

# The Role of the Institution of Navigation Education Regarding Safety Navigation

Irwan  
 Universitas Negeri Semarang

**Abstract**---Shipping safety and safety are very important in the world of work involving transportation in waters and ports, for that every educational institution plays a role in improving the quality and knowledge of shipping management, 80% of ship accidents occur by human error, from human error 75% is caused by a bad management system, for this reason a management system must be created that is able to create good and close cooperation between ship management and land management, the purpose of this land management is an educational institution that develops seafarers' knowledge and skills in dealing with shipping, safe and secure.

**Keywords:** *role of an educational institution navigation, safety navigation*

## I. INTRODUCTION

All users of sea transportation in Indonesia in particular and in the world in general, always prioritize safety and security issues, which are then followed by aspects of affordable costs, speed and timeliness, and comfort aspects. Ship accidents such as drowning, burning, and others are issues that relate to safety and security, which then only attended with aspects of affordable costs, speed and timeliness, and aspects of comfort. Ship accidents such as drowning, burning, and others are issues that relate to the safety and security of sea transport.

Shipping safety is very important and occupies a central position in all aspects of the shipping world. The aspects inherent in shipping safety include the characteristics of attitudes, values, and activities regarding the importance of fulfilling the requirements.

Safety and security concerning transportation in waters and ports. Neglect of shipping safety tends to increase economic and environmental costs such as reduced production, medical costs, pollution and inefficient energy use. The low safety of shipping can be caused by weak human resource management (education, competence, working conditions, working hours) and process management.

Maritime safety and security here is major policies in teaching and training institutions in supporting the smooth transportation shipping marine Indonesian

archipelago. Indonesia has sovereignty over the whole territory of the Indonesian sea, so that the sea has a significant role both for the means of unifying the nation and the territory of the Republic of Indonesia, and even the sea as an invaluable national asset and the future of Indonesia. Control of the sea, has a consequence that the Government is obliged, responsibility on the implementation of education that develop or improve a skill, knowledge management more towards their employment.

The importance of work safety in the shipping sector shows that the dangers in this sector are numerous and full of risks. This article will examine how the role of education to the safety and security of shipping in the first Indonesia.

## II. METHOD

### **Safety Navigation**

Shipping safety is all that exists and can be developed in relation to accident prevention measures when implementing work in the shipping field. In an effort to achieve national goals based on the Pancasila and the 1945 Constitution of the Republic of Indonesia, realizing the Insight of the Archipelago and strengthening national resilience requires a national transportation system to support economic growth, regional development, and strengthen State sovereignty. Shipping which consists of transportation in waters, ports, shipping safety and security, and maritime environmental protection, is part of the national transportation system that must be developed in its potential and role to create an effective and efficient transportation system, and help create a solid national distribution pattern and dynamic. The development of national and international strategic environments requires the implementation of shipping in accordance with the development of science and technology, private participation and business competition, regional autonomy, and accountability in the administration of the State, while continuing to prioritize shipping safety and security in the national interest. Bearing in mind that Law Number 21 of 1992 concerning Sailing is no longer in accordance with the needs of the

current operation of shipping, so it needs to be replaced with a new law namely the Law of the Republic of Indonesia Number 17 of 2008 concerning

Shipping. With the enactment of this Law on Sailing, various provisions contained in other legislation relating to shipping are, among others, the Territorial Sea Ordinance and the Maritime Environment of 1939, Law Number 1 of 1973 concerning the Indonesian Continental Shelf, Law Number 5 of 1983 concerning

Indonesia's Exclusive Economic Zone, Law Number 17 of 1985 concerning Ratification of the 1982 United Nations Convention on the Law of the Sea (United Nations Convention on the Law of the Sea), Law Number 6 of 1996 concerning Water Indonesia, Law Number 23 of 1997 concerning Environmental Management, Law Number 31 of 2004 concerning

Fisheries, and insofar as it concerns the safety and security aspects of shipping, is subject to the regulation of this Shipping Law. Furthermore, in this Act, matters are regulated the things that are basic, while the technical and operational nature will be regulated in a

Regional Regulation Government regulations and other implementing regulations. Then Law Number 17 of 2008 concerning Shipping, sees that shipping is a unified system consisting of transportation in waters, ports, safety and security, as well as maritime environment protection, and Indonesian waters are Indonesian territorial sea and its archipelagic and inland waters. That this law applies to fostering and organizing shipping in conditions of fulfilling safety requirements concerning transportation in waters, ports and maritime environments Speaking of shipping safety, the government is responsible for maintaining the safety and security of shipping by organizing Sailing Navigation Supporting Facilities in accordance with developments in shipping technology which is certainly supported by Human Resources in shipping with the aim of providing professional, competent, disciplined and responsible human resources to meet national and international standards .

The International Safety Management Code (ISM Code) as an international safety management regulation for the safety and safety of ship operations and prevention of pollution of the marine environment determined by the IMO Maritime Safety Council which is still possible to be amended.

Management ship is a process or a continuous activity and interconnected involving humans,

technology, methods, capital to achieve an organizational goal in the operation of the ship.

The link between ship management and ISM code is ISM code is an international management standard which is a safety management that must be applied on ships as well as in companies with the aim of:

1. Ensuring the safety of the ship and the crew of his ship
2. Prevent accidents and fatalities on board.
3. Prevent the occurrence of environmental pollution, environmental damage and loss of property.

The system in the IMS Code must be approved by the Flag Administration (the Government of a country whose flag is used by the ship concerned) or a body designated by the Flag Administration, then a certificate is issued.

Before the company and its ship are operated both must be certified with the ISM Code. The ISM Code certificate can be interpreted as a license to become a Ship Operator.

ISM Code is a product of IMO

(International Maritime Organization) which was finally adopted by SOLAS (Safety of Life at Sea). in 1994. Safety of Life at Sea (SOLAS) is the most important regulation governing maritime safety with the aim of enhancing sea life safety guarantees that began in 1914, bearing in mind, at that time, everywhere there were many ship accidents that swallowed many fatalities. At the outset, it starts with a focus on the rules of navigation completeness, the tightness of the walls of the insulating walls and the communication equipment, then develops in construction and other equipment. The modernization of SOLAS regulations since 1960, has replaced the 1918 Convention with SOLAS 1960. Since then, regulations regarding design to improve ship safety factors began to be included, such as: Design of ship construction, machinery and electrical installations, fire prevention, safety equipment, communication equipment and navigation safety. Meanwhile, the business improvement of the regulation by way of issuing additional regulations

(amendment) the results of the convention IMO, performed consecutively in 1966, 1967, 1971 and 1973. However, the attempt to impose such regulations internationally less run in accordance with the expected in particular, due to procedural constraints, namely: the need for approval of two thirds of the number of member states to ratify the intended regulation, apparently difficult to achieve at the expected time. Furthermore, in the 1974 range, a

new SOLAS 1974 convention was made, namely that each amendment was implemented according to a predetermined time target, unless there was a rejection of 1/3 the number of member countries or 50% of the world's tonnage owners (Suryani, Pratiwi, Sunarji, & Hendrawan, 2018).

### III. RESULT

#### **The Role of The Institution of Navigation Education Regarding Navigation Safety**

In improving a safe situation when sailing, the knowledge and skills of the crew and crew are needed to overcome an insecure or emergency situation, for that every state or private institution or institution of education and training has the task of shipping public and private sciences or the responsibility of educating each participant or every cadet, by increasing.

1. What Knowledge of navigation.
2. Navigating skill.
3. Maintenance tool waterway transport and harbor maintenance, as well.
4. Develop knowledge about the management of a safe voyage.

The responsibility of a shipping education institution helps cadets / masters in mastering a skill needed in the world of work as well as mastering the safety tools used for shipping safety , in a cruise education institution also seeks to realize human resources with high integrity, have a national outlook broad and national government, become a strong person, and meet international competency standards as required by the 1995 Manila Amendment (Certification and Safeguards for Seafarers (STCW)). Character building in the shipping world is also needed, including understanding cadets and training participants related to their profession. It is with this character that one act in their daily lives in the world of work is based on internalized values. So with that, a reliable seaman will be born.

Institutions or institutions will provide education and training to obtain seafarers' expertise certificates related to competency and safety guarantees. The existence of seafarer's certification will be proof before the recruiter or company that you really have the ability to do a job according to the standards set. And in education will be taught about the basics of safety equipment that is on the ship or at the port, about its function, its use, its operation. From the results of training and education participants will be given a certificate of expertise

With proof of competence, you will also have confidence in doing work. This is because the expertise has been tested in the series of certification processes undertaken, the workforce also does not hesitate to trust to do one job because of the competency that has been tested.

The Regulation of the Minister of Transportation of the Republic of Indonesia No. PM 70 of 2013 concerning Education and Training, Certification and Seafarers' Services, which in this Regulation are meant by safety skills on board:

1. Maritime is everything related to manning, education, certification, authority and rights and obligations of seamen.
2. Maritime Education and Training, hereinafter abbreviated as Maritime Training and Education, is Maritime Training and Training to achieve a certain level of expertise and skills in accordance with the level and type of competence for commercial vessel manning.
3. Seaman Skill Training and Education Program is a training program in various lines, levels, and types to improve expertise in order to obtain seafaring expertise certificates.
4. Seaman Skills Education and Training Program is a training program to gain skills and skills to perform certain tasks and / or functions on board.
5. Maritime Education and Training Institution is an education and training institution managed by the Government or the community in organizing seafaring expertise and / or skills training programs in accordance with statutory provisions.
6. Competence is the ability and characteristics possessed by a person in the form of a set of knowledge, skills and behaviors that must be lived and mastered to carry out their professional duties.
7. Seaman Skill Certificate is a certificate issued and confirmed for the Master, Officer, GMDSS Radio Operator, in accordance with the provisions in Chapter II, III or IV of the 1978 STCW Convention along with its amendments and the legal owner of the certificate to carry out the tasks according to their capacity and carry out functions in accordance with the level of responsibility what is stated on the certificate.
8. Inauguration Certificate is a certificate stating the authority of the position to the certificate holder of seafarers' expertise to carry out their

duties and functions in accordance with their level of responsibility.

9. Skills Certificate is a certificate other than a certificate of expertise and confirmation issued for Seafarers stating that they meet the training requirements, competencies, and service period.
10. Ships are water vehicles of a certain shape and type, which are driven by wind power, mechanical power, other energy, drawn or delayed, including vehicles that have dynamic carrying capacity, underwater vehicles, as well as floating devices and floating buildings that do not move- move.
11. Seaman is every person who has the qualifications of expertise or skills as a crew.
12. The GMDSS Radio Operator (Global Maritime Distress and Safety System) is a person who is responsible for radio guard services to operate GMDSS equipment and has the competencies as standardized and has certificates in accordance with Chapter IV of the 1978 International Convention STCW and its Amendments.
13. Rating that carries out the Navigation and Steering Duty (Helmsman) is a rating that has qualifications in accordance with the provisions of the 1978 STCW Convention and amendments to Rule II / 4.
14. Approved is the recognition of education and training programs, simulators, laboratories, workshops, training experience, training, sails,
15. Ship Security Officer (Ship Security Officer) is someone who works on the ship responsible to the skipper, appointed by the company as responsible for security on board including the implementation and maintenance of the ship's security plan that coordinates with the Company Security Officer (Company Security Officer) and Officers Port Facility Security Officer.

From transportation minister rules can be inferred or construed every sailor education and coaching skills to develop knowledge and skills regarding the equipment and safety equipment on board.

Regarding the management of shipping safety has been stated in the method of Shipping Safety which has been set in the International Safety Management Code (ISM Code). The

ISM Code is a Safety Management System standard for safe operation of ships and for the prevention of pollution at sea. In essence, the ISM Code aims to ensure safety at sea, prevent accidents

or deaths, and also prevent damage to the environment and ships.

From this discussion it can interpret the role of agency or educational institution cruise for safety job an extremely large.

#### IV. CONCLUSION

Role of Education Voyage and Safety Voyage as stipulated in the Regulation of the Minister of Transport of the Republic of Indonesia No. PM 70 of 2013 concerning Education and Training, Certification as well as Seaman Guard Services is a step taken by the government in improving the shipping system in Indonesia. In the world of Sailing Education, there are now many institutions or institutions that target organizing education or teaching, research and community service that supports the implementation of National Development, particularly in the field of maritime affairs, developing knowledge about shipping safety and maritime technology and empowering existing resources to improve competitiveness based on National and International Regulations, as well as Sailing Education Institutions and Institutions, want to enhance cooperation in various institutions that are domestically and internationally related to the need for infrastructure and infrastructure development, cooperation related to graduate employment.

Indonesia is known as a maritime country that is always traversed by many domestic and foreign ships. On that basis, the government has the authority to determine shipping policies that must be complied with by companies, owners, and ship users who will undertake shipping in Indonesian and foreign waters. It aims to maintain safety and security for citizens and foreigners in the water sector. As for the shortcomings regarding Law No. 17 of 2008 in terms of shipping safety and security is not accommodating the latest technical requirements or specific guidelines in ship equipment. Where these provisions have been arranged in detail in international provisions. Therefore, the government is obliged to accommodate the lack of standard arrangements and the requirements for accommodation and ship equipment in the form of other policies, so that it is expected that each ship owner and ship company can complete the shortage as specified. And regarding these shortcomings at least Education about shipping safety remains the main guideline in the world of shipping, with the knowledge and skills that have been fostered and trained for cadets and participants, becoming sailors or officers who do not hesitate in

taking the right and safe decisions for safety navigation.

#### REFERENCES

- [1] Indonesian Maritime Security Coordinating Board, 2009. Special Guidelines for Shipping Safety and Security, Jakarta.
- [2] International Maritime Organization, 2010. International Safety Management Code (ISM Code) and guidelines on implementation of the ISM Code, Edition, London
- [3] Ministry of Transportation of the Republic of Indonesia, 2013. Education. Training The certification. Sailor. Implementation, Jakarta.
- [4] Kadarisman, M., & Jakarta, U. M, 2017. Maritime Safety and Safety Policy. Maritime Safety and Security Policy in Supporting Transportation Systems, 4 (2), 177–192.
- [5] Nurhasanah, N., Joni, A., & Shabrina, N. 2015. Crew's Perception and Management in the Application of the ISM Code for Shipping Safety and Protection of the Marine Environment. Proceeding SENDI\_U, 978–979.
- [6] Suryani, D., Pratiwi, A. Y., Sunarji, & Hendrawan, A. 2018. The role of the harbour master in the safety of the voyage. Saintara Journal, 2 (2).
- [7] <https://hidayaninhii.wordpress.com/2014/10/01/urgensi-perlindungan-hukumterhadap-keselamatan-dan-keamananpelayaran-melalui-pembaharuanundang-undang-nomor-17-tahun2008-tentang-pelayaran/>, di akses pada 12 February 2020
- [8] <https://id.m.wikipedia.org/wiki/Pelaut>, di akses 12 Februari 2020  
<https://id.m.wikipedia.org/wiki/Keselamatan-pelayaran>, di akses 12 Februari 2020
- [9] <https://www.dephub.go.id/post/read/peran-mahkama-pelayaran-perludi optimalisasi>, di akses 12 Februari 2020  
<https://jurnal.untan.ac.id/index.php/jmfh/article/view/17381>, di akses 12 Februari 2020
- [10] <https://www.kanalinfo.web.id/pengertian-pondidikan-dan-kepelatihan-diklat>, di akses 12 Februari 2020.