

A simple tool to calculate the business costs of OHS problems

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1. Introduction

Several tools have been developed world-wide in order to help companies calculate the costs and benefits of occupational health and safety (OHS) measures. The idea is that knowledge of the costs of poor working conditions and knowledge of the benefits of good OSH will motivate decision makers to invest in OSH improvements. However, this idea has at least two problems. Firstly, some of the developed tools are too complicated for the users. Often researchers or consultants are needed to perform the calculations. This has limited use of the tools significantly. Secondly, it has seldom been thoroughly investigated which impact such tools have on OHS decisions in companies.

A new tool and a new scientific intervention project in Denmark try to overcome these two problems. This paper presents both tool and project. Furthermore, the first preliminary results of the intervention project are presented.

2. The tool

The tool was developed for FOA – a union for unskilled and low-skilled workers in the public sector – by COWI. The tool was made available on-line in October 2013 to everyone at the address: www.foa.dk/amberegner.

The tool basically requires only three figures as input: Number of employees, average absence rate and average wage at the workplace. If relevant to the workplace the following figures can also be fed into the tool: The yearly number of work accidents at the workplace and the average number of days off work per employee per accident, the yearly number of cases of violence or threats at the workplace, and the number of employees with work-related skin problems.

The outputs are direct costs, indirect costs and total costs in relation to 10 specific OSH problems which are typical for workplaces where members of FOA work: Heavy physical work, emotional and monotonous demanding work, stress, working alone, bullying, work accidents, violence and threats, bad indoor climate, noise, and work-related skin problems.

The automated calculations of direct costs related to the OSH problems are based on the input figures and on either etiological fractions or ratios. The etiological fractions are derived from a survey in 2010 among a representative sample of FOA members and they reveal the amount of absence among FOA members which can be explained by some of the mentioned OSH problems. The ratios are found in the FOA survey, or in scientific papers. The ratios reveal how much longer the absence period is for employees who

experience one or more of the other OSH problems compared to employees who do not experience these problems. The direct costs of work accidents are calculated straightforwardly from the input figures. Thus, the tool is based on the assumption that the figures from the FOA survey and the literature are useful at workplace level in those cases – which is almost all cases – where the reason for absence is unknown to the workplace. The indirect costs are calculated as 2 times the direct costs. The factor of 2 is an estimate based on published factors. Total costs of an OSH problem are calculated as the sum of the direct and the indirect costs.

3. The intervention project

The purpose of the project which is performed with financial support from the Danish Working Environment Research Fund is to investigate what happens when a workplace via the tool gets knowledge of its costs associated with OSH problems.

The project follows 39 workplaces in the public sector where the tool is brought into use. Each workplace is visited by the researchers 4 times over a period of about 1½ year: The first time before introduction of the tool, the second time shortly after introduction and initial use of the tool, and the last two times at different intervals from the initial use in order to monitor the impact of the tool on the workplace's decisions and activities regarding OSH. The researchers perform an interview with the members of the OSH organization at the workplace at each visit.

The intervention itself comprises the tool, a short guidance describing how to use the tool as part of the project and a one hour long workshop for the interviewed workplace representatives. At the workshop the guidance is presented and the tool is demonstrated.

4. Preliminary results

At the time of writing, the second workplace visit has been carried out at only one workplace. The results presented here are based on this single case.

The workplace is a social psychiatric support center for mentally ill adults with 24 employees. The OSH group comprises the head of department, the deputy manager, and two safety representatives.

The group experienced that the tool was easy to use. However, it required some discussion to relate the OSH problems, as they are articulated by the group, to the wording of the 10 problems in the tool. The group accepted the use of etiological fractions. The group was not aware of the indirect costs before use of the tool but the members agreed that there are indirect costs and accepted the factor of 2. The tool had an eye-opening function, especially for the safety representatives. The results of the tool reinforced the group that the preventive measures already in place were good investments, and the group was motivated to invest even more in prevention of OSH problems and in return-to-work measures. However, the group did not use the tool in the actual decision process about new measures, because it wanted to employ a more appreciative approach rather than a problem-oriented approach.

5. Conclusion

The first preliminary results from the project indicate that the tool is easy to use for workplaces and motivates OSH organizations to implement preventive OSH measures.