EXPLORING SAFETY CULTURE MATURITY OF SMALL AND MEDIUM SCALE RAW RUBBER PROCESSING ENTERPRISES IN SRI LANKA

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Thesis submitted in partial fulfilment of the requirements for the Degree of Master of Philosophy in Department of Building Economics

Department of Building Economics

University of Moratuwa Sri Lanka

March 2019

DECLARATION

I declare that this is my own work and this thesis does not incorporate without

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Name of the supervisor: Dr. Sachie Gunatilake

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I

ABSTRACT

Workplace safety in small and medium scale raw rubber processing organisations has been a neglected subject, though this sector is still a major foreign exchange contributor to the national economy in Sri Lanka. Previous researches have highlighted that these organisations have not taken substantial efforts in ensuring safety in their workplaces. This negligence has resulted in numerous safety issues and fatalities, leading the industry to such a point that, ultimately, the workers have to pay with their lives. Existing literature suggested that strengthening a robust safety culture as one method of addressing safety related issues since it has the potential to provide an umbrella for safety issues. However, an in-depth investigation on safety culture maturity is needed as the first step in the journey to safety culture excellence. Although many newspaper articles disclosed the current safety issues of raw rubber processing organisations in Sri Lanka, a holistic understanding on safety culture maturity has not yet been provided. This is because, first, many of the news articles are based only on a particular incident or accident. Second and more significantly, maturity of safety culture is generally determined based on the maturity of safety culture manifestations and the existing situation has not been researched yet. To address this knowledge gap, this research aims to explore the safety culture maturity of small and medium scale raw rubber processing enterprises in Sri Lanka.

The study used a qualitative case study methodology underpinned by interpretivist philosophical assumptions to address to the same. Firstly, an in-depth review of literature was carried out to conceptualise the safety culture and safety culture maturity for this study. Due to the lack of literature available in this regard in the raw rubber processing sector, informal interviews were conducted with experts, owners and workers of the raw rubber processing sector to ascertain the relevance and applicability of manifestations identified from literature to the raw rubber processing sector. Findings from the literature review and informal interviews were used to develop a conceptual framework including four levels that can be used to explore safety culture maturity. Two cases were selected from leading small and medium scale raw rubber processing enterprises in Sri Lanka. Data was collected using four techniques (i.e. semistructured interviews, focus group discussions, observations and documentation review) allowing adequate data triangulation followed by ample data saturation during case analysis. Code based content analysis was used in data analysis. In this study, safety culture was viewed as "How people feel (psychological)', 'What people do (behavioural)' and 'What the organisations has' (managerial) in relation to safety". Thus, these safety culture manifestations were analysed following the three levels of coding as open coding, axial coding and selective coding, to determine the current behaviour of psychological, behavioural and managerial manifestations. Abstract findings of the analysis were then mapped with characteristics of each safety culture maturity level (i.e. Pathological, Reactive, Calculative, Proactive and Generative) using the developed conceptual framework to determine the level of maturity. The study found that level of safety culture maturity of the raw rubber processing enterprises mainly fell into the 'pathological' level, with only a handful manifestations identified as displaying the characteristics of 'reactive' 'calculative', 'proactive' levels. This research mainly contributed to the existing knowledge domain of safety culture in general and safety culture maturity of raw rubber processing organisations. The knowledge generated through this research can be used by respective industry practitioners in Sri Lankan rubber industry, owners of raw rubber processing organisations, research institutes in Sri Lankan rubber industry and relevant government bodies as a basis to get an understanding on the status of safety culture maturity of small and medium scale raw rubber processing organisations in Sri Lanka. Also, the findings of this study facilitate them to focus on improvement efforts that should be taken to move from current maturity level to next levels of maturity and ultimately to the generative level, in the journey to a robust safety culture.

Keywords: Safety Culture, Safety Culture Manifestations, Safety Culture Maturity, Small and Medium Sized Enterprises, Raw Rubber Processing

DEDICATION

This piece of work is dedicated to;

My beloved family

who always picked me up on time and encouraged me to go on every adventure, especially this one.

and

All stakeholders in raw rubber processing sector,

who have been going through many hardships in contributing to economic growth of the country and establishing the name "Sri Lanka" in the international arena.

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LIST OF ABBREVIATIONS

CA/ES Estate Superintendent of Case A

CA/FO Factory Officer

CA/MaFO Management Assistant to Factory Officer of Case A

CA/SC Staff Clerk of Case A

CB/AM-DGM Deputy General Manager of Case B

CB/DGM Deputy General Manager of Case B

CB/FO Factory Office of Case B

CB-Ex-T Training Executive of Case B

FB Fractionated and bleached (FB)

FUB Fractionated and Unbleached Rubber

IAEA International Atomic Energy Agency

IARC International Agency for Research on Cancer

PPE Personal Protective Equipment

RSS Ribbed Smoked Sheet

SME Small and Medium Scale Enterprise

UFUB Unfractionated and Un-Bleached Rubber