

IMPROVEMENT OF THE AREA OF OSH IN THE ENTERPRISE – BEHAVIOURAL APPROACH

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Abstract: The paper attempts to determine whether the issue of the effect on people's behaviour in the area of occupational safety and health is perceived in the same way by experienced workers as by those who are just beginning their activity in the labour market. The following questions were answered: what may be the reasons for the inappropriate behaviour of employees in the area of occupational safety and health, what motivators should be used to avoid inappropriate behaviour of employees? The survey showed that according to younger respondents, inappropriate staff behaviour results from the lack of example from a supervisor, while older workers consider that this is related to the behaviour of other employees. For more experienced workers, failure to follow occupational safety and health guidelines is caused by the fact that the personal protective equipment required is often uncomfortable, while younger respondents did not perceive subjective physical discomfort as a cause of non-compliance with internal safety regulations; they more often indicated that this was due to staff laziness. The identified hierarchy of motivators perceived by respondents as the most effective is the same for both groups surveyed; persuasive and sanction-based influence was considered the most effective. A group of younger respondents showed a greater willingness to punish workers who do not use the necessary protective equipment. The two groups of respondents also differ in opinions on the methods of using the persuasive influence on employees in the context of improving the area of OSH in the enterprise.

Keywords: industrial safety and health, employee behaviours, motivation, opinion polls.

1. Introduction

Safety culture is has been discussed either in a broad or narrow sense in the literature on the subject (Clarke, 2000; Ejdys, 2010; Fang, and Wu, 2013; Guldenmuld, 2000; Kim, et al., 2016; Lekka; Parker, et al., 2006; Zanko, 2012). In the broad sense, the concept of safety culture is most often formulated as a system of psychological, social and organizational elements encouraging actions to protect life and health at work and during extra-professional activities

(Studenski, 2000, p. 1). The safety culture defined in this way can be related to society (community, group of people), institutions (organization, enterprise) or an individual. Taking into account the research problem discussed in this paper, the attention was focused on safety culture in the enterprise. An enterprise is viewed here as an organization conducting operations (service-providing, commercial) on its own account and at its own risk, aimed at achieving a positive financial result, with its own legal, economic, organizational and social distinctiveness.

The scientific literature published to date in this area (Cooper, 2000; Nordlöf, et al., 2017; Wadsworth and Smith, 2009) underlines the notion that every enterprise has its own safety culture, but the level of this culture may be different (studies refer to high and low culture, good and bad culture, or desirable and undesirable culture). The level of safety culture depends on the enterprise's ability to generate decisions, behaviours and attitudes, and organizational, technical, training and motivational achievements that bring the enterprise closer to achieving the absolute safety criterion (Żurkowski, 2015, p. 324; Gableta, et al. 2017). Behaviour and attitudes of a given person in different enterprises, and even in different organizational units of the enterprise may be different (Meyer, et al., 2004; Sikorski, 2004; Sun, and Bunchapattanasakda, 2019). These are components that are highly dependent on the working environment. It is possible to indicate the environmental factors that should be treated as phenomena threatening the development of a safety culture, e.g.:

- Lack of role models (examples) among managers (e.g. the superior "turns a blind eye" to the non-observance of safety and health rules by some employees).
- Negative influence of other employees (e.g. encouraging joint "avoidance" of OSH rules).
- Dominance of negative stimuli to motivate employees (sanctions for actions or behaviours threatening the safety of the employee or team).
- Deficit of positive incentives (motivators in the strict sense), rewarding commitment to safety, encouraging to take care of one's own safety and safety of co-workers and the enterprise as a whole.

Motivating to changes of behaviours occurs through applying conscious and purposeful influencing upon the motivations of people's actions. In this sense, the motivator must strive to ensure that the goal he or she has set himself becomes, preferably in the short perspective, also the goal of the people he or she motivates. The important factor in influencing employee motivation is the managers' efforts related to the personnel, which are aimed at stimulation of the employees' willingness to efficiently achieve the assumed goals (Kieżun, 1997; Sekhar, et al., 2013). In other words, all activities of the managers may have a motivational value. In general, it is assumed that these actions can be of three types, i.e. coercion, incentive and persuasion.

Coercive measures (Pietroń-Pyszczyk, 2015, p. 31) are associated with a high load of imperativeness resulting from the threat of a sanction. Such instruments do not lead to the integration of the interests of those motivating and motivated. The tools of coercion act unidirectionally, by forcing the employee to present the imposed behaviours. The obligatory nature of specific behaviour is sanctioned by appropriate penalties. In the aspect that is of interest here, it must be emphasized that motivating based on coercion and fear is highly ineffective. An employee who is subject to coercion puts in a minimum of effort, only as much as necessary to avoid sanctions.

Incentives have a high motivational load, based primarily on rewards (Kozłowski, 2012, pp. 31-32). The function of the instruments of encouragement is to induce an employee's interest in a particular behaviour because they work according to the following pattern: "if you behave according to the expectations of the motivator, you will receive a reward (benefit) in return". With regard to the subject analysed in the present study, it is worth stressing that incentives also serve as a means of modifying and shaping the desired behaviour and patterns. This is achieved by skilful control of the environment, rather than by changing attitudes or habits (Pietroń-Pyszczyk, 2015, p. 31).

The essence of persuasion is to influence a person's mind in order to reach (activate) his or her internal motivation or to induce desired reactions. In the aspect that is of interest to this study, it is important that the persuasion tools can shape the desired behavioural patterns within the enterprise because they are aimed at changing attitudes, habits and even feelings. As noted by Z. Sekuła (2008, pp. 181-182), persuasion may be used in a thoughtful and rational manner, e.g. by promoting certain ideas, views, behaviours, appeals, comprehensive information, advice, suggestions, negotiations, participation in setting goals and significant changes in the enterprise's activity.

The aim of the study was to attempt to determine whether the issue of the effect on people's behaviour in the area of occupational safety and health is perceived in the same way by experienced workers as by those who are just beginning their activity in the labour market. Therefore, the attempt was made to answer a general research question: how do people perceive the determinants of improper behaviour of employees in the area of occupational safety and health and how do they perceive the possibilities of motivating to change these behaviours? The aim was to achieve this by answering the following questions:

1. What could be the causes of employee misbehaviour in OSH?
2. What motivators should be used to avoid inappropriate staff behaviour from the point of view of occupational safety?

The results of the study may contribute to increasing the awareness of the managers as to the legitimacy of monitoring the impact of generational differences on the effectiveness of OSH activities in the enterprise and to attempting to develop and implement appropriate procedures (both exploratory and regulatory). Potential benefits also include greater sensitivity of decision-makers to the role played by the direct working environment in instilling desired behaviours,

such as behaviour and attitudes of co-workers and superiors; moving away from stereotypical thinking about sanctions as the most effective way of activating people to take care of their own and co-workers' safety.

2. Scope of research

The survey was conducted in two different periods of time, among two different groups of respondents, i.e:

- Group A: full-time students of the first-cycle studies at the Wrocław University of Economics, Poland, from the Faculty of Engineering and Economics (2017).
- Group B: students of post-graduate studies dedicated to OSH specialists, organized by the Wrocław University of Economics (2018 - 2019).

An auditorium questionnaire was chosen as a research technique and filled in by respondents on their own in a specific place and time, in the presence of the interviewer. The questionnaire was anonymous. In the respondent data section, respondents indicated their year of birth and gender; they were also asked to indicate their current "professional activity" by indicating whether they were only students or whether they were simultaneously learning and working (or working before, e.g. during student internship programs). Respondents' opinions were also collected in the form of records of their statements given during auditorium classes, in which the researcher, playing the role of a leader, moderated a discussion on the behavioural aspects of improving the area of OSH in the enterprise.

Group A included 100 persons born in 1994-1995, of whom 64% were women, 30% were persons declaring professional experience (by checking the option "I learn and work"). The students declared that they were employed on a casual basis, mainly during the summer holidays. It should also be mentioned that each respondent completed a student internship program, which is obligatory in their parent faculty. In most cases, these were practices in food and chemical companies. On this basis, it was assumed that the respondents can be considered as persons starting their professional activity.

The second group (B) consisted of 108 persons; 61% of them were women, 10 persons declared that they were not currently employed (eight persons are still in education, two are not employed). This group was characterized by greater age differentiation than in group A, as illustrated in Table 1.

Table 1.*Age structure of respondents in group B*

Age ranges (in years)	Percentage of respondents
Up to 24	7
25 – 34	32
35 – 54	59
55 and more	2
Total	100

Source: author's own elaboration.

3. Results of research

In the first part of the questionnaire, respondents were asked to indicate the reasons for the persistent non-use of personal protective equipment by employees. The question contained a choice of answer variants, from which the respondents were asked to indicate the most frequent (in their opinion) reason for the staff's improper behaviour. The question also provides for the possibility of entering an optional (author's own) answer. The distribution of respondents' opinions is presented in Table 2.

Table 2.*Reasons for inappropriate behaviour of staff in the area of occupational safety and health: distribution of respondents' opinions*

Variants of answers to the question "What is the reason for persistent non-use of personal protective equipment by employees?"	Percentage of indications	
	Group A	Group B
Unawareness of the health consequences of non-using protective equipment	48	34
The superior does not set a good example	18	16
Co-workers do not use the protective equipment	14	18
Employee believes that protective equipment reduces the efficiency of his or her work	12	21
Other	8	11
Total	100	100

Source: author's own elaboration based on (Pietroń-Pyszczek, 2018).

For the vast majority of respondents, the persistent failure of employees to follow OSH guidelines is due to a low level of awareness of the health consequences of such behaviour; this reason was more frequently pointed out by respondents from group A (almost every second respondent indicated it as the dominant reason). It is worth noting that this reason was indicated much more often by women.

Less experienced respondents (group A) assigned a relatively important role to managers; it can be assumed that he or she is perceived as an important entity that can encourage (or discourage) safe attitudes and behaviours, because 18% of all respondents believe that the cause of the discussed problems may be due to the immediate superior setting a negative example. As can be seen from Table 2, Group B attributed a much smaller role to managers;

the absence of an example from the immediate superior was the least frequently indicated option among the potential reasons for staff improper behaviour in the survey.

The greatest divergence in the opinions of both groups of respondents manifested itself in the relationship between non-use of personal protective equipment and subjective assessment of its impact on work efficiency. The fact that personal protective equipment may interfere with the effective performance of tasks (activities) was indicated by group B respondents as the second option proposed in the questionnaire (21% of all indications), while group A marginalized this reason (12% of all indications).

The respondents' own opinions (the variant "other") on the reasons for inappropriate behaviour of staff in the area of occupational safety and health emphasized, in the case of group A, "laziness of employees". The answers given by respondents from group B were more varied, and, therefore, they are summarised (as quotations) in Table 3.

Table 3.

Respondents' own statements on the reasons for non-use of personal protective equipment by employees (group B)

Respondent's statement	Characterization of the respondent	
	Sex	Year of birth
Protective equipment is uncomfortable, does not fit well and interferes with work.	M	1969
The equipment is uncomfortable, not adjusted to individual dimensions and sizes.	M	1970
Personality traits of the employee.	W	1971
Laziness.	W	1972
"No, because I don't want"	W	1972
The use is inconvenient/uncomfortable.	W	1972
Laziness.	M	1974
Employee's convenience.	W	1975
Personal protective equipment is of poor quality and impedes work.	W	1979
Reduced comfort of work.	W	1984
In most cases, personal protective equipment is chosen without being tested together with the workers who will actually use it (often inconvenient or restricting movements).	W	1988
Lack of convenience.	W	1991

W – woman, M – man.

Source: author's own elaboration.

Based on the analysis of the statements of both groups, it can be concluded that women were more willing to provide answers that went beyond the options available in the survey. Unlike those who are just starting their careers, the group of more experienced respondents showed sensitivity to the discomfort caused by the necessity to use personal protective equipment, which may be the reason for their non-use (eight of twelve authors' statements contained in the questionnaires for the group B referred to this issue).

In the second part of the study, an attempt was made to determine whether respondents show tendencies for the positive or negative motivating in the area of occupational safety and health. Therefore, the relevant question in the survey was designed so as to determine their

preferences in terms of the means of persuasion, coercion and incentive. With the question 'What should an employer do to ensure that workers always wear personal protective equipment (e.g. masks, earphones, glasses) at work?', three alternative answers were available i.e.:

- Explain to workers the effect of protective equipment on health (this option was interpreted as an indication of persuasion measures).
- Punish workers who do not use the necessary equipment (this option was interpreted as an indication of coercive measures).
- Reward workers who use the necessary protective equipment (this option was interpreted as an indication of incentive).

Also in this question, respondents were asked to choose (indicate) only one the most effective (in their opinion) form of motivating; the distribution of answers is illustrated in Table 4.

Table 4.

Methods to motivate staff to comply with OSH requirements, indicated by respondents as the most effective

Nature of motivational measures	Percentage of indications	
	Group A	Group B
Persuasion	52	64
Incentive	26	26
Coercion	22	10
Total	100	100

Source: author's own elaboration based on (Pietroń-Pyszczek, 2018).

If it is assumed that both persuasive and incentive-based measures are positive in their effect on people's motivation, one should emphasize that respondents strongly prefer this approach. Together, these two groups of motivators had an advantage over coercive measures, although, much more often, the latter are considered to be the most effective by the youngest respondents. It is worth noting that in group B, the indications for punishment (10%) as the most effective means of motivation, were made only by men.

The high percentage of indications of persuasive measures is broadly in line with the opinion on the reason for improper behaviour in the area of OSH. It can be presumed that respondents believe that the increase in awareness of employees (their knowledge) about the negative effects of non-compliance with OSH guidelines should be encouraged by managers, but not by sanctions but by positive incentive. Discussions revealed a different point of view of both groups as to the directions (methods) of persuasive influence on the behaviour of employees. Respondents from group B opted for increased participation of employees in the choice of equipment (e.g. in the form of opinions on the variants presented by the employer, testing the equipment before purchase), justifying it with greater motivation to use them or with less potential reluctance. The ideas of group A were characterized by a desire to make personal protective equipment more (e.g. visually) attractive, which would be reflected in the desire to make them "attractive gadgets".

4. Conclusion

Improvement of the area of occupational safety and health in the enterprise, aimed at raising the level of safety culture, requires a conscious and purposeful instilling of the attitudes and behaviour in employees. In this respect, a particular field of activity should be in the regulatory sphere, i.e. design and implementation of management practices enabling identification of the reasons for inappropriate habits (routines), both through individual and group approaches, and effective motivating of staff to behave in a way desired by the employer.

Based on the results of the survey, it is possible to indicate issues whose perception is different in the case of experienced persons and those who are just starting their professional activity. The latter associate inappropriate behaviour of staff with the absence of the superior setting an example, while older staff consider that this is related to the behaviour of colleagues, i.e. the fact that they do not wear personal protective equipment. The direction of designing further empirical research should be an attempt to determine whether this "tuning in to the environment" is voluntary (according to personal beliefs) or forced, e.g. the need to avoid conflicts (mobbing). It should be assumed that acting against one's own opinions (feelings, a system of values) may violate the psychological comfort of the employee (Frazier and Tupper, 2018) and, as a consequence, lead to the phenomena threatening the safety of the employee and his co-workers.

For more experienced workers, the persistent failure of staff to comply with OSH guidelines is due to the fact that personal protective equipment reduces work efficiency but also that it is relatively often uncomfortable (inconvenient) for those performing work. In the group of younger respondents (first-degree students) no opinions referring directly to the subjective feeling of physical discomfort were identified. This can probably be explained by the fact that they had not had the opportunity to experience directly (for a longer period of time) the reality of working in the enterprise, including exposure to various (complex) types of personal protective equipment.

The hierarchy of motivators identified by the survey and perceived by the respondents as the most effective means of influencing behaviour in the area of occupational safety and health is the same for both groups surveyed; persuasive and sanction-based influence is considered the most effective. The persuasive influence would, according to younger respondents, consist in the search for visually appealing personal protective equipment, whose modern appearance would encourage employees to use them. On the other hand, older workers suggested that support for the application of the required protective equipment could be achieved through the involvement of workers in the purchasing decisions. Respondents agreed the most on the use of encouragement (rewarding employees who use the necessary protective equipment), which was indicated by 26% of all respondents in each group of respondents.

In the search for directions for further research on the issues discussed in this study, it is worth noting that the group of younger respondents showed a greater tendency to punish employees who do not apply the necessary protective equipment. It can be presumed that an in-depth study on this issue would reveal a link between the preference for sanctions as a means of influencing the behaviour of personnel and the function that a person performs within the enterprise or its place in the organizational hierarchy. An interesting aspect of such research would also be the identification of a group of potential actions to be taken in an enterprise, assuming the complete abandoning of the use of coercive motivators.

The study confirmed that improvements in safety and health should not be based on sanctions (Hudson, 2007). A more sophisticated approach is needed, placing high demands on the competencies and commitment of managers at all levels of management. The challenge for managers is openness and readiness to encourage the internal motivation of employees. As shown in studies, enriching the content of work, broadly understood rewarding and satisfying the needs for autonomy and competence helps release and increase internal motivation (Lipka, et al., 2010, p. 13-26). In order to achieve this, the managers have to understand the legitimacy of using persuasion, but also to organize their own work in such a way as to enable effective use of various forms of persuasive influence, such as conversation, negotiation, counselling, training, information, suggestion, guidance and appealing.

It was expected at the stage of preparation of this study that sex may be the factor differentiating the views of respondents since unlike men, women are often credited with the 'soft approach' to management (Turkowska-Kucharska, 2015, p. 70). This feature did not turn out to be a factor significantly differentiating the opinions obtained. The exception was the issue of punishment, which was mentioned only by men in the group of older workers.

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