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Reconstruction of Ship Certification Towards Operational Activities of the Port Master and Port Authority Office from A Positive Legal Perspective

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Abstract
This study aims to analyze the weaknesses of ship certification regulations in Indonesia and formulate a regulatory reconstruction based on a positive legal perspective that can be applied in the operational practices of the Harbormaster and Port Authority Office (KSOP). The background of this research is based on the high number of maritime accidents, the practice of certificate forgery, and weak compliance of ship owners with applicable regulations. The research method used is a normative-juridical approach with descriptive-qualitative analysis through literature studies, laws and regulations, and empirical field data. The results show that regulatory weaknesses cover aspects of substance, structure, and legal culture. In terms of substance, there is a lack of norms related to ship safety standards. In terms of structure, weaknesses are seen in procedural inefficiencies, lack of inter-institutional coordination, and limited human resources at KSOP. Meanwhile, in terms of legal culture, low legal awareness among shipping business actors worsens compliance conditions. The proposed reconstruction includes simplification of certification procedures, digitization of services, affirmation of sanctions for violations, and strengthening the role of KSOP in overseeing shipping safety and security. The implications of this research are the need for harmonization of ship certification regulations to ensure legal certainty, strengthen shipping safety, and enhance the competitiveness of Indonesia's maritime industry. Thus, this research contributes to the development of progressive maritime law and supports Indonesia's vision of becoming a global maritime axis.
Keywords: *legal reconstruction, ship certification, positive law, KSOP, shipping safety*

1. INTRODUCTION

Indonesia is one of the world's largest archipelagic countries, located in the tropics and crossed by the equator. Its maritime area covers 5.8 million square kilometers, consisting of 3.1 million square kilometers of territorial waters and 2.7 million square kilometers of EEZ waters [1]. This area reaches more than 70% of the entire territory of Indonesia and has 17,504 islands. Geographically, the Unitary State of the Republic of Indonesia is located between two continents (Asia and Australia) and two large oceans, placing Indonesia in a strategic position at the crossroads of global maritime trade (the Indian and Pacific). This position is highly strategic, and if managed properly, Indonesia could become the world's maritime axis.

Globally, the ocean is viewed as a valuable asset, worth trillions of dollars annually. However, the benefits are unequally distributed, with certain groups reaping substantial benefits, while the costs of exploitation are borne by vulnerable communities[2].

Problems arise from weak regulations, the practice of certificate forgery, limited human resources, and a weak oversight system. These factors have led to a decline in shipping safety standards and an increased potential for legal violations in the maritime sector [3], [4], [5].

There have been several cases where a Tanjung Bahari 18/BG ship was found to be unseaworthy or had committed an act that violated criminal law in the shipping sector, namely in connection with expired certificate Inflamable Life Raft and Re-Inpection of Fire Extinguisher and also Radio Journal, as complete radio safety equipment is not available [6]. There was also an accident involving the KM Zahro Express ship due to its unseaworthiness, but the boat continued to sail, resulting in an emergency and causing loss of life [7]. From the 2 incidents above, in terms of fulfilling the seaworthiness of the ship, the owner should know and be responsible for fulfilling the seaworthiness of the ship and maintaining or preserving the seaworthiness of the ship that has received a ship safety certificate, as stated in Article 130, Law Number 17 of 2008 concerning Shipping.

The impacts of regulatory weaknesses and certificate forgery include maritime accidents, financial losses, damage to marine ecosystems, and even loss of life. This situation worsens the image of Indonesian maritime transportation and reduces the competitiveness of the maritime sector [8], [9].

This research focuses on ship certification variables, including regulations, the issuance process, and oversight conducted by the Harbormaster and Port Authority Office (KSOP). Ship certification is seen as a key instrument in ensuring shipping safety and legal certainty [10], [11], [12], [13], [14].

The efforts to reconstruct ship certification are based on various interrelated aspects, including legal aspects, social aspects, historical aspects, and civil aspects that are understood factually and relevantly.

Overall, the reconstruction of ship certification must address these various aspects to achieve a fairer and more effective system in the maritime industry. By considering all these aspects, the reconstruction of ship certification can be carried out comprehensively to achieve the goals of safety and fairness in the maritime industry.

In the research on the Reconstruction of Ship Certification for the Operational Activities of the Harbormaster's Office and Port Authority from a Civil Law Perspective, there are several problems that can be identified:

1. The process for obtaining certificates and extending ship construction certificates often encounters administrative challenges. This includes time-consuming document verification and a lack of understanding on the part of applicants regarding the required procedures.
2. Regarding regulatory compliance, many shipowners do not fully understand the regulations regarding certification, resulting in them being unable to meet the established requirements. This creates legal uncertainty for shipowners and potential safety risks.
3. Social inequality in certification, including unequal access to information and opportunities to obtain certification for crew members (ABK). For example, the certification process is not fully understood by ABK, thus hindering their career development.
4. Synchronization of certification policies between ministries, competition in cost standards There are differences in certification cost standards between the Ministry of Maritime Affairs and Fisheries (KKP) and the Ministry of Transportation (Kemenhub), which can lead to competition in the ABK certification program.
5. Suboptimal regulations, as existing regulations are not fully based on the values of justice. This necessitates regulatory overhaul to create a fairer and more transparent system for all stakeholders in the shipping industry.
6. The administrative complexity of ship certification in Indonesia is caused by many factors, including strict regulatory obligations, multi-layered certification processes, the transition to an online service system, limited human resources, and communication challenges between related parties.

Identification of issues in the reconstruction of ship certification indicates that there are various challenges that need to be addressed by the Harbormaster's Office and Port Authority. Efforts to improve administrative procedures, clarify authority, increase regulatory compliance, and address social inequality will be crucial to improving operational efficiency and shipping safety in Indonesia, which will impact maritime economic growth.

Based on the background background and identification of the problem**ii**has been described, the problem formulation includes the following:

1. What happened in the implementation of ship certification regulations, which caused the importance of reconstructing ship certification?
2. Why is it necessary to apply a positive legal perspective in the reconstruction of ship certification?
3. How can the implementation of ship certification reconstruction affect the operational activities of the Harbormaster's Office and Port Authority from a positive legal perspective?

In order to obtain a clear and precise target in writing this dissertation in accordance with the objectives to be achieved, the objectives of writing this proposal are as follows:

1. To analyze and understand what happened in the implementation of ship certification regulations, which makes it important to carry out ship certification reconstruction.
2. In order to analyze and describe, a positive legal perspective needs to be applied in the reconstruction of ship certification.
3. To analyze, explain and evaluate the reconstruction of ship certification can affect the operational activities of the Harbormaster's Office and Port Authority from a positive legal perspective.

This research is theoretically beneficial as a contribution to the development of business law through the reconstruction of vessel certification regulations to ensure legal certainty and support economic growth. Practically, this research provides a reference for law enforcement, executives, business actors, and the public in the maritime industry.

Based on the description of the background, the author is interested in conducting research with the title, **"Reconstruction of Ship Certification Regarding the Operational Activities of the Harbormaster's Office and Port Authority from a Positive Legal Perspective".**

2. METHOD

2.1Types of Research

Guided by the existing problems, this research uses normative/doctrinal legal research and evaluative research which focuses on studying legal rules or norms in positive law and seeking the formulation of legal doctrine by analyzing existing legal regulations [15].

2.2Research Approach

The following research approaches were used in this study:

a. Legislative approach (statue approach),
b. Analytical approach (analytical approach),
c. Comparative approach (comparative approach), and
d. Case approach (case approach).

2.3Data Types and Sources

The type of data used in this research is secondary data, namely data obtained by researchers through literature studies, and the research data sources used come from primary, secondary and tertiary legal materials and their implementation. Secondary data is complementary data which, among others, is in the form of books, journals, magazines [16]. Secondary data sources are obtained by conducting a literature study of books related to the problem being researched which can be used as reference material and can be used to solve the problem being researched.

2.4Data Collection Techniques

This research uses a literature study research technique to obtain data related to the main problem that the author is researching. The literature data is in the form of Legislation, literature reading books, collecting documents related to the research object, and quoting from secondary data, which includes, decision files, journals/articles and previous dissertation research results, the internet, mass media and so on. This literature research is to obtain initial data that is used and is carried out by searching for Legislation, books, articles and other legal materials related to the problem of ship certification reconstruction.

This research uses interview techniques with informants or sources at the DKI Jakarta Harbormaster or the Head of the Harbormaster and Riau Harbormaster, namely, people or experts who are well aware of the problem being researched and are willing to provide information to researchers through a list of questions that have been compiled.

2.5Data Analysis Techniques

Types of qualitative analysis techniques used in this research: [17]

a. Thematic analysis, identifying and reporting themes that emerge in the data to uncover the phenomenon being studied.
b. Narrative analysis, understanding and interpreting the stories told by research participants through in-depth interviews.
c. Case studies, conducting in-depth analysis of one or more limited cases to understand a specific context.
d. Grounded theory, developing theories based on collected data to discover categories and relationships between categories.

There are 3 (three) main steps in qualitative data analysis, namely: [18]

a. Data reduction involves selecting and simplifying raw data to make it more manageable. This includes eliminating irrelevant information and organizing data into clear categories or themes.
b. Data presentation, presenting data in a format that allows for further analysis, such as tables or narratives, to visualize relationships between themes.
c. Data interpretation, interpreting the results of the analysis to draw conclusions based on the patterns and themes that have been identified.

2.6Research Location

As a supporter, Researchers conducted research in several locations in Indonesia, including Jakarta, Riau Province, and South Sumatra. The study locations were chosen because they were located near the Harbormaster's Office. The study period was 2024-2026.

3. RESULT AND DISCUSSION

3.1 Positive Legal Perspective in Ship Certificates

3.1.1 Ship Certification Process

1. Handling and Extension of Ship Certification

The process for handling and extending ship certificates is as follows:

a. Ship Nationality Certificate (Sea Certificate /Certificate of Registry)
b. Survey Letter (Tonnage Certificate)
c. International Load Line Certificate (International Load Line Certificate)
d. Certificate of Classification

This certificate is a certificate consisting of 2 (two) certificates, namely:

1) Machine Classification Certificate (Machinery Certificate)
2) Hull Classification Certificate (Hull Certificate)
3) Cargo Ship Construction Safety Certificate (Cargo Hip Safety Construction Certificate)

e. Cargo Ship Equipment Safety Certificate (Cargo Ship Safety Equipment Certificate)
f. Cargo Ship Radio Safety Certificate (Cargo Ship Safety Radio Certificate)
g. International Oil Pollution Prevention (IOPP)
h. International Sewage Prevention Pollution (ISPP)
i. International Air Pollution (APP)
j. Crew Completeness Certificate (Minimum Safe Manning Certificate)
k. Ship Sanitation Exemption Certificate
l. Fire Extinguisher Certificate
m. Liferaft certificate

2. Ship Certification Violation

To improve shipping safety in Indonesia, the Ministry of Transportation, cq. the Directorate General of Sea Transportation, stated that there will be no compromise on violations of compliance with ship seaworthiness, which is a crucial aspect that is an absolute necessity and a shared responsibility for regulators, operators, and service users.

The government continuously asks shipping operators to prioritize the seaworthiness of ships to support shipping safety and security, where the crew on duty are required to ensure that shipping safety equipment is functioning properly in sufficient quantities, and that the load of passengers and goods on board does not exceed the capacity.

There are several violations related to ship certification, including:

a. No Sailing Permit
b. Sailing an Unseaworthy Ship
c. Expired Certificate
d. Fishing Vessel Crew Does Not Have Certificates
e. Delay in Certificate Extension
f. Fake Ship Certificate

3.2 Weaknesses in the Implementation of Ship Certification Regulations

3.2.1 Weaknesses of Legal Substance

Weaknesses in legal substance are evident in ship certification regulations, which do not fully guarantee safe navigation. Despite increasingly advanced ship navigation technology, maritime accidents still frequently occur due to weak oversight and unresponsive regulations. Law No. 17 of 2008 concerning Shipping regulates worker safety and protection, but its implementation remains weak, particularly in terms of ship worker protection and safety standards. This situation is exacerbated by weak oversight by authorities, making the legal substance ineffective in addressing the dynamic needs of shipping [19].

If detailed, there are at least 6 (six) types of factors that cause social inequality in society, including the following:

a. Demographic conditions
b. Educational conditions
b. Health conditions
c. Economic conditions
d. Structural factors

Often, the legal substance contained in legislation is influenced by the interests of certain groups. As a result, the resulting laws are unresponsive to societal developments. The broader consequence is that the law is used as a tool of power rather than as a check on power or to limit the arbitrariness of those in power. This often occurs in regulations regarding seafarer certification policies. The resulting increase in job opportunities leads to a decline in worker welfare due to inadequate pay.

3.2.2 Weaknesses of Legal Structure

Legal structure is a pattern that shows how the law is implemented according to its formal provisions. The focus is on how law enforcement, lawmakers, and the legal process operate and are implemented, whether they conform to or deviate from the mechanisms and procedures stipulated in the formal provisions.

Law enforcement officers still adhere to a positivist paradigm in making decisions in the judicial system. Whether acknowledged or not, law as a tool for social change or social engineering is nothing more than an idea that the law seeks to realize. To ensure the achievement of the law's function as a social engineering for the better, it is not only necessary to have law in the sense of rules or regulations, but also to have a guarantee of the realization of these legal rules in legal practice, or in other words, a guarantee of law enforcement (law enforcement) which is good [20]. So the working of the law is not only a function of legislation, but also the bureaucratic activities that implement it [21]

In current developments, law enforcement officers are perceived to be making decisions solely based on formal legal rules, or a positivist paradigm. This is because the majority of the curriculum taught to law students adheres to a positivist paradigm, requiring everything to be based on existing, written rules. Because they are educated with this method from the outset, law enforcers, when they enter the workforce, still carry the paradigm they learned—that law is written regulations. Therefore, when solving cases, they are guided by existing articles.

In Indonesia, for example, if we talk about the structure of the Indonesian legal system, it includes the structure of law enforcement institutions such as the police, prosecutors and courts[21] Basically, by observing the working mechanisms of the rule-making institutions, sanction-implementing institutions, and role-playing institutions, we can see various things related to the factors that influence the functioning of these institutions.

The factors that influence the functioning of the rule-making body can be seen as follows:

a. Politics
b. Economy
c. Culture

3.2.3 Weaknesses of Legal Culture

Legal culture reflects a society's attitudes, values, and behaviors toward the legal system. In practice, weaknesses arise from differences in cultural perspectives and values that influence compliance with the law. Many people remain passive and submissive, feeling powerless to influence the legal system, even though existing regulations often conflict with their interests. On the other hand, there are participatory groups in society who are beginning to recognize their rights and obligations under the law, but this is not yet evenly distributed across all levels.

Weaknesses are also evident in the processing of seafarer certificates, where brokering and certificate forgery remain rampant. This phenomenon harms the public, lowers the quality of maritime workers, and undermines public trust in the law. The public's lack of legal awareness makes them susceptible to the lure of individuals offering shortcuts.

Conceptually, legal culture is influenced by social norms, traditions, and beliefs that differ across social groups. As a result, laws are often perceived as inconsistent, making their implementation less effective. These weaknesses in legal culture highlight the need for education, strict oversight, and regulatory reform to ensure the law truly becomes a respected and enforced instrument in social life [22].

3.3 Reasons for Reconstruction of Ship Certification

A ship certificate is an official document issued to a vessel, attesting to its compliance with certain safety, seaworthiness, and legality requirements. In ship certification, compliance with regulations and administrative requirements is a key factor in maintaining the smooth operation of a ship. One important aspect of this compliance is ship certification. Every vessel, whether used for commercial or non-commercial activities, must have valid and up-to-date ship certificates, such as a safety certificate, a shipping permit, and a registration certificate. However, if a vessel operates with incomplete or invalid certificates, this can pose significant legal risks, such as ship accidents and potential criminal charges.

Following are some of the main legal risks that can arise from inadequate ship certificates.

1. Ship Detention
2. Fines and Financial Sanctions
3. Criminal Prosecution
4. Losses in Insurance
5. Ban on Sailing in International Waters
6. Reputational Loss
7. Third-Party Lawsuits

Some common types of ship certificates that ships have are as follows:

1. Ship Nationality Certificate (Certificate of Registry): This document states the nationality of the ship and grants permission to fly the flag of its country of origin.
2. Load Line Certificate (Load Line Certificate): Shows the safe limits of a ship for loading goods, both international and national.
3. Safety Certificate (Safety Certificate): Demonstrates that the ship meets established safety standards, such as SOLAS (Safety of Life at Sea).
4. Anti-Fouling System Certificate (Anti-Fouling System Certificate): Demonstrates that the ship meets the seaworthiness requirements for pollution prevention.
5. Safety Management Certificate (Safety Management Certificate/SMC): Issued to shipping companies complying with the ISM-Code requirements, confirming the type of ship they are permitted to operate.
6. Classification Certificate (Classification Certificate): Issued by a classification society, indicating that a ship has met certain technical standards.
7. Safety Equipment Certificate (Safety Equipment Certificate): Indicates that the vessel is equipped with the necessary safety equipment.
8. Ship Radio Station License Certificate (SIKR)
9. Certificate of Ship Specification Letter
10. First Aid Certificate
11. Certificate of Exemption from Ship Sanitation Control Measures (Health)
12. Ship Sanitation Control Measures Certificate
13. Ship Health Book
14. Ship Sanitation Inspection Results Report
15. Port Health Quarantine/PHQC Information (Port Health Quarantine Clearence). These certificates are issued by various agencies, including the Ministry of Transportation, the Directorate General of Sea Transportation, and classification bureaus.

In addition to the certificates mentioned above, there are other documents related to ships, such as the Sea Certificate, Ship Measurement Certificate, and Sea Transportation Company Business License (SIUPAL). It's important to note that having complete and valid ship certificates is mandatory for every operating vessel. Without the appropriate certificates, a vessel cannot sail legally and could potentially endanger navigational safety.

From a positive legal perspective, ship certification is an obligation under Law Number 17 of 2008 concerning Shipping and its derivative regulations. However, not all ship owners comply with this obligation. Certificates issued without proper procedures are legally ineffective, creating uncertainty for both ship owners and operators. This highlights the need for regulatory reform to ensure legal certainty, transparency, and fairness for all parties.

Other pressing reasons include social issues and disparities in access. Crew members often lack an understanding of certification procedures, hindering their career development. Furthermore, the widespread practice of certificate forgery also lowers the quality of human resources and jeopardizes maritime safety.

Administratively, lengthy, bureaucratic, and inconsistent certification procedures across agencies exacerbate the situation. Differences in cost standards between the Ministry of Transportation and the Ministry of Maritime Affairs and Fisheries also create unfair competition. This underscores the need for a more streamlined, efficient, and integrated reconstruction of vessel certification regulations.

Thus, the reconstruction of ship certification is an urgent need to ensure shipping safety, strengthen legal certainty, suppress illegal practices, reduce social inequality, and increase the competitiveness of Indonesia's maritime industry in the global era.

3.4 Positive Legal Perspectives to be Applied in the Reconstruction of Ship Certification

Reconstructing ship certification is a crucial step in improving Indonesia's maritime legal system to make it more effective, fair, and responsive to current needs. From a positive legal perspective, reconstruction

is defined as the restructuring of unclear, incomplete, or inconsistent regulations. When the law is unable to address specific issues, legal discovery through interpretation, reasoning, and legal construction is necessary to achieve certainty, justice, and benefit.

Law No. 17 of 2008 concerning Shipping and its derivative regulations, such as Minister of Maritime Affairs Regulation No. 57 of 2021, stipulate mandatory ship certification. However, in reality, not all shipowners comply with this obligation. Invalid certifications have no legal force and impact shipping safety. Therefore, the reconstruction of positive law requires strengthening regulations so that every ship has a valid, transparent, and easily verifiable certificate.

The positive law perspective also emphasizes the importance of Standard Operating Procedures (SOPs) in issuing ship certificates. Implementation through official institutions such as the Indonesian Classification Bureau (BKI) should be streamlined and simplified. This will reduce disparities between agencies and improve administrative efficiency. Implementing procedures based on positive law will provide certainty for business actors while strengthening the authority of the Harbormaster and Port Authority Office (KSOP).

Beyond administrative aspects, positive law considers the integration of social and justice aspects crucial. The certification process should not be merely a bureaucratic formality, but rather an instrument that protects seafarers, crew members, and service users. Regulatory reconstruction could include the addition of articles concerning seafarer welfare, safety equipment standards, and criminal sanctions for certificate forgery. Thus, reconstruction serves to close legal loopholes that have been exploited by unscrupulous individuals.

From an implementation perspective, positive law emphasizes strengthening the oversight function. The KSOP must be supported by human resources, digital technology for certificate verification, and inter-agency cooperation. With clear, legally based oversight, brokering and document forgery can be reduced. Law enforcement will be stricter, ensuring vessel certification truly guarantees seaworthiness and safety.

Overall, the application of a positive legal perspective in the reconstruction of ship certification aims to create simple, clear, and consistent regulations. The legal certainty generated by these regulations is expected to improve shipping safety, protect marine ecosystems, and encourage national maritime economic growth. This reconstruction is a concrete manifestation of progressive legal development, making ship certification not merely an administrative obligation but also an instrument of protection and legal certainty for all relevant parties [23].

3.5 Ship Certification in Influences the Operational Activities of the Port Master and Port Authority Office

3.5.1 Implementation of Certification Reconstruction in the Operational Activities of the Harbormaster's Office and Port Authority

The implementation of ship certification reconstruction in the operational activities of the Harbormaster and Port Authority Office (KSOP) is a strategic step to improve shipping safety, legal certainty, and administrative efficiency. A ship certificate serves as formal proof that a vessel has met the technical, administrative, and safety requirements stipulated in regulations. Without a valid certificate, a ship lacks the legitimacy to sail, placing its presence at risk of accidents and legal issues [24]

In practice, ship certification is carried out through an official institution, the Indonesian Classification Bureau (BKI), which is authorized by the government to assess the technical feasibility, construction, machinery, and safety equipment of ships. The KSOP, as the port authority, oversees and enforces compliance, and issues shipping administration documents. Collaboration between BKI and KSOP is at the heart of the reconstruction, with a focus on data integration, procedural simplification, and service digitization to expedite the certification process [25], [26]

The certification reconstruction is aimed at addressing several issues, such as shipowner non-compliance, document falsification practices, and differences in cost standards across ministries. Furthermore, administrative complexity often hinders ship certificate renewals. Through the implementation of uniform SOPs, cost transparency, and document digitization, it is hoped that bureaucratic obstacles can be reduced. Dissemination of regulations is also crucial to ensure shipowners, shipping agents, and crews understand their obligations [27]

The KSOP, as the vanguard of maritime safety oversight, plays a strategic role. The reconstruction implementation provides the KSOP with the opportunity to strengthen its authority in verifying certificates, improve the quality of human resources through training, and expand the use of digital

technology in ship inspections. Active stakeholder involvement is essential for this policy to be more than merely administrative and to have a real impact on improving safety [28]

Using a positive legal approach, certification reconstruction also serves to uphold the principle of legal certainty. Vessels without valid certificates must be prohibited from operating, while document falsification must be subject to strict sanctions. Regulations such as Law No. 17 of 2008 concerning Shipping and Minister of Maritime Affairs and Fisheries Regulation No. 57 of 2021 provide the normative basis, but implementation on the ground needs to be strengthened through inter-ministerial policy harmonization and ongoing monitoring [28]

Overall, the implementation of the ship certification reconstruction at the KSOP is expected to create a simple, transparent, and equitable system. This effort will not only ensure the technical feasibility of vessels but also strengthen the maritime legal ecosystem, increase public trust, and support Indonesia's vision of becoming a global maritime axis [4] [1].

3.5.2 **Factors Influencing KSOP in Supervising Shipping Safety and Security**

The Harbormaster and Port Authority (KSOP) plays a strategic role in ensuring shipping safety and security. The main factors influencing the effectiveness of oversight are regulatory aspects, human resources, natural conditions, infrastructure availability, and user compliance. In practice, the implementation of flag state policies regarding ship administration remains weak due to the limited competence of inspectors in controlling ship documents in accordance with applicable regulations.

Technical factors also play a significant role. Article 1, number 34 of Law No. 17 of 2008 concerning Shipping stipulates that ship safety is proven through a certificate following inspection and testing. This certification applies to the procurement, construction, and operation of ships. However, many ships still fail to meet seaworthiness requirements due to weak oversight and the practice of document falsification [1].

The two external factors most frequently causing accidents are bad weather and human error. Climate change is making sea conditions more violent, with storms, waves, and fog limiting visibility. Meanwhile, human factors include negligence on the part of the captain or crew, a lack of technical problem-solving skills, and the practice of overloading vessels.

Furthermore, limited human resources, infrastructure, and funding further weaken the oversight function. The number of KSOP staff is often disproportionate to the workload and the breadth of the area covered. Low safety awareness among seafarers, ship owners, and shipping companies also leads to regulations being frequently ignored. Certificate renewals, for example, are often only carried out after receiving warnings, rather than due to legal awareness.

From an institutional perspective, the Harbor Master's role as the highest official at the port is crucial. They are authorized to issue Sailing Approval Letters (SPB) after ensuring the completeness of documents, technical seaworthiness, and safety of the vessel. However, negligence in issuing SPBs still occurs and contributes to maritime accidents.

Thus, the factors influencing the KSOP are multidimensional: incomplete regulations, weak human resources, extreme weather conditions, limited facilities, and low business compliance. To strengthen oversight, a simple and firm reconstruction of ship certification, increased human resource capacity, the use of digital technology for verification, and inter-agency coordination are needed. These steps are expected to reduce maritime accidents and create a more effective shipping safety system.

Singapore is a city-state strategically positioned along global maritime trade routes. The Port of Singapore is one of the world's busiest, connecting more than 600 ports in 123 countries. More than 130,000 ships call annually, making it a major transit hub for international trade. Besides its role as a trading hub, Singapore has also developed its port as a hub for maritime services, including logistics, hospitality, ship replenishment, and cruise terminals. The Maritime and Port Authority of Singapore (MPA) plays a key role in the regulation, oversight, and development of port facilities. With its modern infrastructure, high efficiency, and strong maritime legal certainty, Singapore has emerged as a global financial and logistics hub.

Malaysia also has important ports that support its economy. The country leverages its position on the Strait of Malacca, a vital international trade route. Large ports such as Port Klang and Port of Tanjung Pelepas (PTP) serve as transit hubs for goods in Southeast Asia. Port Klang is Malaysia's largest port, handling the majority of national exports and imports. Meanwhile, PTP is a regional competitor with modern facilities, particularly in container handling and logistics distribution hubs. The development of ports in Malaysia demonstrates the country's efforts to strengthen its role as a trade and logistics hub in Asia.

South Korea is positioning its ports as the backbone of international trade and manufacturing. Busan Port, as the largest port, serves as a major hub for goods distribution to North America, Europe, and Asia. This port boasts world-class container facilities and is supported by a logistics network integrated with industrial parks. Korea also leverages other ports, such as Incheon and Gwangyang, to support the automotive, steel, and electronics sectors. South Korea's excellence in port management is supported by investments in information technology, enabling it to maintain global distribution efficiency.

Japan has more than 300 large and small ports that contribute significantly to international trade. Its five main ports are Tokyo, Yokohama, Osaka, Kobe, and Nagoya. The Port of Tokyo is one of the largest in the Asia Pacific, handling up to 90 million tons of cargo annually. The Port of Nagoya is known as a hub for automotive exports, particularly Toyota products, with more than 1.4 million cars exported to 160 countries annually. Meanwhile, the Ports of Kobe and Osaka have historically served as gateways for Japanese trade and remain important logistics hubs today. The Port of Yokohama serves as an international container hub integrated with the Port of Tokyo, creating a metropolitan port industrial area. With a combination of modern infrastructure, efficiency, and a supportive manufacturing industry, Japan's ports play a vital role in maintaining its position as one of the world's largest economies.

4. CONCLUSION

The conclusion of this study emphasizes the need for reconstruction of ship certification regulations to ensure safety and legal certainty at sea. Weaknesses identified include the absence of load limit regulations, the lack of provisions regarding lifeboats and safety equipment, and weak compliance by ship owners with regulations. A positive legal perspective serves as the basis for strengthening the implementation of ship certification to ensure legal legitimacy. Implementation of the regulatory reconstruction is expected to increase the effectiveness of KSOP supervision, simplify administrative procedures, and positively impact shipping safety and the development of maritime law in Indonesia.

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