

**Occupational Safety & Health Management Issues of
Small & Medium scale Industries in Manufacturing Sector**

Edman Abeysiriwardena

(138502 H)

Degree of Master of Science in
Occupational Safety and Health Management

Department of Building Economics

University of Moratuwa
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DECLARATION

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

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Date

I hereby acknowledge that he has followed the dissertation process set by the Department of Building Economics.

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Dr. E.N.D. De Silva
Dissertation Supervisor

.....
Date

ABSTRACT

Occupational Safety & Health Management Issues of Small & Medium scale Industries in Manufacturing Sector

Small and medium scale industries(SMI's) play vital role in economic development of developing countries and also SMI's are labour intensive capital saving and capable of helping to create a large number of new job opportunities in worldwide as well as in Sri Lanka. However the employees of SMI's are lagging behind in providing OSH to workers. It may include manual material handling, lack of training, chemical handling and poor infrastructure facility etc. In the recent past, past traditional manufacturing process transformed and get in to use wide variety machines for the purpose of cutting, drilling, grinding and mixing etc., without considering OSH. Hence SMI's need to enhance OSH in management skills, finance, technology, commitment and understanding of losses due to injury and illness. This research was undertaken to define appropriate framework to implement OSH practices improving OSH in SMI's.

The sample was selected considering different type of manufacturing industries to get better sample. Data collection of this research involves three phases such as pilot survey, main survey and expert interview. The pilot survey was conducted to validate the questionnaire developed based on literature findings for main survey. To collect data from SMI's a structured questionnaire was used among hundred and twenty employees who belongs to managers and other categories from the manufacturing sector SMI's. Relative important index (RII) was adopted to rank the critical OSH barriers ($RII \geq 4$). For expert interviews were conducted to explore strategies to overcome critical OSH barriers. Content analysis was used to establish strategies to address the current issue of SMI's.

Based on the questionnaire survey it is identified that the use of management practices are poor in SMIs in availability and practice of safety policy, awareness & applicability of legal requirement. Similar poor situation was observed for use of safety system such as use of sign board, alarm system, machine guard, level of light & ventilation. Safety practices are also poor such as use of PPE, work permit, accident reporting & general register. Further it is identified barriers for OSH implementation and critically affected factors such as insufficient risk assessment & OSH audits, insufficient toolbox meeting, lack of safety training, lack of safety technology. Finally it has been identified strategies through experts to improve OSH practices and overcome management issues of SMI's such as establish regional safety centers to provide technological support, training, conduct safety promotional activities including risk assessment and OSH audit, As a second strategy Strengthen OSH legal frame work (Factory ordinance) by legalizing OSH management system, training and monitoring mechanism. As a third strategy expanding OSH educational system by introducing OSH as a compulsory subject for schools and other educational institutions and compulsory for employers and employees. As a fourth strategy national policy to get owners and managers commitment for OSH by introducing financial supportive projects such as low interest loan, tax concession for OSH projects. Compliance certification for OSH when market the product.

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ABBREVIATIONS

CBOs	–	Community Based Organizations
ILO	–	International Labour Organization
MNEs	–	Multi National enterprise
NGO	–	Non-Governmental Organization
NSDC	–	National SMI Development Council
OSH	–	Occupational Safety and Health
SMEs	–	Small & Medium scale Industries
MNEs	–	Multi National Enterprise
NGO	–	Non Governmental Organization
NSDC	–	National SMI Development Council
OSH	–	Occupational Safety and Health
PPE	–	Personal Protective Equipment
RII	–	Relative Important Index
SBIR	–	Small Business Innovation Research
SBTT	–	Small Business Technology Transfer
SHGs	–	Self Help Groups
SMEs	–	Small & Medium scale Industries