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“Contribution to the occupational risk assessment for sustainable management in health and safety at work: case study”

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Abstract. This article describes the progress of continuous improvement of management practices based on feedback from adverse events revealed and recorded during a period of activity within a national company. This rapidly expanding tool is intended to provide the means for reflecting on the experience acquired during accidents and / or incidents that have occurred in a normal or disorganized situation, in order to draw the consequences, memorize it and reuse it. It is a process in which the manager observes with his own eyes the mapping of working conditions for a well-defined period and thus makes decisions based on real information. Thus, the assessment of occupational risks is at the heart of a search for continuous improvement in occupational health and safety. This assessment consists of a thorough inspection of the workplace to identifying the different situations and processes that may cause harm, in particular to people. It is very difficult to do prevention when we have a little knowledge of the factors that cause accidents or only part of them. To overcome these weaknesses and have an effective prevention in the company, a structured approach of action is proposed. The latter makes it possible to propose measures to improve performance in terms of health and safety and working conditions in companies. As a field of study, we try to constitute a memory of the risks based on the experience feedback of the adverse events manifested in the national company "SOFARE".

INTRODUCTION

This work is part of a study to assess working conditions within a national company, the aim of which is to discern the different causes of work accidents, or even to come up with measures and methods of management contributing to the improvement of working conditions. Importantly, this minimizes the rate of work-related accidents and at the same time improves business performance [8]. As a field of application, we have chosen the SOFARE Company located in Ain Smara, Constantine. The assessment is made for a five-year fiscal period of 2014-2018.

WORKING METHODOLOGY

In this work, we have chosen to orient our work on a data-driven approach. The envisaged working method is based on experience feedback, a posteriori approach, from adverse events manifested in the company. This approach is primarily a learning tool for organizations, which allows them to build up a risks memory.

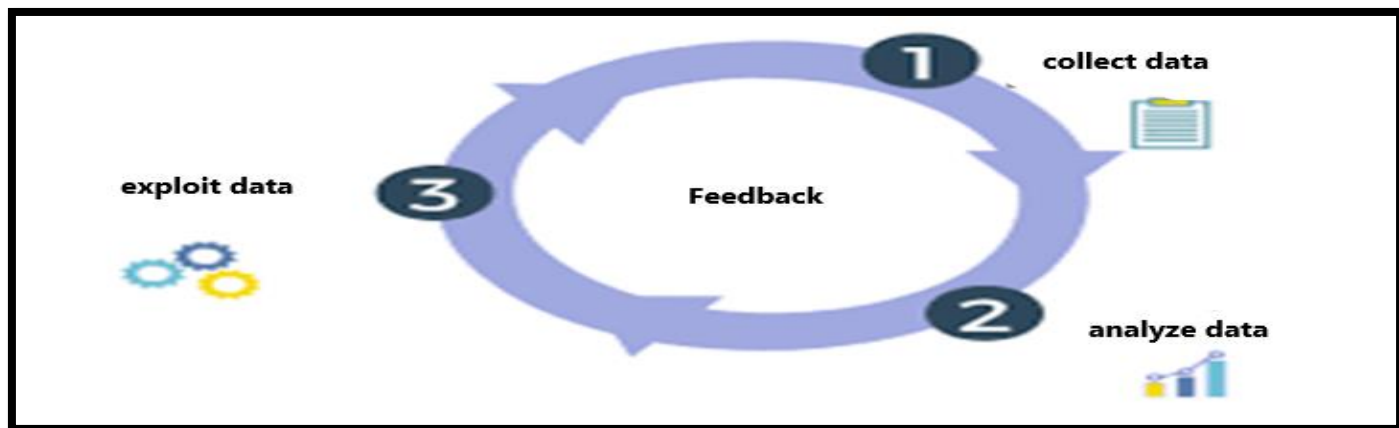


Figure 1: Envisaged approach

Analysis of data and interpretation of results

The results of the information gathered in the field of adverse events manifested during the period spanning from 2014 to 2018 are presented in the following figures:

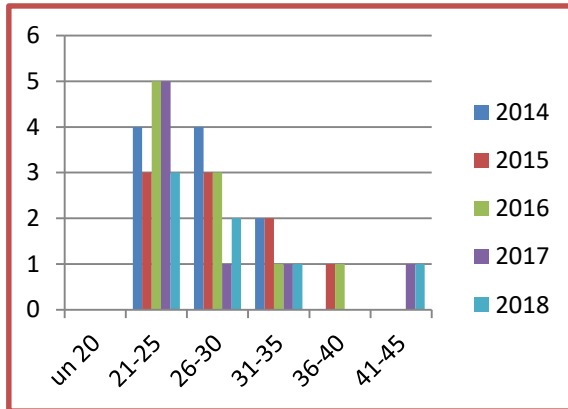


Figure 2: Distribution of industrial accidents according to age groups

Comment: According to the obtained results, we can see that the most affected are the slices of youth 21 to 25 years and those older than 51 to 55 years. In our view, we can say that the first tranche inexperience and low training and information through against the second tranche despite having the experience but low reaction (aging problem and fatigue).

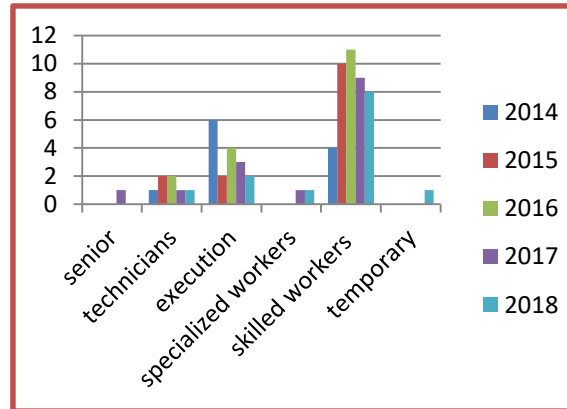


Figure 3: Distribution of industrial accidents according to the professional qualification

Comment: Note that the executive and skilled workers (OQ) are the most affected by workplace accidents. In our opinion it's the slices that are in direct contact with machines and production tools.

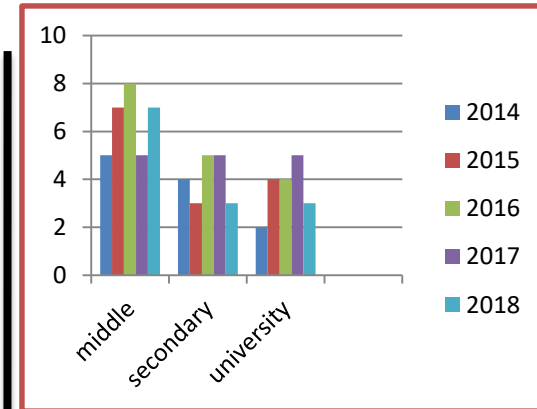


Figure 4: Distribution industrial accidents according level of education

Comment: In this scale, we note that the people most affected by accidents at work are those of the average level. In our opinion, they must be reminded when ever necessary safety precautions and rationalize the training.

Proposed approach

Following this study, we note that the company is failing in occupational health and safety even no improvement in prevention and protection during the five years of study. Otherwise, an emergency action program is required based on the general principles of prevention. Thus, we propose the following approach to improve health and safety within our company study. The approach consists of the following steps, Figure 5 .

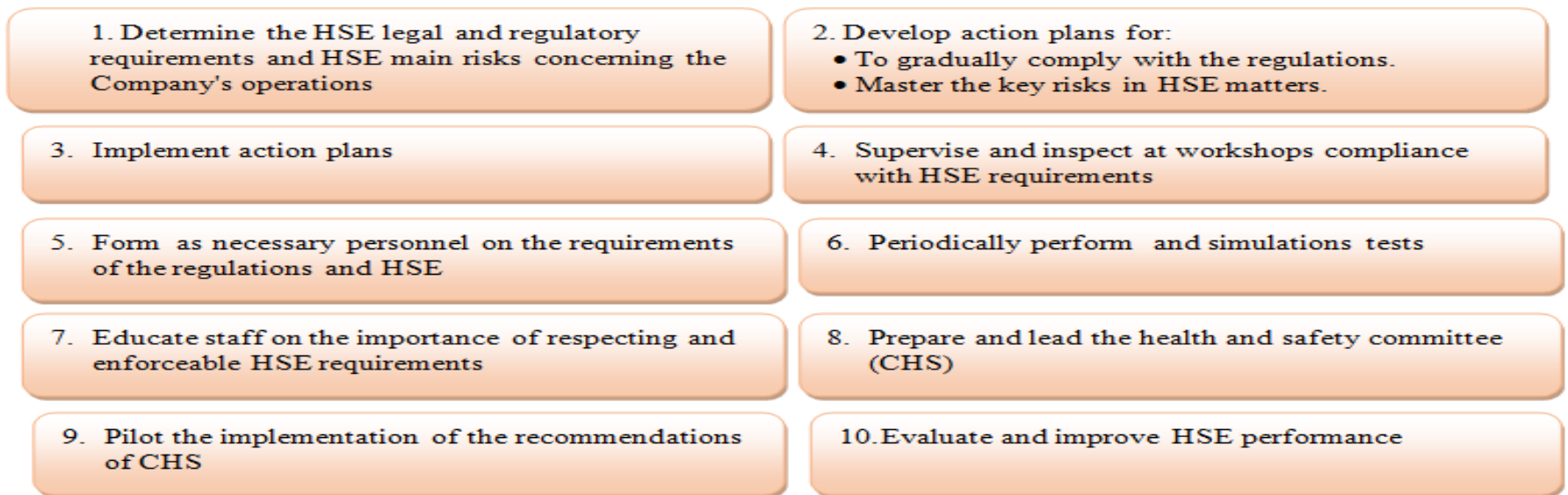


Figure 5: SST improvement approach in the company SOFARE

Conclusion

In conclusion, we note that it is very difficult to do prevention when the factors involved in accidents are not well known, or only a part of it is identified. In addition, for effective management of prevention in the company, it is necessary to encourage the integration of prevention into the various activities of the company and in particular production.