

“CHALLENGES OF LABOR MIGRATION: PERCEPTION OF DOMESTIC/FOREIGN WORKERS AND MANAGEMENT ON OCCUPATIONAL HEALTH AND SAFETY IN CROATIA”

Research Paper

Tomislav Katić, University of Applied Sciences in Security and Safety, Zagreb, Croatia, tomislav.katic@vss.hr

Jana Krivec, School of Advanced Social Studies, Nova Gorica, Slovenia, jana.krivec@fuds.si

Darko Palačić, University of Applied Sciences in Security and Safety, Zagreb, Croatia, darko@vss.hr

“Abstract”

Publicly available data shows that a very high percentage of foreign workers are employed in the construction sector in the Republic of Croatia. Labor migration brings challenges and opportunities for economic and social development, but also challenges in the implementation of health and safety measures in the workplace. In order to develop effective safety measures and preventive strategies, it is important to understand how the different groups, e.g. local and foreign workers and management, perceive safety. There are legal frameworks and guidelines for the implementation of health and safety measures to ensure the highest possible level of safety. Within this framework, no distinction is made between foreign workers, local workers and management. Since the perception of safety is a fundamental aspect of workplace safety and plays a key role in protecting the well-being of workers, it is necessary to further investigate how occupational safety and health is perceived by foreign and domestic workers and management in the Republic of Croatia and whether there are differences between these groups. The paper provides an overview and conclusions from the relevant recent research as well as an announcement of empirical research in Croatia.

Keywords: Occupational health and safety, labor migration, perception of safety, construction industry

1 Introduction

1.1 The link between labor migration and occupational health and safety

The increasing mobility of the workforce and the growing number of foreign workers characterize today's modern economy as part of the globalization processes. In the Republic of Croatia, a country experiencing economic growth directly related to EU accession and recent events such as the 2020 earthquakes, the construction sector in particular is expanding, accompanied by an influx of foreign labor. According to the Croatian Statistical Office, there were 1,657,231 people in employment in Croatia in December 2023, a record number, of which 118,156 were employed in the construction sector. At the same time, the Ministry of the Interior issued 172,499 work permits for foreign workers, highlighting the sector's heavy reliance on foreign labor. The majority (68,912) of the work permits were issued for work in the construction sector. This data clearly shows the strong presence of foreign workers in the Croatian construction sector.

Occupational health and safety is a critical issue in a number of industries, with the construction sector often cited as one of the most hazardous. Occupational health and safety encompasses a range of measures, activities and procedures aimed at preventing or reducing the risk of injury and occupational diseases in the workplace, as well as creating healthy and safe working conditions (Palačić, 2018). While there are legal frameworks and guidelines for the implementation of occupational health and safety measures, their implementation can face different challenges for different groups of workers. These challenges revolve around the unequal treatment and perception of safety of different socio-demographic groups. Factors such as age, religion and previous work experience can influence how individuals assess risk and perceive their safety. For example, younger workers may have different attitudes to risk than older workers, while religious beliefs may influence how safety protocols are viewed. In addition, individuals with previous work experience may perceive safety measures differently than those who are new to the field. These differences contribute to potential inequalities in the perception and enforcement of safety and raise doubts about equal treatment in different environments.

The perception of safety is not only important for the well-being of workers, but is also directly related to compliance, safety behavior and the effectiveness of Occupational health and safety measures. Therefore, understanding the differences in workplace health and safety perceptions between different groups (local workers, foreign workers and management) is essential to creating a safe workplace. With globalization and an increasingly diverse workforce, it is increasingly important to understand how sociocultural factors influence perceptions of safety. Empirical research on workers' and management's perceptions of occupational health and safety issues in Croatia is still lacking. This paper provides a review of the relevant literature and an indication of the direction of future research.

1.2 Purpose and objective of the literature review

The aim of this research is to analyze and present the conclusions of relevant studies on safety perceptions among domestic and foreign workers and management, with a particular focus on the role of socio-cultural factors in shaping the safety climate in the construction sector. This research will gather relevant information necessary for the conceptualization and orientation of empirical research in Croatia.

In the context of increasing labor migration, the systematic review will focus on identification of the socio-cultural factors that influence safety perception, with the emphasis on how different cultures, languages and experiences of workers influence their perceptions and practices related to occupational safety. . Based on these findings, measures to improve occupational health and safety in multicultural work environments in the Republic of Croatia will be proposed. In addition, gaps in previous studies are identified and a suggestion plan for further research is derived.

In line with the defined purpose of this review, the following research objectives are set:

- To present and analyze the basic theoretical concepts of occupational health and safety with the emphasis on the construction sector
- To identify the of socio-cultural factors (such as language, culture and experience) that are related to the safety perception of domestic and foreign workers
- Identify the main shortcomings in previous research on safety perception in multicultural work environments
- Raising research questions for future investigations related to socio-cultural factors influencing the safety climate in the construction industry
- Propose measures to improve the safety climate in multicultural teams in the construction sector in the Republic of Croatia.

2 Method of the Literature Review

. The research methodology uses methods that meet the requirements of the planned research through their combination and sequence.

The basic concepts of occupational health and safety, safety perception and the influence of socio-cultural factors on the safety perception of domestic and foreign employees are examined using the methods of document study and content analysis. The basic concepts are analyzed on the basis of selected scientific literature. A combination of deductive and inductive analysis is used to classify and summarize the theoretical foundations of the study. The content analysis method is used to examine theoretical positions in relation to safety perception and socio-cultural factors. By applying descriptive methods, the most important features are described and after analysis and comparison, the most important features are synthesized and conclusions are drawn..

3 Theoretical Review

3.1 Occupational health and safety

Occupational health and safety is generally defined as the science of anticipating, recognizing, assessing and controlling hazards in or from the workplace that could affect the health and well-being of workers, taking into account the potential impact on the surrounding communities and the general environment. This area is very broad and encompasses many disciplines and numerous workplace and environmental hazards. A wide range of structures, skills, knowledge and analytical capacity is required to coordinate and implement all the elements that make up national occupational health and safety systems in order to extend protection to both workers and the environment (Alli, 2008).

Occupational health and safety is a fundamental part of any working environment, and its importance is particularly emphasized in higher risk industries such as the construction sector. It includes a range of measures, activities and procedures aimed at preventing or reducing the risk of injuries and occupational diseases in the workplace, as well as creating healthy and safe working conditions (Palačić, 2018). Safety in the workplace is crucial for the well-being and health of workers, as well as for the efficiency of the work itself. In recent years, awareness of the importance of organizational, managerial and social factors for safety has increased.

In the Republic of Croatia, there is a legal framework that regulates the obligations of employers, employees and occupational health and safety professionals, such as the Occupational Health and Safety Act (NN 71/14, 118/14, 94/18, 96/18) and the implementing regulations. These regulations define the minimum standards for safety in the workplace, but their application may vary depending on the industry, type of activity, cultural context and other factors. It is therefore important to analyze the safety perception of domestic and foreign workers to ensure their safety and reduce risks in the workplace.

3.2 Perception of safety

The perception of safety in the workplace is crucial for safe work behavior and the effectiveness of occupational health and safety measures. It encompasses workers' beliefs and attitudes about risks, hazards, safety measures and procedures in the workplace. Safety perception refers to the subjective judgment that individuals or groups have about the safety of their work environment. Safety perception includes attitudes, beliefs and feelings about the presence and effectiveness of safety measures and practices.

In the context of the construction sector, this term refers to how workers and management perceive the adequacy and effectiveness of the implementation of established health and safety regulations and whether they feel safe while performing their work tasks. Safety perception at work is closely linked to safety climate, which refers to people's shared beliefs, values and attitudes towards safety in the workplace. The term "safety climate" is defined as the shared perception among members of an organization about the importance of safety and the existence of certain practices and procedures to promote a safe work environment (Newaz and al., 2020). According to a study by Kines and al. (2011), safety climate is defined as group members' perceptions of workplace safety policies, procedures and practices. This includes how individuals perceive safety management, their colleagues and working conditions in relation to safety.

Study from 2023 has shown that the safety climate has become increasingly multidimensional, focusing on leadership, communication and organizational commitment to safety. This research confirms that safety climate has evolved as a proactive tool to improve safety, rather than relying solely on retrospective accident data (Senthamizh Sankar and Anandh, 2024).

Research shows that safety climate is a significant predictor of safety behaviors and outcomes, so its analysis is key to improving overall safety performance such as number of accidents or injuries. A high perception of workplace safety, reflecting a positive safety climate, is associated with better safety behavior, fewer workplace injuries and fewer occupational illnesses. When workers perceive a positive safety climate, they are more likely to follow safety rules and regulations and avoid risky behavior. Research by Kwon and al. (2021) has shown that poor safety management can lead to a significant increase in workplace injuries. In their study of construction sites in South Korea, key factors for poor safety management were identified, including inadequate worker training, insufficient monitoring of safety procedures and poor communication between management and workers. The results showed that construction sites with poor safety management had significantly higher injury rates, highlighting the importance of an effective safety climate and active management involvement in safety practices.

3.3 Socio-cultural factors related to safety perception

Studies show that safety perceptions can vary depending on different factors, including individual (personal) characteristics, organizational factors and the socio-cultural context (Fang and al., 2023; Senthamizh Sankar and Anandh, 2024).

The literature clearly points to the importance of socio-cultural factors in the perception of safety in the workplace. Various cultural characteristics such as values, beliefs, norms, attitudes and communication styles can influence the way people perceive and experience risks and hazards including the perception of safety at work. Study shows that safety perceptions are strongly influenced by factors such as national culture, corporate culture and individual employee characteristics such as gender, age, education and work experience (Hellessy and al., 1998). Studies show that perceptions of workplace safety vary among different groups of workers, especially between domestic and foreign workers. Alamoudi (2022) used the NOSACQ-50 to assess the safety climate in the construction sector in Saudi Arabia and emphasized the importance of integrating different methods for a comprehensive understanding of the safety climate. A similar study by Korkmaz and Park (2018) compared safety perceptions between local and foreign workers in the South Korean construction industry and showed significant differences due to cultural and language barriers. Attitudes and beliefs about hazards and safety can be strongly influenced by the cultural environment in which an employee grows up and works. Some cultures tend to be more accepting of risk and less averse to danger, which

translates into lower compliance with workplace safety rules. For example, study of Erdal and al. (2018) has shown that migrant workers are more likely to take risks and disregard safety rules .

Guertler and al. (2021) investigated the perception of occupational risk among workers in the shellfish farming industry, while Ibarra-Mejía and al. (2021) analyzed the differences in risk perception between foreign and first-generation Mexican-American workers in the construction industry. Both studies emphasize the importance of cultural and social factors in the perception of safety in the workplace.

Alrawad and al. (2022) investigated the perception of occupational and environmental risks among miners using a psychometric approach, highlighting the importance of understanding workers' subjective attitudes towards risk. These findings are relevant to our research as they show that risk perception can be shaped by different individual and contextual factors. Based on their research, Kines and al. (2011) also emphasize the importance of using validated instruments such as the NOSACQ-50 to measure workplace safety climate.

Ensuring workplace safety for workers from different cultural backgrounds is not an easy task. Organizational culture, determines the prevailing values, norms and the way in which safety is communicated within a company. Forde and MacKenzie (2009) examined how frequently employers hire low-skilled migrant workers and analyzed how these practices impact human resource management. Their study shows that employers use "hard" human resource management strategies to gain a competitive advantage by reducing labor costs. This strategy creates a contradiction between employers' desire to retain workers with strong morale and commitment and their efforts to minimize labor costs, indicating important social and economic consequences for migrant workers. A study by De Castro, Fujishiro and Sweitzer (2006) provides a qualitative insight into the challenges faced by migrant workers in the workplace, including safety and health issues. Their findings suggest that migrant workers often work in more hazardous conditions compared to native workers, which can affect their perception of safety.

In addition to national and organizational culture, individual characteristics such as gender, age, work experience and education also influence employees' perception of hazards and safety behavior. Study of Hellessy and al. (1998) has shown that younger, less experienced workers and migrant workers are more likely to disregard workplace safety rules.

Other socio-cultural factors that could influence safety perceptions include:

- **Age:** Ibarra-Mejía and al. (2021) – research has shown that different age groups have different perceptions of safety, with older workers being more cautious and aware of risks.
- **Language:** Korkmaz and Park (2018) – Language barriers can make it difficult to understand safety procedures and communicate about risks in the workplace. Workers who do not speak the local language may be more aware of risk due to lack of information.
- **Previous work experience:** Alrawad and al. (2022) – Previous work experience in different industries and countries can influence workers' attitudes towards safety. Workers who have worked under more stringent safety conditions may have a greater awareness of risks.
- **Gender:** Guertler and al. (2021) – Gender can influence safety perceptions, with men and women possibly having different attitudes and approaches to safety risks.
- **Religion:** Ibarra-Mejía and al. (2021) – Religion can influence workers' attitudes and safety perceptions, particularly in relation to cultural and social norms that shape their behavior in the workplace..

4 Identification of the Gaps in Previous Research and Deriving Research Challenges

The literature review highlights several key challenges and gaps in existing research on perceptions of safety in the workplace. Existing studies have often focused on comparing safety perceptions between domestic and foreign workers or have focused exclusively on management perceptions of safety. For example, the study by Korkmaz and Park (2018) compares the safety perceptions of domestic and foreign workers in the South Korean construction industry, highlighting the cultural and language barriers that affect safety. Similarly, Ibarra-Mejía and al. (2021) analyze the differences in risk perception between first-generation foreign and Mexican-American workers in the construction industry, emphasizing the influence of previous work experience on safety perceptions. However, there are no studies that consider the triangulation of safety perceptions between foreign workers, native workers and management. In addition, other socio-demographic factors, the company's safety policy towards domestic and foreign workers, and the current status of workplace injuries need to be included in the model to understand safety perceptions. Therefore, we propose a comprehensive comparative examination of safety perceptions that considers the perspectives of all key stakeholders — management, domestic and foreign workers— - to better understand the key factors that shape safety perceptions, safety climate and safety culture in the workplace.

Another major challenge is the contextual limitation of existing research. Most of the available studies on safety perception have been conducted in the context of developed Western European and North American countries, while research in developing and emerging countries is limited. For example, the studies by De Castro and al. (2006), Guertler and al. (2021) and Ibarra-Mejía and al. (2021) were conducted in North America and Europe, while Korkmaz and Park (2018) examined the context of South Korea. Therefore, there is a need to expand the research focus to economically and socio-culturally diverse environments, especially developing countries, where working conditions are often poorer and workplace injury prevention is less developed.

5 Measures for Improvement

Research conducted in developed countries such as the USA, Canada, South Korea and Western European countries shows that the most important measures that companies can take to create a positive safety climate are as follows:

- Establishment of a comprehensive occupational health and safety management system that includes clearly defined procedures, continuous education and training of workers and regular site inspections (Erdal et al., 2018)
- Active management involvement and commitment to make safety one of the company's top priorities
- Developing a culture of learning from incidents and accidents to prevent future mistakes (Trinh and Feng, 2022)
- Building open communication and strengthening team spirit between all work groups — foreign workers, local workers and management
- Encouraging and rewarding workers who comply with applicable health and safety rules
- A personalized approach to training foreign workers (conducting training programs in a language that the worker understands, with special attention to cultural differences) so that they fully understand the rules and procedures of occupational safety
- Age-appropriate safety training: It is important to adapt safety training to age-related factors. Younger workers can benefit from interactive, hands-on learning experiences that keep them engaged and help them better understand safety protocols. Older workers, on the other hand, may need training that takes into account their previous experience and addresses any physical

limitations. This will ensure that all workers, regardless of age, receive the support they need to fully understand and follow safety guidelines.

- Tailor training based on previous work experience: Workers with extensive work experience may already be familiar with basic occupational health and safety protocols, so their training should focus on more advanced or updated safety procedures relevant to their specific tasks. On the other hand, less experienced employees may need more basic training to deepen their understanding of safety rules and procedures. This approach ensures that the training is effective and relevant to the employee's level of experience, maximizing both engagement and compliance with safety regulations.
- Respect religious and cultural needs: Employers can implement flexible safety procedures that accommodate religious practices, such as specific break times or safety requirements related to dress. This promotes inclusivity and ensures that the needs of all employees are considered within the safety management system.
- Developing psychological support for workers, with special attention to foreign workers.

These measures can significantly contribute to the development of a positive safety perception and safety culture in the multicultural context of the construction industry in the Republic of Croatia.

6 Conclusion

The safety and health of workers in the construction industry is an important issue in modern society. The conducted study identified and analyzed theoretical concepts of occupational health and safety, highlighted the main challenges in previous research and proposed measures to improve the safety culture in the Croatian construction industry.

Studies show that the perception of safety significantly influences workers' behavior and the creation of a safe working environment. However, safety perception largely depends on various socio-cultural factors such as age, language, previous work experience and religion. The findings of this research can provide valuable insights for the development of effective safety and health management strategies in the construction sector to improve the safety culture that meets the needs of different work groups.

Key elements of these strategies should include the introduction of a comprehensive health and safety management system, the active involvement of management, the development of a learning culture, the promotion of open communication and team spirit, and an individualized approach to training foreign workers. Furthermore, this research highlights the need for further empirical studies on safety perceptions in different contextual environments, especially in developing and emerging countries, to broaden the understanding of this complex phenomenon.

Following this research, it is recommended to initiate empirical studies on the safety perceptions of different work groups, such as foreign workers, local workers and managers, on Croatian construction sites in order to better understand the key factors influencing safety perceptions, safety climate and workplace culture, taking into account the perspectives of all key stakeholders — management, local and foreign workers.

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