

**INVESTIGATION OF SIGNIFICANT FACTORS
INFLUENCING OCCUPATIONAL SAFETY AND
HEALTH PRACTICES: A CASE OF ENGINE ROOMS IN
OFFSHORE PATROL VESSEL OF SRI LANKA NAVY**

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Management

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Sri Lanka

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Declaration

I declare that this is my own work and this dissertation does not incorporate without acknowledgment any material previously submitted for a Degree or Diploma in any other University or institute of higher learning to the best of my knowledge and belief. It does not contain any material previously published or written by another person except where the acknowledgment is made in the text.

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The above candidate has conducted research for the dissertation for the Degree of Masters under my supervision.

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Prof KGAS Waidyasekara

Date:

Signature of the supervisor:

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Abstract

Deviation from perfect Occupational Safety and Health (OSH) practices on board naval ships is a common issue faced by the Sri Lanka Navy (SLN) and other navies worldwide. Many of the identified issues and their causes are shared across different naval contexts. However, ergonomics, a critical factor in OSH, is often overlooked, despite its significant impact both in acute and chronic scenarios. This study aims to investigate the significant factors influencing occupational safety and health practices: a case of engine rooms in an offshore patrol vessel of the Sri Lanka Navy where such deviations have been a persistent issue in recent years.

The methodology involved a systematic approach to identifying and prioritizing the causes of OSH deviations through data collection, analysis, and expert consultation within the SLN. By focusing on the engine rooms of naval ships, the study highlights the factors that contribute to occupational hazards and offers a framework for ranking their significance. The study was based on both qualitative and quantitative analysis. All quantitative data were analyzed using inferential statistics tools.

Through the literature and questionnaire survey, six factors; Administration, Technology, Finance, Knowledge, Interest and Environment were identified as the major issues of OSH deviations, which were based on various influential factors. These factors not only affect the immediate safety of personnel but also lead to long-term health consequences.

The developed approach can provide a replicable framework for other navies and organizations facing similar challenges. By identifying and prioritizing causes specific to their capability, operational contexts, management can implement targeted interventions that address the most critical issues. This study serves as a foundation for enhancing OSH compliance, and safeguarding the health of naval personnel in the SLN and beyond.

Key Words: *Musculoskeletal, OSH practices, Offshore Patrol Vessel (OPVs),*

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LIST OF ABRIVIATIONS

OSH	-	Occupational Safety and Health
SLN	-	Sri Lanka Navy
OPV	-	Offshore Petrol Vessel
HF	-	Human Factor
HCD	-	Human Centered Design
LCPA	-	Life Cycle Performance Assessment
MTBM	-	Mean Time Between Maintenance
ILO	-	International Labor Organization
MLC	-	Maritime Labor Conventions