

# Methods used for communicating OSH-related issues in companies<sup>1</sup>

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**Abstract:** Dynamic development of IT technologies has had a growing impact on internal communications in companies. However, some researchers dealing with communication processes claim that implementation of the new communication channels precedes the understanding of effects that their implementation brings about and theories about their impact on different organizational processes (Raeth, Zmolnik, Urbach, and Zimmer, 2009). Therefore, a question arises to what extent electronic channels of communication shall be implemented into internal company communication systems. The study has been performed in 86 companies with the aim to identify communication channels which are used and newly introduced in companies for communicating issues related to occupational safety and health (OSH) and to assess their effectiveness. According to the results of the study, the surveyed companies use most often 2–3 communication channels to provide to employees and 2 communication channels to receive from employees information on OSH-related issues. The traditional communication channels (such as formal meetings and training sessions) are most often used; at the same time, they are seen as more effective than electronic ones. The study also confirmed that implementation of an occupational safety and health management system is accompanied by development of in-company communication concerning OSH-related issues.

**Key words:** communication in OSH management, internal communication channels in companies

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## 1. Introduction

Organizational management is inextricably linked to communicating with other people. Without proper communication, a variety of organizational resources remains either

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completely useless or insufficiently utilized at best (Potocki, 2011). This pertains to the occupational safety and health area as well, as communication is one of the most essential requirements for streamlined and efficient management of occupational risk. The European Agency for Safety and Health at Work has quoted research works concerning communication of occupational safety and health issues among the EU research priorities for years 2013–2020 (EU-OSHA, 2013).

In recent years, dynamic development of IT technologies has had a growing impact on in-company communications. However, despite increasing interest in applying cutting-edge technologies to organizational communications, their effects on organizations have not been fully investigated yet. Some researchers dealing with communication processes claim that implementation of new IT technologies precedes the understanding of effects that their implementation brings about and theories about their impact on different organizational processes (Raeth, Zmolnik, Urbach, and Zimmer, 2009). Therefore, a question arises whether, and if so, to what extent such technologies shall be implemented into in-company communication systems. This question is particularly important when it comes to providing information on subjects such as occupational safety and health as methods of communication involving direct contact have been deemed most efficient for years. Such methods have also been widely advertised in recent years, for example by means of the ‘Partnership for prevention’ information campaign conducted by the European Agency for Safety and Health at Work (EU-OSHA, 2012). On the other hand, more and more companies have been implementing electronic means of communication, i.e. methods of communication that entail the use of computers. Such methods can be divided into two groups: e-mail, Intranet, teleconferences, etc. and social media, consisting of social networks, blogs, hashtags, etc. (Rice, 1987). Oral methods of communication, such as training sessions and formal meetings, discussions during informal meetings as well as written discussions in the form of posters and notice boards or corporate bulletin contents will be referred to as traditional ones in this document. It seems appropriate to explain the role these two groups of methods of communication can play in communication concerning occupational safety and health issues, and which of these shall be nurtured in order to increase OSH management effectiveness. One can pose a question of whether and to what extent the implementation of a formalized occupational safety and health management system supports development of in-company communications and, by the same token, knowledge management in the company. For effective knowledge management is one of the fundamental cornerstones of efficient occupational safety and health management (Podgórski, 2010; Shereihiu and Karwowski, 2006).

The paper presents results of a study aimed at identifying the methods that are currently applied in OSH management for communicating different types of information. Taking into account information management models proposed by, among others, H. Lesca (1994) and J. Bolek (2012), according to which information passed inside a company can be split into categories depending on the purpose for which it is communicated, the following three basic types of information on OSH-related issues have been specified for the purpose of the study (Pawłowska, 2015):

- information needed to ensure that employees are aware of risks present in their place of employment and at work stations and that they use protective equipment provisioned for such risks; this includes in particular information on risks to their safety and health present in the place of employment and at work stations as well as information on protection measures and rules for protection against such risks; the information can vary between different work stations and is addressed to specific employees or groups of employees,
- information needed to increase involvement of employees in activities aimed at improving working conditions; this includes communicating information about identified problems concerning safety and health at work (between employees and to the managerial staff),
- information needed to promote an image of a company that cares for the safety and health of their employees as well as OSH policy among employees and third parties; this category includes information on objectives and plans pertaining to OSH as well as already implemented programmes; the information is addressed to all employees, regardless of their job position.

The study attempted to find answers to the question concerning the most often used methods of communicating these types of information, the relationship between the type and number of methods used in communication pertaining to OSH and implementation of a formalized occupational safety and health management system in a company, effectiveness of various methods of communicating information on OSH-related issues as well as newly-introduced methods of communication and opinions on their cost and implementation results.

## 2. Method

The study was conducted by way of direct interviews with participation of trained interviewers from the Central Statistical Office (GUS), with the use of a questionnaire developed for this purpose. The questionnaire was addressed to managerial staff and included questions related to:

- a) existing methods of communicating information on OSH-related issues in a company, and particularly methods used to:
  - inform employees on OSH policy, objectives and plans,
  - inform employees on potential risks and protective measures,
  - receive information on OSH-related issues from employees.

Respondents were asked to indicate all the methods of communication used in their companies for each of these purposes. Among the methods which could be used the following have been listed in the questionnaire: formal meetings and trainings, informal discussions, written communication, posters and notice boards, Intranet, e-mail, social media, corporate bulletin, electronic newsletter and website.

- b) effectiveness of various methods of communicating information on OSH-related issues; a ten-point scale was used to assess the effectiveness of these methods, where

- 1 means that the method is not effective at all and 10 that it is very effective and important for increasing effectiveness of OSH management,
- c) newly-implemented methods of communicating; the structure of this part of the questionnaire was the same as this related to existing methods (presented in the point a),
  - d) costs of implementation of new methods of communication which were estimated using the five-point scale (from 5—very high to 1—very low),
  - e) potential results of implementation of new methods of communication (e.g. observing safety rules, increasing involvement in OSH issues, decreasing sick leave rates, decreasing the number of accidents at work, increasing work satisfaction and improvement of company image), estimated using the five-point scale,
  - f) reasons of not improving OSH communication and not introducing new methods of communication.

The study was conducted in 86 companies of various size. 42 of them have implemented a formalized occupational safety and health management system. The group under investigation consisted of 20 small companies, 35 middle-sized ones and 28 large companies. The total number of people employed in the companies participating in the 2013 study was 87,000.

### 3. Results

Information on issues concerning occupational safety and health is usually communicated to employees using several methods of communication—almost 90% of companies participating in this study use more than one method of communicating information about policy, objectives and plans as well as information on potential risks and protection measures. Similarly, in 86% of companies employees can use more than one method of communication for transferring information on problems concerning occupational safety and health. On the one hand, in the group of companies using two or three methods of communication for transferring information on all OSH-related subjects, the dominant group are companies in which a formalized occupational safety and health management system has not actually been implemented. On the other hand, in the group of companies which use four or more methods for communicating information on OSH-related issues are companies which implemented such systems prevail (Figure 1). Differences between the average number of methods of communication used in companies with implemented formalized OSH MS and without these systems are statistically significant. This pertains equally to communication on subjects concerning policy, objectives and OSH plans [ $t(72.2) = -2.787; p < 0.01$ ], on subjects concerning risks and protective measures applied [ $t(69.3) = -2.851; p < 0.01$ ], and to reporting OSH-related problems by employees [ $t(82) = -2.895; p < 0.01$ ].

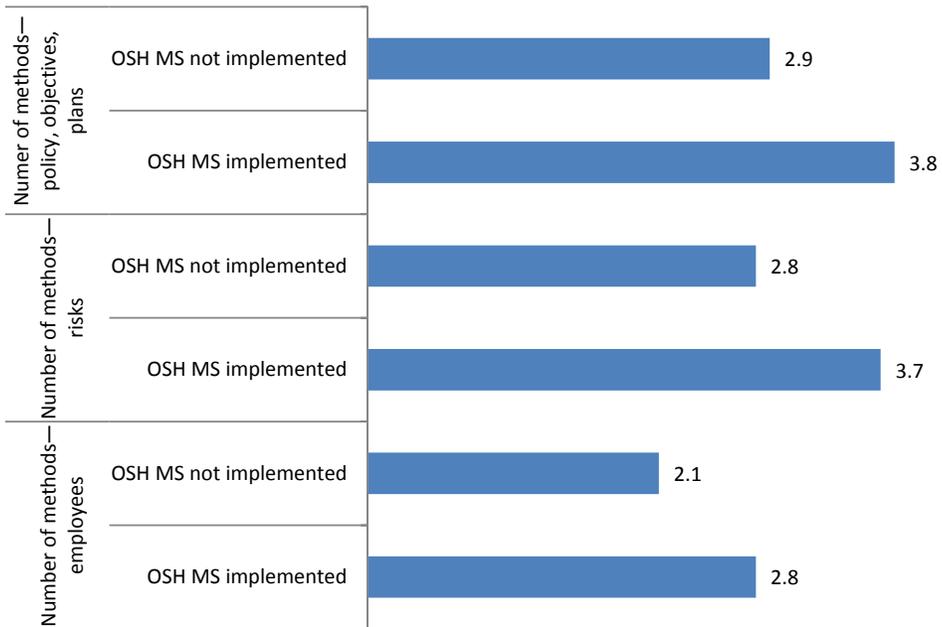


Figure 1. Average number of methods of communication used by companies with implemented occupational safety and health management systems and without such systems in relation to various OSH-related issues

Source: Author's own elaboration.

No significant differences were found between the use of standard, oral methods of communication, such as formal training sessions and meetings or informal meetings in companies with implemented occupational safety and health management systems and in companies without such systems (Figures 2, 3, 4). The differences pertain to more frequent use of the following in companies with implemented formalized occupational safety and health management systems:

- was the same as this concerning potential risks and protective measures [ $t(76.48) = -2.47; p < 0.05$ ] and written form of communicating OSH-related problems by the employees [ $t(62) = -3.289; p < 0.01$ ],
- Intranet and e-mail for communicating information on policy, objectives and OSH plans [ $t(82.2) = -2.495; p < 0.05$ ] and for communicating OSH-related problems by the employees [ $t(77.47) = -2.22; p < 0.05$ ],
- corporate bulletin or newsletter for communicating information on policy, objectives and OSH plans [ $t(61.6) = -2.3; p < 0.05$ ] and information on potential risks and protective measures [ $t(54.3) = -2.27; p < 0.05$ ],
- website for communicating information on policy, objectives and OSH plans:  $t(60.29) = -2.56; p < 0.05$ .

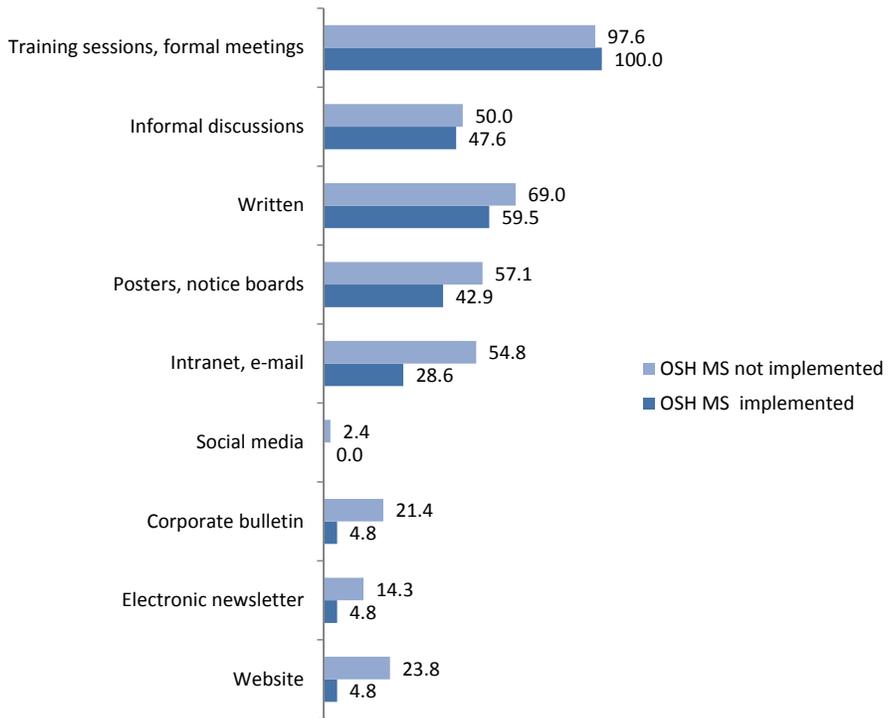


Figure 2. Percentage of companies with implemented OSH MS and without such systems according to types of implemented methods of communication concerning policy, objectives and OSH plans

Source: Author's own elaboration.

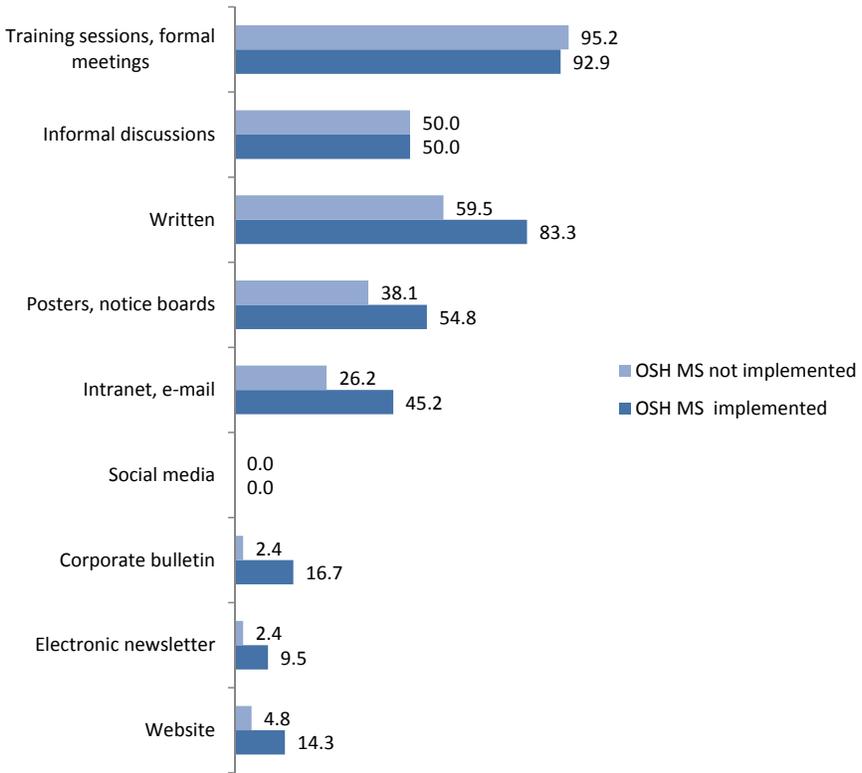


Figure 3. Percentage of companies with implemented OSH MS and without such systems according to types of implemented methods of communication concerning potential risks and protective measures

Source: Author's own elaboration.

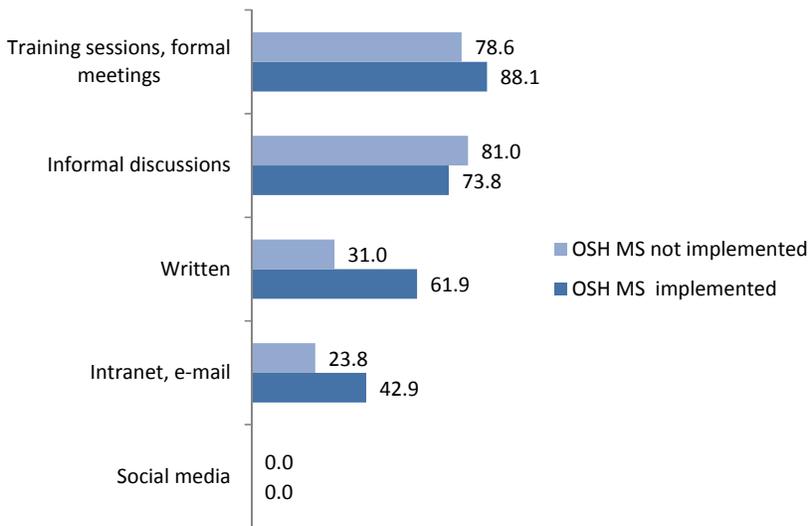


Figure 4. Percentage of companies with implemented OSH MS and without such systems according to types of implemented methods of communication on OSH-related problems

Source: Author's own elaboration.

Electronic methods of communication, such as Intranet or e-mail, are used less frequently than traditional methods when it comes to companies participating in the study: 43% of companies use them for communication of information concerning policy, objectives and OSH plans, approximately 37% for communication of information about potential risks and protective measures, and 30%—for obtaining information about OSH-related problems from employees. Only one company participating in this study uses social media in their communication process. In the case of all OSH-related issues, the average number of traditional and electronic methods of communication applied is higher in companies which have implemented occupational safety and health management systems (Figure 5), however, for traditional methods statistically significant differences occur only when it comes to communicating information on OSH-related problems by employees [ $t(82) = -2.43$ ;  $p < 0.05$ ].

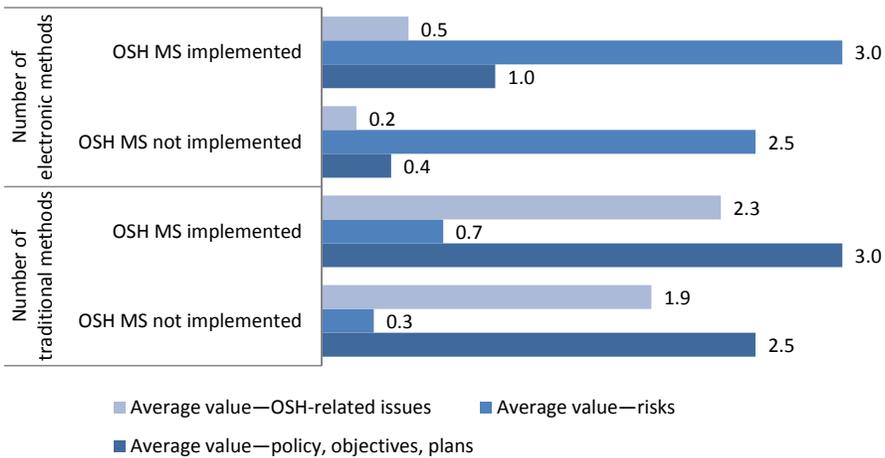


Figure 5. Average number of traditional and electronic methods used for communicating information about various OSH-related issues by companies with implemented OSH MS and companies without such systems

Source: Author's own elaboration.

Electronic methods of communication are significantly more frequently used in the group of companies implementing formalized occupational safety and health management systems when it comes both to communication of information concerning policy, objectives and OSH plans [ $t(68) = -3.12; p < 0.01$ ], information on potential risks and protective measures [ $t(66) = -2.23; p < 0.05$ ], and obtaining information about OSH-related problems from employees [ $t(77) = -2.2; p < 0.05$ ].

#### 4. Evaluation of effectiveness of different communication methods

Effectiveness of different methods of communication was assessed based on the opinions of respondents regarding significance of these methods for the efficient implementation of activities aimed at improvement of working conditions in a company. When it comes to effectiveness, traditional methods received the highest score; such methods include communication of OSH-related issues during meetings, in written form and using visual elements, as well as informal discussions. Significance of implementation of electronic methods of communication was seen as significantly lower. The majority of methods of communication is assessed similarly in companies which implemented occupational safety and health management systems and those without such systems (Figure 6). Statistically significant differences occur only for the three following methods of communication: written methods, which are assessed as more efficient in companies without implemented occupational safety and health management systems [ $t(82) = 2.21; p < 0.05$ ], corporate bulletins [ $t(78) = -2.585; p < 0.05$ ] and social media [ $t(79) = 2.01; p < 0.05$ ], which are assessed as slightly more effective by companies already implementing such systems.

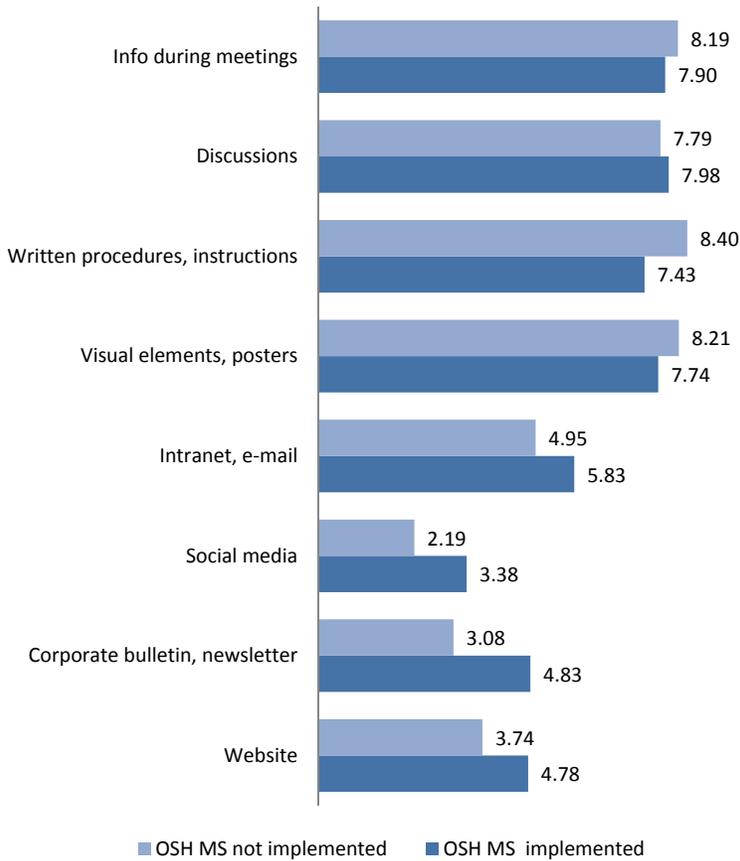


Figure 6. Average rating of significance of various methods of communication for efficient implementation of activities aimed at improvement of working conditions in companies which have implemented formalized occupational safety and health management systems and those without such systems

Source: Author's own elaboration.

#### 4. Newly-implemented methods of communication regarding OSH-related issues and factors relevant for their implementation

27 (31%) out of the 86 companies participating in the study have implemented new methods of communication regarding OSH-related issues in the last three years. The group of companies implementing new methods of communication included 20 companies with formalized occupational safety and health management systems; other companies did not have such systems in place. Among newly-implemented communication methods the traditional ones were listed most often, i.e. written procedures and instructions, formal meetings and informal discussions. They have been implemented during the last three years in over a half of the companies implementing any new methods of communication. Electronic methods were

being implemented notably less often (Figure 7). Among companies with implemented occupational safety and health management systems and without such systems, no significant differences were observed when it comes to implementation of meetings and informal discussions for communication concerning OSH-related issues—the percentage of companies from both groups using these methods is similar. Companies with implemented occupational safety and health management systems implement new methods of written communication significantly more often than those without formalized systems; when it comes to implementation of written instructions and procedures, the differences are statistically significant [ $t(19) = 3.56; p < 0.01$ ]. Similarly, such companies tend to implement Intranet/ e-mail or corporate bulletin/ newsletter solutions more often as well; in one of them, an attempt was even made to use social media for communication of OSH-related issues (Figure 7). However, in the case of electronic methods, statistically significant differences occur only when it comes to implementation of social media [ $t(19) = -2.18; p < 0.05$ ].

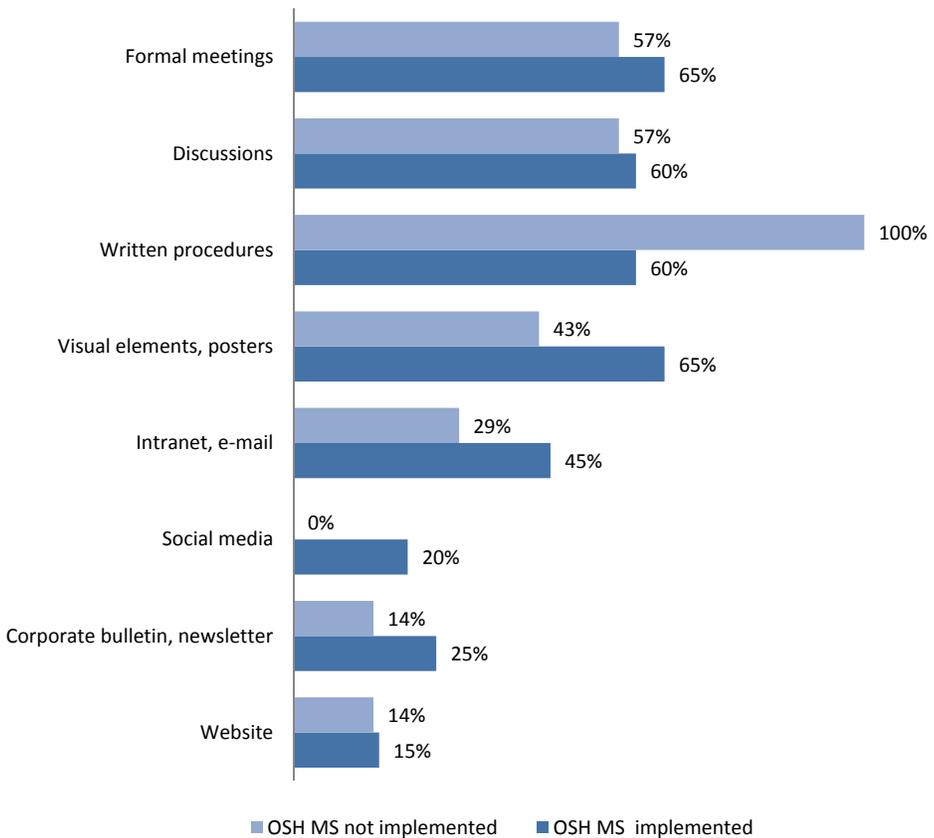


Figure 7. Percentage share of companies with OSH MS and without such systems which have implemented individual methods of communication in the total number of companies with and without OSH MS which have implemented any new methods of communication

Among factors which are relevant for implementation of new methods, the highest mark was given to seeking to improve the *status quo* of occupational safety and health in a company as well as seeking to improve its image. The significance of involvement of top management, whose decisions condition the implementation of new methods, also ranked highly. Representatives of 84% of companies in which the methods of communication regarding OSH-related issues did not change in the last three years declared that they do not see the necessity to implement any changes in this respect because the existing methods are sufficiently effective. At the same time, in approximately 25% of these companies the reluctance of employees and high costs were indicated as barriers for implementation of new methods.

## 5. Evaluation of costs and effects of implementation of new communication methods

In over 50% of companies which implemented new methods of communication, their cost, understood as time needed for implementation and financial expenditure entailed, was assessed as high. Over 10% of them declared that expenses related to implementation of new methods are very high, however, a similar percentage of company representatives expressed a contrary opinion, declaring that such expenses are actually very low. These opinions are to a large extent conditioned by the type of methods implemented and by participants of the process of their implementation. The study shows that over 80% of companies prepared and implemented at least one of the newly-implemented methods single-handedly; at the same time, approximately 50% of them did this with the support of consultants, which definitely had an impact on the costs incurred. The following were listed most often among expected effects of implementation of new methods of communication concerning OSH-related issues: improvement of company image, better following of OSH regulations and increased involvement of employees in activities to reinforce OSH significance—in all the listed cases, the average results obtained confirmed that this impact was perceived as important or very important.

## 6. Conclusions

The results obtained indicate that implementation of a formalized occupational safety and health management system is accompanied by development of in-company communication concerning OSH-related issues. Companies that have implemented formalized occupational safety and health management systems are also more likely to use electronic means in communication processes, despite the fact that their effectiveness is assessed as quite poor. Traditional methods of communication, in particular those in use for many years, such as training sessions and meetings, are assessed as twice as efficient. It is also interesting to note that informal discussions are highly assessed.

The results obtained confirm the popular thesis about applicability of traditional methods for communication in the scope of OSH. However, it is not clear whether opinions of respondents concerning applicability of electronic methods—which are often new methods, in particular when it comes to communication in the scope of OSH—are not conditioned by the manner of implementation of such methods. Namely, it cannot be disregarded that one of the reasons for lack of implementation of new methods, as quoted by the respondents, is

the reluctance of employees. Similarly, on the one hand, the study conducted by McKinsey consulting company (Bughin, Chui et al., 2013) with participation of 3,542 representatives of top managerial staff representing companies from different parts of the world and from a variety of industries showed that skills of employees form an important barrier in the use of new methods of communication. On the other hand, a study concerning in-company communication conducted by GFMP Management Consultants in 154 companies showed that among the main obstacles for efficient implementation of new, electronic methods of communication there are imperfect form and lack of functionality of a given implemented solution (GFMP Management Consultants, 2011) as well as organizational culture restricting the willingness of employees to share information and opinions. It can be expected that such factors are also relevant for assessment of applicability of various methods of communication in the scope of occupational safety and health. The results can not only point at lack of applicability of particular methods but also at the necessity of improving them in order to adjust appropriately to the needs of individuals being senders and recipients of specific information.

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## Metody komunikacji w sprawach związanych z bezpieczeństwem i higieną pracy w przedsiębiorstwach

**Abstrakt:** Dynamiczny rozwój technologii informacyjnych w coraz większym stopniu wpływa na procesy komunikacji wewnętrznej w przedsiębiorstwach. Niektórzy badacze zajmujący się procesami komunikacyjnymi twierdzą jednak, że wdrożenie nowych kanałów komunikacji poprzedza zrozumienie skutków ich implementacji oraz teorie na temat wpływu metod komunikacji na różne procesy organizacyjne (Raeth, Zmolnik, Urbach, Zimmer, 2009). W artykule przedstawiono wyniki badań, których celem było określenie, jakiego rodzaju metody są obecnie stosowane w przedsiębiorstwach do komunikowania się w sprawach BHP i czy wdrożenie sformalizowanego systemu zarządzania BHP wpływa na rozwój wewnętrznego komunikowania się, a także pozyskanie opinii co do skuteczności

różnych metod, czynników wpływających na ich wprowadzanie oraz kosztów i wyników ich wprowadzania. Badaniami objęto 86 spółek. Wyniki pokazały, że badane przedsiębiorstwa korzystają najczęściej z 2–3 kanałów komunikacyjnych w celu zapewnienia pracownikom informacji o zagadnieniach związanych z BHP i z 2 kanałów komunikacyjnych, aby otrzymać od pracowników informacje na ten temat. Do przekazywania informacji dotyczących bezpieczeństwa i higieny pracy służą najczęściej metody klasyczne, takie jak formalne zebrania i szkolenia, które są równocześnie uważane za skuteczniejsze od metod elektronicznych. Badania potwierdziły również, że wdrażaniu systemu zarządzania BHP towarzyszy rozwój wewnętrznego komunikowania się na tematy BHP.

**Słowa kluczowe:** komunikowanie w zarządzaniu BHP, kanały komunikacji, komunikacja wewnętrzna w przedsiębiorstwie