

Non-financial Factors of Job Satisfaction in the Development of a Safety Culture Based on Examples from Poland and Romania

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Abstract. Job satisfaction is a very important criterion which cannot be overstated, and it is, therefore, the subject of a number of studies. Satisfied employees often determine that a success of an organization depends on the level of employees' perception in relation to which the workplace affects the attitude to the performed tasks. This model is the subject of an ongoing research by the authors of non-financial factors of job satisfaction in Polish and Romanian manufacturing (industry) companies. Among the studied factors affecting job satisfaction, there are issues related to occupational safety and ergonomics, and these in turn are main aspects of building a safety culture. The article describes the relationships between: ergonomic level and workplace safety perceived by the employee, safety culture, and the overall level of job satisfaction. The paper discusses the pilot studies carried out so far to verify research tools of questionnaires assessing the non-financial factors of job satisfaction. As a consequence of the interpretation of the results, the article presents the elements comprising safety culture in enterprises in Poland and Romania.

Keywords: job satisfaction, safety culture, ergonomics.

1 Introduction

Job satisfaction is known as a positive or a negative attitude towards work, company and co-workers, resulting from particular employees' comparisons between their expectations and what they received for their work. It is important that a term 'occupational satisfaction' is comprehensible not only as an aspect which satisfies material needs but it also considers many different factors, such as: a need of prestige, affiliation, self-fulfillment and constant development. The level of job satisfaction should be measured with a multi-faceted, multi-criteria approach. The concepts developed in relation to this assume the existence of such determinants as [15]: salary, promotions, conduct of supervision, nature of work, and the characteristics of co-workers, but also job design, level of empowerment, training, performance appraisal, incentives, and flexible working hours.

Job satisfaction is also connected with the way it is performed, with commitment and compliance with the rules that establish a job. These factors have mutual character since some of them, having a character of ergonomic factors, can simultaneously affect a company's safety culture, and at the same time being a factor influencing job satisfaction. Such factors are like double amplifiers that directly and indirectly increase safety culture. Job satisfaction examination allows for a subjective assessment of offered working conditions made by employees, and in further perspective, improving those conditions. The aim of this article is to present results of pilot studies considering non-financial criteria influencing job satisfaction in two countries: Poland and Romania in context of creating safety culture in companies.

2 Job Satisfaction Factors and Safety Culture

Job satisfaction factors are highly commented in the literature of the field. The most frequently discussed factor is that connected with economic issues and influence of the other factors, such as age, gender or education [14, 16]. The relationships between job satisfaction and engagement are being examined and discussed. [7] There is no doubt that, the economic factors have a huge influence on job satisfaction, since absolute and relative pay have been found to be important determinants of satisfaction [6]. However, there are some differences in this matter, especially those related to an employee's gender, but they do not disturb the general tendency. The relationship between the general job satisfaction and safety culture has been stated in a case of flying personnel. [4]. Similar arrangements have been carried out in nuclear energy industry where a low level of job satisfaction constituted a factor increasing carelessness and lack of interest in obeying safety procedures. [11]. There is still one matter to be established: is job satisfaction the result of high level of safety culture in a company, or is that relationship inverted or mutually connected? The problem here is a high level of differently related elements of ergonomic factors which could influence job satisfaction. An analysis of resultants of ergonomic factors, such as low back pain, allowed to state that they do not constitute a criterion of change in the level of job satisfaction. [12]. Therefore, measurable level of job satisfaction may not include factors which an employee could directly acknowledge as connected with work processes. [5]. As a consequence, there is a need for an assessment that could examine particular parameters of job satisfaction connected with work environment and to find its deviation from safety culture.

3 Influence of Working Conditions on Employee's Perception

Ergonomics covers all aspects of a job. It assesses an employee's perception of work conditions through an analysis of work environment adaptation to a worker. Ergonomics is not a simple science because it relies on many other branches of science, and at the same time, it considers variety of different factors. It happens very often that lack of knowledge about ergonomics leads to distortion of its rules, and something commonly named 'ergonomic' is not in fact ergonomic and very often it

could be even dangerous. That is a management that should be responsible for implementation of ergonomic rules and ideas in a given company. They should also be responsible for efficiency of system's operation they are leading, and ergonomics allows increasing that efficiency.

Work is a component of everyone's life, thus should meet one's expectations and also needs that are not always conscious. We spend at work approximately one third of our daily time, excluding sleeping time. It means that the way we work, to a large extent will influence our psychophysical condition. That is why work cannot only be limited to fulfilling the workers' financial needs. Work causes some kind of impairment even if it theoretically does not seem to be strenuous and does not require considerable activity [10]. If the workers are aware of this fact, it will give them the chance to protect themselves from manifold diseases and give them an opportunity to consciously decide about their life. Guaranteeing workers physical activity in optimal scope, increases job fulfillment and helps to keep them in the state of wellbeing, protecting them at the same time from MSDs formation risk. In case of similar experiments, the researchers came to a conclusion that despite the fact that one year after training, no significant decreases in the prevalence of MSDs were found for any part of a body except the legs, training significantly increased safe behavior in work practices [18]. Similarly, different outcome proves that implementation of certain gymnastic exercises into work, caused a significant progress only after six months. As a result, there was a reduction of muscular tension which was a direct cause of MSDs formation.

The necessity to adjust working conditions in terms of ergonomics requirements for white-collar workers has been an object of study in the beginning of 80's in such countries as Sweden [1]. It is possible that people will soon realize that it is not enough to limit the possible risk at work. The preliminary stage of planning the work process should involve their prevention or even regression.

Investing in human resources proves to be very profitable, since the efficiency of management systems, right next to processes, is dependent to employees. [2, 3] Unfortunately, profitability from expenses made on employees sometimes is not directly visible, or it is a long term process that, at one point, people forget about its existence. However, if we provide better working conditions for employees it may lead to a situation where they would start doing their job more effectively and more preferably. At the same time we could have an opportunity to lower absence level connected with different illnesses, not only those professional illnesses but also those that are related to employee's tiredness which influences his/her general physical and psychological efficiency. Such actions are also taken to lower the level of occupational burnouts occurrences through improving satisfaction from work. However, awareness of that fact is only supported by a few. The majority will not change their disposition in this matter, as long as there is not proper transfer of knowledge in this field.

Highly ergonomic quality of work environment favours improvement of work efficiency, decreasing biological costs of work, lowering a number of costs of lacks and numbers of errors made at work, decreasing absence levels connected to illnesses, and experiencing satisfaction from a contact with technical devices.[9, 17]. Consequently, inappropriate shaping of work environment leads to economic and moral losses in a

company. Concluding, implementation of ergonomic basis into a workplace environment planning proclaims that the management not only follows rules and norms of ergonomics in case of safety and hygiene at work, but it also constitutes that supervision and management processes have been present from the very beginning in the process of planning a workplace that could perfectly fit its worker.

4 Assumptions and the Research Method

An initial assumption of carried studies was a relationship between employee's perception of the following aspects: occupational safety and ergonomics, the culture of safety, and job satisfaction. [13] (fig.1).

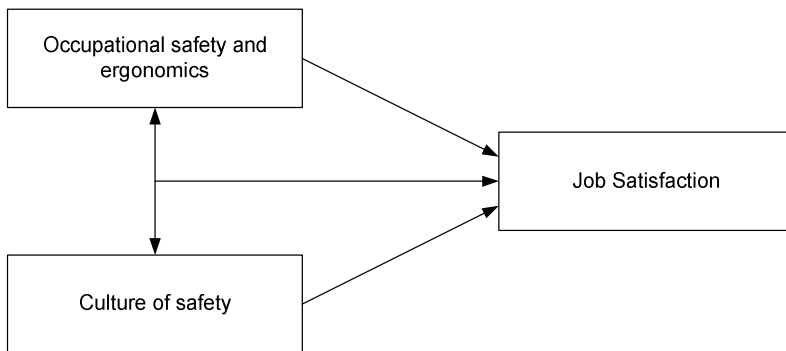


Fig. 1. Relationships between the occupational safety and ergonomics, the culture of safety and the job satisfaction (own preparation)

For the sake of a research a questionnaire was made. It consisted of a set of questions referring to general groups of factors which, according to authors, are important at workplace, and then factors assessing levels of workplace ergonomics in relation to:

- Importance of a factor for an employee in perception of job satisfaction.
- Presence of a factor at a given work post.

The inquired answered assessing validity and satisfaction in 4 groups of factors (General, Leadership, Technical environment, and Ergonomics of tech workplace). According to the authors, these groups of factors were considered as good determiners of a description of job satisfaction model. Questions were delivered as statements for which the inquired defined a level of fulfillment. E1. My work is adapted in terms of physical effort (I do not do activities beyond my physical strength).

- E2. My job provides me with sufficient physical activity (I do not suffer from lack of movement in my work).
- E3. Work activities and work environment allow for working in an unforced and comfortable body position (I do not feel pain because of body position).

- E4. Mental effort of my work is adapted to my needs (there is not it too much or too little).
- E5. The job is not monotonous; I am doing my work with pleasure.
- E6. Technical work environment is friendly (comfortable, understandable, easy to use and operate, allows to work efficiently).
- E7. I do not feel the negative impact of work environment factors such as inadequate temperature, humidity, light, radiation and noise.
- E8. The organization of work is appropriate (work pace, breaks, etc.).
- E9. I do not feel stress at work (work and its environment is not causing me any stress reactions).
- E10. I have good contact with colleagues and superiors (good atmosphere in workplace).
- G1. My work salary allows me to purchase luxury items, to have financial resources.
- G2. My work provides occupational development in a given position.
- G3. My work provides prestige, titles, awards.
- G4. My work provides positive relations with other people (friendship, safety, acceptance).
- G5. My work provides me with favorable tasks and a favorable environment.
- G6. My work provides influence on work results.
- G7. My work provides participation in decision-making processes.
- G8. My work provides me with a feeling of dignity (honesty, reliability, justice, courage, loyalty, solidarity, goodness, responsibility, truthfulness, generosity, patriotism, tolerance, impartiality, professionalism, independence, personal freedom).
- G9. There would have to exist serious reasons, for me to resign from the current workplace.

The first pilot questionnaires were directed to employees of three production enterprises in Poland and Romania. The following marginal conditions for election of enterprises and respondents were created:

- Productive character of activity.
- Size of an enterprise extending 50 people.
- Machinery park including not only small devices but also machines or assembly lines.
- Time of enterprise activity min. 5 years.
- Inquired worker employment min. 1 year in a given enterprise.

In every examined enterprise a special attention was given to the fact that assessment was delivered not only to productive but also administrative employees, and also to those accomplishing service processes in relation to main processes. Table 1. presents the structure of participants in particular enterprises.

Table 1. Data on respondents (own preparation)

Companies	Number regards the type of work		Number re- gards the age		Number regards the gender	
Company 1 (Poland)	Office	6	≤29	8	Women	8
	Production	20	30-39	11	Men	18
	Service	0	40-49	5		
			50-59	2		
			≥60	0		
Company 2 (Poland)	Office	5	≤29	15	Women	22
	Production	17	30-39	7	Men	4
	Service	4	40-49	4		
			50-59	0		
			≥60	0		
Company 3 (Romania)	Office	2	≤29	0	Women	19
	Production	27	30-39	4	Men	11
	Service	1	40-49	17		
			50-59	9		
			≥60	0		

Enterprise 1 is a medium Polish printing company. Its offer consists of such products like: brochures, leaflets, books, etiquettes, forms and wrappings. The company functions on market for 20 years and is still developing. As a proof of care of client's satisfaction, and also surrounding environment and other parties, the enterprise possesses implemented and certificated quality management and environmental management systems and basic elements of corporate social responsibility.

The second Polish enterprises which took part in a research is a producer and a supplier of comprehensive solutions for a BTL industry. It is a medium enterprise functioning on market for 26 years which clients are mainly large organizations. As the answer for customer's demands, the company possesses implemented and certificated quality management system ISO 9001 for 7 years. A rising role of environmental and social issues in business contacts with partners caused that the management of the company decided to include new element into organization management system. One year ago the enterprise started to build and implement a business social responsibility system. The basic reference documents which are used in the enterprises in this process are: norm ISO 14001, OHSAS 18001, chose elements of SA 8000.

Enterprise 3 is one of the Romanian factories of chemical products with a long tradition and it was established in the 1950s. Going through major changes (after the revolution of 1989), after renewing the technology and obtaining all international quality certificates in the industry, in 2013 the portfolio includes 150 products, out of which 70 are registered for export. The enterprise is the world leader for a bulk active substance (more than 40% market share for the product) and its products are distributed in 40 countries. The enterprise has about 1500 employees and most of the shares are detained by the Romanian government.

The assessment of levels of safety culture in particular enterprises was not delivered, however, in case of further study, an assessment of perfection level in this matter will be conveyed on the basis of the holon model.[8].

5 Results of Research of Non-financial Factors of Job Satisfaction

Results of the questionnaire were presented separately for every of the examined enterprise. The authors made a contrasting analysis of the results of a given enterprise. Contrasting the assessments of enterprises was not the aim of the study and due to that fact it was not performed. The main aim of the analysis of the results was to confirm the usefulness of the research tool and definition of its propriety towards enterprises of different branches and of differentiated levels of organizational culture.

Graphic interpretations of the results for the groups of factors relevant to the work were summarized in Table 2.

Table 2. Graphical interpretation of the overall evaluations of job satisfaction (own preparation based on research results)

The criteria rated on a scale: awful, very poor, poor, average, fair, good, excellent	Company 1 (Poland)	Company 2 (Poland)	Company 3 (Romania)
economic conditions			
interpersonal relationships			
method of supervision and leadership			
technical and IT environment			
work safety and ergonomics of my workstation (adjustment to my needs)			

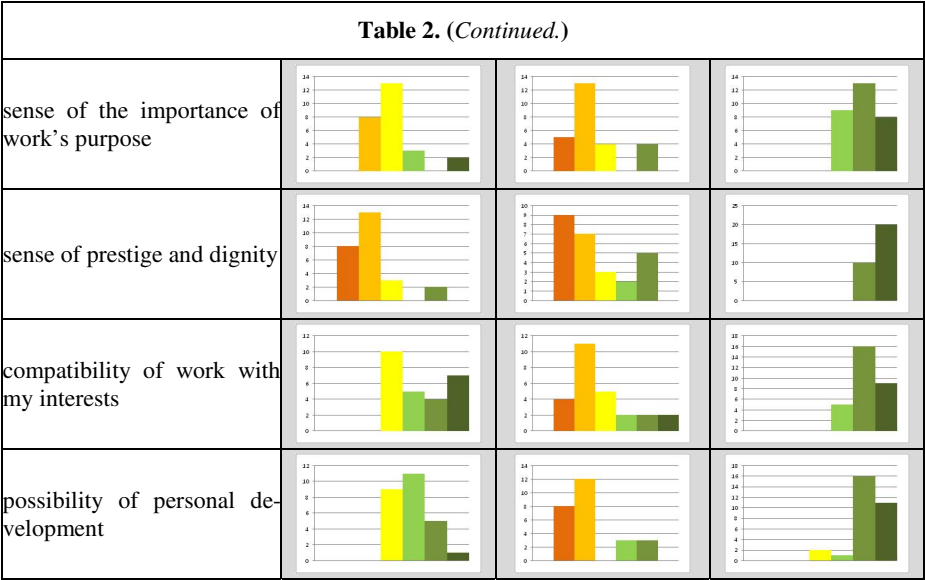


Table 3. Graphics visualization of positive ratings of the different factors at work (own preparation based on research results)

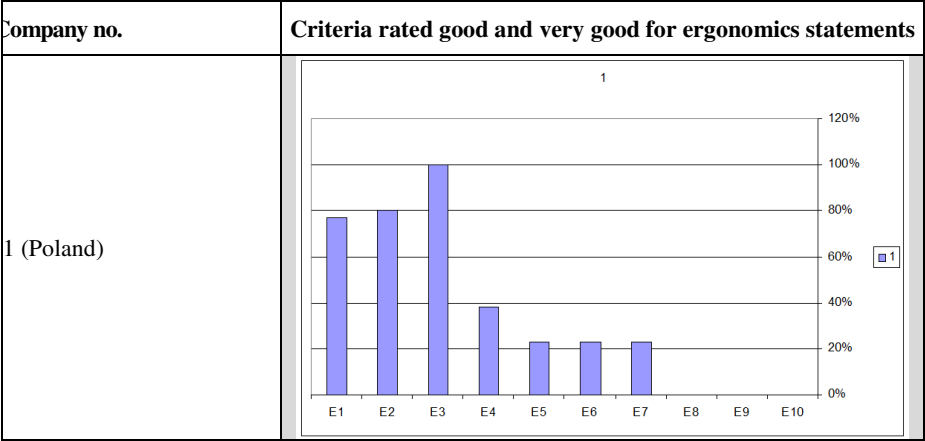
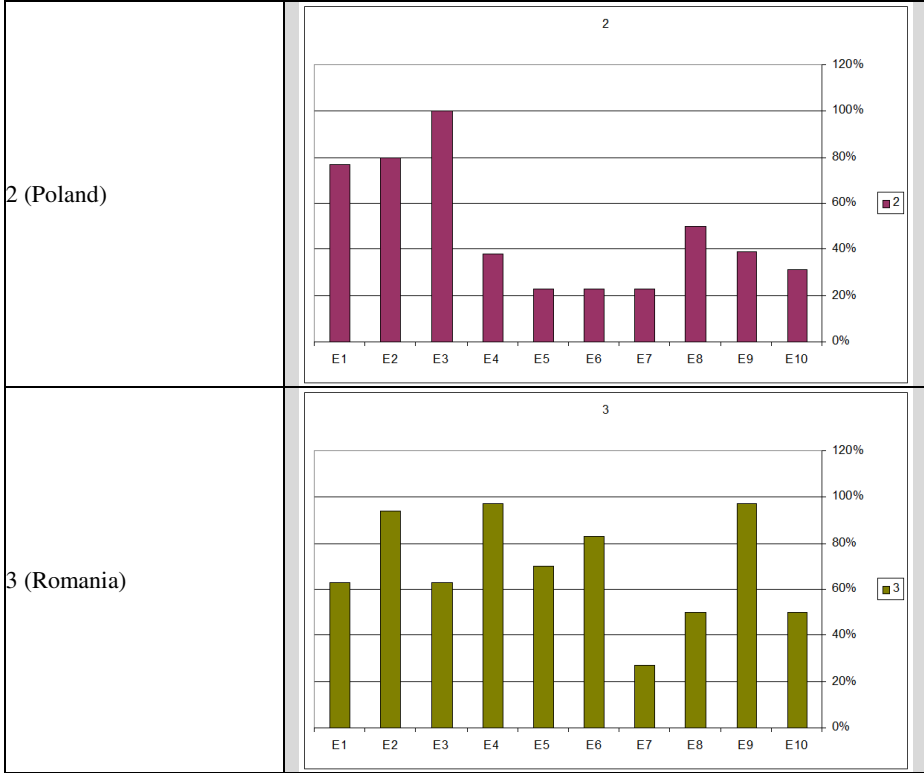


Table 3. (Continued.)



The research allowed making a statement about surprisingly high assessment of validity of presented criteria of workplace ergonomics. It may confirm the employees' ergonomic awareness. In enterprises 1 and 2 all criteria were assessed as important or very important. Due to a small cognitive value of such an assessment, it is recommended to use gradual division according to importance using differentiated requirements or adapting pair comparisons in future.

A distinctive tendency in case of assessments of given criterion fulfillment is a low assessment of criteria from E4 to E7 for enterprises 1 and 2. Such a tendency do not occur in case of an enterprises number 3. It is an essential premise which should be analyzed in details using statistically crucial study sample. In case this tendency is confirmed it would meant the necessity to control applied solutions in enterprises in Romania. In both Polish companies more than 95% of the respondents negatively assessed the following statement: My work provides me with a feeling of dignity (honesty, reliability, justice, courage, loyalty, solidarity, goodness, responsibility, truthfulness, generosity, patriotism, tolerance, impartiality, professionalism, independence, personal freedom). Such a high level of dissatisfaction induces to examine the roots of this problem.

6 Conclusions

The conveyed pilot research confirmed the possibility of usage of presented questionnaire for non-financial studies- ergonomic factors of job satisfaction. Selection of a sample and also its quantity do not allow for statistical analysis, however, the research did not aim to receive complete results but to test a scale and a tool. In a given shape, configuration of validity of particular ergonomic factors in an assessment of a workplace, do not efficiently present employee's priorities. Simultaneously, configuration of ranks with assessments of fulfillment of particular criterion at the workplace would allow illustrating the current situation and direction of work conditions improvements. The final assessment of job satisfaction directs and presents how strong is a relationship between the level of workplace ergonomics, and even its particular factors, so that pair comparison was needed. It will allow establishing areas in which according to high importance for employees, improving activity should be engaged. It is crucial, according to the authors to configure assessments in given categories with the general level of satisfaction, but also with life attitude, illnesses, life experiences, which may influence final assessments in particular categories.

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