

THE QUALITY OF WORKING CONDITIONS IN RURAL AREAS IN THE OPINION OF WORKERS AND THEIR SUPERIORS USING THE EXAMPLE WOOD PROCESSING PLANTS (CASE STUDY)

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Abstract

The article attempts to characterize working conditions in wood processing plants located in the rural areas of the Opole region, taking into account the opinion of employees and their supervisors. The analysis of working conditions was made on the basis of key factors. Particular attention was paid to organizational and technical as well as to economic working conditions. The first area is focused on the factors of the work environment and work organization, while the second area is focused on employment conditions.

JAKOŚĆ WARUNKÓW PRACY NA OBSZARACH WIEJSKICH W OPINII PRACOWNIKÓW I ICH PRZEŁOŻONYCH NA PRZYKŁADZIE ZAKŁADÓW PRZEROBU DREWNA (STUDIUM PRZYPADKU)

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Słowa kluczowe: warunki pracy, tartacznictwo, obszary wiejskie.

Abstrakt

W artykule podjęto próbę scharakteryzowania jakości warunków pracy w zakładach przerobu drewna usytuowanych na obszarach wiejskich w województwie opolskim, z uwzględnieniem opinii pracowników i ich przełożonych. Warunki pracy przeanalizowano na podstawie najważniejszych elementów o tym decydujących. Szczególną uwagę poświęcono warunkom organizacyjno-technicznym oraz ekonomicznym. W pierwszym obszarze skupiono uwagę na czynnikach środowiska pracy oraz organizacji pracy, w drugim natomiast na warunkach zatrudnienia.

Introduction

Working in a wood processing industry is characterized by a relatively high occupational risk. Threats to life and the health of workers in the wood processing plant are triggered mainly by strenuous physical working conditions including excessive pollution, insufficient light intensity, excessive mechanical vibrations, unsuitable microclimate, noise exceeding the legal limit, contact with dangerous equipment and machines (woodworking machines), and the necessity of using dangerous hand tools and sharp objects. In addition, inaccurate work organization, a lack of full mechanization for machining operations and the presence of harmful impregnating agents, preservatives and retardants are difficulties often reported in the sawmill industry. At the same time, due to the lack of adequate financial resources, the employees of wood processing plants frequently work on obsolete machines in a depleted machinery park, which affects the overall assessment of working conditions. This profession is mentioned among the occupations characterized by a comparatively high level of accidents amongst all sectors of the national economy.

The article's aim is to characterize the working conditions in the wood processing plants located in the rural areas of the Opole region based on the example of a selected medium-sized plant. When examining the working conditions, the focus was primarily put on the factors that determine the material working environment and the employer activities in the area of proper organization of the workplace.

The essence of the quality of working conditions

The term “working conditions”, applied in both scientific literature and in the practice of economic life, has not been precisely defined yet. Most writers do not define the term “working conditions” at all, which may be due to the ambiguity of the term “condition” in the Polish language.

It is generally accepted that the term “working conditions” is defined as “all physical and psychosocial factors having their source in the work environment and affecting people performing work” (POCZTOWSKI 2008, p. 377). Therefore, often the term “working conditions” is identified with the term “work environment” (GAJDZIK 2014, p. 68). This is reflected in the detailed classification of working conditions, which include organizational and technical, economic and social elements (Fig. 1). It should be borne in mind that working conditions play a superior role here (OLSZEWSKI 1997, p. 68–70).

From a detailed analysis of individual factors shaping the work environment (i.e. those that affect the employee in an indirect or a direct way), the following factors have been distinguished (POLEK-DURAJ 2007, p. 33–47): physical

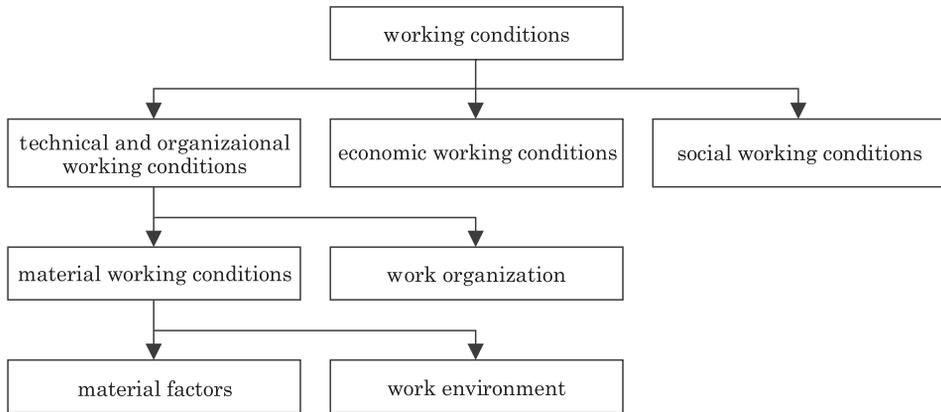


Fig. 1. Classification of working conditions

Source: own elaboration on the basis of OLSZEWSKI (1997, p. 69).

(including noise, lighting, mechanical vibrations, dustiness of the air), biological (i.e. the interaction of live microorganisms, among others, viruses, bacteria, fungi), chemical (e.g. contact with toxic substances), psychophysical (mainly arising as a result of performing work causing a physical or nervous load, e.g. long-lasting muscle tension). In addition, the literature on the subject distinguishes the aesthetic factors (e.g. interior architecture, furnishing rooms) sanitary and hygienic (e.g. a canteen), temporary (e.g. time spent in the workplace), the content of work (e.g. the scope of duties entrusted to employees) (GAJDZIK 2014, p. 68).

Among the factors shaping the working conditions, the article focuses primarily on physical factors and the organization of the workplace, which were considered an important element in shaping the quality of working conditions.

In order to supplement the essence of working conditions, it is also worth citing their classification in the sociological aspect, where it covers numerous, often diversified elements of the work environment. Analyzing the role of working conditions in influencing the social work organization of the enterprise, it is assumed that the working conditions are "... overall material and social elements of the plant, directly determining the situation of worker in the process of living and working in the plant" (PENC, SZWEMBERG 1975, p. 7). These elements define:

- material work environment (i.e. technical and physicochemical working conditions) that determines the employee’s physical strength;
- working time (i.e. length and intensity of work) including the employee’s exposure to the material and social conditions of work;
- social relations at the workplace (i.e. relationship, management styles, staff training circulation of information, etc.);
- social activities at the workplace (i.e. social facilities and benefits in kind or in cash granted to employees from the social fund).

Analyzing the quoted definitions of working conditions, it can be concluded that their quality at the workplace depends on many factors. Among these fundamental factors are the following: work environment, the machinery-park, work organization, remuneration, interpersonal relations, personal protective equipment and training of employees.

Objective, method and scope of the study

The main objective of the survey was to identify the employee and employer opinions from the wood processing plant located in the rural areas of Opole Voivodship concerning the quality of working conditions in the scope of health and safety activities, accident hazards, factors determining the quality of working conditions, the use of personal protective equipment, employment conditions and interpersonal relations. Focusing on these elements resulted from the fact that occupational safety and health activities are the basic factors that have a significant impact on the successful development of any business (GEMBALSKA-APRIL 2015, p. 75, 76) and shape the quality of working conditions.

The research was carried out in 12 companies engaged in the processing of wood in the Opole Voivodship. All companies were located in rural areas and their finished goods ranged from roof trusses, scantlings, battens, soffit panel floorboards, terrace boards, garden furniture and pine bark. Four of them additionally produced pallets and garden furniture. Employment in the analyzed plants did not exceed 50 employees. Average employment during the study amounted to 30 persons. Their products were on offer to both national and international markets. The surveyed companies were characterized as having a stable situation in the market in which they operate at an average of 8 years.

The questionnaire contained 25 questions. The research was conducted in January and February of 2017. In the survey, selected manual workers participated randomly (i.e. 120 people) and 30 persons holding managerial positions also participated.

Based on a widely accepted classification of working conditions, the questionnaire's questions comprised four basic issues. The first group of questions was related to motivation to undertake a job in the audited company and job characteristics. The issues from the second group included activities connected with safety regulations and their usefulness in the opinion of respondents. The third group of questions concerned issues related to the assessment of physical working conditions. Hence, the scope of these questions verified the knowledge and awareness of employees and employers regarding security against threats arising from working in harmful and onerous conditions. The fourth group of questions included the opinion of respondents toward the employment conditions and interpersonal relationships at the workplace. The main aim was to verify to

what extent employees are satisfied with working conditions in relation to the type of signed contract and remuneration. In addition, an attempt was made to determine interpersonal relations between the employees and supervisors. At the end of the survey, the respondents were asked how they assessed the working conditions in their facilities in terms of the issues examined.

Course, analysis of survey results

While analyzing the data obtained in the survey (Tab. 1), it can be noticed that the majority of respondents were men aged 41–50 years of age in the examined plants. They were mostly people with a basic education level.

Table 1
Structure of the surveyed employees depending on sex, age, education, work placement, place of residence

Information about respondents [%]	
Sex	
Woman	19.3
Man	80.7
Age	
Less than 20 years	3.3
21–30 years	14.6
31–40 years	18.3
41–50 years	44.6
51–60 years	17.9
More than 60 years	1.3
Education	
Primary school/junior high school	23.3
Vocational school	53.3
Secondary school	13.4
Higher education	10
Seniority	
Less than 5 years	53.3
6–10 years	15.4
11–20 years	20
21–30 l years	11.3
More than 30 years	–
Place of residence	
City	25
Village	75

Source: own calculations based on surveys.

The dominance of men in this particular branch of industry is primarily due to the specific nature of this branch, which is often not suitable or is too strenuous for women (e.g. milling operations). In terms of job seniority in the analyzed company, a significant percentage (53%) of respondents had relatively short job experience, i.e. less than 5 years. This shows a high rotation of workers, which can be caused by various factors both internal and external (e.g. low remuneration, lack of contracts of indefinite duration, poor working conditions, the ability to find work with similar conditions). Moreover, it is worth noting that 1/5 of the employees were persons with extensive professional experience (i.e. employees with job experience exceeding 10 years). 75% of employees were rural residents, which undoubtedly is connected to the fact that both plants were located in rural areas.

The workplace and its characteristics

One of the crucial elements affecting the quality of working conditions was the motives behind the decision to choose this particular job. When choosing a job, people are guided by different factors. The most fundamental are presented in the Table 2.

Table 2

Job selection motives in the surveyed enterprises declared by employees

Q1	Why did you undertake work at the woodworking industry?	Percentage of responses
a	it is compatible with my qualifications	20.6
b	it takes into account my education	24.0
c	this is the only plant near my place of residence	39.3
d	it gives me the opportunity to develop	16.6
e	it gives me the opportunity of employment	73.3
f	it gives an opportunity to achieve high wages	12.6
g	other reasons	6.6

Source: own calculations based on surveys. There was more than one answer, so the answers do not add up to 100%.

The decision to take up employment in the analyzed company was influenced mainly by the fact of having job (opinion of 85% of employees) and the proximity to the place of residence (more than half of all answers). Qualifications, education, development opportunities and financial benefits were definitely less important, on average every seventh employee believed so. Analyzing the acquired data,

it can be concluded that the respondents did not show much initiative in job searching. Undoubtedly, the reason for this may be that both plants are located in relatively small towns, where it is harder to find work than in urban or more industrialized areas.

In order to perform the job characteristics, an attempt has been made to determine the employee’s position in the system: man – tool or machine – processed material and work organization manner (Tab. 3). On this basis, it can be assumed that the respondents work both using the machinery (sawmill employee), as well as using simple and complex tools (pallet production). Employees from 10 companies worked solely in the single-shift system, with an exception of when the orders were higher than previously scheduled. Then, additional temporary workers were employed for a specific-task contract or a mandatory contract and the staff worked on two shifts, which happened on average twice a year. In the remaining 2 companies, work was carried out in two shifts. These were plants that produce both typical sawmill products and pallets for regular consumers.

Table 3

Type of activities performed, type of work and its characteristics

	Specification	Percentage of responses
Q2	What kind of work do you do in your position?	
a	in a manual system (man – tool – workpiece)	46.7
b	in a mechanized system (man – machine – workpiece)	53.9
c	in an automated system	–
Q3	Do you work in shifts?	
a	yes	21.3
b	no	78.7
Q4	Do you think that using machines and devices on which you work is complicated?	
a	yes	36.7
b	no	63.3
Q5	Please specify the nature of your work	
a	cumbersome and tiring work	53.3
b	monotonous work	30.1
c	light work	16.6
Q6	Please specify the requirements and the nature of your work. (There was more than one possible answer)	
a	physical exercise	52.0
b	mental effort	36.6
c	manual skill	46.6

Source: own calculations based on surveys.

2/3 of respondents believed that the degree of difficulty in the use of machinery and equipment is marginal (i.e. the service is not complicated, and does not cause problems). Moreover, during the analysis of surveys, it was noted that the job mainly requires physical effort, which was at the same time arduous and monotonous. It also required manual skill from the employees.

Activities in the field of occupational health and safety and their usefulness

In the analyzed company, employees and their supervisors accordingly confirmed that they had been provided with the induction training (Tab. 4). Unfortunately, in the field of periodic training, the situation was not so clear, since workers opinions did not coincide with the replies of supervisors, according to whom periodic trainings apply to all employees. Provided trainings were usually understandable, but mostly theoretical. While only half of the surveyed persons, who underwent periodic trainings regularly, declared that participation in them was not a waste of time, as it allowed them to keep up with the latest trends.

Table 4

Structure of introduction and periodic trainings in the opinion of workers and their supervisors

Type of training	Employees [%]	Supervisors [%]
Introductory training		
Yes	100	100
No	–	–
Periodic training		
Yes	58.3	100
No	41.7	–

Source: own calculations based on survey.

Moreover, based on questions relating to activities undertaken in the field of occupational health and safety and their usefulness, it could also be observed that according to the majority of respondents (the opinion of 93.3 % of supervisors and 75% of employees) OHS training can reduce the number of accidents at work. Unfortunately, every third employee confessed to violating health and safety rules. Supervisors noticed this problem as well, admitting a lack of consistent response in this matter. Interestingly, almost all respondents (100% superiors, 87.5% subordinates) believed that penalties should be imposed on employees who violate safety regulations, since their lack, as it occurred in this particular company, did not activate any change in behavior. The opinion of respondents concerning abiding working hours was a positive phenomenon for the majority

of respondents. Both employees and superiors declared compliance with working hours. Unfortunately, 2/3 of the surveyed companies did not have a safety and health department. This may be due to the owners' fear of increasing costs.

It was also attempted to establish the scope of the health and safety management system. In the analyzed companies it did not function, although most superiors (76.7%) recognized it and realized the benefits that could be achieved after its implementation. On the other hand, the awareness of the surveyed employees on this issue was negligible (only one out of every five had a general idea of the subject).

Accident threats, factors affecting poor quality of working conditions, and the use of personal protective equipment

Accident risks occurring in the timber industry are the source of factors affecting the level of working conditions. They arise from reasons both directly and indirectly dependent on the worker.

Analyzing the question concerning the reasons for the risk of accidents in the workplace, it can be concluded that the respondents mostly agree as to the causes of accident risk in the workplace. The most common answers were:

- negligence and irresponsibility of employees (opinion of 66.7% workers – 86.7% supervisors);
- inefficient machinery and equipment (opinion of 83.3% workers – 93.3% supervisors);
- overwork of employees (opinion 60% of workers and 50% supervisors);
- stress and family problems (opinion of 45.8% employees, 46.7% supervisors).

Respondents had significantly different judgments in terms of violating the health and safety regulations. All supervisors were unanimous that a breach of basic safety rules was reflected in the number of workplace accidents. However, the same opinion was shared only by 1/3 of the employees. The others believed that violating health and safety rules was insignificant and they did not pay much attention to this matter, as they will bear no further consequences. Other factors (e.g. work in the evening hours, employee inattention, strenuous working conditions) played a minor role in the opinion of all respondents.

It should be noted that the high rate of factors directly attributable to the employees was not contingent upon the size of the company. It consisted of many factors, among which one could list a fast pace of life and a lack of employees having a professional approach to their duties.

In the opinion of supervisors, the quality of working conditions in general is determined by all the factors identified above and in particular by a proper organization of the workplace, efficient machinery park, equipment and tools, and provision of personal protective equipment (Tab. 5). On the other hand,

employees believed that the level of remuneration and work environment are the priority. A high percentage of the respondents indicated the use of equipment that did not meet the requirements of health and safety regulations. This may indicate the low awareness of employees on the factors responsible for the quality of working conditions at a low level.

Table 5

The structure of factors affecting the quality of working conditions

Q15	In your opinion, what affects the poor quality of working conditions	Employees [%]	Supervisors [%]
a	work environment (such as excessive noise, the presence of additives)	59.1	86.7
b	work organization	37.5	80.0
c	machinery park	54.1	100.0
d	remuneration	83.3	60.0
e	interpersonal relationships between employee – superior	33.3	60.0
f	providing personal protection equipment	54.1	100.0
g	continuing training for employees	29.1	60.0

Source: own calculations based on surveys. It was possible to choose more than one answer.

Taking into account the answers obtained from the questions, which was supposed to determine the factors influencing the low quality of working conditions in the analyzed plants (Tab. 6), it can be concluded that according to superiors it is primarily related to the specific work environment in the wood processing

Table 6

The structure of factors affecting poor working conditions occurring in the surveyed company

Q16	In your opinion, what affects poor working conditions in your workplace?	Employees [%]	Supervisors [%]
a	material work environment (such as excessive noise, pollution, presence of additives)	60.8	80.0
b	inaccurate work organization	25.0	3.3
c	machinery park contravening the requirements of safety rules	33.3	–
d	too low remuneration	75.0	33.3
e	inappropriate interpersonal relationships between employee – superior	33.3	16.7
f	not providing personal protective equipment	–	–
g	lack of possibilities for employee training	29.1	26.7

Source: own calculations based on surveys. It was possible to choose more than one answer.

plants. Every third pointed to low salaries, and one in four indicated a lack of ability to improve their qualifications. On the other hand, other factors were at an appropriate level or slightly diverged from generally accepted standards. Workers' opinions were 100% identical to the supervisors' opinions only with regard to the provision of personal protective equipment by the employer. None of the respondents indicated its absence. The respondents had a similar opinion concerning the material work environment. In the case of employees, a higher percentage believed that the remuneration was too low, which had a significant impact on the quality of working conditions. In addition, 1/3 believed that the machines and tools did not comply with occupational safety regulations. The same percentage of respondents had pointed to improper relations with superiors. Other factors, though to a lesser extent, appeared as well in the surveyed plants.

The provision of personal protective equipment by the employer and at the same time its proper use by the employees plays a crucial role, since it significantly reduces the risk of accidents at work. Unfortunately, the analysis of responses clearly indicates that a considerable percentage of respondents were not aware of the necessity of using personal protective equipment – every fourth worker indicated “I do not know” as an answer to the question “Is it necessary to use personal protective equipment at your workplace?”. This may indicate a lack of information on this subject provided by the management team or an unprofessional approach to the workplace by the workers, who often undergo appropriate training; however, they disregard it and do not pay much attention.

This is also confirmed by the answers to the questions shown in Table 7. Analyzing them, it can be said that 1/5 of employees were not aware whether their employer provides the necessary personal protective equipment, and every third employee used them only from time to time. What is even more interesting is the fact that every three out of five supervisors were unaware whether their subordinates were working in accordance with binding occupational safety rules.

Table 7

The frequency of applicability of PPE by employees

Does the employer provide adequate personal protective equipment?						
Employees [%]			supervisors [%]			
Yes	No	I do not know	Yes	No	I do not know	
70.0%	10.0%	20.0%	100.0%	–	–	
Do you use personal protective equipment?			Do employees use personal protective equipment?			
Yes. always	Yes. sometimes	No. I do not	Yes. always	Yes. sometimes	No. they do not	I do not know
62.5%	31.7%	5.8%	20.0%	10.0%	10.0%	60.0%

Source: own calculations based on surveys.

This attitude undoubtedly fosters the misconduct of employees. Therefore, it can be concluded that the level of use of personal protective equipment, as well as management awareness of this subject is low, which in turn is reflected in the growth of occupational risk.

Conditions of employment, interpersonal relations

The types of employment contract and remuneration issues are strongly influenced by the level of economic working conditions and thus they affect the assessment of working conditions in general. In the analyzed companies more than half of all employees were dissatisfied with the type of contract they had signed (Tab. 8). This probably resulted from the fact that they are employed on fixed-term or indefinite but not full-time contracts (e.g. 1/2 or 3/4 time). Even more people were dissatisfied with the amount of their remuneration, which was slightly higher than the minimum wage. The opinion of supervisors was quite different in this regard. According to them, the employees received adequate remuneration, consistent with their educational level, qualifications and skills; although 1/3 of them also complained about the amount of their salary.

Table 8

The satisfaction structure of employment contract and the amount of received remuneration

Are you satisfied with the signed contract?	
Yes [%]	No [%]
41.7	58.3
Are you satisfied with the remuneration you receive?	
Yes [%]	No [%]
30.0	70.0
In which group would you place your remuneration?	
1,000 – 2,000 zł	16.6%
2,001 – 3,000 zł	75.1%
3,001 – 4,000 zł	8.3%
Above 4,000 zł	–

Source: own calculations based on surveys.

The aim of the subsequent question was to learn the respondents' opinion regarding interpersonal relations in the company (Tab. 9). The majority of the employees and supervisors identified them as positive (almost 80% of employees and 80% of supervisors). As to the first answer, the respondents were unanimous since no one indicated it. All employees had divergent opinions as to the

Table 9

The structure of interpersonal relations between the employee and superior

Specification	Employees [%]	Supervisors [%]
Excellent	–	–
Very good	16.7	20
Good	31.6	60
Satisfactory	31.6	20
Bad	20.1	–

Source: own calculations based on surveys.

answer concerning a low level of interpersonal relations. Every fifth employee expressed such an opinion, whereas supervisors did not notice any irregularities in this regard.

The last question in the questionnaire was supposed to assess the overall evaluation of working conditions. By analyzing the data, it can be concluded that the opinion of employees is far from the view of their supervisors, who evaluate it on a high level (Tab. 10). As many as a quarter of respondents who are physical workers consider the working conditions simply as being derogatory and undignified.

Table 10

Overall assessment of working conditions in the opinion of employees and their supervisors

Specification	Employees [%]	Supervisors [%]
Excellent	–	–
Very good	7.5	20
Good	33.3	60
Satisfactory	33.3	20
Bad	25.9	–

Source: own calculations based on surveys.

Summary

The research allowed the collection of relevant information on the basis of which the analysis and conclusions were formulated concerning the overall assessment of working conditions in selected wood processing plants located in the rural areas of the Opole region. The views presented in the surveys were mainly in terms of organizational and technical working conditions and the level of satisfaction with employment conditions and interpersonal relations clearly prove that the opinion of employees is significantly different from

the opinion of superiors, both in terms of OSH activities and factors shaping the working conditions. A point of concern is the fact that a significant percentage of respondents declared a lack of periodic training and frequent violations of OSH regulations. Additionally, the conducted analysis indicates that employees are characterized as having a low awareness of factors determining the quality of work environment and the need to use personal protective equipment. Unfortunately, it is also deepened by the lack of a proper response from superiors. Therefore, it can be concluded that the conditions in the analyzed industry are not satisfactory and deviate from EU standards.

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