following partial implementation through the proposed Blue Regulatory Sandbox, as formulated in the future research agenda in the Suggestions section. Accordingly, the claims in this section should be read as informed hypotheses grounded in a coherent normative construction rather than as independently tested empirical findings.

1. Implications for Transaction-Cost Reduction and MSME Efficiency

The first and most measurable implication of SRF implementation is a reduction in transaction costs borne by blue economy MSMEs. To map this implication systematically, the three SRF pillars are compared against the three transaction-cost typologies identified during the diagnostic stage. The comparison is presented in Table 3.

Table 3. Matrix of the Implications of Smart Regulatory Framework Pillars for MSME Transaction-Cost Typologies

SRF Pillar	Search & Information Costs	Bargaining & Contracting Costs	Monitoring & Enforcement Costs
Certainty of Marine Spatial Utilisation (SKPRL-UMKM)	Single-window licensing reduces time spent searching for information across agencies.	A five-year certificate with simplified administrative renewal reduces repeated renegotiation.	Formal rights status strengthens MSMEs' position in marine-space disputes.
Digital Transaction Security & Traceability	Blockchain provides an independently auditable transaction trail for buyers.	Smart contracts standardize export clauses and reduce drafting costs.	Automated arbitration mechanisms reduce cross-jurisdiction litigation costs.
Blue Standard	A single certification replaces navigation across multiple international standards.	Alignment with international requirements reduces repeated certification contracting as markets are entered.	Sustainability audits are consolidated in one recognized scheme.

Source: Authors' construction based on Economic Analysis of Law and comparative analysis.

Table 3 shows that each SRF pillar makes a specific contribution to reducing at least one type of transaction cost and that, in aggregate, the three pillars mutually reinforce one another. Importantly, this reduction in transaction costs does not occur through the elimination of regulatory obligations—which would sacrifice sustainability objectives—but through a reconfiguration of regulatory architecture that makes compliance less costly. In the terminology of Cooter and Ulen (2016), SRF cannot strictly be claimed as a Pareto improvement. As set out in subsection 3 below, one of the intended consequences of the model is precisely that part of the value added currently captured by corporate intermediaries shifts to primary producers, which by definition worsens the position of intermediaries. The defensible claim is an improvement in the Kaldor-Hicks sense: the aggregate surplus generated by lower MSME transaction costs and strengthened ecosystem protection exceeds the losses borne by intermediaries, such that those losses could in principle be compensated without erasing the net gain.

2. Implications for Competitive Advantage: Porter's Diamond Analysis

Transaction-cost reduction is only the most visible layer of SRF's implications. At a deeper level, the model affects the four determinants of competitive advantage conceptualized by Porter (1985) in the diamond model: factor conditions, demand conditions, related and supporting industries, and firm strategy and rivalry. Porter's model is deployed here strictly as an analytical lens rather than as a constitutive part of the regulatory construction: it is used to read the competitiveness consequences of a model already built on development law theory and transaction-cost criteria. Examining these four dimensions is important because MSME competitiveness cannot be reduced merely to low operating costs.

In the factor-conditions dimension, SRF changes the resource profile of Manado's blue economy MSMEs through two pathways. First, certainty of marine spatial utilisation shifts marine space from a de facto open-access resource—classically vulnerable to the tragedy of the commons—into a registered and time-bounded operating space. This may provide greater legal certainty for long-

term business planning and potentially improve access to financing, subject to applicable collateral and marine spatial-use regulations; the certificate itself is not proposed as a transferable or pledgeable asset. Second, Blue Standard certification becomes a prerequisite for access to blue financing, structurally expanding the capital base available to MSMEs. These two changes place Manado MSMEs in a more comparable resource position and reduce their structural inferiority relative to large-scale enterprises.

In the demand-conditions dimension, SRF creates what Porter refers to as a demanding home market. Progressive standardization through the Blue Standard would raise domestic consumer expectations regarding the sustainability attributes of seafood products, allowing MSMEs that meet the standard to gain first-mover advantage in local markets before entering export markets. Manado's local market and the wider North Sulawesi region would thus function as a test bed for product maturation before international competition, a pattern empirically associated with export success across many industries.

In the related and supporting industries dimension, SRF stimulates the development of an ecosystem of additional services that have so far been absent, ranging from traceability-audit providers and sustainability consultants to financial institutions offering blue-financing products. These supporting services, in turn, strengthen MSME competitiveness through cluster effects (Porter, 1985), whereby the advantages of individual actors accumulate into regional advantage. With SRF support, Manado has the potential to develop into a blue economy cluster in eastern Indonesia, a position previously associated more strongly with Bali in maritime tourism or Bitung in large-scale capture fisheries.

In the firm strategy, structure, and rivalry dimension, SRF disciplines internal competition among MSMEs through the enforcement of uniform standards. Competition that has tended toward a race to the bottom, in which MSMEs compete on the lowest price at the expense of quality and sustainability, is transformed into competition based on differentiation: product quality, sustainability track record, and digital capability. This new competitive pattern is consistent with Porter's thesis that sustainable competitive advantage can be built through differentiation rather than cost efficiency alone.

3. Implications for the Position of Manado MSMEs in the Global Seafood Value Chain

At the highest level, SRF has implications for the position of Manado's blue economy MSMEs in the global seafood value chain. Indonesian MSMEs have generally occupied upstream segments of the value chain as suppliers of unprocessed raw materials, while the greatest value added is captured by downstream actors, particularly in importing countries that undertake final processing, packaging, and marketing. The three SRF pillars jointly enable MSMEs to upgrade toward higher-value segments.

First, product upgrading is facilitated by the Blue Standard, which signals two attributes that command premium value in the European Union, Japan, and the United States: quality and sustainability. Second, process upgrading is driven by the adoption of blockchain-based traceability, placing Manado MSMEs at a level of digital capability comparable to global competitors. Third, functional upgrading is enabled by smart contracts that open direct export channels without requiring corporate intermediaries, allowing MSMEs to capture margins that have previously been

absorbed by intermediaries. Together, these three forms of upgrading shift MSMEs from captive suppliers to relational partners in the global seafood value chain.

The implications extend beyond the economic dimension. Substantively, SRF contributes to Sustainable Development Goal target 14.7, which seeks to increase the economic benefits to developing countries from the sustainable use of marine resources. From a broader perspective, SRF therefore demonstrates Kusumaatmadja's (2002) thesis that properly designed law can drive structural change rather than merely reinforce the status quo. For Manado City, if MSME upgrading in the global seafood value chain is successfully achieved, this regulatory model has the potential to increase locally generated revenue from the maritime sector, expand youth employment in knowledge-based maritime occupations, and reduce outward urbanization pressure from coastal areas, consistent with patterns observed in comparator archipelagic states such as Seychelles following the introduction of blue-financing schemes (Bank Dunia, 2019; Voyer et al., 2018). It must be emphasized that these projections are indicative and require empirical validation through an ex-post impact assessment, as formulated in the future research agenda in the closing section.

Finally, the construction of the SRF in Manado can serve as a regulatory prototype for other Indonesian coastal regions with similar characteristics, including Ambon, Sorong, Kupang, and Mentawai. The experimental nature inherent in the proposed Blue Regulatory Sandbox allows interregional learning to take place in a structured manner, so a model that succeeds in one city can be transposed with minimal modification. This constitutes the final dimension of SRF's novelty: it not only addresses the specific problems of blue economy MSMEs in Manado but also builds a regulatory template that can function as an instrument for accelerating national blue-economy transformation as a whole.

IV. CONCLUSION

This study argues that the weak competitiveness of blue economy MSMEs in Manado City is not merely a matter of production capacity, but the result of accumulated regulatory mismatches across four dimensions—spatial, central-regional bureaucratic, standards and traceability, and financial-digital—which together multiply business actors' transaction costs. In response to the first research question, the novelty of an adaptive and inclusive business-law regulatory model for Manado's blue economy MSMEs is proposed in the form of the Smart Regulatory Framework (SRF), which rests on three substantive pillars: Certainty of Marine Spatial Rights for MSMEs through SHPRL-UMKM integrated with OSS; Digital Transaction Security based on blockchain and smart contracts; and the Blue Standard as a transitional sustainability certification aligned with internationally recognised requirements. These three pillars are operationalized through the proposed procedural mechanism of a Blue Regulatory Sandbox, which adapts the logic of OJK Regulation 3/2024 to the maritime-sector context, making the model evidence-based and continuously revisable on the basis of field-testing results.

As an answer to the second research question, the implications of the proposed SRF for MSME competitive advantage are theoretically expected to operate across three layers. At the most immediately measurable layer, the SRF is designed to reduce all three transaction-cost typologies—search and information costs,

bargaining and contracting costs, and monitoring and enforcement costs—through a reconfiguration of regulatory architecture rather than the elimination of regulatory obligations. At the strategic layer, the SRF is expected to strengthen all four determinants of Porter's diamond model, including encouraging the formation of a blue economy cluster in eastern Indonesia. At the broadest layer, the SRF would enable product, process, and functional upgrading of Manado MSMEs in the global seafood value chain while contributing to Sustainable Development Goal target 14.7. Thus, the SRF construction operationalises Kusumaatmadja's thesis that properly designed law can function as a tool of social engineering that triggers structural transformation rather than merely serving as an administrative instrument that legitimizes the status quo. Because the framework has not been enacted or piloted, these three layers of implication are stated as testable propositions rather than measured outcomes, and their empirical verification through an ex-post impact assessment following operation of the proposed Blue Regulatory Sandbox constitutes the principal agenda for further research.

REFERENCES

- [1] Allen, H. J. (2019). Regulatory sandboxes. *George Washington Law Review*, 87(3), 579–645.
- [2] Bank Dunia. (2019). Oceans for prosperity: Reforms for a blue economy in Indonesia. World Bank Group.
- [3] Bappenas. (2023). Indonesia blue economy roadmap 2023–2045. Kementerian PPN/Bappenas.
- [4] Center for Indonesian Policy Studies. (2023). Membedah kerangka regulatory sandbox industri fintech Indonesia: Manajemen risiko dan pentingnya privasi data. CIPS.
- [5] Cooter, R., & Ulen, T. (2016). *Law and economics* (6th ed.). Berkeley Law Books.
- [6] Disemadi, H. S. (2023). Lenses of legal research: A descriptive essay on legal research methodologies. *Journal of Judicial Review*, 24(2), 289–304.
- [7] Hidayat, S., Rumengan, A. P., Darwisito, S., Ompi, M., Mingkid, W. M., Wagey, B. T., & Paruntu, C. P. (2019). Studi perumusan strategi pengelolaan ekowisata bahari Kota Manado di era revolusi industri 4.0 berdasarkan analisis SWOT. *Jurnal Pesisir dan Laut Tropis*, 7(3), 142–156.
- [8] Kementerian Kelautan dan Perikanan. (2025, 17 Januari). Bedah unit pengolah ikan skala mikro kecil: KKP dukung swasembada pangan dan hilirisasi lebih dari 90% dari 4,77 juta pelaku usaha sektor kelautan dan perikanan adalah UMKM [Siaran Pers Direktorat Jenderal Penguatan Daya Saing Produk Kelautan dan Perikanan]. KKP RI.
- [9] Kementerian Koordinator Bidang Kemaritiman dan Investasi. (2023). Laporan kinerja sektor kemaritiman 2022. Kemenko Marves.
- [10] Kusumaatmadja, M. (2002). Konsep-konsep hukum dalam pembangunan. Pusat Studi Kebijakan Hukum.
- [11] Marzuki, P. M. (2017). *Penelitian hukum* (Edisi revisi). Kencana Prenada Media.
- [12] Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.
- [13] OECD. (2021). The digital transformation of SMEs. OECD Publishing. <https://doi.org/10.1787/bdb9256a-en>
- [14] Pauli, G. A. (2010). *The blue economy: 10 years, 100 innovations, 100 million jobs*. Paradigm Publications.
- [15] Porter, M. E. (1985). *Competitive advantage: Creating and sustaining superior performance*. Free Press.
- [16] Posner, R. A. (2014). *Economic analysis of law* (9th ed.). Wolters Kluwer.
- [17] Rares, J. J. (2015). Manajemen pengelolaan Taman Nasional Bunaken oleh Pemerintah Provinsi Sulawesi Utara. *Jurnal LPPM Bidang EkoSosBudKum*, 2(2), 36–43.
- [18] Rawis, J. E. O., Panelewen, V. V. J., & Mirah, A. D. (2016). Analisis keuntungan usaha kecil kuliner dalam upaya pengembangan UMKM di Kota Manado (Studi kasus usaha katering Miracle Ranotana Weru). *Jurnal EMBA*, 4(2), 106–119.
- [19] Silver, J. J., Gray, N. J., Campbell, L. M., Fairbanks, L. W., & Gruby, R. L. (2015). Blue economy and competing discourses in international oceans governance. *The Journal of Environment & Development*, 24(2), 135–160. <https://doi.org/10.1177/1070496515580797>
- [20] Soekanto, S., & Mamudji, S. (2015). *Penelitian hukum normatif: Suatu tinjauan singkat* (Cet. ke-17). Rajawali Pers.
- [21] Voyer, M., Quirk, G., McIlgorm, A., & Azmi, K. (2018). Shades of blue: What do competing interpretations of the blue economy mean for oceans governance? *Journal of Environmental Policy & Planning*, 20(5), 595–616.
- [22] Wiriadinata, P. (2022). Perlindungan hukum bagi UMKM di era digital melalui transformasi regulasi bisnis. *Jurnal Hukum dan Pembangunan*, 52(1), 1–22.
- [23] **Peraturan Perundang-undangan**
- [24] Undang-Undang Nomor 27 Tahun 2007 tentang Pengelolaan Wilayah Pesisir dan Pulau-Pulau Kecil.
- [25] Undang-Undang Nomor 1 Tahun 2014 tentang Perubahan atas Undang-Undang Nomor 27 Tahun 2007 tentang Pengelolaan Wilayah Pesisir dan Pulau-Pulau Kecil.
- [26] Undang-Undang Nomor 7 Tahun 2016 tentang Perlindungan dan Pemberdayaan Nelayan, Pembudi Daya Ikan, dan Petambak Garam.
- [27] Undang-Undang Nomor 1 Tahun 2022 tentang Hubungan Keuangan antara Pemerintah Pusat dan Pemerintahan Daerah.
- [28] Undang-Undang Nomor 11 Tahun 2008 tentang Informasi dan Transaksi Elektronik.
- [29] Undang-Undang Nomor 20 Tahun 2008 tentang Usaha Mikro, Kecil, dan Menengah.
- [30] Undang-Undang Nomor 12 Tahun 2011 tentang Pembentukan Peraturan Perundang-undangan.
- [31] Undang-Undang Nomor 23 Tahun 2014 tentang Pemerintahan Daerah.
- [32] Undang-Undang Nomor 32 Tahun 2014 tentang Kelautan.
- [33] Undang-Undang Nomor 19 Tahun 2016 tentang

- Perubahan atas Undang-Undang Nomor 11 Tahun 2008 tentang Informasi dan Transaksi Elektronik.
- [34] Undang-Undang Nomor 27 Tahun 2022 tentang Pelindungan Data Pribadi.
- [35] Undang-Undang Nomor 6 Tahun 2023 tentang Penetapan Peraturan Pemerintah Pengganti Undang-Undang Nomor 2 Tahun 2022 tentang Cipta Kerja Menjadi Undang-Undang.
- [36] Peraturan Pemerintah Nomor 21 Tahun 2021 tentang Penyelenggaraan Penataan Ruang.
- [37] Peraturan Otoritas Jasa Keuangan Nomor 3 Tahun 2024 tentang Penyelenggaraan Inovasi Teknologi Sektor Keuangan.
- [38] Peraturan Menteri Kelautan dan Perikanan Nomor 28 Tahun 2021 tentang Penyelenggaraan Penataan Ruang Laut.
- [39] Peraturan Menteri Kelautan dan Perikanan Nomor 7/PERMEN-KP/2019 tentang Persyaratan dan Tata Cara Penerbitan Sertifikat Cara Penanganan Ikan yang Baik.
- [40] **Putusan Pengadilan**
- [41] Putusan Mahkamah Konstitusi Republik Indonesia Nomor 3/PUU-VIII/2010 (pronounced 16 June 2011) on the review of Law Number 27 of 2007 on the Management of Coastal Areas and Small Islands against the 1945 Constitution.
- [42] **Konvensi Internasional**
- [43] United Nations. (1982). United Nations Convention on the Law of the Sea (UNCLOS). 54-69.