IMPLEMENTING A RATING-BASED FRAMEWORK IN HEALTH AND SAFETY MANAGEMENT: CONSTRUCTION INDUSTRY CONTEXT IN SRI LANKA

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DECLARATION

I hereby declare that this thesis is an original report of my research conducted under the guidance of Prof. (Mrs.) Udayangani Kulatunga and has not been submitted for any previous degree or any other educational purposes of any other university/institute, private or public. The experimental work is almost entirely my work; the collaborative contributions have been indicated clearly and acknowledged. References have been provided on all supporting works of literature and resources.

I also acknowledge the intellectual contribution of my research supervisor, Prof. (Mrs.) Udayangani Kulatunga, for the successful completion of this research dissertation. I also confirm that this dissertation will not be published without the name of my research supervisor as a contributing author unless I have obtained written consent from her. I also grant the University of Moratuwa the non-exclusive right to reproduce and distribute my dissertation, in whole or in part, in print, electronic, or in any other medium. I retain the right to use this content in whole or in part in future works such as articles or books.

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DEDICATION

I wish to dedicate this work to my brother-in-law, Ilmi Perera , and my father-in-law, Somapala Perera , for their support and encouragement and for being with me every step……..

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ABSTRACT

Sri Lankan safety and health regulators set safety goals, and construction companies frequently archive them. However, Sri Lankan health and safety records look appalling. It is evident that there exists an information gap when it comes to communicating the functionality of a construction company's health and safety management. This research suggests a solution in the form of a ranking-based evaluation on the health and safety management system.

The standard model of Sathyanarayanan Rajendran's Sustainable Construction Safety and Health (SCSH) Rating System was used as the prototype. A literature review was conducted to investigate each element of the system and, also to identify the effectiveness of those components. Expert interviews and a questionnaire survey were done to convert the prototype into the Sri Lankan context and to evaluate the importance of every element. The Battelle method was used to prepare the questionnaire survey and to analyze the collected data.

A system comprised of 14 components was formed and the elements corresponding to managerial health and safety commitment, training and education and safety and health planning received the highest weightage. These components give a higher contribution to society; therefore, the Contractor can get higher value in the industry and be prominent in other competitors as well and all stakeholders are interest parties to the Contractor.

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LIST OF ABBREVIATIONS

Abbreviation	Description
HSMS	:- Health and Safety Management System
ILO	:- Personal Protective Equipment
OSHA	:- Occupational Safety and Health Administration
RBF	:- Rating-Based Framework
SCSH	:- Sustainable Construction, Safety and Health
OSHM	:- Occupational Health and Safety Management
SWA	:- Stop Work Authority