Asian Journal of Community Services (AJCS)
Vol. 3, No.2 2024: 277-286

Socialization of Safety Factors for Passengers of Traditional Ship Crossing Transport at Muara Angke Port Jakarta

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A R T I C L E I N F O

Keywords: Socialization, Safety, Passenger, Traditional Ship, Port

Received : 20, December
Revised : 22, January
Accepted: 24, February

A B S T R A C T

The orderliness of service and operation of facilities and infrastructure is relatively low, and many factors contribute to it, such as the weak awareness of ship owners and companies in implementing an effective and implementable safety system in the field, the seaworthiness of ships that are more oriented towards certification which in fact is not supported by careful inspection, as well as supervision carried out by the government on the implementation (drilling) of shipping safety requirements is inconsistent. The purpose of socialization to passengers who use traditional wooden ships is "Socialization of Safety Factors for Passengers of Traditional Ship Crossing Transport at Muara Angke Port Jakarta" the purpose of socialization is to prevent opportunities for violations in shipping not using Ring Life Buoys, Life Jackets and unethical behavior of ships passengers.

DOI prefik: https://doi.org/10.55927/ajcs.v3i2.8076
ISSN-E: 2962-1496
https://journal.formosapublisher.org/index.php/ajcs

INTRODUCTION

Shipping emergencies and their handling Sea transportation accidents that claimed many lives and property occurred one after another in recent years including some of the reviews below. There are several causes, namely: (1) Human factor, The human factor is the biggest factor which includes: Carelessness in running the ship, the inability of the crew to master various problems that may arise in ship operations, and consciously overloading the ship. (2) Technical factors, technical factors are usually related to lack of care in ship design, neglect of ship maintenance resulting in damage to the ship or parts of the ship that caused the ship to have an accident, burning ships such as those experienced by the Tampomas Ship in Masalembo waters, Livina Ship. (3) Natural factors, inclement weather is a problem that is often considered the main cause of marine accidents. Problems that are usually experienced are storms, high waves influenced by the season/storm, large currents, and fog resulting in limited visibility. The people's shipping fleet is one of the fleets that has proven itself as a formidable means of sea transportation, synonymous with traditional boat-based people's economic businesses that use sails or motors. Until now, the people's shipping fleet has emerged as one of the strengths of the national fleet in addition to the archipelago shipping fleet and other pioneer shipping. The element of safety is one of the links, which has a huge influence on the economy of the entire sea transportation business chain. However, often in the implementation of sea transportation, safety aspects receive less attention. The condition of shipping safety facilities and infrastructure to date does not support the orderly flow of sea transportation.

Starting with the field observation process, a very urgent problem was found, namely the phenomenon of the problem of the number of passengers who did not wear Life Jackets when the ship sailed, this was the basis for implementing the Community Service agenda which was carried out in August 2023. As for the following: (1) Provide knowledge of passengers and crew of transportation facilities and the dangers of not wearing Life Jackets on a cruise. (2) Increase knowledge of the function of safety equipment on board Life Jackets and Ring Life Bouys. (3) Demonstrate the use of Life Jackets and Ring Life Bouys for passengers. (4) Socialize the importance of Life Jackets and Ring Life Bouys on board. (5) Socialization of good passenger behavior on the trip.

Purpose, community service packaged in the form of "Socialization of Safety Factors for Passengers of Traditional Ship Crossing Transportation at Muara Angke Port Jakarta", namely: (1) Improve a good mental attitude and a "flexible to change" mindset in implementing improvements in the workplace. (2) Increase the sense of concern for safety on board. (3) Become a safety pioneer. (4) Minimize the death toll in the event of a marine accident. Target of activity, the target of Community Service activities to minimize victims of sea accidents during emergencies, the Trisakti Institute of Transportation & Logistics partners with Dishub UPPD I Prov DKI Jakarta and those who get the socialization of the use and benefits of Life Jackets, Ring Life Bouy are passengers who will use traditional ships at Muara Angke Port and distribute Life Jackets, Ring Life Bouy for traditional ships. Benefits, By participating in this socialization, other benefits

that will be obtained by participants (passengers) include: (1) Understanding how to use Life Jackets. (2) Understanding how to use the Ring Life Bouy. (3) knowing how long Life Jackets are effective in the water. (4) Know the legal basis for using safety equipment on board. (5) Know the ethical behavior of passengers. (6) Know the restrictions when the ship is sailing.

IMPLEMENTATION AND METHODS

Time and Place, The socialization activity "Socialization of Passenger Safety Factors for Traditional Ship Crossing Transport at Muara Angke Port Jakarta" (PkM at Muara Angke Port) was carried out on Saturday, August 12, 2022 at 09.00-11.00 offline at the traditional boat dock at Muara Angke port.

Activity Implementation, The stages of implementing this activity are as follows: (1) Preparation of Participants. Socialization participants gathered at the waiting area on the edge of the pier ready to fill out the questionnaire. Participants were recorded as consisting of the surrounding community, employees, laborers, and students. (2) Exposure/Demonstration on how to use Life Jackets correctly. (3) Exposure to the legal basis for the use of Life Jackets and Ring Life Bouy on ships. (4) Discussion Stage. At this stage, a question and answer session was held given the opportunity to the socialization participants to ask questions about the material that has been delivered. (5) The final stage is the distribution of Life Jackets as many as 5 pieces of Atunas brand and 100 pieces of safety appeal stickers to Traditional Vessels that are dropping off passengers.

Figure.1 Preparation of Participants

Figure.2 Exposure/Demonstration on how to use Life Jackets Correctly

Figure.3 Exposure to the Legal basis for the use of Life Jackets and Ring Life Bouy on Ships.

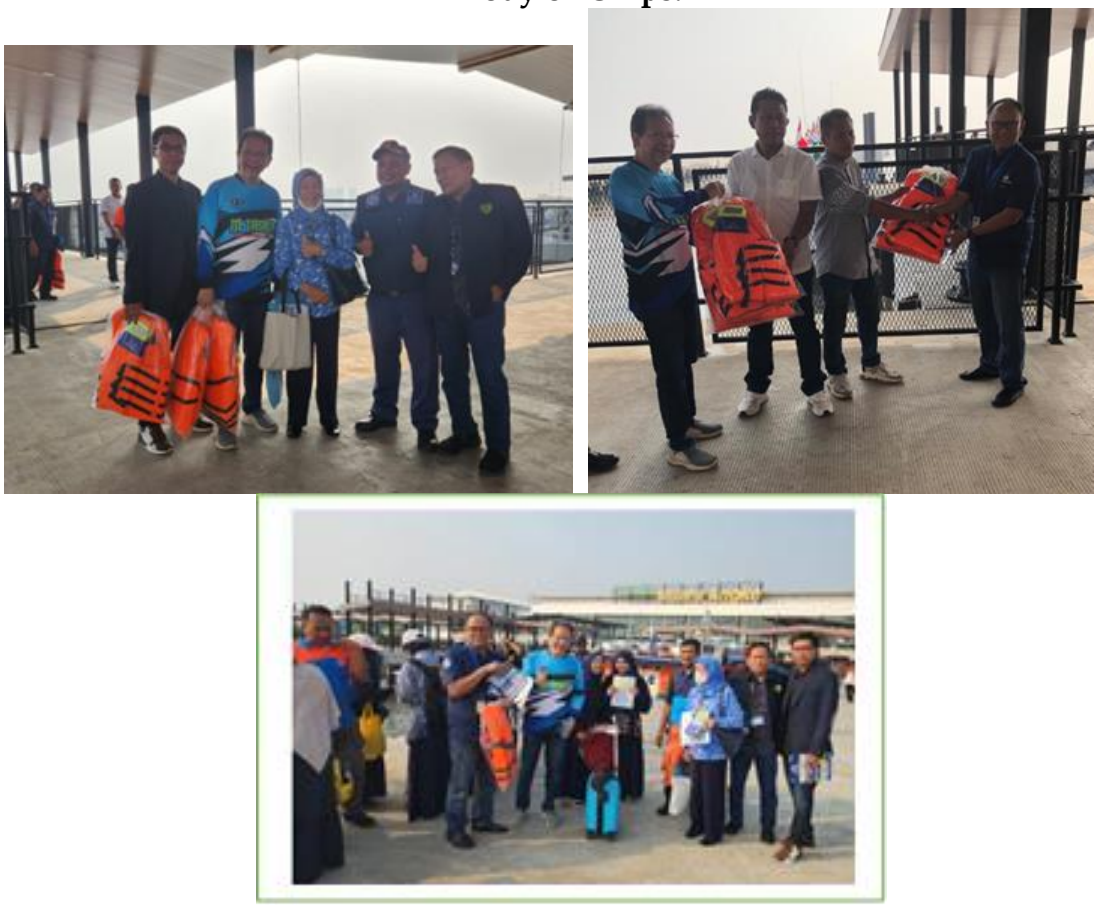

Figure.4 The final stage is the distribution of Life Jackets as many as 5 pieces of Atunas brand and 100 pieces of safety appeal stickers to Traditional Vessels that are dropping off passengers.

RESULTS AND DISCUSSION

The socialization activity "Socialization of Safety Factors for Passengers of Traditional Ship Crossing Transport at Muara Angke Port Jakarta" begins by socializing or campaigning for the importance of wearing Life Jackets during shipping trips to traditional ship passengers, after which the Research Lecturer from the Institute of Transportation and Logistics provides a questionnaire of ten questions that have been summarized to represent the topic of Community Service, the enthusiasm of passengers is extraordinary for filling there are 36 Respondents who fill out the questionnaire. The sample questionnaire questions are below:

Shipboard Safety Aspect Evaluation Questionnaire: How many times have you used this boat in Muara angke: 1). 1 time 2). More than 1 time and question on the level of knowledge and understanding of respondents, 1 = Very ignorant, 2 = Do not know, 3 = Knows enough, 4 = Know, 5 = Very Knowledgeable

Table 1 Questioner

Question	Respondents' Level of Knowledge and Understanding				
	1	2	3	4	5
1) Did you know that sitting on the upper deck while the ship is sailing is a safety hazard?					
2) How well do you know where to go in case of an emergency to get out of the boat?					
3) To what extent do you know where the life jackets are taken?					
4) To what extent do you know where to pick up the life preservers?					
5) To what extent do you know how to use a life jacket?					
6) To what extent do you know how to use a life preserver?					
7) To what extent do you know where you can find medicines?					
8) Are you aware of any briefing on the use of life jackets, prior to the departure of the ship?					
9) Do you know how much weight a passenger is allowed to carry?					
10. Do you know how many passengers are sailworthy in one crossing?					

From the results of the questionnaire tabulation, it was found that: the average level of understanding of respondents before the campaign was 3.2 (weight 1 to 5), while after the campaign it was 4.4, meaning there was an increase of 24% after socialization and respondents agreed and strongly agreed that traditional ships are equipped with Safety Equipment according to the number of passengers and use Life Jackets when the ship sails. In (Kadhafi, 2019) Life bouy Life-saving buoys are designed to be thrown to a person in the water, to provide buoyancy and to prevent drowning. Outer diameter 800 mm and inner

diameter 400 mm, made of fused buoyant material, can float 24 hours in fresh water with an iron load of 14.5 kg, given a striking color, equipped with a light reflecting device, given the name of the ship, one per boat is stored on the starboard side of the ship's deck.

Life Jacket Protects users who work on water or on the surface of the water in order to avoid the danger of drowning and or regulate the buoyancy of users so that they can be in a position to sink (negative buoyancy) or float (neutral buoyant) in the water. Resistant to jumping at a height of at least 4.5 m, must have high buoyancy and stability, buoyancy must not decrease by more than 5% after being submerged in fresh water for 24 hours, must be equipped with a whistle, must be able to lift the face of the person from the water and hold above the water with the body lying in an oblique angle, must be a striking / orange color, comfortable when wearing, and one life jacket for each person on board.

According to Purwanto et al., (2016) Another cause of accidents on fishing vessels is the human factor (human error). Human resources are important things that must be considered, so that the risk of accidents at sea can be avoided. The development of human resources of fishery seafarers as a dominant factor in the realization of a shipping safety culture needs consideration for crew members involved in operations before sailing, such as crew members must be sufficient in education and training in expertise (Certificate of competency / COC) and skills (Certificate of proficiency / COP) and have competence in accordance with applicable regulations. Overall, ship safety at sea will be linear with crew competence, safety oriented management and ship seaworthiness.

According to Geby et al., (2019) Crew safety is enforced by the mandatory use of safety equipment on board. Instructions on how to use life jackets, use of life boats and fire extinguishers are posted on several walls of the ship that are easily accessible and seen by passengers. The procedure for the use and function of safety equipment is important to note, because it is related to personal / individual work safety which has an impact on the safety of others in the event of an accident. This is caused by feelings of panic and fear when an accident occurs. Work at sea has a greater risk than on land. This risk can be minimized if workers are responsive to emergency procedures, do not panic, and understand their respective duties when an emergency occurs, in accordance with the emergency response plan.

Accidents that occur in river, lake and ferry transportation are caused more by human factors. For this reason, understanding the users of crossing transportation modes related to the safety system on board is very important. The number of victims during accidents can be reduced if there is a strong desire from all parties to minimize the risk of accidents. In this activity, the understanding of crossing transport users regarding several safety facilities on board will be evaluated and then the introduction of these facilities will be socialized (Rahman, 2020). Many traditional boats are currently operating on the Muara Angke Port Thousand Islands route. The hope of the community is that the services provided will improve and put safety and security as the top priority. Currently there are also many weather anomalies that cause doubts in traveling by sea and therefore it is an obligation for ship operators and crew to implement

shipping safety rules. The traditional boat fleet, which most of the people of Jakarta-Kepulauan Seribu call ojek boats, has a relatively small capacity compared to other fleets, but is felt to be very helpful for the smooth activities and mobility of the people of Jakarta and the Thousand Islands. Due to the importance of this facility and the frequent news of ship accidents, this community service program is important for the implementation of socialization activities "Socialization of Safety Factors for Passengers of Traditional Ship Crossing Transport at Muara Angke Port Jakarta".

One of the important roles in the use of shipping safety equipment is to prevent or minimize the risk of accidents for passengers and crew as a form of effort to prevent or minimize the risk of accidents for passengers and crew of transportation facilities. Low awareness and supported by the price of safety equipment which is considered quite expensive makes traditional ships in Muara Angke Harbor less concerned about the importance of shipping safety equipment that is still required to be available on board and is suitable for use. This service activity aims to provide knowledge about sailing safety for traditional boat passengers at Muara Angke Harbor. The provision of knowledge and safety equipment assistance for the participants of this counseling intends to increase the ability, attitude and awareness of traditional boat passengers about the importance of safety and recognize self-rescue techniques in the event of an accident while sailing or how to use Life Jackets, Ring Life Bouy. All users of sea transportation facilities 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 aspects of comfort.

The occurrence of ship accidents such as sinking, burning, etc. are problems related to the safety and security of sea transportation To implement this improvement in shipping safety, the Directorate General of Sea Transportation has issued policies in the prevention of ship accidents such as making shipping edicts on improving shipping safety supervision for passenger ships, making edicts about water weather conditions in Indonesia such as telegrams regarding bad weather readiness at sea. Safety equipment or safety equipment is all equipment and equipment used to protect the lives of crew members and passengers at times in an emergency. As a crew member we must know the kinds of safety equipment and must also know how to use it properly. The safety equipment described in the previous explanation is part of safety management. Some of the safety equipment found on board includes Life Jackets, which are life jackets worn by crew members or passengers to float themselves in the water when the ship is in an emergency. Efforts to improve safety facilities Ship safety facilities have been available on board in accordance with the requirements and needs, but in order to be used properly in accordance with its utilization, it is necessary to improve quality through intensive maintenance The maintenance referred to is carried out periodically, among others: Ring Life Bouy, Life Jackets Considering that these items are relatively rarely used, it is necessary to check every one month, both the condition, function and quantity, this maintains the possibility that during emergency conditions there are items that do not function perfectly or the number is reduced due to theft. Ship and shipping safety

indicators are two inseparable sides, ships must have safety equipment including Life Jackets, Ring Life Bouy, Fire Extinguishers, documents and certificates, ship's sailworthy conditions. The welfare of the crew and the health of passengers, the legal status of the ship, safety management and prevention of pollution from ships, as well as ship safety management for sailing in certain waters. Reliable human resources indicated by certificates of expertise are required to support shipping safety as one of the indicators.

Socialization contains certain goals and objectives so that the information conveyed must be easily understood, understood and applied by all parties involved. The counseling activity of Basic Knowledge of the Use and Benefits of Ring Life Buoys, Life Jackets, in Emergencies When the Ship Sails generally aims to provide knowledge and understanding of the importance of safety equipment on traditional ships for passengers. The technique of using or using Life Jackets, Ring Life Bouy for self-rescue in an emergency when the ship is sailing is one of the materials presented in this counseling including the use of Life Jackets, Ring Life Bouy and used oil jerry cans as alternative buoys. Education on the utilization of jerry cans as alternative equipment during emergencies was delivered to participants before distributing questionnaires to passengers. The material presented consists of subject matter, namely: (1) The importance of safety equipment (2) How to use Life Jackets and Ring Life Bouy (3) Self-rescue in an emergency (4) Replacement (alternative) safety equipment in an emergency After the delivery of the socialization, it was continued with a question and answer session between the speakers and all participants (ship passengers).

The question and answer method is useful for directing passengers' observations to important parts of the material presented so that things that have not been understood come to the surface, understandings come to the surface. The question and answer method can be an effective, learning method that effectively improves learning outcomes. Questions in the discussion session dominated by questions related to replacement safety equipment and how to use it. Based on the explanation of the passengers that the biggest obstacle for passengers in the provision of shipping safety equipment is the traditional ship there is still a mismatch between the number of safety equipment and passengers. Based on this, the ITL Trisakti Research Lecturer Team who was conducting a Community Service program distributed 5 Piece Life Jackets and 100 safety warning stickers to traditional ships that were leaning against the dock at Muara Angke Port Jakarta.

Community service, especially counseling activities on the basic knowledge of the use and benefits of ring life buoys, life jackets, supports several previous similar and relevant activities. These extension activities in general, through examining the feasibility of devices analyzed from the aspects of structure, technology, economics are very useful for water rescue, which makes it easier for users to save themselves quickly, and to prevent drowning (Wang et al., 2022). In a previous survey conducted by Levin et al., (2023) to improve crew recovery for commercial fishing in the Gulf of Mexico, through several trainings including the utilization of ring life buoys, showed a positive change for the importance of speed and safety of the crew. Extension activities related to life jackets are in line

with the opinion of To & Huang, (2022), although the design of permanent devices for life jackets will differ from typical wearable devices due to the unpredictability of the surrounding environment and safety considerations.

This counseling activity is also in line with the opinion of Quan et al., (2018), that the use of life jackets is limited to children and it is necessary to promote the use of life jackets with safety standards that provide protection and pleasure, potentially reducing the drowning rate in open water. Counseling on life buoys is also in line with the opinions of Shetty et al., (2020), Thanakodi et al., (2021) and Park et al., (2023), that with the help of cutting-edge technology, smart life buoys have been developed, by operating the buoys using remote control. This counseling activity is closely related to the results of the Puriningsih et al., (2022), regarding several attributes that the crew really needs to pay attention to in order to improve performance such as the need for life jackets, fire extinguishers, life rafts, and also the presence of safety facility equipment. Added, it is necessary to build awareness of the importance of the use of life jackets, for crew and ship passengers and strict supervision from port authorities.

CONCLUSIONS AND RECOMMENDATIONS

The event organized by the PKM Team of ITL Trisakti Lecturers was very useful for the participants, because in a series of events many participants asked about safety in shipping, the function and use of Life Jackets, the use of Ring Life Bouy, how to extinguish a fire in the event of a fire on board. Feedback from traditional ship passengers was very good and the participants were very enthusiastic about participating in offline socialization at Muara Angke Port Jakarta. This socialization activity was well received and welcomed by PkM partners, namely the UPPD I Dishub Prov DKI Jakarta, because the organizers were very enthusiastic about the topics presented by research lecturers from ITL Trisakti because it was very useful knowledge for passengers and for assets such as Life Jackets, Ring Life Bouy which were distributed very useful for traditional ships, 6 presenters who were all Lecturers of the Institute of Transportation and Logistics (ITL) Trisakti did Community Service in order to carry out the Tri Dharma College Mandate. The suggestions for the participants include: (1) Must follow the rules during the sea travel process using Life Jackets. (2) Not being on the deck of the ship during the sea travel process. (3) Sit in the place that has been provided. (4) Know how to use Life Jackets and Ring Life Bouy correctly.

ACKNOWLEDGMENT

The research team from the Institute of Transportation and Logistics (ITL) would like to thank: (1) Institute of Transportation and Logistics Trisakti. (2) Community Service Partner UPPD I Dishub Prov DKI Jakarta. (3) All authors whose articles are used as references. (4) Editor Formosa Publisher Asian Journal of Community Services. (5) All ship passengers who have been willing to become respondents.

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