A COMPARISON OF FATIGUE LEVELS AMONG MALAYSIAN SEAFARERS OF DIFFERENT MARITIME SECTOR

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ABSTRACT

This report is to identify the sources of fatigue and fatigue levels of Malaysian seafarers for different maritime sectors. The objective is to determine the sources of fatigue among seafarers from different sectors. Questionnaires are used to collect field data and then analyze using SPSS and MiniTAB. From the analysis, it was found that fatigue problem is caused by two main factors which are shift of work and seafarers’ working environment. The result proves the two factors caused fatigue to seafarers from different sectors where the score of mean for group of seafarers who work in Port (Mean=3.52 and 4.12), Coastal Container (Mean=3.80 and 3.61), Foreign-Tanker (Mean = 4.05 and 3.91) and Foreign-LNG (Mean =4.05 and 3.85) were classified as high score. Technology used onboard ship is one of the factor to take into consideration as a tool to overcome the fatigue problem at sea. The finding shows that respondents in Port (Mean =3.74), Coastal-Container (Mean =4.11), Foreign-Tanker (Mean = 4.14) and Foreign-LNG (Mean = 3.87) mostly agreed on the effect of technology at sea based on the high mean score.
Laporan ini adalah mengenai kajian statistik terhadap sumber kepada kelesuan dan tahap kelesuan yang dihadapi oleh pelayar-pelayar Malaysia di dalam sector maritim yang berbeza. Objektif kajian adalah untuk menentukan sumber kelesuan bagi kumpulan pelayar yang berlainan sektor. Kaedah soal selidik telah digunakan bagi mendapatkan data lapangan dan dianalisa dengan menggunakan SPSS serta perisian MiniTAB. Daripada analisa yang dijalankan, telah didapati bahawa kelesuan pelayar-pelayar Malaysia adalah disebabkan oleh dua faktor utama iaitu kesesuaian masa aturan bekerja dan persekitaran tempat bekerja. Keputusan membuktikan bahawa masalah kelesuan pelayar berpunca daripada dua faktor utama tersebut dengan markah skor purata yang diperolehi bagi pelayar-pelayar yang berkhidmat di sektor Pelabuhan (Mean = 3.52 dan 4.12), Kapal Kontena Persisir (Mean = 3.80 dan 3.61), Kapal Tangki Antarabangsa (Mean = 4.05 dan 3.91) dan Kapal LNG Antarabangsa (Mean = 4.05 dan 3.85) diklasifikasikan sebagai tahap skor tinggi. Faktor penggunaan teknologi di atas kapal perlu diambil kira dalam membantu pelaut bagi mengurangkan kadar lesu di lautan. Dapatan kaji selidik menunjukkan responden di perkhidmatan pelabuhan (Mean = 3.74), Kapal Kontena Pesisir (4.11), Kapal Tangki Antarabangsa (4.14) dan Kapal LNG Antarabangsa (Mean = 3.87) kebanyakannya bersetuju bahawa teknologi memberikan kesan kepada masalah kelesuan berdasarkan skor purata yang tinggi.
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A Survey on Fatigue among Malaysian Seafarers in Different Maritime Sector
B NUMAST Sample of Survey and Report
C Perception of Ship Technology Questionnaire
his focal point is about the lack of human resource to cope with the expansion of maritime industry, which is generally related to fatigue problem.

There’re also haven’t any study conducted in identifying the existence of fatigue and its differences among Malaysian seafarers in different maritime sectors. Hence it is appropriate to conduct this kind of study knowing the fact that Malaysia is in the track of becoming one of a well known maritime country.

1.3 Objectives of Research

This study is conducted to accomplish these following objectives:-

i. To identify the sources of fatigue and fatigue level among Malaysian seafarers

ii. To confirm the effect of technology to fatigue among seafarers.

1.4 Scope of Research

This research is carried out under these scopes:-

i. Analyses are based on demographic

ii. Research on various types of maritime sectors including offshore sector, deep sea sector (container ships, tankers, bulkers) and near coastal sectors including passenger liners.

iii. Research on implementation of technology onboard ships and the effect to the fatigue issues.
1.5 Problem Identification

In order to ensure that this project can be carried out smoothly and finally achieves its objectives, certain problems which are part of the project itself would have to be identified. These are the problems, which require consideration of various problems solving methodology in order to produce a reliable solution. The major problems in this project have been identified as follows:

- The suitable approach to process and analyze the data and also the suitable software to be used later.
- Obtaining the suitable sector to be surveyed for this project. Consideration should be given to the fact that shipping industry in Malaysia now is monopolizing by one or two major player. So that, networking to this company must be initiated from the beginning of the project to ensure the survey can be carried out.
- Identifying the right time to get the respondents which are very difficult. It’s because of the unpredictable and tight schedule of the Malaysian ship.

1.6 Thesis Organization

This report consists of six main chapters where each chapter will focus on the relevant topics as follows:

1.6.1 Chapter 1

This is an introduction section where the background of the study will be elaborated briefly. The objectives and the scope of research also will be stated clearly in this chapter.
1.6.2 Chapter 2

For the purpose of understanding and knowing on the topic of the project in details, this chapter will focus on theoretical and any findings which related to the research topic. It is called as literature review. Clear information on fatigue such as definition, concept, effect, sources, measurement and etc can be read in this chapter. For better understanding, there are also a lot of readings on the maritime sector and brief information on technologies at sea had been added in this chapter.

1.6.3 Chapter 3

This chapter presents the details of the research methodology where will be focused on the processes of executing the project or study from drafting the questionnaires, data collection, result processing and method of analysis. At the end of this chapter, the analysis of pilot study also will be presented.

1.6.4 Chapter 4

In chapter 4, the final result where the evidence of the sources of fatigue is shown. The details of analysis of the data and result will be presented in details. All the figures, tables and chart which represent the analysis of the data will be shown and the details description of the analysis will be given clearly in this chapter.
1.6.5 Chapter 5

Chapter 5 discusses the result which shown in previous chapter in detail. The discussion to be made based on the result obtained in chapter 4. The arguments and evidences on the results also will be discussed further in this chapter as well.

1.6.6 Chapter 6

Chapter 6 presents the overall conclusion and some recommendations for future research. This chapter will formulate the findings and the objectives of the project. At first, the objectives of the project will be reviewed and conclusions will be made based on the outcomes of study. To reinforce the outcome of this project, some recommendations were made at the end of this chapter where the proposed future studies to be carried out.

1.7 Summary

This chapter actually presents of the need of this study. The objectives and the scope of the study also clearly stated at the beginning of write up and it gives clearer direction what sort of expected outcome to be achieved at the end of the project. The scope of the study is also important as a direction to complete the study. The result must be relevance and significant to the overall topic and objectives.
CHAPTER 7

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