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Factors Affecting Fishermen's Poor Lifesaving Appliance use in Kuala Terengganu

¹Nur Syawalni Izzati Mohd Azhar, ²Muhammad Ismail Rustam Shuhrah
^{1,2} Faculty of Maritime Studies, University Malaysia Terengganu, Malaysia

Corresponding Author: **Muhammad Ismail Rustam Shuhrah**

Abstract

Fishing has been and is still one of the most dangerous human activities. Every year the rate of accident cases among fishermen in Malaysia is worrying, and most of the deaths from drowning amongst the fishermen were associated with poor usage of lifesaving appliances although it was carried onboard. This study aimed to identify the factors of poor use of lifesaving appliances by fishermen in Kuala Terengganu and to analyze the top factors influencing fishermen's poor use of lifesaving appliances. The researcher conducted the literature review to identify the characteristics and distributed 60 questionnaires to

respondents among fishermen of fishing vessel class A in Kuala Terengganu. The researcher also used the Likert Scale to measure the outcome of the result and used Microsoft Excel to calculate the mean for each factor. Through these objectives, the researcher suggested some recommendations on evaluating alternative improvements for fishermen through law enforcement by responsible authorities. In conclusion, the finding of this study will increase the knowledge and awareness of all fishermen, especially in Malaysia, about the importance of lifesaving appliances.

Keywords: Lifesaving Appliances (LSA), Fishermen

1. Introduction

Fishing is an activity of hunting and catching fish. It is an ancient and worldwide practice with various techniques. From ancient times, fishing has been a significant food source for humanity and provides employment and economic benefits to those engaged in this activity (Latiff, 2011) ^[7].

Safety is crucial for those involved in the operation at sea, and it is not just a rule that we have to obey but a culture to live by. Every year, the global fishing industry is a highly disconcerting conclusion because fishing has been categorized as one of the most life-threatening professions in the world. Therefore, the Department of Fisheries (2012) states that the fishing vessel must be marked with the fishing vessel register number by using the paint or waterproof marker following the requirement of Life Saving Appliances (LSA) and must have been equipped with the safety equipment such as lifejacket, lifebuoys, fire extinguisher, navigational lights, and air horn.

However, most fishing vessels do not comply with the Lifesaving Appliances due to the fishermen's ignorance and the fishing vessel's size. Therefore, the fishing vessels (Life Saving Appliances) Regulation 1988 states that the lifesaving equipment must be brought based on the vessel's length.

Therefore, this research describes an initial effort to investigate and identify the factors for poor use of Lifesaving Appliances (LSA) by fishermen in Kuala Terengganu.

This research focused on the fishermen of the fishing vessel at Kuala Terengganu because the total number of the fishing vessel registered in Kuala Terengganu was 1,762 (Department of Fisheries Malaysia, 2016) ^[3]. Furthermore, this research was conducted in zone A of Northern Kuala Terengganu, such as Seberang Takir, Tok Jembal, Mengabang Telipot, and Batu Rakit. Fishing has been and is still one of the most dangerous human activities. Every year, the number of accidents and losses at sea among the fishermen in Malaysia is very worrying. Most of them died from drowning amongst the fishermen because they usually do not use life jacket although it was carried onboard.

There has been no grunting of fishing boat licenses for coastal fisheries for over a decade (Worldfishing & Aquaculture, 2018) ^[11]. Most of them who do not have fishing boat licenses were not aware of the safety at sea. In that case, they do not know the importance of lifesaving appliances (LSA) when they have an emergency at sea.

According to the Department of Fisheries, the statistic of the fatal accident in fishing boats is 39 cases occurred from January 2015 to October 2015. In the meantime, the Department of Fisheries had carried out 15 060 checks on fishing boats to check safety and fishing boat tools. There are 606 boats detected for various offenses, including breeding areas, no licenses, and no

safety devices (Ali, 2015) [1].

2. Materials and methods

Research Method

The steps below must be conducted to achieve all of the objectives;

Step 1: Identify the factors of poor use of lifesaving appliances by fishermen from literature reviews such as journals, articles, books, and references from the previous study, newspapers, and the internet. Besides, the researcher also does a questionnaire to identify the factor. Therefore, the factors will be reviewed which factors are suitable for our local fishermen.

Step 2: The researcher will use the *Likert Scale*, as shown in Table 1, to measure the outcome of the result for the conducted questionnaire.

Table 1: Likert's Scale

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

Step 3: The questionnaire will be distributed to fishermen in the Kuala Terengganu area.

Step 4: The data will be analyzed by using the mean method (MOM)

Step 5: The top factor influencing fishermen's poor use of Lifesaving Appliances will be analyzed from the mean result.

Step 6: The third objective is to suggest recommendations for alternative improvement for fishermen in Kuala Terengganu using lifesaving appliances. From this issue, the researcher will interview several expert persons.

Step 7: Got the result for the hold objectives and achieved objectives.

Mean Method

First, the Excel software was used to analyze data using a mean method. The mean was the usual average and provided a simple representation of all data. In addition, a standard in economic terms can represent the direction an economy is headed forward. After distributing the questionnaire to the fishermen, the mean method was used to analyze the data collection.

Arithmetic Mean

Mean is defined as the ratio of the summation of all values to the number of items. There are two types of arithmetic mean which are simple arithmetic mean and weighted arithmetic mean. The simple arithmetic mean considers all the data values equally and grants equal importance to each value.

3. Results and discussion

The entire questionnaire contained in the questionnaire was an achievement from the first objective, which was to identify the factors of poor use of lifesaving appliances by fishermen in Kuala Terengganu and has been conducted by literature review. The factors that have been identified were;

Factor 1: Lack of knowledge exposure to workplace safety aspects.

Factor 2: Lack of law enforcement from the authorities regarding lifesaving appliances

Factor 3: Lifesaving equipment is too expensive.

Factor 4: The limited space to bring the lifesaving appliances onboard.

Factor 5: Unsatisfactory condition of personal protection equipment.

Factor 6: High confidence in swimming ability.

This part contains the list of lifesaving appliances that the respondents brought onboard.

Table 2: Life Saving Appliances Onboard

S. No	Safety equipment	Total respondents	Percentage (%)
1	Compass	3	5.0
2	Radio VHF	9	15.0
3	GPS	21	35.0
4	Echo Sounder	1	1.6
5	Fire Extinguisher	12	20.0
6	Lifejacket	54	90.0
7	Lifebuoy	39	65.0

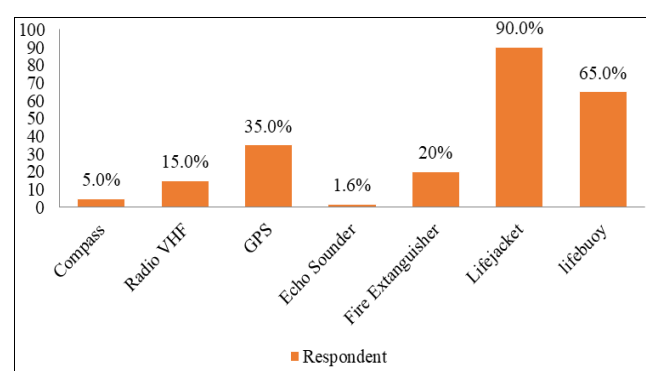


Fig 1: Life Saving Appliances Onboard

The question asked whether the respondents bring all the LSA onboard their vessels. The most LSA they carried were lifejackets (90%), followed by lifebuoys (65%). The least LSA they carried along was echo sounder (1.6%), followed by compass (5%).

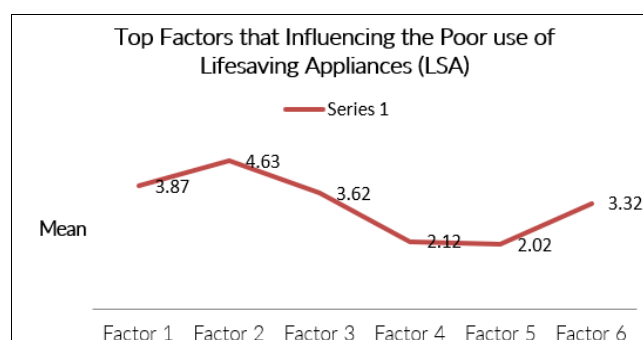


Fig 2: Shows the mean value accordingly to the factors

The analysis was using the mean method (MOM). According to the table above, I can analyze the top factors influencing the poor use of lifesaving appliances. Firstly, the highest means were lack of law enforcement from the authorities about lifesaving appliances which is 4.63, followed by lack of knowledge exposure on aspects of safety at the workplace, which is 3.87. Meanwhile, 3.62 means lifesaving equipment is too expensive, and 3.32 means high confidence in swimming ability. Last but not least, the limited space to bring the lifesaving appliances onboard was 2.12, and the lowest was the unsatisfactory condition of personal protection equipment.

The government of Malaysia must consider the safety of coastal fishermen in Malaysia. In this case, law enforcement by the responsible authorities in Malaysia must take severe steps. These agencies must increase safety requirements for inshore fishermen onboard during sea operations. Other than that, the responsible agencies should have a strong inspection of every registered boat, and fishermen must follow the requirement before their ship is registered. The researcher also recommends that the responsible party organize a safety awareness campaign or short course training about Lifesaving Appliances to increase their knowledge.

Furthermore, fishermen must change their behavior and culture for safety and awareness about the requirement of Lifesaving Appliances. They must always bring and apply the Lifesaving Appliances during the operation at sea. Fishing is still one of the most dangerous human activities. At the same time, operation at sea is a part of their life, and anything still can happen to them during the operation at sea even though they have a lot of experience.

4. Conclusion

Based on the results obtained, the proposal can help improve awareness about the importance of Lifesaving Appliances (LSA) among fishermen during the operation at sea. At the end of this research, the objectives the researcher wanted to achieve were successfully achieved. The researcher's aim to identify the factor of poor use of Lifesaving Appliances (LSA) by fishermen class A in Kuala Terengganu was achieved by conducting a literature review from journals, articles, and books. The second objective was to analyze the top factors by distributing the Likert scale questionnaire to fishermen in zone A. Next, the questionnaire was analyzed using the mean method (MOM) to find the top factor. Then, the researcher also recommends evaluating alternative improvements for fishermen to overcome this issue. Therefore, this research intended to reduce fishing vessel casualties, minimize the adverse impacts on the crew, and enable the maximum opportunity to survive and be rescued if a casualty occurs.

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