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SAFETY IN TERMS OF SUSTAINABLE DEVELOPMENT

Abstract: *The studies have shown the current knowledge about the problems and prospects of safety in terms of sustainable development. The scientific research methods have been used: a content analysis of scientific literature, surveys to collect original data and statistical methods for data processing and analysis. According to the research, safety is in terms of sustainable development in business organizations. Environmental protection is assessed as the most significant component of safety in terms of sustainable development. Important are the findings based on the positive assessment of safety experts that the workers are aware of it and that the management of the organization appreciates and supports safety in terms of sustainable development. It is especially important that the organizations appreciate the knowledge to protect and support continuous learning to improve the safety in terms of sustainable development. There is a partial connection between the dependent variables of safety in terms of sustainable development and the independent variables of a safety expert profile. Thereby, it is highly important that the safety experts with higher levels of education and more work experience give higher rating to the dependent variables of safety in terms of sustainable development. There is a connection between the dependent variables of safety in terms of sustainable development and the independent variables of the profile of organization employment of safety experts. Safety experts employed in the private ownership organizations give higher ratings to the dependent variables of safety in terms of sustainable development in their organizations than the safety experts employed in the state and public ownership organizations. It is significant that safety experts employed in organizations in Serbia give higher ratings to the dependent variables of safety in terms of sustainable development than safety experts employed in Croatia. One must recognize the need and opportunity for improvement i.e. development of safety in terms of sustainable development.*

Key words: safety, sustainable development.

INTRODUCTION

Over the past decade "sustainable development" has become a key concept in discussions about the environment. However, the very concept of sustainability is not new. The search for its roots leads to a part of the classical economic science and the early attempts to answer the question what the prospect of human society development is.

The analysis of literature indicates the author's inconsistency even contradictory interpretations when it comes to the idea of "sustainable development". In one group are the definitions where *sustainable is considered a state in which whether utility or level of consumption, over time, does not fall*. Solow [9] is the first who, according to Rawls' theory of moral justice, highlighted the request for inter-generational equality in the enjoyment of natural resources. Solow points out that each generation should have equal access to the benefits of nature, and that the only form of economic

development that allows it during an unlimited period of time, can be considered sustainable. However, measurement of the level of usefulness is followed by methodological problems and therefore the level of consumptions occurs as more suitable for the analysis. For example, Hartwick *defines sustainability in terms of mankind nondecreasing consumption over time, trying to establish the conditions that allow it* [2]. Somewhat similar is the definition of the Final Report Brundtland Commission [12], according to which *sustainable development is one that meets present needs without compromising the ability of future generations to meet their own needs*. What is considered to be acceptable standards of ones needs? It is difficult to give a precise answer to this question and therefore the accuracy of this definition is also put into question.

After the second group of definitions, *sustainable is considered a state in which resources are used so that future production possibilities of humanity remain*

preserved. Since it is difficult to talk about the needs of future generations, Solow has chosen to highlight preserved production capabilities as a sustainability criterion [10, 11].

The third concept defines *sustainable the state in which the stock of natural capital does not fall in time* [1]. On this concept of sustainability UNESCO insists in its documents.

The following group are definitions in which *sustainable condition is a condition in which the resources are used to deliver a sustainable yield or growth* (as resources are heterogeneous, yield is immeasurable).

A special group of definitions is *based on the concept of stability and balance of ecological populations over time*. Namely, sustainable is considered a state in which the minimum requirements of stability and balancing of the ecosystem is met, and the authors [6] define the *system as environmentally sustainable if it has the property of balancing*. Behavior that reduces balance of a system is considered unsustainable. However, to know whether a system is balanced or not can be reached only *ex post* (after the disorder one can with certainty conclude how the ecosystem acts i.e. whether it is sustainable or not). If we accept the criterion of environmental sustainability as one of the objectives of development policy, the success of the measures can be viewed from the perspective of environmental protection, and it is reflected in prevention, risk avoidance or minimization of the consequences of accidents that threaten the balance of the ecosystem and the prospects for survival of life.

By the National Sustainable Development Strategy of the Republic of Serbia¹ sustainable development is defined as *a long-term concept "... which implies continuing economic growth which, in addition to economic efficiency, technological progress, more cleaner technologies, innovation of the entire society and corporate social responsibility, ensures the reduction of poverty, the long term better use of resources, improvement of the health conditions and the quality of life and reduction of pollution to levels which the participants of the environment can withstand, prevention of new pollution and biodiversity conservation*. However, this (political) definition of sustainable development greatly expands the original concept of sustainable development. The most commonly cited definition, which managed to avoid these pitfalls, is the definition given in the book *Our Common Future* [12], created as a report by the *World Commission on Environment and Development* in 1987. By this definition, *sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs*.

¹http://www.merz.gov.rs/sites/default/files/nacionalna_strategija_odrzivog_razvoja_Republike_Srbije.pdf

Despite the different interpretations that can be found in the literature, this concept today has a central place in the consideration of long-term prospects of survival and progress of mankind. Hence the not surprising debates on sustainable development as a kind of turnaround in the culture, which is in contrast to the movement of the 60s (with the ideal of equality), now focused on the maxim of justice. Some authors observe sustainability in the broadest possible social context, or as a system of ideas in which the solution for a better society are in recognizing the social causes and social consequences of human activities [7]. Sustainability or sustainable development occurs, in fact, as an essential pre-condition, as well as the ultimate goal of effective organization of a series of human activities on Earth. The quest for answers about the interaction of safety and sustainable development concept leads to a number of reasons of conceptual and strategic coherence and explanation of their relationship. First, there are strong moral reasons that today's generation leaves its descendants a legacy a chance for development at least as it currently is. This indicates the need for protection and conservation of natural resources by the existing civilization². Then, there are the reasons of ecological nature. Namely, if the nature presents a value in itself, i.e. if biodiversity conservation is justified in the view that man is only a part of nature and that he has no right to irreversibly change it, then no economic, commercial or labor activity that undermines the wealth of natural resources is acceptable. These are the reasons of moral nature given that hereby the relationship of the current generation of people towards the future generations is not potentiated, but the attitude towards other living beings, nature and resources in general. Thereto one can add reasons for the security of the nature and basic human needs for safety in the living and working environment. The communication of safety and sustainable development can be found in the economic argument that a sustainable and safe development of more efficient, i.e. the fact that non-compliance of safety measures and the concept of sustainability leads to inefficient economic development, in terms of the increasing waste of resources and energy, i.e. the tendency of long-term deterioration of relations between inputs and outputs on a global scale.

Numerous activities of government and non-governmental organizations around the world, have led to a series of conferences and international meetings devoted to the problems of environment and development (Belgrade, Stockholm, Rio de Janeiro, Kiev, Vilnius, etc.). At the end of the twentieth century, the number of organizations and programs aimed at promoting sustainable development is significantly expanding (UN organizations and programs, The

² This reasoning is based on the theory of justice of John Rawls (1971), which highlights the fundamental principle of moral justice contained in the equal right of every person to the broadest fundamental freedoms, which do not restrict the freedom of others [11].

Committee of the international institutions for the development and the environment CIDI, World Resources Institute WRI, etc.) but many of the existing international institutions, for example, the Organization for economic Cooperation and development - OECD and World Bank WB, promote this issue. The Millennium Development Goals approved by 189 countries in mid-2000 and the Implementation plan that the World Summit on Sustainable Development (WSSD) adopted in 2002 in Johannesburg emphasize the urgent need to reduce inequality and help in the development of poor countries, while the United Nations Decade of Education for sustainable development (2005-2015) promotes education in this area. These documents also stress the need to change unsustainable patterns of production and consumption with the aim of safety and sustainable management of natural resources and social development, preservation of health and the integration of the objective of sustainable development in the process of globalization³. At the same time, the system of protection of labor and the environment is seen in the function of the reduction of negative effects of human activities or the prevention of risks in the working environment i.e. as an integral and inseparable part of the green business and sustainable development strategy. Green business means something more than environmentally friendly business; it is a concept that integrates the procedures and measures for the protection, preservation, and improvement of the quality of working environment with the aim of developing sustainable societies [3]. On the way to a sustainable society, workforce development (human resources) in the green business sector must be viewed in a close connection with the development of the local community [5] i.e. in the interaction of working and living environment which, in practical terms, requires

³ In this connection, since the WSSD, on the way to achieving sustainable development the strategic goals have been defined: *contribution to economic development through increasing / strengthening territorial assets* (starting from the belief that environmental protection and economic growth are not necessarily incompatible, the goal is to strengthen economic growth while reducing pressures on natural resources); *to reduce social disparities by implementing the Millennium Development Goals and strengthening of the cultural identity* (development of human resources is of crucial importance, education, gender equality, rural development, solving the problem of employment and poverty, etc.); *to change unsustainable production and consumption patterns and ensure sustainable management of natural resources* (to direct patterns consumption and production patterns through the use of renewable energy, clean technologies, suitable infrastructure, to insure access to information, training and professional development in order to achieve the transition from the culture of "urgent action" to the culture of "prevention"); *to improve governance at the local, national and regional basis* (networked collaboration, dialogue, diffusion of knowledge (www.cse.mrt.ac.lk). Education and training, particularly education for sustainable development (ESD) are recognized as a prerequisite for the enhanced management (SESD, Vilnius, 2005).

an emphasis on collaboration, critical thinking, authenticity, evaluation processes, as well as progress [4]. Cooperation of economic (employment) and local sector (community) can create conditions in which sustainable solutions will appear. A model of sustainability rejects the claims that the losses in the "realms" of the environment and society are inevitable and that they are the consequence of the economic development. Therefore, it can be considered that the sustainability is a model for thinking about the future where ecological, economic and social factors are in the equilibrium in the struggle for the achievement of development and improving the quality of life.

METHODOLOGY

The research problem can be identified as a lack of current knowledge on safety in terms of sustainable development. On this basis, scientifically and socially justified, **a research question** can be asked: What is the issue and prospect of safety in terms of sustainable development?

The aim of the research is to get to the current knowledge about the problems and prospects of safety in terms of sustainable development.

Based on the identified research problems and stated aim of the research the following affirmative **hypotheses** of scientific research have been set (H1 - H3):

H1: Safety is in terms of sustainable development in business organizations.

H2: There is a correlation between the dependent variables of safety in terms of sustainable development and the independent variables of the safety expert profile.

H3: There is a correlation between the dependent variables of safety in terms of sustainable development and the independent variables of the organization of employment safety experts profile.

To achieve the goal of the research and testing of the hypotheses the following research tasks were conducted:

- 1) An instrument of survey research was made: an online questionnaire with established dependent and independent variables.
- 2) An online survey on the established pattern was done.
- 3) The collected data was prepared and statistically analyzed.
- 4) The obtained results were presented and interpreted with discussion and conclusion.

Methods

1) The survey method

A survey was used to collect the original current data. The descriptive-analytical kind of survey was used, by method written and network (online) survey, voluntary and completely anonymous for the participants.

As an instrument of the survey research an online questionnaire with 20 closed questions was used and categorized in three groups of questions.

Research variables

Independent variables:

I. Safety expert profile

1. Gender
2. Age
3. The highest level of professional qualification - education
4. Total length of service.

II. The profile of organization employment of safety experts

5. The state in which the organization is
6. The number of workers employed in the organization
7. Type of organization
8. Organization activity.

Dependent variables:

III. Safety in terms of sustainable development

9. In my employment organization the concept of sustainable development is implemented in practice.
10. Safety at work is in the function of the sustainable development of the organization.
11. Fire protection is in the function of the sustainable development of the organization.
12. Environmental protection (environment) is in the function of the sustainable development in the organization.
13. Waste is managed sustainably. Waste is sorted, properly disposed of and one is constantly tending towards waste reduction in the organization.
14. Energy is sustainably managed. Activities to increase energy efficiency in the organization are carried out.
15. Certified management systems according to international codes (standards) for environmental management, safety at work and similar has been introduced.
16. The organization employs people with disabilities and people from socially vulnerable groups.
17. The organization works socially responsible, cooperates with the local community and with all interested parties.
18. The organization management appreciates and supports safety in terms of sustainable development.
19. The workers are aware of the importance of safety in terms of sustainable development.
20. Safety knowledge is appreciated in the organization and continuous learning to improve safety in terms of sustainable development is encouraged.

The research sample

Safety experts (for safety at work, fire protection and environmental protection), employees in business organizations in Croatia and Serbia were determined as

participants in the survey. Assessment of the population i.e. basic set of research is 6,000 potential participants.

2) Statistical methods

Frequency (N), percentage (%), the sum (Σ), the arithmetic mean, the average value (M), standard deviation of the population (σ), coefficient of variability of the population (V) expressed in percentages (%), Pearson's correlation coefficient (r) - to test the connection (correlation) between the established dependent and independent variables of research.

Information about the survey

The survey was conducted in the period from 1.2.2016. to 29.2.2016.

The online survey was placed on the website: https://docs.google.com/forms/d/1HzjaQHac_jrNHOelxl0l3ebTs5SivLv-n2lg_-_1U/formResponse

The study involved a total of 527 participants, whose all filled questionnaires were accepted as valid for statistical analysis of the results.

Testing of the sample survey representativeness

The representativeness of the sample size research was tested by calculating the size of a simple random sample.

Determined expected and planned minimum number of participants who will actively participate in the survey:

- more than 30,
- more than 5% of the basic set (more than 300 participants)
- more than the minimum of the representative sample determined on the basis of variability of the key dependent variables research results (minimum scientific sample).

The sample can be considered representative because all the set demands are set:

- $N(527) > 30$
- $N(527) > 5\% n(300)$, $N = 8,78\% n$
- $N(527) > n_z(92)$.

The sample, except in size, can be considered representative and by other characteristics related to the profile independent variables and employment organization of safety experts as participants in the survey.

RESULTS AND DISCUSSION

I Safety experts profile

1. Gender

Men are in the majority (65.65%) of participants i.e. safety experts, while women are in a minority (34.35%).

2. Age

Considering the age of the safety experts the most represented (28.84%) is the group of 41-50 years of age, followed by the group of 31-40 years (26.94%) and the group of 51-60 years (26.57%). The youngest (30 years old) account for 7.97% while the oldest (over 60 years) account for 9.68% of the participants. Thus, represented are all age groups of safety experts.

3. The highest level of professional qualification - education

Secondary education has only 1.14% of safety experts. The majority (59.39%) of safety experts have college and / or university degrees (professional or graduate studies). Postgraduate professional study or postgraduate specialist study has a significant 26.76%. Masters of Science among safety experts are represented with 7.97% and PhDs with 4.74% (with a majority in Serbia in comparison with Croatia).

4. Total length of service

According to the total working age the most (31.88%) safety experts are in the group of 21-30 years of work experience. The next group is the one of 11-20 years (22.20%), followed by more than 30 years (21.06%) and 4 to 10 years (18.22%) and at least the one of 1.14% for safety experts with a total length of service up to 3 years.

II Profile of safety experts employment organization

5. The state of organization

The Croatian organizations employ 64.14% of participants and in Serbia 35.86% of participants.

6. The number of workers employed in the organization

All organizations in size due to the number of employees are represented. In organizations that have up to 50 employees (small organizations) 26.00% safety experts work. In medium sized organizations according to the number of workers (51 to 250 employees) 28.65%. In large organizations (over 250 employees) work 45.35% safety experts, 26.19% in organizations with 251 to 1000 workers and in organizations with more than 1,000 employees 19.17%.

7. Type of organization

The majority (53.89%) of safety experts performs safety work in the state or public organizations. In private organizations 42.31% is employed and in mixed organizations (according to ownership) 3.80%.

8. Activity of organization

Represented are all kinds of organizations due to the activity. The most (27.13%) safety experts are employed in service activities. The following are other

activities (25.05%) and public activities (24.48%), followed by industry activities (17.27%), administrative activities (3.61%) and financial activities (2.47%).

III Safety in terms of sustainable development

Safety experts as participants gave their subjective evaluation of the set statements concerning safety in terms of sustainable development selecting an answer in the range of 1 to 5 (where 1 and 2 represent a negative area, 3 neutral, and 4 and 5 positive area) by Likert scale intensity:

- 1 - strongly disagree,
- 2 - mostly disagree,
- 3 - neither agree nor disagree, I do not know,
- 4 - mostly agree,
- 5 - strongly agree.

The average score of safety in terms of sustainable development is 3.40 (on a Likert scale of intensity 1-5), with an average standard deviation of 1.25 and an average variability coefficient of 37.25%.

The rating scale is from 1 to 5. Participants, safety experts in the organization, thus confirming the positive function of safety in sustainable development however there is a need for improvement in all the variables in terms of sustainable development.

The highest average rating (3.79) has a dependent variable "Environmental protection (environment) is in the function of the sustainable development in the organization." Thereby environmental protection has been recognized as the most significant component of safety in terms of sustainable development. The lowest average rating (2.82) has a dependent variable "The organization employs people with disabilities and people from socially vulnerable groups". (Table 1)

Correlation testing

Correlations (connections) between the dependent and independent variables of the research were tested by Pearson's correlation coefficient (r).

Limiting values of the correlation coefficient (r):

The degrees of freedom ($n - 2$) = 527-2 = 525

Levels of significance correlation:

- Highly significant correlation** - the risk of accepting the existence of a correlation between the two indicators is less than 1% ($P 0.01$), $r \geq 0.115$

- A significant correlation* - the risk of accepting the existence of correlation between the two indicators is less than 5% ($P 0.05$), $r \geq 0.088$

By statistical analysis of the correlation coefficient between the dependent variables "Safety in terms of sustainable development" and the independent variables "Safety experts profile" following statistical correlations were established:

1. Gender

Women give:

- Higher rating of the dependent variable "Environmental protection (environment) is in the function of the sustainable development in the organization." than men (significant positive correlation $r = 0.104 *$).

- Lower rating of the dependent variable "The organization employs people with disabilities and people from socially vulnerable groups" than men (extremely significant negative correlation $r = -0.173 **$).

2. Age

The older the participants are, they give:

- Higher rating of the dependent variable "Fire protection is in the function of sustainable development in organization men (extremely significant positive correlation $r = 0.138 **$).

- Higher rating of the dependent variable "Environmental protection (environment) is in the function of the sustainable development in organization men (extremely positive negative correlation $r = 0.177 **$).

3. The highest level of professional qualification - education

The higher levels of qualification i.e. education people have, they give:

- Lower rating of the dependent variable "Waste is managed sustainably. Waste is sorted, properly disposed of and one is constantly tending towards waste reduction in the organization" (significant negative correlation $r = -0.088 *$).

- Higher rating of the dependent variable "The organization works socially responsible, cooperates with the local community and with all interested parties" (a significant positive correlation of $r = 0.110 *$).

- Higher rating of the dependent variable "The organization management appreciates and supports safety in terms of sustainable development" (a significant positive correlation of $r = 0.096 *$).

- Higher rating of the dependent variable "The workers are aware of the importance of safety in terms of sustainable development" (extremely significant positive correlation $r = 0.127 *$).

- Higher rating of the dependent variable "Safety knowledge is appreciated in the organization and continuous learning to improve safety in terms of sustainable development is encouraged." (extremely significant positive correlation $r = 0.148 *$).

4. Total length of service

The more total years of service people have, they give:

- Higher rating of the dependent variable "Safety at work is in the function of sustainable development in the organization" (a significant positive correlation of $r = 0.101 *$).

- Higher rating of the dependent variable "Fire protection in the function of sustainable development in

the organization" (extremely significant positive correlation $r = 0.209 **$).

- Higher rating of the dependent variable "Environmental protection (environment) is in the function of the sustainable development in the organization" (extremely significant positive correlation $r = 0.191 **$).

- Higher rating of the dependent variable "The organization works socially responsible, cooperates with the local community and with all interested parties." (extremely significant positive correlation $r = 0.101 *$).

By statistical analysis of the correlation coefficient between the dependent variables "Safety in terms of sustainable development" and the independent variables "Profile of the employment organization of the safety experts profile" following statistical correlations were established:

5. The state in which the organization is

Participants working in organizations in Serbia compared to those employed in organizations in Croatia give:

- Higher rating of the dependent variable "Safety at work is in the function of the sustainable development in the organization" (extremely significant positive correlation $r = 0.131 **$).

- Higher rating of the dependent variable "Fire protection in the function of sustainable development in the organization" (extremely significant positive correlation $r = 0.137 **$).

- Higher rating of the dependent variable "Environmental protection (environment) is in the function of the sustainable development in the organization" (extremely significant positive correlation $r = 0.129 **$).

- Higher rating of the dependent variable "Certified management systems according to international codes (standards) for environmental management, safety at work and similar has been introduced." (significant positive correlation of $r = 0.108 *$).

- Higher rating of the dependent variable "The organization employs people with disabilities and people from socially vulnerable groups" (extremely significant positive correlation $r = 0.145 **$).

- Higher rating of the dependent variable "The organization works socially responsible, cooperates with the local community and with all interested parties." (extremely significant positive correlation $r = 0.157 **$).

- Higher rating of the dependent variable "The organization management appreciates and supports safety in terms of sustainable development" (extremely significant positive correlation $r = 0.175 **$).

- Higher rating of the dependent variable "The workers are aware of the importance of safety in terms of sustainable development" (extremely significant positive correlation $r = 0.159 **$).

- Higher rating of the dependent variable "Safety knowledge is appreciated in the organization and continuous learning to improve safety in terms of sustainable development is encouraged." (extremely significant positive correlation $r = 0.169^{**}$).

6. The number of workers employed in the organization

The more workers in an organization are, the participants give:

- Lower rating of the dependent variable "Safety at work is in the function of sustainable development in the organization" (extremely significant negative correlation $r = -0.119^{**}$).

- Lower rating of the dependent variable "Energy is sustainably managed. Activities to increase energy efficiency in the organization are carried out." (significant negative correlation $r = -0.103^{*}$).

- Higher rating of the dependent variable "The organization employs people with disabilities and people from socially vulnerable groups" (extremely significant positive correlation $r = 0.126^{**}$).

- Lower rating of the dependent variable "The organization management appreciates and supports the protection in terms of sustainable development" (extremely significant negative correlation $r = -0.124^{**}$).

- Lower rating of the dependent variable "Safety knowledge is appreciated in the organization and continuous learning to improve safety in terms of sustainable development is encouraged." (significant negative correlation $r = -0.097^{*}$).

7. Type of organization

The participants employed in the private and mixed types of organizations by property compared to those employed in public organizations give:

- Higher rating of the dependent variable "In my employment organization the concept of sustainable development is implemented in practice." (significant positive correlation $r = 0.090^{*}$).

- Higher rating of the dependent variable "Safety at work is in the function of the sustainable development of the organization." (extremely significant positive correlation $r = 0.170^{**}$).

- Higher rating of the dependent variable "Fire protection in the function of the sustainable development of the organization." (significant positive correlation of $r = 0.102^{*}$).

- Higher rating dependent variable "Environmental protection (environment) is in the function of the sustainable development in the organization." (extremely significant positive correlation $r = 0.127^{**}$).

- Higher rating of the dependent variable "Waste is managed sustainably. Waste is sorted, properly

disposed of and one is constantly tending towards waste reduction in the organization." (extremely significant positive correlation $r = 0.118^{**}$).

- Higher rating of the dependent variable "Energy is sustainably managed. Activities to increase energy efficiency in the organization are carried out." (extremely significant positive correlation $r = 0.239^{**}$).

- Higher rating of the dependent variables "Certified management systems according to international codes (standards) for environmental management, safety at work and similar has been introduced." (extremely significant positive correlation $r = 0.193^{**}$).

- Higher rating of the dependent variable "The organization employs people with disabilities and people from socially vulnerable groups" (extremely significant positive correlation $r = 0.160^{**}$).

- Higher rating of the dependent variable "The organization management appreciates and supports safety in terms of sustainable development." (extremely significant positive correlation $r = 0.268^{**}$).

- Higher rating dependent variable "The workers are aware of the importance of safety in terms of sustainable development." (extremely significant positive correlation $r = 0.223^{**}$).

- Higher rating of the dependent variable "Safety knowledge is appreciated in the organization and continuous learning to improve safety in terms of sustainable development is encouraged." (extremely significant positive correlation $r = 0.320^{**}$).

8. Organization activity

Participants working in organizations with services, public and other activities compared to those employed in organizations with industrial activities give:

- Higher rating of the dependent variable "Energy is sustainably managed. Activities to increase energy efficiency in the organization are carried out." (significant positive correlation of $r = 0.100^{*}$).

- Lower rating of the dependent variables "Certified management systems according to international codes (standards) for environmental management, safety at work and similar has been introduced." (extremely significant negative correlation $r = -0.163^{**}$).

- Lower rating of the dependent variable "The organization employs people with disabilities and people from socially vulnerable groups" (extremely significant negative correlation $r = -0.150^{**}$).

- Higher rating of the dependent variable "The workers are aware of the importance of safety in terms of sustainable development." (significant positive correlation of $r = 0.099^{*}$).

Table 1. Safety in terms of sustainable development

Number of dependent variables	Safety in terms of sustainable development	Lowest rating	Highest rating	Arithmetic mean 0-5 (M)	Standard deviation (σ)	Coefficient of variability (V) %
9.	In my employment organization the concept of sustainable development is implemented in practice.	1	5	3,44	1,15	33,27
10.	Safety at work is in the function of the sustainable development of the organization.	1	5	3,61	1,24	34,25
11.	Fire protection is in the function of the sustainable development of the organization.	1	5	3,71	1,23	33,21
12.	Environmental protection (environment) is in the function of the sustainable development in the organization.	1	5	3,79	1,18	31,14
13.	Waste is managed sustainably. Waste is sorted, properly disposed of and one is constantly tending towards waste reduction in the organization.	1	5	3,61	1,22	33,88
14.	Energy is sustainably managed. Activities to increase energy efficiency in the organization are carried out.	1	5	3,36	1,17	34,82
15.	Certified management systems according to international codes (standards) for environmental management, safety at work and similar has been introduced.	1	5	3,13	1,47	46,79
16.	The organization employs people with disabilities and people from socially vulnerable groups.	1	5	2,82	1,35	47,71
17.	The organization works socially responsible, cooperates with the local community and with all interested parties.	1	5	3,61	1,19	32,90
18.	The organization management appreciates and supports safety in terms of sustainable development.	1	5	3,33	1,26	33,96
19.	The workers are aware of the importance of safety in terms of sustainable development.	1	5	3,17	1,25	39,37
20.	Safety knowledge is appreciated in the organization and continuous learning to improve safety in terms of sustainable development is encouraged.	1	5	3,20	1,33	41,53
9.-20.	Total	1	5	3,40	1,25	37,25

CONCLUSION

The aim of the research to get to the current knowledge about the problems and prospects of safety in terms of sustainable development is realized. Selected scientific methods have proved as suitable for the subject of research. Limitations of the research are related to the selection of participants in the survey from the two countries.

Analysis of the survey results confirms the hypothesis that safety is in terms of sustainable development in business organizations (H1).

The average safety experts in terms of sustainable development rating is 3.40 (on Likert scale of intensity 1-5), which is in positive range, but due to the relatively low average rating the needs and opportunities for improvement and development of safety in terms of sustainable development are noticed.

The highest average rating (3.79) has a dependent variable "Environmental protection (environment) is in the function of the sustainable development in the organization", whereby the environmental protection is determined as the most important component of safety in terms of sustainable development.

Important are the findings based on the positive assessment of the safety experts that the workers are aware of, and that the organization management appreciates and supports safety in terms of sustainable development. It is especially important that safety knowledge is appreciated in the organization and continuous learning to improve safety in terms of sustainable development is encouraged.

According to the survey the hypothesis that there is a correlation between the dependent variables of protection in terms of sustainable development and the independent variables of the safety expert profile can be partially accepted (H2).

From a total of 48 possibilities of correlation statistically significant correlation was found between 13 possibilities (27.08%) which is less than a third of correlation possibilities. Thereby, two (2/12) dependent variables of safety in terms of sustainable development significantly depend on gender and age of safety experts, five (12.5) on the level of qualification-education, and four (4/12) dependent variables of safety in terms of sustainable development significantly depend on the safety experts total length of service.

It is important to know that safety experts with higher levels of qualification i.e. education, and more total years of service, give higher rating to the dependent variables of safety in terms of sustainable development. Based on the results the hypothesis that here is a correlation between the dependent variables of safety in terms of sustainable development and the independent variables of the organization of employment safety experts profile can be accepted (H3).

From a total of 48 correlation possibilities a statistically significant correlation was found between 29 possibilities (60.41%), which is the majority. Thereby nine (9.12) dependent variables in terms of sustainable development significantly depend on the country in

which the employment organization of safety experts is, five (12.5) on the number of workers employed in the organization, eleven (11/12) of the type of organization according to property, and four (4/12) dependent variables of safety in terms of sustainable development significantly depend on the organization activities.

It is important to know that safety experts employed in the private property organization give higher rating to the dependent variables of safety in terms of sustainable development in their organizations than safety experts employed in organizations of state and public property.

It is significant that the safety experts employed in organizations in Serbia give higher rating to the dependent variables of safety in terms of sustainable development than safety experts employed in Croatia.

For further research detailed empirical studies of safety in areas of the main components of safety in business organizations: safety at work, fire protection and environmental protection in terms of sustainable development are proposed.

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ZAŠTITA U FUNKCIJI ODRŽIVOG RAZVOJA

Josip Taradi, Vesna Nikolić, Nevenka Grošanić

Rezime: U radu je sistem zaštite radne i životne sredine posmatran u funkciji održivog razvoja. Rezultati empirijskog istraživanja ukazuju da je zaštita životne sredine ocenjena kao najznačajniji segment sistema zaštite u funkciji održivog razvoja. Anketiranjem stručnjaka za zaštitu u Republici Srbiji i Republici Hrvatskoj došlo se do saznanja da su radnici i menadžeri poslovnih organizacija svesni problema održivog razvoja; vrednuju znanje za zaštitu radne i životne sredine i akcentiraju potrebu stalnog učenja i razvoja ljudskih resursa u sistemu zaštite radne i životne sredine. Komparativna analiza potvrđuje slične trendove i intencije razvoja svih područja zaštite u poslovnim organizacijama Republike Srbije i Republike Hrvatske kao neophodne pretpostavke njihovog održivog razvoja u budućnosti.

Ključne reči: održivi razvoj, zaštita.