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## PARAMETERS WHICH INFLUENCE EMPLOYEE SATISFACTION IN PUBLIC SECTOR IN THE REPUBLIC OF CROATIA

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**Abstract:** *Employees are one of key factors of success of a company and as such represent the most important resource of every organisation. In order to efficiently and effectively complete the tasks assigned to them, employees need to be motivated and satisfied with the work they do. Human resources management is a complex and demanding process and tasks administered by human resources manager are by no means simple. Parameters of employee satisfaction differ in public and private sector. Research indicates that direct financial rewards are not the most important parameter of employee satisfaction.*

*Research conducted within this paper indicates that in the Republic of Croatia there are several relevant parameters of employee satisfaction and they are dependent on education, age, professional qualification level and length of service. Research results also indicate that informants are not of the opinion that salaries are based on work results. This research was a part of a bigger research conducted in public sector of the Republic of Croatia.*

**Keywords:** *public sector, motivation, leadership, management, employee satisfaction*

### 1. Introduction

Employee satisfaction is considered to be very important because it level of success and quality of business activity of every organisation, and it is defined as attitude of employees towards work, i.e. as positive emotional state which an individual has towards work. Since employees are the strength and the most important resource of every organisation, it is very important that they are satisfied with work and that they are highly motivated in administration of their

work tasks. What is more, a satisfied employee is also a loyal one, and connection between an organisation and employees is at present times immensely important because it reduces fluctuation of employees and increases productivity of workers. Social system of each organisation consists of people, their beliefs, skills, values, knowledge, needs, mutual relationships and rewarding system (Nograšek, 2011). Technical system of an organisation is therefore easier to manage, since it consists of processes, tasks and technology.

Public sector in Croatia is large and its efficiency mirrors the efficiency of the country in general. For that reason employee satisfaction in public sector is very important

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for society in general. In order to motivate employees, human resources managers use various rewarding systems like material or non-material incentives or various kinds of benefits. What is more, it is immensely important that human resources managers recognize in time signs of discontent among the employees because the consequences can be very harmful both for an individual and for the entire organisation.

In order to determine parameters which influence employee satisfaction the research was conducted where employees of public sector evaluated the offered satisfaction parameters. Obtained results and insights are outlined in the research-related part of this paper.

## **2. Parameters of employee satisfaction**

### **2.1. Satisfaction and loyalty of employees**

Since loyalty to an organisation is present in various forms, such as loyalty to organisation, leaders, team, objectives, profession and career, there are different definitions of this notion. It is defined as a strength of identification of an individual with an organisation or as an obligation which connects an individual with the organisation (Bakotić & Bušić, 2014). Scientific research frequently deals with the topic of employee discontent. Consequences of discontent are serious both for an individual and for the organisation, and they are manifested through decreased work productivity, increased absence from work and fluctuation of employees (Alegre et al., 2016). Loyalty, i.e. allegiance towards a company is an extremely important attitude and it is defined as state in which an employee identifies himself with the organisation and its objectives and expresses the wish to stay in the organisation (Markovina, 2013).

Loyalty to organisation is along with employee satisfaction increasingly in focus

of various research. One can differentiate between three components of loyalty to organisation: affective, instrumental and normative.

According to affective model, an employee expresses loyalty on emotional basis through his devotedness and identification with the organisation (Maslić Seršić, 2000). Instrumental component represents employee's awareness regarding the price of leaving the organisation. It emerges from the employee's need to act consistently to prior decisions and represents the relation of exchange of benefits between the employee and the organisation. Normative component is based on employee's feeling of obligation to stay in the organisation. It is developed through socialization and results in values according to which it is right to stay in the organisation. According to the above stated, affectively loyal employees stay in certain organisation because it is what they need, whereas normatively loyal employees because they feel it is morally right to stay there (Kutleša, 2005).

Although it is considered that behaviour at work depends on connection of employees with the organisation, all loyalty components should negatively affect decision of employee to leave the organisation. From affective loyalty it can be inferred that such employees aspire to contribute to the well-being of the achieve better work efficiency and they are not prone to leave the organisation. With instrumentally loyal employees there is danger that the feeling of lack of options will result in development of the feeling of frustration, which can result in undesirable forms of work behaviour. Due to the feeling of responsibility towards the organisation normative loyalty results in behaviour which is in line with the norms prescribed by the organisation and it has similar consequences as affective behaviour, but these consequences are not so prominently expressed.

Indicators state that emotionally loyal employees are more valuable to the

organisation than the others, whereas similar effect, although somewhat weaker, is achieved by normatively loyal employees. When it comes to instrumentally loyal employees, the employer can not expect readiness for additional engagement or maximum dedication to work and contribution to achieving objectives of the organisation (Kutleša, 2005).

At present time the connection between employees and organisation is very important. Belonging to a certain organisation has different meaning for employees and it also to a great extent impacts their lives. Members of successful organisation have a feeling of security and better life standard than employees of unsuccessful organisation. For that reason success of an organisation significantly influences the level of satisfaction and loyalty of employees (Barakat et al., 2016).

Satisfied employees believe in objectives and values of an organisation and they are proud to be its members. They are also more productive and show a higher level of efficiency. Therefore, organisational loyalty needs to be a two-way process where the organisation creates work environment which will positively and encouragingly affect satisfaction of its employees (Bakotić & Bušić, 2014).

Within research of employee loyalty in private and public sector administered on 100 informants, Klopotan et al. use research instrument consisting of twelve parameters, which are included in this paper. The research confirmed that salary and direct financial rewards are the most important parameters to employees in private sector, whereas women in public sector primarily prefer satisfaction with work and good work conditions (Klopotan et. al., 2016). In addition, a high percentage of 35% of informants evaluates salary as most important, and 40% of informants' rate safety of the work position as the most important parameter of employee satisfaction. This research will add new

parameters to the parameter of employee satisfaction, which were obtained in previous research of the author and research administered by other authors. this research is a part of a bigger research which should include all parts of the public sector and provide answer to the problem of keeping quality employees, especially young and educated ones, since this particular group increasingly looks for employment outside Croatia.

## 2.2. Characteristics of the public sector

Public sector of the Republic of Croatia is defined as state budget, local self-government units, budgetary and extra-budgetary users of the state budget and local and regional self-government budget (Šarić, 2014). Public sector is financed from the state, regional and local budget (Bakotić & Bušić, 2014). According to definition outlined by IMF, public sector consists of the state in general and its public companies.

General state is comprised of all the units whose task is to administer state functions and implement public policies through provision of non-market services. It is composed of all national and subnational units, extra-budgetary funds and all non-profit institutions (Bejaković et al., 2011). Public companies are companies owned by the state or under control of the state and they sell goods and services to wider public. However, in practice public company is every legally defined company in the field of offer of public services which is most frequently majority owned by the state or is under control of the state. It can therefore be stated that public company integrates the components of administration and market. Element of administration implies that the most important business decisions are made by the state as the owner, and decision criteria are related not only to financial benefits, but also to wider interests of the community. Profit, i.e. loss of business activity belongs to the state budget, therefore to the entire community and the company

also answers to the entire community regarding its business administration.

Market elements refer to expectations that the company is in the long run financially successful and subject to market evaluation, and that the process that public companies charge are based on cost of their business activity (Al-Sada et. al, 2017).

Public sector is financed from the state and/or local and regional budget. Success of the public sector is measured through the level of fulfilling the needs of individuals and community as a whole, whereas in the private sector success is measured by achieved profits (Vašiček, 2009).

Numerous research has dealt with the differences between these two sectors and established that there are separate approaches to managing public in comparison with the private sector (Gruening, 2001). Managers in public sector approach risks in a different way in comparison with the managers in private sector. They also have different approach to decision-making process. Research indicates that employees in public sector rate self-accomplishment, recognition, learning new things and interest in one's work as more important in comparison with the employees from the private sector (Danish & Usman, 2010). When it comes to social relations, it was established that employees of the public sector were less satisfied with interpersonal relations, and when it comes to feeling of belonging, no difference was observed between these two sectors. In terms of material rewarding, research results show no difference. Some research indicates that employees in public sector are to a lesser extent motivated with financial rewards, whereas other states that there is no difference in evaluation of salary between the employees of public and private sector (Dasgupta & Dubey, 2016).

Research in post-socialist countries administered in Bosnia and Herzegovina indicates that process-oriented management, i.e. management oriented towards defining

and integrating work processes in public administration increases efficiency and quality of public services (Salkić & Bošnjović, 2013).

### **2.3. Parameters which influence satisfaction and loyalty of employees**

Notions of motivation and satisfaction are frequently linked. However, motivation is linked to aspiration and effort in order to fulfil wishes and objectives, and satisfaction is related to fulfilment we feel after we achieved our objectives or fulfilled our wishes. Motivation therefore represents eagerness to achieve a result and satisfaction is the consequence of that result (Harris et. al, 2017).

Satisfaction with work is considered an important dimension of employee's life and relevant indicator of company's success. It is a prerequisite for achieving increase in productivity because satisfied employees are less absent from work, they are more productive and loyal and less likely to leave and work for another organisation.

Factors of satisfaction with work can be divided in two categories: personal and organisational. Since employees spend a big part of their time in the organisation, it is logical that organisational factors to a considerable extent affect their satisfaction (Maida et al., 2017).

Organisational factors include salary, participation in decision-making, safety of work position, interpersonal relations, work conditions, interest in work, acknowledgement for work well done etc.

Policy of earning and rewarding is not affected only by structure of employees and type of organisation, but also by situation at the labour market and legal regulations. It is important that the employers shows equal treatment to everybody in terms of salaries, because workers who feel that they were not adequately rewarded indicate signs of discontent leading to avoiding work, leaving work and building mistrust (Rahmić, 2010).

Participation in decision making implies a certain level of involvement of employees in decision making process. In this process associates are included in the problem solving process in order to achieve organisational objectives. Involvement of employees in decision making increases satisfaction level of employees, quality of work life and organisational success (Rahmić, 2010).

Causes of increasing uncertainty of work positions can be found in macroeconomic processes of globalisation of the world market and accelerated development of new technologies. Increasingly high unemployment rate, privatisation and restructuring of work organisations, redundancies and early retirements are all consequences of increased business insecurity. According to previously conducted research, security of work position is at the very top of the hierarchy of work-related values. Some employers use this situation as source of control of work behaviour of their employees, but (un)certainly is not that simple and sure since insecurity of work position is one of main causes of stress at work which can result in decreased motivation and negative consequences for the employee and the entire organisation (Maslić Seršić, 2009).

Through communication managers can significantly contribute to employee satisfaction. Style of management and communication is an important factor of employee satisfaction. Intensive communication contributes to team work and mutual trust (Yang & Junqi, 2016).

Good work conditions imply ensuring acceptable work conditions and quality of work life (Jambrek & Penić, 2008).

Interesting and challenging job surely contributes to motivation, whereas dull and boring job is the biggest obstacle for motivation to work. This is the reason why many big companies changed the technology of production on assembly lines in order to give more purposeness to work and avoid

demotivation and other negative consequences (Dev & Sengupta, 2017).

Advancement is an important factor of satisfaction with work because possibility to advance builds career development and is frequently linked with further education or training, since each individual aspires to personal success and looks for perspectives in terms of advancement (Choi & Whitford, 2017).

Fixed working hours in practice also mean shorter working hours and less overtime work (Sindik, 2013). Flexible working hours motivate employees and increase satisfaction because of more freedom in administration of work obligations and opportunity to establish balance between work and private life (Vlacsekova & Mura, 2017).

Personality, age, expectations, sex and education belong to the category of personal variables which influence employee satisfaction (Đokić et al., 2015).

Personal efficiency is when a person feels that they can get the work done, i.e. that they can complete a task. People with high personal efficiency choose more demanding tasks and set higher objectives (Đokić et al., 2015). It can therefore be stated that achievement of personal goals strengthens the feeling of self-confidence and increases satisfaction with work.

Research conducted in the field of human resource management in growing markets of knowledge economy indicates that companies can achieve quick growth if they employ fast enough a sufficient number of experts who are able to do quality work, provided that they are not overworked and paid more than average salary for that particular business activity (Pejić Bach et al., 2004). The same research indicates that a company which expects higher productivity of workers with average salary cannot expect growth, but stagnation, whereas increase of salaries results in growth, but it is not quicker than the one in companies with normal work conditions (Pejić Bach et al., 2004).

Research also shows that individual employees become unproductive in situations when they work too much, because such situations lead to the so called burnout effect (Pejić Bach et al., 2013).

### 3. Research of employee satisfaction

Overview of literature and scientific articles enabled us to collect all parameters of satisfaction known to us and which affect employees in public sector. Data was collected by means of CAWI method (Computer-assisted web interviewing) online survey questionnaire, sending a link through e-mail database to which we were allowed access for the purpose of this research. The research was conducted from 29 May-05 July 2017. The research comprised town administration, state agency, faculties, state administration office and one ministry. Out of the total number of 560 employees in researched offices, a link to the survey was sent to every second e-mail address, forming a sample of 280 informants. We collected 85 replies from informants, amounting to 30% of the entire sample. Survey questionnaire consists of two parts. The first part provides information about demographic characteristics of informants, and the second part consists of statements about relevant parameters which affect employee satisfaction. This paper is a part of a bigger

research administered in the public sector in the Republic of Croatia.

#### 3.1. Research results

The research was carried out on informants employed in the public sector of the Republic of Croatia. Out of the total number of informants 54,1% are women, and 45,9% men. The highest number of informants is between 31 and 40 years of age, 44,7%, and they also completed higher education (68,2%). most informants work on the work position of a clerk (74,1%), and 51,8% have been working up to 5 on current work position. 25,9% of informants work on management positions. Management position comprises work position of mayor, head of municipality, head of sector, ministers and their assistants. A high percentage of 85,9% informants are of the opinion that their work position is dynamic and interesting.

By means of evaluating reliability of parameters obtained in this research we established that Cronbach’s Alpha = 0,933. It can therefore be concluded that selection of parameters with relatively high reliability enables us to measure the concept of employee satisfaction.

Table 1 provides an outline of how the employees in the public sector assessed satisfaction parameters.

**Table 1.** Research instrument description job satisfaction parameters (Likert 1-5)

Item	Mean (St.dev)
JSP 1 – Good motivation for work	4,02 (.350)
JSP 2 - Salary	4,11 (.988)
JSP 3 – Good relationship with superiors	4,18 (.953)
JSP 4 – Good relationship with other employees	4,26 (.789)
JSP 5 – Successful team leader	4,07 (.923)
JSP 6 – Security of work position	4,15 (.893)
JSP 7 – Good work conditions	4,22 (.792)
JSP 8 – Advancement opportunities	3,81 (1,190)
JSP 9 – Status in organisation	3,36 (1,067)
JSP 10 – Work time	4,09 (.781)
JSP 11 – Participation in decision making	3,31 (1,124)
JSP 12 – Satisfaction with work	3,94 (.992)
JSP 13 – Organisation of work	3,82 (1,060)

**Table 1.** Research instrument description job satisfaction parameters (Likert 1-5) (continued)

Item	Mean (St.dev)
<b>JSP 14 – Direct financial rewards</b>	3,39 (1,292)
<b>JSP 15 – Indirect financial rewards</b>	3,41 (1,321)
<b>JSP 16 – Acknowledgement for a job well done</b>	3,52 (1,342)
<b>JSP 17 – Independence in work</b>	3,89 (1,000)
<b>JSP 18 – Feeling of accomplishment and success</b>	3,88 (1,106)
<b>JSP 19 – Achievement of personal goals</b>	3,78 (1,138)
<b>JSP 20 – Achievement of organisation’s objectives</b>	3,79 (1,076)
<b>JSP 21 – To which extent is the amount of salary a motivation factor of employee satisfaction</b>	4,38 (,723)
<b>JSP 22 – To which extent are salaries based on real work results</b>	2,62 (1,000)
<b>JSP 23 – To which extent do salaries stimulate better and more intensive quality work</b>	4,01 (1,018)
<b>JSP 24 – To which extent is the difference in salary between a clerk and management position a motivation factor in aspiration for advancement in the public sector</b>	3,81 (,852)
<b>JSP 25 – To which extent is the safety of work place and regular monthly salary motivation factor for employee satisfaction</b>	4,27 (,878)

Source: Authors’ work

The most important parameters in the public sector are: (i) amount of salary as motivation parameter for employee satisfaction, (ii) security of work position and regular salary, (iii) good relationship with other employees, (iv) good work conditions and (v) good conditions with superiors. Parameter which was assessed with the lowest grade was: to which extent are the salaries based on real work results.

Table 2 contains average grades of employee satisfaction with male and female informants. The most important parameter with female informants is the security of work position and regular salary, whereas male informants rated the amount of salary as the most important parameter. Statement that the salary is based on real work results was assessed with the lowest grade.

**Table 2.** Job satisfaction parameters for women and men

Item	Women total	Man total
<b>JSP 1</b>	4,00 (1,095)	4,05 (1,075)
<b>JSP 2</b>	4,02 (1,085)	4,21 (,864)
<b>JSP 3</b>	4,20 (1,003)	4,15 (,904)
<b>JSP 4</b>	4,24 (,848)	4,28 (,724)
<b>JSP 5</b>	4,11 (,900)	4,03 (,959)
<b>JSP 6</b>	4,15 (,816)	4,15 (,988)
<b>JSP 7</b>	4,24 (,848)	4,21 (,732)
<b>JSP 8</b>	3,76 (1,233)	3,87 (1,151)
<b>JSP 9</b>	3,43 (1,128)	3,28 (,999)
<b>JSP 10</b>	4,13 (,806)	4,05 (,759)
<b>JSP 11</b>	3,28 (1,047)	3,33 (1,221)
<b>JSP 12</b>	4,07 (,975)	3,79 (1,005)
<b>JSP 13</b>	3,98 (1,085)	3,64 (1,013)
<b>JSP 14</b>	3,33 (1,351)	3,46 (1,232)
<b>JSP 15</b>	3,37 (1,289)	3,46 (1,374)
<b>JSP 16</b>	3,50 (1,457)	3,54 (1,211)
<b>JSP 17</b>	3,89 (1,100)	3,90 (,882)
<b>JSP 18</b>	3,93 (1,162)	3,82 (1,048)

**Table 2.** Job satisfaction parameters for women and men (continued)

Item	Women total	Man total
JSP 19	3,70 (1,227)	3,87 (1,031)
JSP 20	3,85 (1,074)	3,71 (1,088)
JSP 21	4,30 (,756)	4,46 (,682)
JSP 22	2,61 (,977)	2,64 (1,038)
JSP 23	4,04 (1,010)	3,97 (1,038)
JSP 24	3,76 (,766)	3,87 (,951)
JSP 25	4,39 (,802)	4,13 (,951)

Note: Mean values and standard deviations are provided for each group

Informants that work in town administration assessed the amount of salary as the most important satisfaction parameter of work satisfaction. Informants that work in ministries were more in favour of security of work position, and informants from the state administration office mentioned security of work position and regular salary.

Informants employed in funds and agencies singled out good work conditions and good relationship with superiors as most important parameters of work satisfaction. All informants evaluated the parameter to which extent are the salaries based on true work results with the lowest grade.

### 3.1. Test of paper hypotheses

Population researched in this paper are employees of the public sector in the Republic of Croatia. The informants were divided according to sex, education, age and place of work in order to enable comparison of evaluation of relevant loyalty parameters. In this research we would like to test the following hypothesis:

**H1:** There is a difference in assessing key parameters of employee loyalty with reference to their sex, age, level of

education, position in the organisation, length of service and work position.

In this paper we will use Kruskal – Wallis test in the programme for statistical data processing SPSS, which is based on observation rating from samples. Zero hypothesis of the test is based on assumption that mean values of populations are the same for all population groups. In order to test zero hypothesis the informants were divided according to sex, education, age, position in the organisation and place of work. Assessment of data distribution normality administered by means of Kolmogorov – Smirnov normality test indicated that none of the variables show normal distribution of data.

This can be concluded due to the fact that the level of significance is lower than  $\alpha=0,05$  (Sig. < 0,05), i.e. it amounts to ~ 0,000 for all variables, making it possible to reject the assumption of normal distribution of data. Hypothesis test results indicate that at significantly relevant coefficient it can be concluded that there is a statistically relevant difference in key parameters of employee satisfaction related to age of informants, which affects their satisfaction with their work position, as indicated in table 3.

**Table 3.** Kruskal-Wallis test for different group – age of informants

Item	Chi - Square	df	Sig.
JSP 3	12,505	4	0,014**
JSP 5	10,773	4	0,029**
JSP 6	10,022	4	0,040**
JSP 19	10,385	4	0,034**

Source: Authors' work

Note: \*\* Statistically significant at 5%



Results of hypothesis test indicate that at statistically significant coefficient we can infer that there is a statistically significant difference in key parameters of employee

satisfaction related to education level of informants which influence their satisfaction with their work position, as outlined in table 4.

**Table 4.** Kruskal-Wallis test for different group – education level of informants

Item	Chi - Square	df	Sig.
JSP 5	11,299	3	0,010**
JSP 6	12,783	3	0,005***
JSP 8	13,561	3	0,004***
JSP 9	9,797	3	0,020**
JSP 11	12,780	3	0,005***
JSP 14	9,698	3	0,021**
JSP 15	14,017	3	0,003***
JSP 16	8,374	3	0,039**
JSP 18	11,730	3	0,008***
JSP 19	8,186	3	0,042**
JSP 23	11,394	3	0,010**
JSP 24	8,884	3	0,031**

Source: Authors' work  
 Note: \*\* Statistically significant at 5%; \*\*\* 1%

Results of hypothesis test indicate that at statistically significant coefficient it can be inferred that there is a statistically significant difference in key parameters of employee satisfaction related to length of service, which affects their satisfaction with their work position, as indicated in table 5.

Results of hypothesis test indicate that there is no statistically significant difference in key parameters of satisfaction of employees working in the public sector in terms of sex of informants, their position in the organisation and place of work.

**Table 5.** Kruskal-Wallis test for different group – length of service of informants

Item	Chi - Square	df	Sig.
JSP 2	11,009	4	0,026**
JSP 3	12,429	4	0,014**
JSP 5	10,953	4	0,027**
JSP 18	10,294	4	0,036**
JSP 19	10,379	4	0,035**

Source: Authors' work  
 Note: \*\* Statistically significant at 5%

In order to determine with certainty among which groups there is a statistically significant difference in perception of satisfaction parameters, we used the Post-hoc Mann-Whitney test.

observed with the following parameters: (i) successful team or organisation leader and (ii) secure work position, where we established a difference in perception between the younger informants from 21 to 30 years of age and all other older informants, whereas there was no significant statistical difference in the perception of this parameter among older informants.

Table 6 provides an outline of test results and level of test reliability among the groups related to the age of informants. The highest statistically relevant differences in perception of satisfaction parameters are

**Table 6.** Post-hoc Mann-Whitney test for different groups – age of informants (statistically significant differences)

Groups	Mann-Whitney U	Sig.
JSP 22 – age 21-30 and age 31-40	148,500	0,027**
JSP 5 - age 21-30 and age 41-50	79,500	0,005***
JSP 6 - age 21-30 and age 41-50	95,000	0,018**
JSP 9 - age 21-30 and age 41-50	105,000	0,047**
JSP 22 - age 21-30 and age 41-50	92,500	0,015**
JSP 3 - age 21-30 and age 51-60	2,500	0,002***
JSP 5 - age 21-30 and age 51-60	14,000	0,042**
JSP 6 - age 21-30 and age 51-60	14,500	0,048**
JSP 8 - age 21-30 and age 51-60	13,500	0,044**
JSP 6 - age 21-30 and age 61 <	3,500	0,016**
JSP 24 - age 21-30 and age 61 <	5,000	0,034**
JSP 1 - age 31-40 and age 41 -50	338,000	0,023**
JSP 5 - age 31-40 and age 41 -50	353,500	0,041**
JSP 12 - age 31-40 and age 41 -50	348,000	0,035**
JSP 13 - age 31-40 and age 41 -50	347,000	0,035**
JSP 18 - age 31-40 and age 41 -50	323,000	0,014**
JSP 19 - age 31-40 and age 41 -50	272,000	0,002***
JSP 3 - age 31-40 and age 51 -60	12,500	0,001***
JSP 8 - age 31-40 and age 51 -60	41,000	0,032**
JSP 2 - age 31-40 and age 61 <	16,500	0,027**

Source: Authors' work

Note: \*\* Statistically significant at 5%; \*\*\* 1%

Table 7 provides an outline of test results and level of test reliability considering the education level of informants. The highest statistically relevant differences in perception of satisfaction parameters are observed with the following parameters: (i)

secure work position, (ii) successful team or organisation leader, (iii) direct financial rewards, (iv) indirect financial rewards and (v) acknowledgement for work which was well done.

**Table 7.** Post-hoc Mann-Whitney test for different groups – education level of informants (statistically significant differences)

Groups	Mann-Whitney U	Sig.
JSP 2 – secondary- bachelor	26,000	0,016**
JSP 5 – secondary- bachelor	26,500	0,016**
JSP 6 – secondary- bachelor	33,500	0,044**
JSP 8 – secondary- bachelor	15,000	0,001***
JSP 9 – secondary- bachelor	22,500	0,008***
JSP 11 – secondary- bachelor	15,500	0,002***
JSP 12 – secondary- bachelor	28,000	0,025**
JSP 13 – secondary- bachelor	32,000	0,049**
JSP 14 – secondary- bachelor	20,500	0,006***
JSP 15 – secondary- bachelor	12,500	0,001***
JSP 16 – secondary- bachelor	25,500	0,015**
JSP 18 – secondary- bachelor	21,000	0,005***
JSP 19 – secondary- bachelor	14,500	0,002***

**Table 7.** Post-hoc Mann-Whitney test for different groups – education level of informants (statistically significant differences) (continued)

Groups	Mann-Whitney U	Sig.
JSP 20 – secondary- bachelor	27,500	0,021**
JSP 1 – secondary- univ.	200,500	0,040**
JSP 2 – secondary- univ.	186,000	0,020**
JSP 11 – secondary– univ.	157,500	0,006***
JSP 15 – secondary– univ.	149,000	0,004***
JSP 6 – secondary- Ph.D.	9,500	0,032**
JSP 23 – secondary- Ph.D.	10,500	0,045**
JSP 6 – bachelor - univ.	197,000	0,030**
JSP 8 – bachelor - univ.	131,500	0,001***
JSP 14 – bachelor - univ.	171,000	0,012**
JSP 15 – bachelor - univ.	186,500	0,025**
JSP 16 – bachelor - univ.	184,000	0,021**
JSP 18 – bachelor - univ.	172,500	0,011**
JSP 20 – bachelor - univ.	178,500	0,016**
JSP 24 – bachelor - univ.	183,000	0,017**
JSP 5 – bachelor - Ph.D.	4,000	0,004***
JSP 6 – bachelor - Ph.D.	3,000	0,002***
JSP 9 – bachelor - Ph.D.	7,500	0,014**
JSP 10 – bachelor - Ph.D.	8,000	0,018**
JSP 13 – bachelor - Ph.D.	9,500	0,028**
JSP 14 – bachelor - Ph.D.	8,000	0,019**
JSP 16 – bachelor - Ph.D.	10,000	0,035**
JSP 18 – bachelor - Ph.D.	7,000	0,010**
JSP 20 – bachelor - Ph.D.	7,500	0,039**
JSP 23 – bachelor - Ph.D.	3,500	0,004***
JSP 24 – bachelor - Ph.D.	8,000	0,019**
JSP 25 – bachelor - Ph.D.	11,500	0,044**
JSP 5 – university - Ph.D.	64,500	0,029**
JSP 6 – university - Ph.D.	46,500	0,008***
JSP 22 – university - Ph.D.	46,500	0,008***
JSP 23 – university - Ph.D.	42,000	0,006***

Source: Authors' work

Note: \*\* Statistically significant at 5%; \*\*\* 1%

Parameter of secure work position is very interesting because of different perception of all groups of informants with reference to their level of education.

Table 8 provides an outline of test results and level of test reliability considering the length of service of informants. The highest statistically relevant differences in perception of satisfaction parameters are observed with the following parameters: (i)

amount of salary, (ii) opportunity for advancement, (iii) accomplishment of personal goals (iv) amount of salary as motivation factor. The following parameters are specially interesting: (i) accomplishment of personal goals and (ii) amount of salary, because we observed different perception of informants that have up to 5 years of service and all other informant groups.

**Table 8.** Post-hoc Mann-Whitney test for different groups – length of service (statistically significant differences)

Groups	Mann-Whitney U	Sig.
JSP 18 – years 5 – 5 to 10	328,500	0,025**
JSP 19 – years 5 – 5 to 10	329,500	0,027**
JSP 20 – years 5 – 5 to 10	321,500	0,039**
JSP 22 – years 5 – 5 to 10	309,500	0,013**
JSP 2 – years 5 – 11 to 20	328,000	0,040**
JSP 3 – years 5 – 11 to 20	204,000	0,007***
JSP 5 – years 5 – 11 to 20	228,000	0,026**
JSP 19 – years 5 – 11 to 20	239,000	0,047**
JSP 25 – years 5 – 11 to 20	220,500	0,016**
JSP 1 – years 5 – 21 to 30	10,000	0,045**
JSP 2 – years 5 – 21 to 30	3,000	0,016**
JSP 3 – years 5 – 21 to 30	4,000	0,016**
JSP 5 – years 5 – 21 to 30	5,000	0,021**
JSP 7 – years 5 – 21 to 30	3,000	0,015**
JSP 8 – years 5 – 21 to 30	5,500	0,029**
JSP 13 – years 5 – 21 to 30	9,000	0,047**
JSP 14 – years 5 – 21 to 30	5,000	0,030**
JSP 15 – years 5 – 21 to 30	7,000	0,042**
JSP 16 – years 5 – 21 to 30	5,000	0,029**
JSP 18 – years 5 – 21 to 30	7,000	0,033**
JSP 19 – years 5 – 21 to 30	9,000	0,045**
JSP 20 – years 5 – 21 to 30	8,500	0,044**
JSP 21 – years 5 – 21 to 30	5,000	0,021**
JSP 24 – years 5 – 21 to 30	7,500	0,033**
JSP 2 – years 5-10 – 21 to 30	3,500	0,039**
JSP 8 – years 5-10 – 21 to 30	2,000	0,030**
JSP21 – years 5-10 – 21 to 30	1,000	0,014**
JSP8 – years 11-20 – 21 to 30	2,000	0,043**
JSP21–years 11-20 – 21 to 30	3,000	0,050**
JSP24–years 11-20 – 21 to 30	3,000	0,048**

Source: Authors' work

Note: \*\* Statistically significant at 5%; \*\*\* 1%

Hypothesis of this paper is H1: There is a difference in evaluation of key parameters of employee loyalty considering their sex, age and level of education, position in the organisation, length of service and place of work.

Considering the fact that there was no confirmation of statistically relevant difference in key parameters of satisfaction of employees that work in public sector in terms of sex of informants, position in organisation and place of work, and since research results indicate that there is a

statistically relevant difference in evaluation of parameters in terms of age, level of education and length of service of informants, the hypothesis can be partially accepted.

#### 4. Discussions and conclusion

Motivated by the need for additional research of satisfaction and loyalty of employees in the public sector in Croatia, this paper is a very useful source for research and individuals who manage organisations

because results of this research refer to one of the most important resources of companies – the human factor. Lack of successful management and rewarding of employees in the public sector leads to decreased efficiency of employees, and topics such as measurability of work, efficiency, rewarding, career advancement etc. have for years been the topic of public discussions. Research administered by other authors indicates the possibility to manage and encourage satisfaction and loyalty of employees and thus increase the efficiency of the public sector. Within research and comparison of public and private sector Klopota et al. confirm that there are significant differences in motivation parameters. In the public sector they primarily relate to satisfaction with work and good work conditions, whereas in the private sector they refer to salary and direct financial rewards. Similar results were obtained in the research administered by Shrivastava and Purang (2009), Saner and Eyupoglu (2015), Kumar (2016) carried out in the private and public sector, which indicates that in private sector the informants were more pleased with salary and financial rewards. Direct financial rewards are not the main motivating factor of employees in the public sector, but they remain one of the basic motivating factors.

In their research on satisfaction of employees of public and private sector Bajpai and Srivastava (2004) come to a conclusion that threats like being made redundant, lowering social welfare, quicker work turnover and smaller possibility of growth and development increase dissatisfaction with work and organisation. Level of satisfaction with work increases the security of work position, social welfare policies and job stability.

Results of our study, which are typical for our country, indicate that this model is applicable to Croatian context. Although most informants are of the opinion that their work position is dynamic and interesting, the perception of slow and inefficient public

administration has been present in general public for years. The paper sheds light on relation of relevant parameters of satisfaction and loyalty of employees in the public sector with reference to demographic differences and position in the organisation. The research established a positive difference and nature of relation along with achievement of moderately higher predictability when including a model in practical application. The research confirmed the fact that differences in terms of quality of work organisation, quality of human resources management and transparent conditions for growth and advancement of employees which should be accompanied by financial reward in terms of higher salary for increased quality of work, play a key role in influencing perception of employees regarding their satisfaction with work.

#### **4.1. Conclusion**

This research confirmed that there are several parameters of employee satisfaction and that they depend on education, age, qualification level and length of service in public sector. Researched population are employees in public sector in the Republic of Croatia. The research was conducted on one part of the public sector in the Republic of Croatia: town administration, state agency, faculties, state administration office and one ministry.

Along with scientific contribution of research of employee satisfaction, this paper also offers the possibility of practical application through providing guidelines for development of management of employee satisfaction in the Republic of Croatia. Practical application of this paper consists of application of relevant parameters which were tested within this research. Evaluation of informants generates guidelines for further research of key parameters of employee satisfaction. Future research should include the remaining parts of the public sector, for example health sector.

Scientific contribution of this paper is reflected in establishing parameters which are differently assessed by the informants with reference to their age, level of education and length of service, which were also confirmed by means of a statistical test. These parameters are: (i) amount of salary, (ii) good relationship with superiors, (iii) successful team leader, (iv) security of work position, (v) opportunity for advancement, (vi) status in the organisation, (vii) participation in decision-making process, (viii) direct financial rewards, (ix) indirect financial rewards, (x) acknowledgment for a job well done, (xi) feeling of achievement and success, (xii) accomplishment of personal goals, (xiii) accomplishment of company's objectives (xiv) salary as stimulation for increased quality of work and (xv) difference in salary between clerk and management position as motivation factor for advancement.

Data obtained for the following parameters are specially interesting: (i) successful team or organisation leader and (ii) security of work position, where we established different perception of younger informants between 21 to 30 years of age and all other older informants, whereas there was no significant statistical difference in the perception of this parameter among older informants. When observing the informants in terms of their education level data indicates that at parameter of security of work position there is a different perception of all informant groups regarding their education level. When we observe the informants according to their length of service, these parameters are specially interesting: (i) accomplishment of personal goals and (ii) amount of salary, because the research established different perception between the informants with up to 5 years of service and all other informant groups.

Hypothesis of this paper is only partly

confirmed, because there was no confirmation of the statistically relevant difference in key parameters of satisfaction of employees in public sector related to sex of informants, their position in the organisation and place of work. Statistically relevant difference was observed in evaluation of parameters of employee satisfaction regarding their age, education level and length of service, which allows for hypothesis of this paper to be partially accepted. Some of the parameters obtained within this research are: (i) professional development, (ii) professionalism and legitimacy at work, (iii) independence from politics, (iv) clear criteria for advancement, (v) separation of politics and profession (vi) visible contribution and satisfaction of citizens with the work. The informants entered these parameters, which they considered relevant, in the empty table in the questionnaire. Obtained parameters will be included in further research.

One of the limiting factors of this research refers to the fact that collection of data was restricted only to one part of the public sector. In order to increase the applicability of data the study should be extended to health and education sector, companies of public interest, institutions that represent local and regional administration, state-owned companies and state administration. Another limitation refers to collection of data in a certain time period. Future studies can deal with this aspect by means of administering longitudinal studies. This would enable measuring true advancement in management of satisfaction and loyalty of employees in the public sector of the Republic of Croatia. Thirdly, the research analysed only direct relations within the model, and one needs to keep in mind that there are other factors that also contribute to satisfaction of employees and that they too need to be included in further research.

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