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EVALUATION OF THE CONDITIONS FOR SUSTAINABLE WORKPLACES IN ROMANIAN CUSTOMS

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Abstract: Sustainability is an important approach for public and private organizations. The application of the principles contributes to the development of an organizational culture that is found in the ergonomics of workplaces and their sustainability. In Romanian customs, working conditions can be improved. This research aims to identify the current working conditions and propose a framework for their improvement based on the objectives of sustainable development. The questionnaire that was applied online was used for research. Its statistical modeling shows that most employees want you to improve basic conditions to increase efficiency at work. Many of the employees consider that the objectives of sustainable development are combined with the ergonomic conditions. The limitations of the research refer to the fact that the research only concerned Romanian employees.

Key words: Custom, management, human resources, culture, sustainable development, employee, public organization.

1. INTRODUCTION

Customs administrations must function efficiently and apply the values of the European Union (EU), all customs administrations must work together and develop a safe and sustainable framework for interaction and work. Optimizing the physical and mental comfort of employees is one of the concerns of ergonomics. These are complemented by job security, which is a priority for the employee [1], [2], [3].

Improving the application of ergonomics principles are essential in customs activity (optimization of human movements, reduction of fatigue and the use of tools to reduce manual activity). All these principles must be aligned in the customs administrations with the principles of sustainability[4]. This alignment could contribute to the development of sustainable workplaces. Research [5], [6], [7] shows that improving working conditions contributes to reducing risks and increasing efficiency. Staff motivation, as presented in [8], [9], [10], contributes to the achievement of some SDGs and implicitly to the development of healthy workplaces. [1], [11], [12], [5], [13] research

shows us that the efficiency of the workplace is directly proportional to the working conditions. Based on this research, it can be concluded that many improved working conditions can develop advantages for customs administrations [14], [15], [16].

The functioning of customs administrations is essential in achieving the Sustainable Development Goals (SDGs). Safe workplaces, simplification of procedures and development of partnerships, standardization and timely delivery of goods (SDG 1-13), waiting times and community development directly impact economies and societies (SDG 14-17).

The paper has to offer the answers to the following questions:

1. What are the working conditions that the employees want?
2. How important are the principles of sustainability for employees?
3. What are the ideas that can contribute to the development of sustainable jobs?

The paper is structured in three parts, the introductory part that makes an inventory of the working conditions, the section that includes the results of the completed questionnaire and the

section with the sustainable work framework for improving efficiency.

2. METHODOLOGY

The article analyzes the working conditions in the customs system in Romania. An online questionnaire was administered between September 2023 and June 2024 using the Google Form platform. For many of the questions, the Likert scale was used (1 - unimportant and 5 - very important). The qualitative and quantitative analyzes underline the importance of developing sustainable jobs.

The questionnaire consists of three parts:

1. Workplace conditions - current working conditions are evaluated to identify weak points.
2. The principles of sustainability - the important directions of sustainability - are evaluated from the perspective of the facilities offered for the ergonomics of the workspaces.
3. Future development - the opportunities to improve working conditions in the future are identified based on the principles of sustainability and current conditions.

All the data obtained from the respondents were transposed into variables for the present statistical analysis: environmental conditions, ergonomics conditions and future conditions.

3. RESULT AND DISCUSSION

For this research, 177 answers of the respondents, employees of the Romanian Customs Authority (RCA), from de West Region, were validated. This is a pilot study carried out in this review. The next steps will consider all the other development areas of the country. The results are presented below.

This section includes the results obtained from the statistical analysis; the results obtained for each category of questions in the questionnaire are presented.

Table 1 includes the distribution of respondents according to the period of employment. In this region, there are the most employees with more than 15 years of experience. The fewest employees and respondents are found in the category with experience of less than 1 year.

Table 1

Period of employment in the Romanian Customs Authority of the respondent.

Category			Frequency	Percent	Valid Percent	Cumulative Percent
>15 years	Valid	>56 years	50	41.5	41.5	41.5
		36-45 years	15	11.1	11.1	11.1
		46-55 years	54	47.5	47.5	47.5
		Total	119	100.0	100.0	100.0
1-5 years	Valid	>56 years	3	8.6	8.6	8.6
		18-25 years	1	2.9	2.9	11.4
		26-35 years	8	22.9	22.9	34.3
		36-45 years	9	25.7	25.7	60.0
		46-55 years	14	40.0	40.0	100.0
		Total	35	100.0	100.0	
10-15 years	Valid	26-35 years	1	11.1	11.1	11.1
		36-45 years	1	11.1	11.1	22.2
		46-55 years	7	77.8	77.8	100.0
		Total	9	100.0	100.0	
5-10 years	Valid	>56 years	1	9.1	9.1	9.1
		26-35 years	3	27.3	27.3	36.4
		36-45 years	3	27.3	27.3	63.6
		46-55 years	4	36.4	36.4	100.0
		Total	11	100.0	100.0	
<1 years	Valid	36-45 years	1	33.3	33.3	33.3
		46-55 years	2	66.7	66.7	100.0
		Total	3	100.0	100.0	

Table 2

The level of satisfaction at the workplace of the employees.

>15 years	Valid	1	8	7.0	7.0	7.0
		5	10	8.8	8.8	15.8
		4	36	31.6	31.6	47.4
		3	20	17.5	17.5	64.9
		2	40	35.1	35.1	100.0
		Total	114	100.0	100.0	
1-5 years	Valid	1	6	17.1	17.1	17.1
		5	11	31.4	31.4	48.6
		4	5	14.3	14.3	62.9
		3	13	37.1	37.1	100.0
		Total	35	100.0	100.0	
10-15 years	Valid	1	1	11.1	11.1	11.1
		5	2	22.2	22.2	33.3
		4	2	22.2	22.2	55.6
		3	4	44.4	44.4	100.0
		Total	9	100.0	100.0	
5-10 years	Valid	5	3	27.3	27.3	27.3
		1	2	18.2	18.2	45.5
		3	6	54.5	54.5	100.0
		Total	11	100.0	100.0	
<1 years	Valid	MARE	3	100.0	100.0	100.0

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From the perspective of the current working conditions, the respondents show different levels of appreciation, Table 2. The group of respondents with less than one year of experience are the most satisfied with their workplace, 100% of respondents declaring that they are satisfied with their workplace to a great extent. The category with experience between 1-5 years is located second place regarding the degree of satisfaction with the workplace, 48.5% of the respondents consider themselves satisfied at the workplace to a great and very great extent, while 51.5% consider that satisfaction at the workplace is low, appropriate and not at all.

The first part of the questionnaire refers to working conditions. Table 3 shows the results obtained in the structured version. A 5-step Likert scale was used. Risk management is a very important direction for employees in customs administration. Another important variable is the remuneration of employees. Other established variables show that communication, safety, SDGs and digital transformation are variables with an above average importance. It is noted from this section that risk management, remuneration and safety are variables that must be studied depending on the employee's profile.

Table 3

Evaluation of environmental conditions

Variables	1	2	3	4	5
Digital Technologies and Government Transformation	3	2	34	56	82
Customs and Risk Management	1	2	1	34	139
Vision, mission, objectives (SDGs)	12	11	29	67	58
Communication	2	3	5	89	78
Organizational culture	14	11	23	45	84
Remuneration of employees	1	3	4	11	158
Safety	0	0	27	63	87

Evaluation of ergonomic conditions

Ergonomic	1	2	3	4	5
Lighting	11	2	23	56	85
Noise	24	26	21	78	28
Temperature	11	13	15	56	82
Vibration	34	44	23	12	64
Workstation design	1	2	4	71	99
Tool design	11	10	39	65	52
Machine design	2	4	78	23	70
Chair design	0	0	35	77	65
Footwear	2	3	44	56	72
Job design	1	12	23	45	96
The quality of the work room	23	20	51	32	51
Uniform	1	1	3	21	151
The outside temperature	1	0	4	13	159

Table 4 evaluates the ergonomic working conditions of the employees by presenting some variables. The respondents rated the importance of these variables using the Likert scale. Among the most important variables are chair design, uniform, outside temperatures, workstation design, and lighting. These conditions were evaluated in the market research as the basis for the development of the framework. An attempt was made to identify those conditions that are considered important or very important by the employees.

The second part of the questionnaire evaluated the important directions of sustainability are evaluated from the perspective of the facilities offered for the ergonomics of the workspace. This activity was carried out in correlation with the SDGs. Many of the employees consider that the objectives of sustainable development are combined with the ergonomic conditions. In Table 5 the results obtained during the evaluation of the SDGs are presented. Each respondent selected the objectives they considered important for improving efficiency at work. These include: SDG5, SDG6, SDG8, SDG10, SDG11, SDG16 and SDG17. As the values recorded for Mean show, these objectives show a high importance for the respondents. The involvement of the

respondents in achieving these objectives represents an important direction for the development of sustainable workplaces. SDG5 recorded a mean value of 4.82, and SDG11 a Mean value of 4.83. The interpretation of these scores leads us to consider the objective criteria for identifying the factors that contribute to the development of sustainable and ergonomic workplaces. Some of the SDGs scored lower than 2, which means they are not important for customs workers. The selection of some general objectives should represent a priority for the Romanian decisional system. Aligning the customs system with the global approach to sustainability represents an important step in the globalization process.

Through statistical analysis, using linear regression, it was investigated whether there is a relationship between the level of awareness of sustainability principles and ergonomic conditions. We identified a significant positive relationship between these factors.

The more a person is concerned with issues related to sustainability, social responsibility and well-being at the workplace, the more informed he is about ergonomic working conditions. The result may indicate that the more a person is aware of sustainable development, the more likely they may be to accept the development of a sustainable workplace, Table 6.

Table 5

Evaluation of the importance of 17 SDGs

SDG	Frequency	Percent	Valid Percent	Mean
SDG1	34	19.21	19.21	1.67
SDG2	67	37.85	37.85	2.11
SDG3	78	44.07	44.07	2.31
SDG4	94	53.11	53.11	2.34
SDG5	145	81.92	81.92	4.82
SDG6	134	75.71	75.71	4.41
SDG6	12	6.78	6.78	1.11
SDG7	15	8.47	8.47	1.35
SDG8	156	88.14	88.14	4.36
SDG9	45	25.42	25.42	1.78
SDG10	172	97.18	97.18	4.77
SDG11	177	100	100	4.83
SDG12	76	42.94	42.94	2.34
SDG13	12	6.78	6.78	1.21
SDG14	23	12.99	12.99	1.67
SDG15	47	26.55	26.55	2.13
SDG16	177	100	100	3.98
SDG17	177	100	100	4.08

Table 6

Regression analysis sustainability principles and ergonomic working conditions.

Model	Unstandardized Coefficient		Standardized Coefficients	t	Sig
Constant	B	Std. Error	Beta		
	11.899	2.805		4.712	.000
	4.134	.868	.299	5.467	.000

Dependent Variable: Ergonomic working conditions

Table 7

Regression analysis environmental conditions and ergonomic working conditions.

Model	Unstandardized Coefficient		Standardized Coefficients	t	Sig
Constant	B	Std. Error	Beta		
	11.569	2.868		4.609	.000
	4.111	.832	.277	5.312	.000

Dependent Variable: Ergonomic working conditions

Using linear regression, it was investigated whether there is a relationship between the level of awareness of environmental conditions and ergonomic conditions. We identified a significant positive relationship between these factors. The more a person is concerned about environmental conditions (Digital Technologies and Government Transformation, Customs and Risk Management, Communication, Organizational culture, Vision, mission, objectives, Remuneration of employees, Safety) the more informed he is about ergonomic working conditions. The result may indicate that, the more aware a person is of the importance of the environment, the more likely they may be to accept the development of a sustainable workplace, Table 7.

Environmental conditions were identified as important desires and needs of employees. The responses of the respondents strengthen the direction of sustainable development. The same dependent variable was maintained to outline the desired framework to be identified through this research.

From the perspective of the link between satisfaction at the workplaces and the ergonomic

working conditions followed the same direction using linear regression. The questions related to the evaluation of the degree of satisfaction targeted a series of variables that would contribute to the identification of the real desires of the employees.

A significant positive relationship was identified between these factors. The more a person is concerned about the conditions for the fulfillment of desires and needs at the workplace, first the increase in the degree of satisfaction, the more informed he is about the ergonomic working conditions.

The result may indicate that, the more a person is aware of the importance of job satisfaction, the more they may be inclined to accept the development of a sustainable workplace, Table 8.

6. FRAMEWORK FOR SUSTAINABLE WORKPLACES

Following the responses of the respondents transposed into variables for the statistical analysis, a series of factors that contribute to the development of a sustainable work framework were outlined.

In this stage of the research, a framework based on the peculiarities of the researched region is proposed. This framework represents a starting point for the research that will be carried out at the level of the entire country. From the results of the previous statistical analysis, it can be concluded that there is a connection between the three categories of variables:

1. Satisfaction at the workplace;
2. Environmental conditions;
3. Ergonomic working conditions;
3. The principles of sustainable development.

From the results obtained, the first two categories are directly related to the development of sustainable workplaces and ergonomic conditions. The principles of sustainability influence the development of healthy workplaces by reaching some SDGs established by policy and organizational culture.

These conclusions are structured in a framework for creating sustainable jobs. This is presented in Figure 1.

Table 8

Regression analysis satisfaction at the workplaces and ergonomic working conditions.

Model	Unstandardized Coefficient		Standardized Coefficients	t	Sig.
	B	Std. Error			
Constant	10.3789	2.5677		4.613	.000
	3.899	.823	.289	5.345	.000

Dependent Variable: Ergonomic working conditions

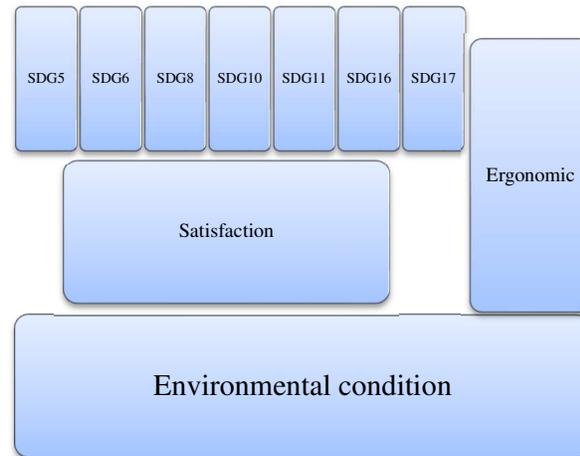


Fig. 1. The framework for sustainable workplaces

Based on the results obtained, the correct answers to the three research questions can be outlined:

1. What are the working conditions that the employees want? Working conditions are among the most important variables that contribute to increasing efficiency at the workplace.
2. How important are the principles of sustainability for employees? The principles of sustainability influence the direction of organizational development and the development of healthy workplaces.
3. What are the ideas that can contribute to the development of sustainable jobs? The outline of the proposed framework contributes to the basis of the development of these jobs.

7. CONCLUSION

The present research emphasizes the importance of developing ergonomic

workplaces that are aligned with European requirements. Involvement in improving the working conditions of employees is a priority for managers of a certain managerial level. The employees appreciate that the working conditions can be improved. All these requests must be aligned with the legislation in force and the related job restrictions.

The results obtained provide answers to the research questions. The employees want safety, security and improved working conditions. Some principles of sustainability are important for employees. Working conditions, technology and adjacent elements contribute to the development of sustainable workplaces.

The results obtained show that satisfaction at the workplace, environmental conditions, ergonomic working conditions and the principles of sustainable development are important categories for the development of healthy workplaces aligned with the requirements of the European Union. The age distribution of the respondents strengthens the proposed framework because the questionnaire achieved its objective of recording answers from respondents of different ages and experiences.

The responses of the respondents emphasized that there was no tendency to use the same answer to several questions. Consolidation of the proposed framework contributes to the improvement of the working conditions of customs authorizations and to the increase of interest in employability and the increase of the level of safety. As it appears from the answers received, the employees have accumulated a series of proposals for improvements that should be addressed and implemented at the global and international level.

The presence of the four categories of factors is an important result for future research. Future research will aim at a thorough investigation of each category to identify relevant sub-factors for this field of activity. Future research will aim to apply the research in the other developing regions of the country. Finally, a theoretical model harmonized with the research results is developed.

Trainings and collaborative work with different stakeholders of higher education

institutions could be of great benefit in improving the situation [17, 18].

The limitations refer to the fact that the research was administered to Romanian employees. The research is constituted as a pilot project that can be extended to the level of the member countries of the EU [19].

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Evaluarea condițiilor pentru dezvoltarea locurilor de muncă sustenabile în vămile din România

Sustenabilitatea este un demers important pentru organizațiile publice și private. Aplicarea principiilor contribuie la dezvoltarea unei culturi organizaționale care se regăsește în ergonomia locurilor de muncă și sustenabilitatea acestora. În vămile din România, condițiile de muncă pot fi îmbunătățite. Această cercetare își propune să identifice condițiile actuale de lucru și dezvoltarea unui cadru pentru îmbunătățirea acestora având la bază obiectivele de dezvoltare sustenabilă. Pentru cercetare s-a utilizat chestionarul care a fost aplicat online. Modelarea statistică a acestuia arată că majoritatea angajaților își doresc îmbunătățirea condițiilor de bază pentru a crește eficiența la locul de muncă. Mulți dintre angajați consideră că obiectivele de dezvoltare sustenabilă sunt aliniate cu condițiile ergonomice. Limitările cercetării se referă la faptul să cercetarea a vizat doar angajații români.

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