

A Restorative Safety Model for Micro and Small Enterprises

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Abstract

Despite of numerous efforts, Small businesses are still more hazardous in compare to large businesses in all of countries worldwide, although some countries have explored their safety scenarios, some countries yet to explore. These scenarios pose the question about effectiveness of safety model in small businesses. In this response, this study presents a conceptual safety model, for micro and small business environment, which consists of five levels of hierarchy to be inter-related for final version of safety model in restorative fashion. Each level must follow basic rules and regulation that is imposed by top authority level. Collaboration manners with ubiquitous interaction to get innovative ideas are emphasized throughout the safety model. Consequently, a control of performance rather than control of errors of individual and organizational behaviors could be gained, which gives novelty look of this safety model for micro and small business especially

Keywords

Micro and Small businesses; Safety Model.

1. Introduction

Due to dominating presence of informal micro and small businesses, SMEs are formally called by informal business [1]. In contradiction, small businesses are the prime engine of economic development in USA, Europe Australia [2,3] and even in Gulf Cooperation Council (GCC) region [4]. In the same time, it commits greater health and safety concerns such as higher accident rates for major and minor injuries and lost days[5,6] around the both developed and developing countries, which indicates health and safety status is not adequate due to soft occupational health and safety issue in this businesses [7]. Additionally, according to Jean Cadieux et al., (2006), even for no accident in some period of time, does not conclude that health and safety condition is good in workplace[8]. Thus, full potency of small businesses cannot be utilized in development without right safety model. Moreover, it is admitted that safety models generated specifically for Large Enterprises (LEs) cannot be simply brought down to micro and smaller enterprises [9] because of dissimilar characteristics. Many authors find that lack of complete regulatory and enforcement strategy [10,11], lack of capacity to assess and control risks in an effective way[12,13] makes safety model difficult in micro and Small Enterprises. Furthermore, worsen scenarios has been influenced by deficient researches in case of Small businesses especially for some countries [14]

1.1 What is a Small business?

Regardless of legal form, any entity involves in economic activity is considered as a business enterprise. A small business employs less than 50 people and annual turnover not more than 10M€ and a micro-business employs fewer than 10 people and their annual turnover not more than 2M€[15], although monetary value is calculable with respect to local currency. Additionally, micro and small businesses can be characterized by low management, employees from different nationalities, little access to adult training and to the new requirements of the market, do not federate and produce high amount of waste [3], informal social dialogue, fast decision making, low degree of delegation, lack of long term strategic vision[16], limited capital and other resources[17] have mono-service and or product, economic pressure, sell to the local market, family traditions(micro business) [18].

1.2 Direction for a safety model for micro and small enterprises

Comparatively more hazards and associated risks are occupied in work environment of small enterprises [5, 19, 20] that urge all of us to develop a complete safety model for micro and small enterprises especially. Both problematic and suggestive factors of a safety model have been identified from previous studies in this area. For example, non or less awareness of legislation, loose governing structure and lack of standard protocols for small business are essential for a successful safety model [21, 22] and corporate governance covers basic obligations and governing relationship at all level of business [23, 24]. Additionally, to get proper benefits, a safety model should be incorporated at corporate level which ultimately directs to strategic level and onwards [25]. Holding closer and owner-managed characteristics of small business leads to poor strategic decision along with barriers of innovation and emerging into new concepts [26]. Thus, it is advisable that alliances and co-operative relationships between same firms could improve these shortcomings [27]. A team work, which focus on shared and organized understanding of relevant knowledge, enhance the bondage in alliances and co-operative relationship in Small business environment [28, 29]

Eventually, an effective safety model must seek a complete framework for analyzing the source, propagation and eventually the ways of prevention and mitigation of risks in business, not only assessing the risks. Consequently, it is recommended that proposed safety model should be modeled through various multi-disciplinary management levels, considering a risk is generated in progressive fashion from corporate level to workplace level [30]. And, a safety model must be system approach oriented focusing action sequences to dilute risks come from different management level in micro and small business environment.

1.3 Objectives of this study

The aim of this paper is to propose a restorative safety model which illustrates how model can be generated along with risk mitigating techniques at each level of safety management for the micro and small businesses.

2 Literature Background

Various inter-connected behavioral factors, such as lack of trust[31,32,33], not having team members [7], Lack of face-to-face contact to industry partner [31], lack of knowledge and understanding [32,33], Language and culture barriers [34,35] and lack of motivation[33], with common factors such as management[36], lack of recourses, cost [37] and time [33,36], difficulties to access into reach the small enterprises [13,20, 37] have been came out as a barriers to comply the safety rules for micro and small businesses. Charlotte Yapp and Robyn Fairman, (2006), argued the reactive approach of regulatory and enforcement strategies in small businesses[33] and in that case, Walters (2001),[20] proposed an new idea that chambers of commerce, local authorities, various public business advisory services, and collaboration between the labor market parties could play as a intermediary in health and safety system for Small enterprises.

It has been said by International labor office, Geneva, that health and safety model for any organization should come from national guidelines, law and regulation that comply with ILO guidelines. A tailored guideline can be generated considering any organizational requirement. The system must have the main elements of policy, organizing, planning and implementation, evaluation and action for continuous improvement in organization level [38]. A safety representative is required in any small business and effective safety system can be generated by assigning responsibility for all stakeholder (employers, supervisors, workers, prime contractors, and owners) [39].

An effective safety systems for construction sites has been developed by taking documents from leading companies, comparing safety management systems from different countries, survey reports from workforce. Many attributes of this safety systems were ranked and prioritized by using analytical hierarchy process(AHP). Final feedback from the field level were adjusted before finalizing the proposed [21]. Similarly, Costel SUDITU, (2007) proposed an overall framework for occupational health and safety systems that consists of five elements such as initiation-input at top level(Management commitment and resources, Regulatory compliance and system conformance, Accountability, responsibility and authority and employee participation), documentation at partners level (safety policy/goals and objectives, Baseline evaluation and hazard assessment, system manual and procedures,) and implementation(training system, Preventive and corrective action system, Procurement and contracting), output and feedback at organization level and evaluation(incident investigation and the root-cause analysis)at workplace level in a continual improvement and he proposed small business community can be integrated with primary health care community [40]. The offshore contraction association, (2003) proposed OHSAS 18001 on health and safety system for SMEs[41].

Jens Rasmussen, (1997) originated a coordinated cross-disciplinary safety model for dynamic society of Small industries [30]. He wrote “Many levels of Governments, managers, safety officers, and work planners are involved in the control of safety by means of laws, rules, and instructions that are formalized means for the ultimate control of some hazardous, physical process. They seek to motivate workers and operators, to educate them, to guide them, or to constrain their behavior by rules and equipment design, so as to increase the safety of their performance”. This model considered socio-technological system involved in risk management as it accounts tasks and act rather than behavior of individual and organization, whereas it is argued that individual and organizational behavior is more essential than task and act [42]. Additionally, author mentioned that proposed top-down approach of control may be effective in stable society but in dynamic society down-top approach could be effective but at the same time he mentioned, a bottom-up approach is not useful for analyzing the performance of model.

3 Methodology and Proposed Safety Model

Based on literature review in the area of safety model and its numerous factors, one conceptual safety model for small and micro business, especially, has been presented in this study (Fig. 01). This safety model has five levels of hierarchy with specific purposes that to be important for proper implementation of safety model in this area. Whole model will be justified by the feedback from experts, professionals, law makers and workforce through semi-structured questionnaires.

3.1 Explanation of proposed safety model

The safety model in our study can be divided into five levels of hierarchy which have specific activities to generates whole model in restorative fashion (each level contributes in incremental ways to build final model successfully).

Authority level

This is the top level of safety model, consists of central Government, regional authority, local authority (like chamber of commerce) put the decrees, rules and regulations to be followed must by the next levels of model and all the enterprises exist in business are connected with the authority level. The Authority use input documents from their own study, other’s countries OHS rules, ILO, WHO, NIOSH, NGO’s. Each of small enterprises should obey at least these rules and regulations. Behavior of individual and organization is emphasized with the means of motivations to get bi-directional involvement of all industries in small business. In this way, control of performance is focused rather than control of error of tasks and acts.

Industry level

Regulations burdens, intellectual properties such as conduct researches, knowledge of donors, new technologies are focused in this level, considering all small businesses as a common industry. It acts as knowledge hub between authority level and all rest levels in small businesses, by which external information and knowledge can be accessed into any company by worthy manner for them [43]. Universities and other public organizations can play role in knowledge distribution [34]. Trust, Common culture and easy structure of knowledge are the keys in this level [33,34].

Company level

Small businesses are grouped in different clusters such as, manufacturing businesses, metal workshops, chemicals, foods and agricultural, even though a strong inter-relationship exist like customers for each other. Changing business environment, financial pressures, material and equipment, planning and direction of project are discussed in this level [30]. Alliance governance with coordinated network is punctuated in ubiquitous style in this level and by these; information becomes knowledge and learnable [44]. A company can be benefited by

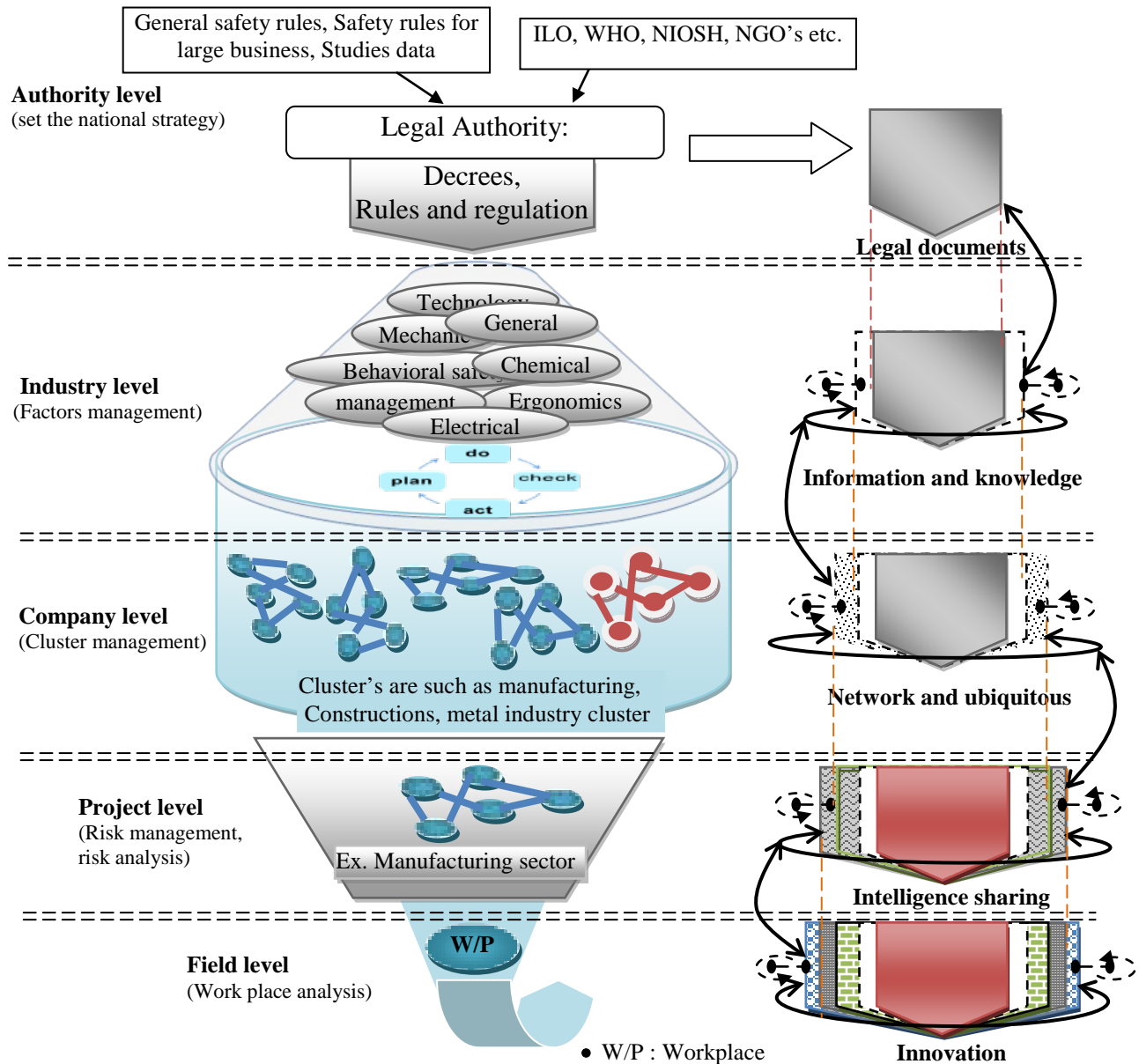


Figure 1: Restorative Safety Model for Small Enterprises

Joint activities of any companies [45] The safety environment in this level works according to rules and regulation given by authority level that further may be complied by some research works in industry level.

Project level

Organizational factors and management factors (Motivations, skills, training, work design, policy design, man-machine interactions) are stressed through in-depth investigation in this level, which helps to direct get at victims or responsible persons at project level of small businesses. some comprehensive methods like WAIT method (Work Accidents Investigation Technique), HACCP(Hazard analysis and critical control points) can be used in this purposes [46]. Intelligent sharing by collaboration between two or more enterprises could help to manage these factors effectively to create a competitive advantage and higher profits [47,48]The basic rule and regulations are still to be followed must if any others have not been added by prior two levels. Final drafts of work policy and procedures should be accessibly available in manual or in memo at the workplace.

Field level

Many easy and quick tools or established risk assessment are available to examine workplace factors (work environment, job/task related, tools/equipment related, weather/natural factors) in field level of small businesses. Each factors, (like before hiring permanent or temporary workforce and any equipment/tools etc.) should comply with some pre-set requirements After rectification through several levels, the rules and regulation are followed in this level. In the mean time, dynamic capabilities by previous level activities instigate all workforce towards the innovative ideas of safety issues[49]. Prior accomplished initiatives from different levels combined with workplace strategies can improve innovative performance in small business [50]. Providing sound technical understanding and training are important in this level.

4 Discussions and Conclusion

From peer literature review, a conceptual safety model for micro and small businesses has been proposed in this study. The application and feedback from bulk respondents yet to be adjusted. Although authors have strong believe on its proper usefulness and implementation in micro and small business environment. It consists of five different levels holding particular guidance for any levels of safety model. All levels are interacted vertically in bi-direction ways. Authority level sets the basic rules and regulation, which must be obeyed by all level. Each levels are encourage to contribute their ideas on flexible basis. Because of ever changing dynamic environment in small business, a cross-disciplinary approach is used to build up the model. Some innovative ideas of safety can be generated by intelligence sharing through knowledgeable networking among the enterprises. Some decision analysis tools play important role to get knowledge from information and data available from authority level or from any other level of businesses. Collaboration technique is focused to control the performance rather than control of errors of individuals and organizations behavior.

In conclusion, this paper presented an overall framework of a safety model for micro and small businesses. Even though, several sectors of safety issues of small businesses have been studied since long, to our knowledge, a complete safety model for micro and small businesses yet to publish. In this way, it could be door-opener in this area. Collaboration among all parties to come up with innovative ideas is emphasizes to generate this safety model in restorative fashion.

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