

Marija Savković¹
Marko Đapan
Ivan Mačužić
Petar Todorović
Milan Radenković
Arso Vukićević
Nastasija Mijović

BARRIERS, CHALLENGES AND OPPORTUNITIES TO IMPROVE OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT IN SMALL AND MEDIUM ENTERPRISES IN SERBIA: CASE STUDY APPROACH

***Abstract:** Paper aims is analysis of the current situation in SME in Serbia, identification, analyse and description of the main barriers to the management of OHS in SMEs in Serbia and points to the possibilities of overcoming barriers. Based on interviews and observations, results indicate that the different groups at different hierarchical levels experience different types of barriers. Main barriers in SMEs in Serbia were classified into four categories: lack of top management support, financial capability, lack of employee's skill and expertise and organizational culture. The number of barriers increases with the size of the enterprise.*

Also, in this paper authors presented the key factors that affect health and safety at work in SMEs. The most important are: management commitment, air safety, competence and motivation of employees, training and education in the field of security, the implementation of regulations in the field of OHS etc.

***Keywords:** barriers to occupational health and safety, challenges, occupational health and safety, organisational factors, Small and Medium Enterprises in Serbia,*

1. Introduction

Every company strives to achieve the highest level of safety and health at work and reduce occupational injuries to a minimum. The European Commission (2010) estimated that 82% of occupational injuries and 90% of fatal accidents occur in SMEs although less than 70% of the workforce that is employed in them. According to the report administration of the Occupational Safety and Health, in 2015 the total number of injuries in small and medium-sized enterprises in Serbia amounted to 120 in

2016 occurred 155 occupational injuries, in 2017 there were 154 occupational injuries at work. should provide a review of recent literature and sufficient background information to allow the results of the paper to be understood and evaluated. It should clearly explain the nature of the problem, previous work, purpose and contribution of the paper.

An analysis of the barriers is crucial for understanding intervention effectiveness and improving the way in which design, implementation and evaluation of interventions are carried out.

¹ Corresponding author: Marija Savković
Email: marija.savkovic@gmail.com

SME have limited access to human, economic and technological resources. Owners are responsible management OHS in this companies.

According to the reports of the ILO major problems in terms of safety and health at work in small and medium-sized enterprises include: long work hours, lack of establishment of occupational safety and health committees, lack of staff training, lack of knowledge and information, and lack of financial resources (Rundmo, 2003).

The most common causes of injuries at work in selected SMEs are: unsafe operation of the machine, failure to comply with the prescribed measures for safety work; poor organization of work; failure to use the measures for personal protection at work; scheduling employees to jobs and transfer of employees from one job to another without qualification (especially from the practical work) and training for safety work. Injuries at work cause and not use or inappropriate use of of head and face protection, hand protection and protective clothing, ear protection and foot protection.

Employees in SME are generally younger, less educated and less experienced than in large corporations. Ö. Paas et al. (2015) howed that work accidents happen more frequently while the worker is performing an unusual task.

Main barriers in management of OHS in Serbian SMEs include: limited management commitment and lack of support from top management, the absent and ineffective communication, lack of effective participation of employees in OHS activities, lack of teamwork and lack of motivation, lack of knowledge and experience of employees, lack of organizational coherence and flexibility, lack of awareness, training, education and motivation. The key factors that affect the management of health and safety at work in SMEs in Serbia are: management commitment, communication between the employees, training/education of employees in the field of health and safety

at work, competence and motivation of employees etc.

This work is presented as follows: after introduction, the first part of paper points out the specifics in OHS management in small and medium-sized enterprises. Also, this part of the paper presents the key factors that affect the safety and health at work in selected companies. The most important are: management commitment, safety climate, competence and motivation of employees, training and education of employees in the field of health and safety etc. The second part focuses on the identification, analysis and description of the barriers that appear in the SME related to the management of safety and health at work.

The third part of this paper refers to the barriers, challenges and opportunities to improve occupational health and safety management in small and medium enterprises in Serbia.

Main barriers are classified into four categories: lack of top management support, financial capability, lack of employee's skill and expertise and organizational culture. This part of the paper points out the possibilities of overcoming these barriers. Also this section points out the role and responsibility of the employees and management in overcoming these barriers. In conclusion are presented concluding remarks in this area.

2. Challenges health and safety in SME

According to the Law on Safety and Health at Work Safety and Health at Work is provide such working conditions that reduce occupational injuries, occupational diseases and diseases related to work and predominantly create prerequisites for full physical, mental and social well-being of employees. Occupational Health and safety is defined by World Health Organization as occupational health deals with all aspects of health and safety in the workplace and has a

strong focus on primary prevention of hazards (Champoux et al., 2003).

Ilić (2000) safety and health at work defined as a discipline that deals with the improvement of working conditions and working environment, the prevention of injuries, occupational diseases and diseases related to work, protecting and promoting the health of employees.

The importance of health and safety at work in SMEs is seen with the human, social and economic point of view. Working in human terms is a pleasure for each individual and for society as a whole. The social importance of OSH is reflected in the reduction in the number of employees who are injured or lose their lives in the workplace and suffer from occupational diseases and other diseases related to work. The economic dimension of health and safety at work is viewed through consequences of injuries, occupational and other diseases and is expressed certain financial indicators.

The efficiency of health and safety in the SME in a large extent are based on the legal framework (Walker et al., 2003). One of the main novelties of the Law on Safety and Health at Work, adopted in 2005 is the introduction of qualified person who is responsible for the organization, implementation and improvement of OSH in the enterprise. At the end of 2015, the Law on Amendments to the Law on Safety and Health at Work came into force. It has removed some concerns that the previous law left as unresolved. This year it is planned to adopt a new Law on Safety and Health at Work.

SMEs have higher rates of work-related accidents than large companies (Fabiano et al., 2004). Also, SMEs characterized by a lower capacity of effectively assessing and controlling risks than larger enterprises (Hasle et al., 2006; Champoux et al., 2003). Interventions to manage OHS in SME are ineffective because of lack available resources and lack of management commitment (Zhou et al., 2015).

According to (Huang, 2006) seventy percent of workplace accidents in SMEs is a result of unsafe behavior. In the SME human error is the most common cause of injuries at work. Under human error is meant an error or omission in the immediate execution of tasks (for example, the pressure of the wrong button as a command authority, the error in the measurement, or reading of the display). Personal injury at work in these companies comes due execution of the operations on unsafe manner and unsafe working conditions. Occupational accidents can be reduced through effective preventative measures by hazard assessment, training, and better personal protective equipment (Masi, 2015).

Continuous implementing of employee training in the field of OSH contributes to the reduction of occupational injuries. According to (Zubar, 2014) 3.9% of SME arranges occupational health and safety training, 82.5% provides safety training for new workers and workers with new task. 79.5% SMEs provides safety training about using personal protective equipment and 49.6% provides safety training for temporary workers relating to personal responsibility for training.

Also, work injury caused by faulty equipment and machines and failure to use personal protective equipment (Benavides, 2005). According to Oliveira et al. (2010), employees often do not respect rules, especially regarding the use of safety equipment and procedures.

The key factors that affect the health and safety at work in SMEs are:

- management commitment (Cohen, 1977; Keren et al., 2009, Flynn et al., 2000, Zhou et al, 2008),
- communication between the employees (Cohen, 1977; Keren et al., 2009)
- training/education of employees in the field of health and safety at work (Lu et al, 2008),
- working environment (Keren et al., 2009, Tharaldsen et al. 2008),

- relationships between employees (Keren et al., 2009; Glendon et al., 2001; Simonds and Shafai-Sahrai, 1977),
- competence and motivation of employees (Keren et al., 2009; Flynn et al., 2000),
- the implementation of the procedure and rules for safe work (Glendon et al., 2001; Simonds and Shafali-Sahrai, 1977),
- characteristics of employees (Simonds and Shafali-Sahrai, 1977),
- activity of persons responsible for health and safety at work (Lu et al., 2008)
- relationships (Glendon et al., 2001),
- participation of all employees (Simonds and Shafali-Sahrai, 1977),
- promotion of safety at work (Zhou et al., 2008).

According to (Smith and Carayon, 2009) key factors which influence on the health and safety on work can be divided into: organizational factors (commitment to reducing workplace risks, policy statement in support of OSH promotion, communication between the employees and management), human factors (opportunities for employees to be active in managing the risks of their own work tasks, training for employees, employees are motivated to respond properly to the risks), task factors (way in which work is conducted, rate of work, the amount of repetition in task activities, work pressure), technology and materials factors (relationship between the controls of a machine and its subsequent action) and work environment factors.

Rubenowitz (1997) found that main barriers in area health and safety in SMEs are: lack of commitment from the line managers, neglecting to engage technicians and employees concerned, limited training of employees. Gallagher et al. (2003) identified several barriers to successful implementation OHS: lack of senior management commitment, effective workforce involvement, and programme integration.

According Champoux and Brun (2003) main barriers include the following: lack of training, lack of time, lack of staff, employee

attitudes, investments in prevention. Whysall et al. believes that the key barriers to the effective implementation of occupational health and safety interventions in Small and Medium Enterprises are inability changes of workers behaviour, insufficient resources, prioritization of production over safety (Whysall, 2006). Key barriers in workplace safety and health include following: negative managements' attitude, negative workers attitudes, lack of time, lack of training, lack of economic resources and lack of effective employees participation (Podgórski, 2015).

Almeida Nunes (2014) reported that the main barriers are lack of knowledge of the effects of OHS interventions and unsafe behavior in the workplace. Cagno et al. (2016) and Nowrouzi et al. (2016) pointed out that lack of technical resources, the lack of training for employees and lack of financial resources are the main barriers.

Cagno and Masi (2015) believe that on the OHS in SMEs adversely affect: rigorous legislation and bureaucracy; inadequate dedication of time and inadequate dedication of financial resources; missing or ineffective communication between employees, lack of knowledge, lack of technical support from the authorities and lack of guidelines.

According Champoux and Brun (2003) key barriers in health and safety are: lack of training, lack of time, lack of staff and insufficient investment in prevention measures. Cagno et al. (2016) found that availability of knowledge of effective interventions, the support of senior management and the human resource department, and the active participation of employees contributes to the improvement of health and safety at work (Oliveira et al., 2010).

According The European Agency for Safety and Health at Work key barriers in field of occupational health and safety management are: lack of resources (time, staff or money), lack of awareness, lack of expertise and lack of technical support (Oliveira et al., 2010).

3. Barriers, challenges and opportunities to improve occupational health and safety management in small and medium enterprises in Serbia

Data collection for the identification and analysis and description of barriers was based on: analysis of documents and reports, observations and interviews.

Main barriers in management of OHS in Serbian SMEs include:

- lack of strategic vision for OHS, inadequate OHS policy and difficulty in planning the OHS activities,
- the absent and ineffective communication,
- limited management commitment and lack of support from top management,
- lack of effective participation of employees in OHS activities, lack of teamwork and lack of motivation,
- management and employees are not adequately skilled,
- lack of knowledge and experience of employees,
- lack of organizational coherence and flexibility,
- lack of awareness, training, education and motivation,
- lack and insufficient financial resources.

Lack of top management commitment and support may stem from various reasons like lack of experience and training, resistance to change and hesitation in initiating improvement programs. Lack of top management commitment is dependent on the financial constraints and organizational cultural difference (Cagno, 2016; Masi, 2015).

Safety climate is a key factor that affects the health and safety at work in SMEs. Safety

climate is measured through the perceptions and attitudes of the employees (Ö. Paas, 2015; Fernandez-Muniz et al, 2007; Flin et al., 2000). In order to develop a good safety culture, the attitude of the workers needs to be reoriented by adopting best practices, and changes in work culture and work practices.

The greatest responsibility for OHS in SMEs take over management. Managers have an important role in creating a safety climate within the organization. They influence on the shaping and changing the perceptions and attitudes of employees (Cigularov et al., 2010; Tam et al. 2004). Managers motivate and empower employees to conduct their activities in a safe manner and so reduce the number of accidents and injuries at work (Hasle et al., 2009). Inadequate management behavior reflects on employee behavior [Cunningham, 2015; Hasle, 2009]. Therefore, they provide a good example for employees and reward employees for positive behavior.

Open communication and continuous interaction between the employees and managers in SME positively affect on health and safety at work (Leveson, 2004; Kwon et al, 2013). Leveson (2004) believes that accidents and injuries at work are caused by the existence of an largely excessive distances in communication between workers and managers.

Employees submit reports of unsafe conditions and unsafe actions and thus indicate to management on certain issues. Management analyzes the proposals and objections related to improving safety and follows established rules and procedures, etc. Application of regulations in the field of health and safety at work and the application of equipment for the protection of employees minimize the number of accidents and injuries at work in SMEs. The maintenance of the machines and equipment is at the adequate level in all enterprises' groups, but nevertheless the accidents happen (Ö. Paas, 2015).

The competence of employees, knowledge, experience and skills affect the safety and

health at work. Competence means the ability of an individual to using their own feelings, experiences and skills to estimate potential hazards in the workplace and make adequate decisions (Simonds, 1977).

Characteristics of the working environment have impact on the OHS in SME (Flin et al., 2000). Direct observation includes inspection work environment (e.g. temperature, dust levels, solvent levels, noise levels) and people's health and safety-related behaviour (Ö. Paas, 2015).

Education and training in the field of OHS, contributes to the success of the OHS program. Training in safety at work have encouraged the development of knowledge, skills and work habits of employees and influence their attitudes and behavior (Flin et al., 2000).

The barriers are overcome through continuous participation of employees and management in improving OHS program.

Management shall ensure that the work process is adapted to the physical and mental capabilities of the employee and provide means and equipment for personal protection at work (Mellor et al., 2011). If an incident occurs management is obliged to visit the place of events, collect all relevant information, sworn statements from participants and eyewitnesses, the responsible persons and experts in the field of OSH and make a record of the event.

The management must required to monitor and eliminate any potential hazards in the workplace and ensure that all employees are familiar with the regulations in the field of safety and health at work. Managers must ensure utilisation of equipment for personal protection in accordance with the requirements of the workplace (Hasle et al., 2006).

Employees must take responsibility and must be aware of the possible consequences of unsafe work and behavior. Depending on the type of incident (the phenomenon of workers under the influence of alcohol or drugs; incompetent work-particularly in areas of

high risk, disregard for safety measures, the use of damaged equipment, various types of failures of technical systems that could cause injury, work stress and other hazards. ..) all employees are required (Masi, 2015) to take measures to prevent further enforcement actions that can cause injury at work and that person who causing danger prevented to perform any activity;

Top management must show leadership and commitment and to take responsibility for preventing occupational injuries and eliminate risks and hazards in the workplace. Employees are motivated through various awards, prizes, a higher level of responsibility, personal development and so on.

The introduction of continuous education and training of employees prevents reckless operation during work activities. Of particular importance is that the training be conducted for new employees, when setting new protective equipment or when the employee begins working on a new machine (Masi, 2015).

In the training, it is necessary to be included following contents (Cagno et. al., 2011; Masi, 2015):

- description and the identification of possible injuries that occur on a particular machine;
- use of equipment and resources for personal protection;
- how and in which case the protection can be removed from the machine and who is entitled to do it (usually only workers who work on repairs and maintenance);
- that measures must take if protection is poor, if it is missing or if it is impossible to provide adequate protection

4. Conclusion

The paper presents the main problems faced by SMEs in Serbia in area health and safety and pointed out the main barriers.

Major barriers include: lack of top management commitment, lack of employee's involvement, lack of expertise, skills and knowledge of all employees, lack of training and education, lack of

financial and technical resources, poor involvement of employees. In the future, companies should strive to remove barriers or reduce their impact.

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Marija Savković

University of Kragujevac,
Faculty of engineering,
Kragujevac,
Serbia
marija.savkovic@kg.ac.rs

Marko Đapan

University of Kragujevac,
Faculty of engineering,
Kragujevac,
Serbia
djapan@kg.ac.rs

Ivan Mačuzić

University of Kragujevac,
Faculty of engineering
Kragujevac,
Serbia
ivanm@kg.ac.rs

Petar Todorović

University of Kragujevac,
Faculty of engineering,
Kragujevac,
Serbia
petar@kg.ac.rs

Milan Radenković

University of Kragujevac,
City,
Serbia
radenkovic_milan@yahoo.com

Arso Vukićević

University of Kragujevac,
Faculty of engineering,
Kragujevac,
Serbia
arso_kg@yahoo.com

Nastasija Mijović

University of Kragujevac,
Faculty of engineering,
Kragujevac,
Serbia
nastasijanatzka94@gmail.com
