

Motivation Factors Analysis in Industrial Plants

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Preliminary note

This research was conducted to establish and analyze motivation factors in wood processing and furniture manufacturing companies in the Republic of Croatia. Research was conducted during the year 2006 using method of survey. In three survey questionnaires a total of 58 questions were asked. A total of 800 production workers and 60 management and administrative employees were surveyed in 3 companies. The most important factor for production workers were good social conditions, while for management and administrative employees the most important factor was a good company reputation. Production workers were satisfied with employment assurance, while management and administrative employees were satisfied with employment assurance and good company name. Both production workers and management are most displeased with their salaries and with possibilities for those salaries to grow. Production results are highly dependable on motivation factors, so this kind of research is necessary if wood processing and furniture manufacturing companies want to increase production results and competitive strength on the international market.

Analiza motivirajućih čimbenika u industrijskim pogonima

Prethodno priopćenje

Istraživanje u ovom radu odnosi se na ispitivanje i analizu motivirajućih čimbenika u poduzećima prerade drva i proizvodnje namještaja u Republici Hrvatskoj. Istraživanje je provedeno tijekom 2006. godine metodom anketiranja. U tri anketna upitnika postavljeno je ukupno 58 pitanja. Ukupno je anketirano 800 proizvodnih djelatnika i 60 djelatnika upravnog i administrativnog osoblja u trima tvrtkama. Najvažniji motivirajući čimbenici među proizvodnim djelatnicima su dobri socijalni uvjeti, dok je kod menadžmenta to uglavnom dobro ime tvrtke. Proizvodni djelatnici zadovoljni su sigurnošću zaposlenja, dok su djelatnici u menadžmentu zadovoljni sa sigurnošću zaposlenja i reputacijom tvrtke. I proizvodni djelatnici i administrativno osoblje najnezadovoljniji su svojim prihodima i mogućnošću njihova rasta. Rezultati proizvodnje u mnogome ovise o motivirajućim čimbenicima, pa je stoga ovakvo istraživanje nužno ako se želi povećati rezultate proizvodnje i konkurentnost prerade drva i proizvodnje namještaja na međunarodnom tržištu.

1. Introduction

Wood processing and furniture manufacturing of the Republic of Croatia are among the important industries which are highly export oriented. Wood processing and furniture manufacturing have a total annual income of over 800 million EURO with about 23 000 employees, which is about 8 % of the total number of employees in industry. At the same time, wood processing and furniture manufacturing participate in the total export of the Republic of Croatia with about 9,5 %. Wood processing and furniture manufacturing participate in Gross Domestic Product of Croatia with about 5 % [1].

Quality and recognizable design are important items, but besides those, the presentation of Croatian firms on the global market requires production results based on employees' interest to perform in a certain way. The work they do has to be done on time and in the required quality and quantity. Many firms have already met that problem while transitioning to a market economy and they have tried to solve it in different ways.

In addition to influencing technical/technological factors, one of the most influential factors in quality production result is certainly the employees' motivation for that kind of work. Motivated employees come to

work with enthusiasm and wish to fulfill their daily duties in an efficient and effective way, because it guarantees that their production and business results will be on the required level. Also, it guarantees that their satisfaction with production results and consequently their salaries will be higher. On the other hand, employees with no motive hardly fulfill their obligations, so their production results are at a much lower level than a firm and market require. Business results cannot be on the level required, so the salaries of such employees are lower. In that circle, it is important to realize which motivation factors can encourage employees to work with more enthusiasm and wish for success.

In this research, we tried to find out which motivation factors directly or indirectly influence the work quality of employees in wood processing and furniture manufacturing plants. We wanted to establish whether the motivation factors important to production plant employees were equally important to management and to administrative staff in firms. Satisfaction with work, working environment, social and other conditions are factors that highly contribute to production and business results, so the goal of this research was to establish how much certain employees are satisfied with conditions under which they work, with their salaries, their free time, ergonomic and other factors.

2. Problem and aim of the research

Employees' motivation to achieve quality production process result plays an important role in human resource management. Different motivation factors have different influence on employees' motivation. Nowadays, the entrepreneurial practice often underestimates the influence of motivation and motivation factors, so they are not considered to a sufficient degree in human resource management [2].

Motivation is considered as the readiness to do something and it is influenced by suitability of that action to satisfy the needs of a person. The need is a physiological or psychological lack that makes some goals attractive. A motivation process is shown on Figure 1 [3].

Unsatisfied need creates tension which stimulates motives inside a person. Those motives create a need to find certain goals which, if achieved, will satisfy the need and lead to tension decrease.

Motivated employees are in a state of tension. To decrease the tension, they undertake some activities. The higher the tension, the more activities are required to decrease it. Therefore, when employees are doing some activity enthusiastically, it can be concluded that the wish to achieve a worthy goal is pushing them, i.e. they are motivated.

Probably the best known motivation theory was given by A. Maslow. He formed a hypothesis that there is a hierarchy of five needs inside every human being [4]:

- Physiological needs
- Needs for safety
- Social needs
- Needs for reputation and
- Needs for achievement.

Two theories were given: one by D. McGregor, who placed the positive and the negative in every human being into Theory X and Theory Y [5], and the other by F. Herzberg, who developed the "Motivation – hygiene" theory, which is based on how a person relates to a job.

Modern motivation theories give more detailed explanations of employees' motivation. One of them is a theory given by D. McClelland who thinks that there are three main motives or needs on a working post:

- Needs to achieve
- Needs for power and
- Needs to belong.

Besides that theory, there are the following theories: the theory of setting goals, the theory of reinforcement, the theory of impartiality and the theory of expectations [6-8].

One of the modern motivation theories is given by W. Glasser by the name of "Choice theory". The basis of this theory is supported by Maslow's theory. Glasser says that people have 5 basic needs [9]:

- Survival
- Love and belonging
- Power or recognition
- Freedom
- Entertainment

Survival is the only physiological human need and the others are psychological.

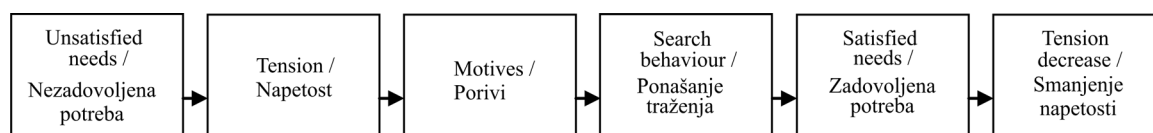


Figure 1. Basic motivation processes

Slika 1. Temeljni motivirajući procesi

Employees' motivation is one of the most important factors in increasing the productivity of a person or a group in a production and business process. Therefore, the goal of this research was to analyze different motivation factors for particular groups of employees in wood processing and furniture manufacturing plants in order to establish their influence on the production and business process efficiency, and to establish the satisfaction of employees with the current situation in firms.

3. Research methods

The research method consisted of gathering information regarding employees' motivation factors through a survey containing three questionnaires in which a total of 58 questions were asked. The questionnaire A contained 22 questions regarding the importance of

particular motivation factors at work, questionnaire B held 22 questions regarding satisfaction of employees at their work post, while questionnaire C consisted of 14 questions regarding relationships within the working environment. A total of 800 employees working in production and 60 employees working at management and administrative work posts were surveyed in 3 wood processing and furniture manufacturing firms.

Questionnaires A, B and C are created originally for this survey and the main intention for using them was to establish relevant motives and needs of employees according to Maslow's theory [4]. They are used in wood processing and furniture manufacturing firms in this survey, but they were not created for that industrial branch exclusively, so they could be used in any other industrial branch. The questionnaires are shown in the text below.

QUESTIONNAIRE A / ANKETNI UPITNIK – A

Survey on the importance of motivation factors at work / Anketni upitnik o važnosti čimbenika motiviranosti na poslu

Please, read following motives and mark with X in a certain column the importance of a particular motive. The marks are as follows: 5 – most important, 4 – important, 3 – moderately important, 2 – less important, 1 – not important. / Molimo, pročitajte navedene motive i upisivanjem znaka X u određenom stupcu odredite koliko su vam pojedini od motiva važni. Pritom brojevi znače: 5 - najvažniji, 4 - važan, 3 - srednje važan, 2 - manje važan, 1 – potpuno nevažan.

Motive / Motiv		Mark / Ocjena				
		5	4	3	2	1
1.	Good social conditions (safety) / Dobri socijalni uvjeti (sigurnost)					
2.	Certainty of long-term employment / Sigurnost trajnog zaposlenja					
3.	Good name (reputation) of a firm / Dobro ime poduzeća (dobra javna reputacija poduzeća)					
4.	Good human relationships / Dobri međuljudski odnosi					
5.	Good co-operation with management / Dobra suradnja s menedžmentom					
6.	Satisfying level of work demands / Zadovoljavajuća razina zahtjevnosti posla					
7.	Work time organization / Organizacija radnog vremena					
8.	Possibilities of further education / Mogućnosti daljnje izobrazbe					
9.	Satisfying salary / Zadovoljavajući prihodi					
10.	Personal achievement recognition / Priznavanje osobnih dostignuća					
11.	Good nourishment / Dobra prehrana					
12.	Good ergonomic conditions (lightning, noise, work safety) / Dobri ergonomski uvjeti (osvjetljenje, buka, zaštita na radu)					
13.	Good and transparent plant organization / Dobra i transparentna organizacija odjela					
14.	Transparent business goals / Transparentnost poslovnih ciljeva					
15.	Good possibilities of promotion / Dobre mogućnosti promocije					
16.	Real possibilities to participate in decision-making process / Realna mogućnost sudjelovanja u procesu donošenja odluka					

17.	Firm's costs rationalization / Racionalizacija troškova poduzeća					
18.	Full information on enterprise activities / Potpunost informacija o aktivnostima poduzeća					
19.	Fair employment in a plant / Pravedno popunjavanje radnih mjesta u poduzeću					
20.	Sufficient free time in private life / Dostatna količina slobodnog vremena u privatnom životu					
21.	Quality space for use of free time in firm / Kvalitetni prostori za iskorištavanje slobodnog vremena u poduzeću					
22.	Advanced organization of vacation in firm / Napredna organizacija godišnjeg odmora u poduzeću					

QUESTIONNAIRE B / ANKETNI UPITNIK – B

Survey of satisfaction on the job Anketni upitnik o zadovoljstvu na radnome mjestu

Please, read following motives and mark with X in a certain column your satisfaction with particular motive. The marks are as follows: 5 – very satisfied, 4 – satisfied, 3 – moderately satisfied, 2 – not satisfied, 1 – very unsatisfied. / Molimo, pročitajte navedene motive i označite razinu svojeg zadovoljstva pojedinim od njih prema sljedećim ocjenama: 5 – vrlo zadovoljna/zadovoljan, 4 – zadovoljna/zadovoljan, 3 – dovoljno zadovoljna/ zadovoljan, 2 – nezadovoljna/nezadovoljan, 1- vrlo nezadovoljna/nezadovoljan

	Motive / Motiv	Mark / Ocjena				
		5	4	3	2	1
1.	Good social conditions (safety) / Dobri socijalni uvjeti (sigurnost)					
2.	Certainty of long-term employment / Sigurnost trajnog zaposlenja					
3.	Good name (reputation) of a firm / Dobro ime poduzeća (dobra javna reputacija poduzeća)					
4.	Good human relationships / Dobri međuljudski odnosi					
5.	Good co-operation with management / Dobra suradnja s menedžmentom					
6.	Satisfying level of work demands / Zadovoljavajuća razina zahtjevnosti posla					
7.	Work time organization / Organizacija radnog vremena					
8.	Possibilities of further education / Mogućnosti daljnje izobrazbe					
9.	Satisfying salary / Zadovoljavajući prihodi					
10.	Personal achievement recognition / Priznavanje osobnih dostignuća					
11.	Good nourishment / Dobra prehrana					
12.	Good ergonomic conditions (lightning, noise, work safety) / Dobri ergonomski uvjeti (osvjetljenje, buka, zaštita na radu)					
13.	Good and transparent plant organization / Dobra i transparentna organizacija odjela					
14.	Transparent business goals / Transparentnost poslovnih ciljeva					
15.	Good possibilities of promotion / Dobre mogućnosti promocije					
16.	Real possibility to participate in decision-making process / Realna mogućnost sudjelovanja u procesu donošenja odluka					
17.	Firm's costs rationalization / Racionalizacija troškova poduzeća					
18.	Full information on enterprise activities / Potpunost informacija o aktivnostima poduzeća					
19.	Fair employment in a plant / Pravedno popunjavanje radnih mjesta u poduzeću					
20.	Sufficient free time in private life / Dostatna količina slobodnog vremena u privatnom životu					
21.	Quality space for use of free time in firm / Kvalitetni prostori za iskorištavanje slobodnog vremena u poduzeću					
22.	Advanced organization of vacation in firm / Napredna organizacija godišnjeg odmora u poduzeću					

QUESTIONNAIRE C / ANKETNI UPITNIK – C

For every question circle one of the given answers. /
U svakom pitanju zaokružite samo jedan ponuđeni odgovor.

1. What is your relationship with the firm? / Kakvi su vaši odnosi s poduzećem?

- A. Am satisfied to work here / Zadovoljan (zadovoljna) sam što radim ovdje.
- B. I have to work somewhere / Negdje moram raditi, svejedno mi je u kojem poduzeću.
- C. I would rather work in a better firm / Rado bih radio (radila) u boljem poduzeću.

2. Are you satisfied with your current work? / Jeste li zadovoljni svojim trenutačnim poslom?

- A. Yes, I love my work / Da, volim svoj posao.
- B. I do what I am asked to do / Radim samo ono što se od mene zahtijeva.
- C. My job is not interesting / Moj mi posao nije zanimljiv.

3. Do you think of changing your job? / Razmišljate li o promjeni posla?

- A. No, I am satisfied / Ne, zadovoljan (zadovoljna) sam trenutačnim stanjem.
- B. I want to stay here and prosper / Želim ostati ovdje i napredovati.
- C. I want to do the same in another firm / Želim raditi isti posao, ali u drugom poduzeću.
- D. I want to change both my work and firm / Želim promijeniti i posao i poduzeće.

4. How would you rate your job? / Kakvim ocjenjujete svoje radno mjesto?

- A. More demanding than my qualifications / Zahtjevnije od mojih kvalifikacija.
- B. Am satisfied with my job / Zadovoljan (zadovoljna) sam svojim radnim mjestom.
- C. My job does not satisfy me / Moje radno mjesto mi ne odgovara.

5. How would you rate your employment? / Kakvom ocjenjujete svoju zaposlenost?

- A. Not too busy, am satisfied / Nisam prezaopsljen (prezaopsljena), zadovoljan (zadovoljna) sam.
- B. What is asked of me, suits my potential / Ono što se od mene traži odgovara mojim mogućnostima.
- C. Demands are too high / Zahtjevi su previsoki.

6. How would you rate your work environment? / Kakvim ocjenjujete svoje radno okruženje?

- A. Am satisfied with my environment / Zadovoljan (zadovoljna) sam svojim radnim okruženjem.

- B. It should be better and nicer / Trebalo bi biti bolje i ljepše.
- C. It is not important to me / Nije mi važno.

7. How are you satisfied with your salary? / Koliko ste zadovoljni svojim prihodima?

- A. Very satisfied / Vrlo sam zadovoljan (zadovoljna).
- B. Satisfied / Zadovoljan (zadovoljna) sam.
- C. It is sufficient / Dovoljni su mi.
- D. Not satisfied / Nezadovoljan (nezadovoljna) sam.
- E. Very unsatisfied / Vrlo sam nezadovoljan (nezadovoljna).

8. How would you rate the possibility of your salary growing? / Kakvom ocjenjujete mogućnost rasta vaših prihoda?

- A. It is beyond my expectations / To je iznad mojih očekivanja.
- B. It suits my expectations completely / U potpunosti odgovara mojim očekivanjima.
- C. Not satisfying / Nezadovoljavajuće su.

9. How are you satisfied with your colleagues? / Koliko ste zadovoljni svojim suradnicima?

- A. Very satisfied / Vrlo sam zadovoljan (zadovoljna).
- B. Satisfied / Zadovoljan (zadovoljna) sam.
- C. Moderately satisfied / Dostatno sam zadovoljan (zadovoljna).
- D. Unsatisfied / Nezadovoljan/nezadovoljan sam.
- E. Very unsatisfied / Vrlo sam nezadovoljan (nezadovoljna).

10. Are there possibilities for further education and promotion? / Imate li mogućnosti dodatnog obrazovanja i napredovanja?

- A. Possibilities are higher than my expectations / Mogućnosti su veće od mojih očekivanja.
- B. Possibilities match my expectations / Mogućnosti odgovaraju mojim očekivanjima.
- C. Not interested in further promotion / Ne zanima me daljnje napredovanje.

11. Do you receive information from your superiors on time? / Dobivate li informacije od svojih pretpostavljenih na vrijeme?

- A. Yes, clear and on time / Da, jasne su i poslone na vrijeme.
- B. Mostly on time / Uglavnom ih dobivam na vrijeme.
- C. Superiors do not give enough information / Pretpostavljeni me nedovoljno informiraju.
- D. Superiors do not give me information at all / Pretpostavljeni me uopće ne informiraju.

12. Do you know about the advantages your firm offers to employees? / Znete li za prednosti koje poduzeće nudi svojim zaposlenima?

- A. I know all about them / Znam sve o njima.
- B. I know most of them / Znam za većinu njih.
- C. I know just a few of them / Znam samo za neke.
- D. I don't know anything about it / Ne znam ništa o tome.

13. Do you receive praise from your superiors for your work achievements? / Dobivate li pohvale pretpostavljenih za svoja postignuća u poslu?

- A. Yes, suitable and sufficient / Da, odgovarajuća su i dostatna.
- B. Sometimes I receive praise / Pokatkad dobijem pohvalu.
- C. No, my superior doesn't do that / Ne, moj pretpostavljeni to ne radi.

14. Does your superior criticize your work? / Kritizira li vaš pretpostavljeni vaš rad?

- A. No, my superior doesn't do that / Ne, moj pretpostavljeni to ne radi.
- B. He criticizes when necessary, only with mistakes / Kritizira me prema potrebi, samo kad pogriješim.
- C. He criticize all the time and for no reason / Stalno me i bez potrebe kritizira.

The data gathered by these questionnaires were processed and analyzed with usual statistical methods and the results were presented graphically. The arithmetic average and frequency distribution of particular values were established. Since every questionnaire had its own purpose, thus requiring its own result interpretation, statistical processing by hypothesis testing was conducted just for questionnaire B.

4. Research results

The survey was conducted in three different wood processing and furniture manufacturing firms in different regions of the Republic of Croatia.

Questionnaire A had a goal of establishing which of the motivation factors the employees of particular firms considered most important. The results achieved by surveys with production workers as respondents did not differ significantly from the results achieved by the survey with management and administrative employees of the same enterprises as respondents. The five most important motivation factors given by questionnaire A by the enterprise and in total are shown as follows (The marks are as follows: 5 – most important, 4 – important, 3 – moderately important, 2 – less important, 1 – not important):

Table 1. Questionnaire A – production workers

Tablica 1. Anketni upitnik A – proizvodni djelatnici

Questionnaire A – Total results / Anketni upitnik A – Ukupni rezultati															
Motivation factor / Motivirajući čimbenik	Average mark / Prosječna ocjena	Ratio of employees who think it is important / Udio uposlenika koji ga smatra važnim	Graphic presentation / Grafički prikaz												
2. Long term employment / 2. Sigurnost trajnog zaposlenja	4,24	79 %	<p style="text-align: center;">Marks / Ocjene</p> <table border="1" style="display: none;"> <caption>Data for Figure 1: Marks / Ocjene</caption> <thead> <tr> <th>Motivation Factor</th> <th>Average Mark</th> </tr> </thead> <tbody> <tr> <td>2. Long term employment</td> <td>4,24</td> </tr> <tr> <td>1. Good social conditions</td> <td>4,09</td> </tr> <tr> <td>7. Work time organization</td> <td>3,95</td> </tr> <tr> <td>4. Good relationship</td> <td>3,95</td> </tr> <tr> <td>9. Satisfying salaries</td> <td>3,83</td> </tr> </tbody> </table>	Motivation Factor	Average Mark	2. Long term employment	4,24	1. Good social conditions	4,09	7. Work time organization	3,95	4. Good relationship	3,95	9. Satisfying salaries	3,83
Motivation Factor	Average Mark														
2. Long term employment	4,24														
1. Good social conditions	4,09														
7. Work time organization	3,95														
4. Good relationship	3,95														
9. Satisfying salaries	3,83														
1. Good social conditions / 1. Dobri socijalni uvjeti	4,09	74 %													
7. Work time organization / 7. Organizacija radnog vremena	3,95	72 %													
4. Good relationship / 4. Dobri međuljudski odnosi	3,95	71 %													
9. Satisfying salaries / 9. Zadovoljavajući prihodi	3,83	67 %													
Questionnaire A – Firm 1 / Anketni upitnik A – Tvrtka 1															
Motivation factor / Motivirajući čimbenik	Average mark / Prosječna ocjena	Ratio of employees who think it is important / Udio uposlenika koji ga smatra važnim	Graphic presentation / Grafički prikaz												

2. Long term employment / 2. Sigurnost trajnog zaposlenja	4,40	87 %	<p style="text-align: center;">Marks / Ocjene</p>
7. Work time organization / 7. Organizacija radnog vremena	4,03	79 %	
1. Good social conditions / 1. Dobri socijalni uvjeti	4,00	72 %	
3. Public firm reputation / 3. Javna reputacija tvrtke	3,97	68 %	
9. Satisfying salaries / 9. Zadovoljavajući prihodi	3,84	68 %	

Questionnaire A – Firm 2 / Anketni upitnik A – Tvrтка 2

Motivation factor / Motivirajući čimbenik	Average mark / Prosječna ocjena	Ratio of employees who think it is important / Udio uposlenika koji ga smatra važnim	Graphic presentation / Grafički prikaz
2. Long term employment / 2. Sigurnost trajnog zaposlenja	4,40	83 %	<p style="text-align: center;">Marks / Ocjene</p>
7. Work time organization / 7. Organizacija radnog vremena	4,25	78 %	
4. Good relationship / 4. Dobri međuljudski odnosi	4,09	77 %	
1. Good social conditions / 1. Dobri socijalni uvjeti	4,05	73 %	
20. Amount of free time / 20. Količina slobodnog vremena	4,02	74 %	

Questionnaire A – Firm 3 / Anketni upitnik A – Tvrтка 3

Motivation factor / Motivirajući čimbenik	Average mark / Prosječna ocjena	Ratio of employees who think it is important / Udio uposlenika koji ga smatra važnim	Graphic presentation / Grafički prikaz
2. Long term employment / 2. Sigurnost trajnog zaposlenja	4,20	77 %	<p style="text-align: center;">Marks / Ocjene</p>
1. Good social conditions / 1. Dobri socijalni uvjeti	4,11	73 %	
4. Good relationship / 4. Dobri međuljudski odnosi	4,00	71 %	
7. Work time organization / 7. Organizacija radnog vremena	3,90	71 %	
9. Satisfying salaries / 9. Zadovoljavajući prihodi	3,81	66 %	

Table 2. Questionnaire A – management and administrative workers**Tablica 2.** Anketni upitnik A – upravni i administrativni djelatnici

Questionnaire A – Total results / Anketni upitnik A – Ukupni rezultati			
Motivation factor / Motivirajući čimbenik	Average mark / Prosječna ocjena	Ratio of employees who think it is important / Udio uposlenika koji ga smatra važnim	Graphic presentation / Grafički prikaz
2. Long term employment / 2. Sigurnost trajnog zaposlenja	4,61	94 %	<p style="text-align: center;">Marks / Ocjene</p>
9. Satisfying salaries / 9. Zadovoljavajući prihodi	4,52	90 %	
1. Good social conditions / 1. Dobri socijalni uvjeti	4,42	87 %	
4. Good relationship / 4. Dobri međuljudski odnosi	4,36	88 %	
3. Public firm reputation / 3. Javna reputacija tvrtke	4,20	84 %	
Questionnaire A – Firm 1 / Anketni upitnik A – Tvrтка 1			
Motivation factor / Motivirajući čimbenik	Average mark / Prosječna ocjena	Ratio of employees who think it is important / Udio uposlenika koji ga smatra važnim	Graphic presentation / Grafički prikaz
2. Long term employment / 2. Sigurnost trajnog zaposlenja	4,42	83 %	<p style="text-align: center;">Marks / Ocjene</p>
4. Good relationship / 4. Dobri međuljudski odnosi	4,31	84 %	
7. Work time organization / 7. Organizacija radnog vremena	4,25	100 %	
9. Satisfying salaries / 9. Zadovoljavajući prihodi	4,23	84 %	
6. Satisfactory level of demands of the work post / 6. Zadovoljavajuća razina zahtjevnosti posla	4,00	100 %	
Questionnaire A – Firm 2 / Anketni upitnik A – Tvrтка 2			
Motivation factor / Motivirajući čimbenik	Average mark / Prosječna ocjena	Ratio of employees who think it is important / Udio uposlenika koji ga smatra važnim	Graphic presentation / Grafički prikaz
3. Public firm reputation / 3. Javna reputacija tvrtke	4,85	100 %	<p style="text-align: center;">Marks / Ocjene</p>
2. Long term employment / 2. Sigurnost trajnog zaposlenja	4,75	100 %	
9. Satisfying salaries / 9. Zadovoljavajući prihodi	4,58	92 %	
1. Good social conditions / 1. Dobri socijalni uvjeti	4,50	83 %	
4. Good relationship / 4. Dobri međuljudski odnosi	4,42	92 %	
Questionnaire A – Firm 3 / Anketni upitnik A – Tvrтка 3			

Motivation factor / Motivirajući čimbenik	Average mark / Prosječna ocjena	Ratio of employees who think it is important / Udio uposlenika koji ga smatra važnim	Graphic presentation / Grafički prikaz
2. Long term employment / 2. Sigurnost trajnog zaposlenja	4,64	96 %	<p style="text-align: center;">Marks / Ocjene</p>
9. Satisfying salaries / 9. Zadovoljavajući prihodi	4,64	92 %	
1. Good social conditions / 1. Dobri socijalni uvjeti	4,56	96 %	
4. Good relationship / 4. Dobri međuljudski odnosi	4,36	88 %	
10. Personal achievement recognition / 10. Priznavanje osobnih dostignuća	4,32	96 %	

As shown, the motivation factors which employees in the wood processing and furniture manufacturing enterprises consider most important, production workers as well as management and administrative staff, most definitely are long time employment, good social conditions, public reputation of the

enterprise and satisfying salaries. The only difference between production employees and management and administrative employees is in the number of employees who think those factors are important and in average marks for observed motivation factors.

When satisfaction of employees regarding motivation factors is considered, the situation is different.

Table 3. Questionnaire B – average mark of employees’ satisfaction

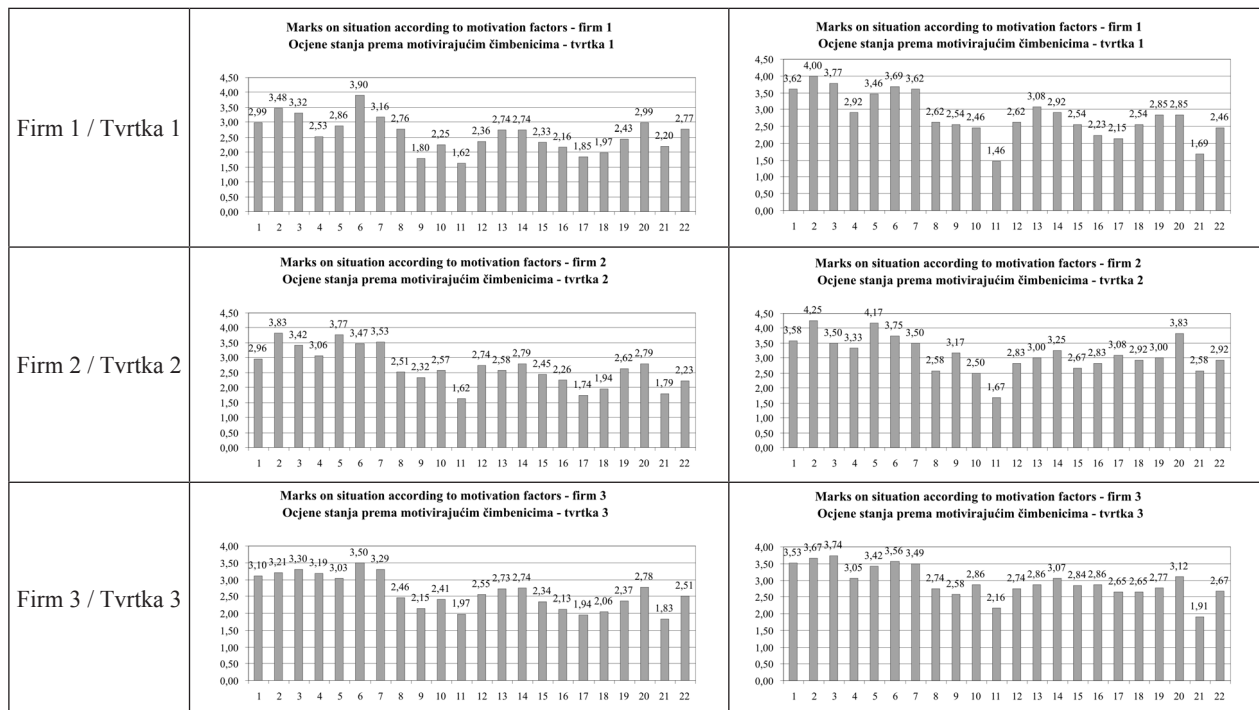
Tablica 3. Anketni upitnik B – prosječna ocjena zadovoljstva uposlenika

Questionnaire B / Anketni upitnik B		
Enterprise / Tvrtka	Average mark according to criteria – production workers / Prosječna ocjena prema kriterijima – proizvodni djelatnici	Average mark according to criteria – management and administrative employees / Prosječna ocjena prema kriterijima – upravni i administrativni djelatnici
TOTAL / UKUPNO	2,62	2,95
FIRM 1 / TVRTKA 1	2,60	2,82
FIRM 2 / TVRTKA 2	2,68	3,13
FIRM 3 / TVRTKA 3	2,62	2,95

Table 4. Questionnaire B – satisfaction marks regarding motivation factors

Tablica 4. Anketni upitnik B – ocjene zadovoljstva prema motivirajućim čimbenicima

Questionnaire B / Anketni upitnik B		
Firm / Tvrtka	Marks on satisfaction according to criteria – production workers / Ocjene zadovoljstva prema kriterijima – proizvodni djelatnici	Marks on satisfaction according to criteria – management and administrative employees / Ocjene zadovoljstva prema kriterijima – upravni i administrativni djelatnici
Total / Ukupno	<p style="text-align: center;">Marks on situation according to motivation factors - total Ocjene stanja prema motivirajućim čimbenicima - ukupno</p>	<p style="text-align: center;">Marks on situation according to motivation factors - total Ocjene stanja prema motivirajućim čimbenicima - ukupno</p>



If the average mark that employees gave to the current situation in enterprises is observed, in Questionnaire B it can be seen that there are differences in satisfaction between production workers and management and administrative employees. That difference is significant and it is in the range of 0,22 to 0,45, i.e. marks are almost half of a point higher among management and administrative employees. However, that difference was not as we expected it to be according to results in some other Central European countries in transition ([10], [11], [12]). The average marks, for a particular enterprise and in total, are between 2,60 and 3,13, which corresponds to the mark “good” in Croatian evaluation system. However, the mark is the same (good) among production workers and management and administrative employees, which usually is not the case. Management and administrative employees are more satisfied than direct production workers by a whole mark (good – very good). The results achieved in the Croatian wood processing and furniture manufacturing showed that motivation of all employees is below average.

When marks of particular motivation factors between production workers and management and administrative employees in particular firms and in total are observed, it is shown that trends of those marks are similar for all firms and there are no significant aberrations. In total, the production workers’ marks are lower than management and administrative employees’ marks by 0,3 in average. In particular enterprises the situation is somewhere different and mark trends of particular motivation factors

are significantly different. Some of the marks differ for a whole mark (difference of even 1,34 – motivation factor 17 in firm 2).

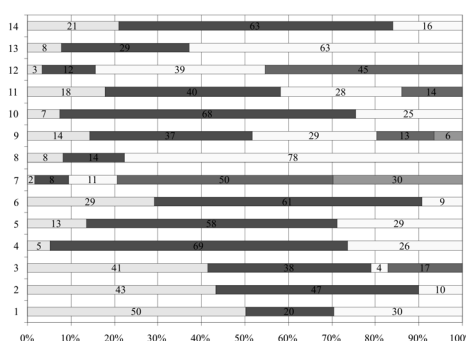
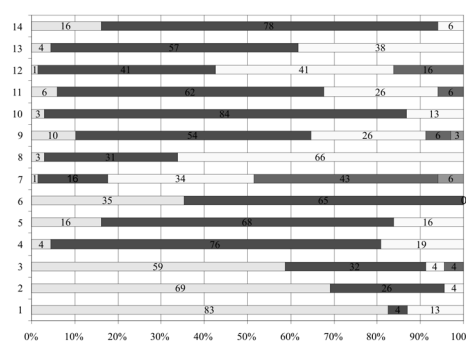
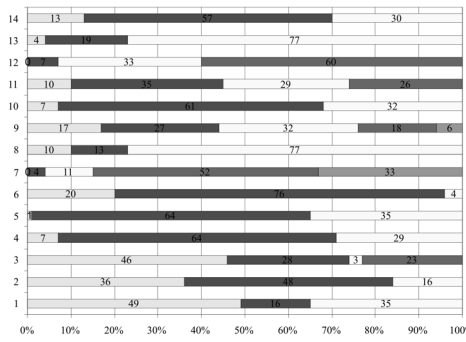
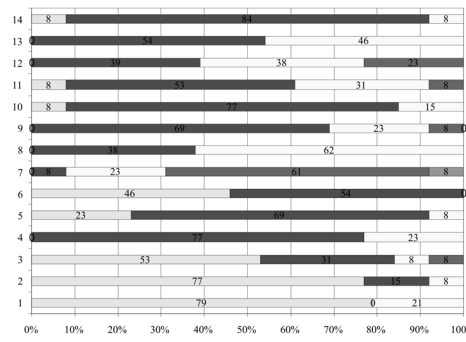
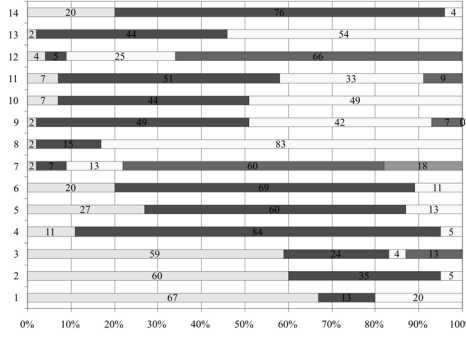
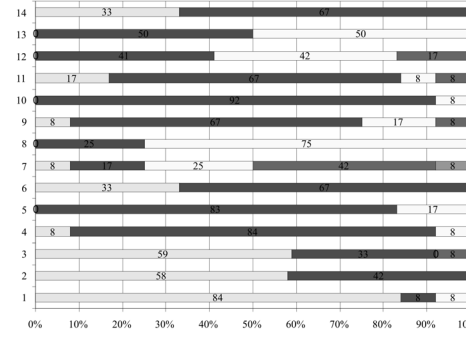
A certain decline in data among research results with particular firms and in total was established. Therefore, statistical testing of the main batch and samples data was performed, and it showed that there are no significant differences between them.

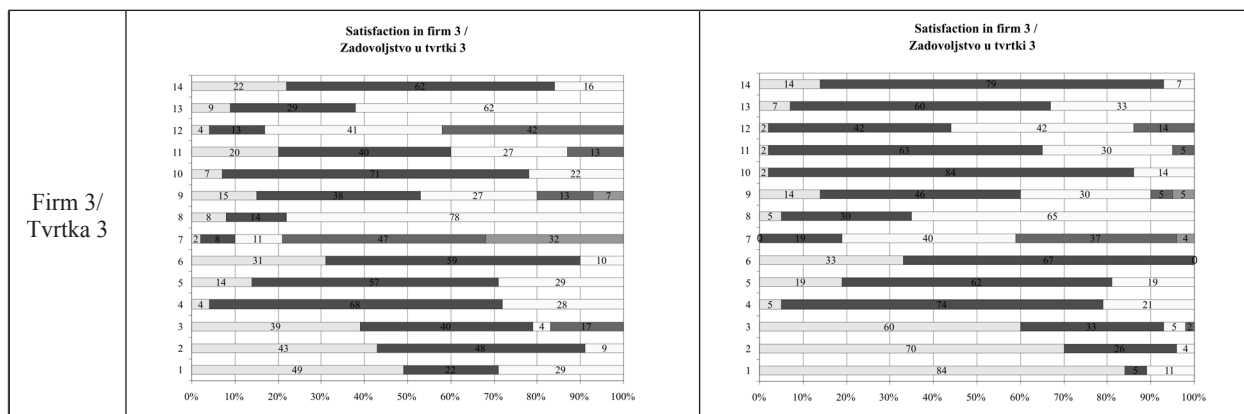
What is shown, with no hesitation, is the fact that all employees in all firms and in total are most satisfied with long term employment, activities on the job, public firm reputation, internal relationships and work time organization. At the same time, they are most displeased with nourishment in the firm, recreation space within the firm and information on the enterprise business, especially costs. It is interesting that, in spite of the fact that salaries in the wood processing and furniture manufacturing are moderately low, neither production workers nor management – administrative employees, find that fact the most displeasing. Salaries are only placed as fifth of the most displeasing motivation factors.

Questionnaire C looked for answers on how employees are satisfied with the general situation in an enterprise. Questions asked in that questionnaire should have given answers regarding relationships employee – enterprise, employee – work, employee – work environment, employee – internal relationships and employee – salary. The relationships in the wood processing and furniture manufacturing firms in total and in a particular enterprise are shown Table 5.

Table 5. Questionnaire C – employees satisfaction with relationships within the firm

Tablica 5. Anketni upitnik C – zadovoljstvo uposlenika odnosima u tvrtki

Questionnaire C / Anketni upitnik C		
Firm / Tvrтка	Satisfaction with relationships in firm – production workers / Zadovoljstvo odnosima u tvrtki – proizvodni djelatnici	Satisfaction with relationships in firm – management and administrative employees / Zadovoljstvo odnosima u tvrtki – upravni i administrativni djelatnici
Total / Ukupno	<p>Satisfaction in firms in total / Zadovoljstvo u tvrtkama ukupno</p> 	<p>Satisfaction in firms in total / Zadovoljstvo u tvrtkama ukupno</p> 
Firm 1 / Tvrтка 1	<p>Satisfaction in firm 1 / Zadovoljstvo u tvrtki 1</p> 	<p>Satisfaction in firm 1 / Zadovoljstvo u tvrtki 1</p> 
Firm 2 / Tvrтка 2	<p>Satisfaction in firm 2 / Zadovoljstvo u tvrtki 2</p> 	<p>Satisfaction in firm 2 / Zadovoljstvo u tvrtki 2</p> 



Legend: Percentage of employees from left to right: satisfied – moderately satisfied – unsatisfied
 Legenda: Slijeva na desno postotno učešće zaposlenih: zadovoljan – relativno zadovoljan - nezadovoljan

Graphs presented in Table 5 show that production workers are much more displeased with relationships within particular firms and in wood processing and furniture manufacturing firms in general. The percentage of very satisfied and satisfied employees with relationships within the firms among management and administrative employees is significantly higher than among production workers.

That fact can be noted in all graphs and for all questions and relationships. However, what is interesting is the fact that salary, i.e. the possibility of its growth, which was placed as fifth motivation factor which made all employees unsatisfied, and which management and administrative employees placed as second and production workers placed as fifth as the most important motivation factor, here, in questionnaire C, salary is most convincingly on the top as relationship factor of non satisfaction for all employees. Even 80 % of production workers and almost 50 % of management and administrative employees are unsatisfied or very unsatisfied with their salaries, while 78 % of production workers and even 66 % of management and administrative employees find the possibility of its growth unsatisfactory.

The second cause of dissatisfaction with relationships and situation within firms, for production workers as well as for management and administrative employees, is insufficient knowledge on the advantages firms offer to their employees, which is connected with the information that employees within a firm are provided with. Almost 85 % of production workers and 57 % of management and administrative employees do not know anything or know very little about the advantages enterprises offer to their employees.

All employees are most satisfied with their relationships with the firm and with the fact that they work exactly in that enterprise. Among production workers, 50 % of them and even 83 % among management and administrative

employees are satisfied with working exactly in that enterprise, 43 % of production workers and 69 % of management and administrative employees are satisfied with the work they are doing. However, a disturbing fact is that even 21 % of production workers are willing to change the job and enterprise they are working in (4 % of that would like to change the firm but to stay in the same industrial branch, while even 17 % would like to change both the firm and work). The percentage of management and administrative employees is 8 % (4 % would like to change just the firm, and 4 % would like to change both the firm and work).

5. Discussion and conclusion

The analysis of given research data and results showed that employees in the wood processing and furniture manufacturing, no matter which post they hold, are most satisfied with the fact that they are members of a particular enterprise. Most employees are satisfied with the work place safety, public enterprise reputation and relationships with the enterprise. These motivation factors are among those employees rated as the most important, as the ones they are satisfied with, on their posts and in their job. In these turbulent times for our economy, when relationships within industrial branches are changing rapidly, the safety of long-term employment is one of the most important motivation factors and employees in the wood processing and furniture manufacturing rated it very positively.

However, an average mark of 2,62 for production workers, i.e. 2,95 for management and administrative employees cannot make anyone satisfied. It means that employees in the wood processing and furniture manufacturing are not satisfied on their job and that they are not motivated enough to do their work in the best possible way.

Employees are most displeased with nourishment and with recreation space within the firm, i.e. with satisfying the basic physiological need. They are also dissatisfied with their salaries and possibilities for those salaries to grow. Although it is known that salaries in the wood processing and furniture manufacturing are not high and that the economic situation in the Republic of Croatia is unenviable, the fact that even 80 % of production workers are not satisfied with their salaries is very disturbing. Especially if that fact is related to the fact that 21 % of production workers are willing to change the work and the firm.

The Croatian wood processing and furniture manufacturing as one of the strategically interesting industrial branches, as well as all the other industrial branches in the Republic of Croatia, should put more effort into quality and should motivate their employees to keep their jobs and to contribute to the development and growth of the enterprise as well as the industrial branch. Internal relationships should play one of the most important roles within the firm and the satisfaction with co-workers at work as well as the quality level of satisfying the basic physiological needs of employees within the enterprise. Besides that, if the wood processing and furniture manufacturing is among a strategically important one for the Republic of Croatia and if it is of state interest, then it should be of interest to have motivated employees who will bring the wood processing and furniture manufacturing industrial branch to the position it deserves.

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