

Dimitrije Gašić, Nemanja Berber*, Agneš Slavić
University of Novi Sad, Faculty of Economics in Subotica, Serbia

Effects of the Compensation System and Socio-demographic Factors on the Attitudes of Employees in the Republic of Serbia

DOI: 10.7595/management.fon.2022.0016

Abstract:

Research Question: What are the effects of employees' reward system and socio-demographic factors on the attitudes of employees (job satisfaction, engagement and organizational commitment of employees) in the Republic of Serbia? **Motivation:** Due to the increasing globalization and the emergence of crises that directly impact the compensation system in the Republic of Serbia, the authors conducted research on this topic to determine the current situation, and to investigate the effects on employees' attitudes. **Idea:** The idea for the research was created due to a relatively small number of research dealing with this topic in Serbia, but also in the world literature. **Data:** The research was conducted in the period from March to July 2022 on a sample of 764 employees from various companies in the Republic of Serbia. Data collection is performed via an electronic questionnaire Google Forms, where respondents had the opportunity to answer the questions posed in the questionnaire at any time through their electronic devices. **Tools:** Data analysis was performed using reliability statistics (observation value of Cronbach's Alpha Based on Standardized Items) and multiple regression analysis between predictors: (constant), compensation system and socio-demographic indicators (education, age, and gender) according to three dependent variables related to employee attitudes (job satisfaction, engagement, and organizational commitment). Data processing was conducted using IBM SPSS Statistics 26. **Findings:** The results indicate that there is a positive statistically significant relationship between age, level of education, and compensation system with job satisfaction. In the case of employee engagement, only the compensation system indicated a positive and statistically significant relationship, while socio-demographic factors do not have a statistically predictive effect. In the case of organizational commitment as a dependent variable, level of education, and compensation system are statistically significantly related to organizational commitment. **Contribution:** This scientific research expands the existing research on the effects of the compensation system and socio-demographic factors on employees' attitudes in the Republic of Serbia.

Keywords: Compensation system, socio-demographic factors, attitudes of employees, Republic of Serbia

JEL Classification: J10, J33

1. Introduction

The term human resources include the knowledge, skills, attitudes, and abilities of employees that are important for the functioning of modern organizations. Gasic (2021) points out that creative and productive employees are of great importance for a successful business. One of the most important HR components for increasing employee satisfaction and loyalty is an adequate compensation system to simultaneously ensure the balance between the goals of employers and employees, i.e., job satisfaction, purchasing power, and business success of the company. In unstable business conditions, such as crisis periods, determining the amount of the basic salary, choosing adequate incentives, as well as offering different benefit packages, is of special importance for both employers and employees.

The compensation policy has a direct impact on the competitiveness of the company. This competitiveness of companies on the labor market is established by creating attractive and above-average compensation packages, while, on the other hand, price competitiveness on the product market is achieved if the policy

*Corresponding author: Nemanja Berber, e-mail: nemanja.berber@ef.uns.ac.rs

of paying employees is lower than the average in the industry, through lower labour costs; it will affect the reduction of the cost price of products and services. In addition to competitiveness, earnings affect satisfaction, motivation at work, employee behaviour, organizational performance, etc. (Berber, 2015, p. 98). Compensation represents one of the most important tools in human resource management. The effective design of the compensation system has a significant impact on the development of the organization by revealing external competitiveness, internal fairness, and individual fairness. External competitiveness attracts talent while internal equity helps companies retain talented employees by ensuring that employees who make the same contribution receive the same compensation. Individual equity allows employees to feel that their potential is fully rewarded (Lai, 2011). Several previous research studies pointed on positive relations between the compensation system and employees attitudes (job satisfaction, commitment, work engagement) (Lai, 2011; Judge et al., 2010; Yaseen, 2013; Maisoni et al., 2019; Tumi et al., 2022).

For the purpose of this study, three attitudes of employees will be investigated. The first one is job satisfaction. There is no universally accepted definition of job satisfaction, as is often the case when trying to define the concept of social science. According to the author Locke (1970), job satisfaction represents a positive state of mind that is a consequence of the enjoyment of the individual during his/her work. This definition of job satisfaction appears to be the most widely used and accepted, defining an essential element for discovering what the broader concept of job satisfaction entails (Khan et al., 2021). The second one is work engagement, which can be defined as "a positive, fulfilling work-related state of mind characterized by energy, commitment, and absorption." (Saks, 2022). The authors Yustrilia et al. (2022) explain the three elements of engagement: vigour (characterized by the existence of a high level of energy and mental resilience at work, and the desire to make an effort at work and be persistent despite difficulties); dedication (refers to one's deep involvement in one's work and feeling that it is meaningful, enthusiastic, inspired, proud and challenging); absorption (which is characterized by full concentration and enjoyment of one's work so much that time does not seem to have passed quickly). The third one is organizational commitment, which represents the mental connection of an individual with the organization in which he/she works (Mahmood Aziz et al., 2021; Ehrhardt et al., 2011; Suarez-Albanchez et al., 2021), and the relative strength of an employee's identification with a certain organization and the degree of involvement in its business activities and reflects the employee's willingness to make an above-average effort to preserve his position in the work collective (Ferris & Aranya, 1983; Jolovic & Berber, 2021). Organizational commitment of employees is characterized by three dimensions - identification, extra effort, and desire to stay (Cook & Wall, 1980) each of which symbolizes the intensity of commitment that the employee has towards the organization.

Besides compensation, interesting investigations were made regarding the effects of demographic factors on employees' attitudes. Demographic factors are personal statistics related to gender, age, education level, marital status, family size, occupation, nationality, ethnicity, race, religion, etc. (Cantiello et al., 2015). There are several studies that found quite ambiguous relations between demographic factors and employees' attitudes all around the world (Crossman & Abou-Zaki, 2003; Schaufeli et al., 2006; Vanam, 2009; Viet, 2015; Rahman et al., 2020; Marcoux et al., 2021). Several studies proved that there are relations between gender, age, educational level and other factors and employees' attitudes, but also, some studies did not prove these relations. That is why the present study will try to reveal mentioned relations in the context of the Republic of Serbia.

The aim of this research is related to the analysis of the effects of the employees' compensation system and socio-demographic factors on employees' attitudes in the Republic of Serbia. The problem as well as the reason for the research is in the fact that there are insufficient number of studies that were based on the research of this topic.

The research consists of five parts. The first part refers to the introduction where the authors explain the importance of the compensation system for organizations as well as its importance for employees. The second part refers to the theoretical background of the research, where the authors explain the concept, elements, and importance of the compensation system, relations between the compensation system and employee attitudes such as job satisfaction, engagement, and organizational commitment, and between demographic factors and employees' attitudes. The third part refers to the research methodology, where the authors present and explain the questionnaire that was used to collect the data and the obtained sample. The fourth part refers to the presentation of the research results as well as the discussion, where the authors present the results of reliability statistics and multiple regression analysis using the IBM SPSS Statistics 26. Finally, in the last part, the authors point out the most significant results obtained and make a comparison with the previous research and then point to suggestions for future research, implications, and limitations of the research.

2. Theoretical Background

2.1. Compensation in HRM

The author Martocchio (2017, p. 188) points out that the award represents compensation, earnings and stimulation, the purpose of which is to motivate employees. He also points out that compensation represents intrinsic (internal) and extrinsic (external) rewards to employees for performing work. The internal ones regulate the psychological state of employees as a result of the work done, they are in charge of organizational development professionals, while external compensations include monetary and non-monetary rewards, and they are mainly in charge of compensation managers. Compensation can also be seen as a direct financial cost for organizations. Costs can include a significant amount of total business costs, in some countries they make up to 60% of total business costs; this is exactly the reason that compensations are seen as investments that result in additional value for the organization (Stangl Susnjar et al., 2017, p. 453). Fay and Thompson (2001) point out that compensation plays a significant role in attracting employees with high potential, as well as in retaining the existing ones.

Table 1: Elements of the compensation system

Basic rate	It represents the minimum amount of salary, which in some cases is the standard salary that the employee receives, while in other cases it is supplemented with other salary elements. It usually expresses the value of the job or skills, and ignores the diversity of each employee.
Incentive	It is determined based on the individual or group performance of employees. Employees in the organization should know what is expected of them in order to be able to control the success factors of their own performance. There are three levels of observation of stimulations, namely stimulations at the individual level, group level, and organizational level. Also, they can be viewed as short-term incentives (related to the achievement of the organization's short-term goals, most often annual, quarterly or monthly financial performance of the organization. One example is a bonus, which can be in a fixed amount or as a percentage of the basic salary), long-term incentives (refer to payments to employees if they achieve the long-term goals of the organization, such as the economic value of profitability, market participation, etc. An example of long-term stimulation is usually financial participation in the ownership of the organization, and it is mainly paid to managers).
Benefits	They represent benefits above the basic and incentive salary for employees. Most often, they represent elements of non-monetary benefits that compensate the efforts of employees in the form of certain benefits that they receive in order to improve their standard of living and meet various needs. Benefits differ according to their function: benefits during absence from work (unemployment insurance, holidays and vacations, sick leave, maternity leave, etc.), pensions, insurance (health insurance, additional health and life insurance), but also for specific services to employees (credit unions, kindergarten, mobile phone, company cars, recreation, etc.)

Source: the authors based on Stangl Susnjar et al. (2017, p. 457), Berber (2015, p. 107-109) and Martocchio (2017, p. 209).

2.2. Relationship between compensation system, socio-demographic factors and attitudes of employees

There are several studies that tried to reveal the relationships between socio-demographic variables and employee attitudes. In the study of Rahman et al. (2020), statistically significant relations were found between sex, age, salary, and family income with job satisfaction, while education level and geographic location did not show any significant relationship with job satisfaction. Crossman and Abou-Zaki (2003) found that female employees were found to be less satisfied with all facets of job satisfaction, except pay. Employees with lower educational qualifications were least satisfied on the job. Marcoux et al. (2021) found that the more work experience the employees had, the more they displayed affective and normative commitment and the higher the hierarchical status of the employees, the less they displayed calculative commitment. Also, in a study that was conducted to determine the demographic factors that affect organizational commitment of university lecturers, results showed that there was a low correlation between years of work and continuance commitment, gender and affective commitment, educational level and normative commitment, a moderate correlation between position hold and affective commitment, and low negative correlation between age and

normative commitment (Viet, 2015, p. 16). Chaudhary and Rangnekar (2017) investigated the effects of gender, age, education, income, nature of organization, position in organizational hierarchy, and job tenure on work engagement in India. On a sample of 404 business executives from select public and private sector organizations in India the authors found that there are significant differences in the work engagement level of employees with different demographic and job characteristics, such as age, nature of organization, position in the organizational hierarchy, income, etc. Schaufeli et al. (2006) found no significant differences in the work engagement levels of men and women, and no relationship between age and work engagement. Vanam (2009) found a positive correlation between education level and work engagement, which means the more educated the respondents were, the higher their work engagement was. Although the presented research did not give an unambiguous proof of the effects of demographic factors on attitudes of employees, according to Balain and Sparrow (2009), demographics can have an impact on employee attitudes, and therefore, it is important to investigate them as independent variables.

In addition to demographic factors, this paper also investigates the effects of compensation system on employees' attitudes. According to Lai (2011), research through multiple regression analysis indicated a positive and statistically significant relationship between the compensation system (job-based pay, skill-based pay, and performance-based pay) and job satisfaction. Analysis of variance reveals that age difference has a significant moderating effect on the correlation between employee satisfaction and skill-based pay, and performance-based pay. Different levels of education have a significant moderating effect on the correlation between job satisfaction and job-based pay, skill-based pay, and performance-based pay, too. Judge et al. (2010), Yaseen (2013), and Bashir et al. (2011), showed that the level of pay and a better structured compensation system have a positive relationship with employee satisfaction. Ashraf (2020) indicated that although demographic factors do not have a direct effect on organizational commitment, they have an indirect effect on organizational commitment through the mediation of the compensation structure and job satisfaction at the university. In addition, compensation structure also has a significant mediating role in the relationship between demographic structure and faculty job satisfaction. Authors from China investigated the relationships between salary satisfaction and work motivation of employees of sales department managers of a mobile phone manufacturing company using the Chi-squared test and Pearson correlation. Research has shown that satisfaction with earnings can be a motivation factor for work (Berber, 2015, p. 99). The analysis made by authors Maisoni et al. (2019) indicated that an adequate compensation system has a significant and positive effect on employee engagement in Coca-Cola Amatil Indonesia Central Sumatra. This shows that compensation significantly contributes to employee engagement. This means that the higher or better the level of compensation, the more the employee's commitment will increase. Koskey (2015) pointed out that one of the ways that has a positive impact on increasing employee engagement is the use of rewards. In every organization, it is important to establish an effective reward system that would meet the needs of its human resources. The reward system consists of monetary or non-monetary, tangible or intangible, physical or psychological rewards, and are offered to employees as compensation for the productive work they perform. Tumi et al. (2022) showed that the compensation system and job satisfaction have a positive impact on organizational commitment. In their research carried out in telecommunications companies, they state that companies should formulate a specific employee reward system consisting of monetary and non-monetary compensation based on a study that found a positive impact on employee motivation and commitment. Results of Trisnawati et al. (2022) proved that demographic factors have a negative and significant impact on organizational commitment and compensation. However, compensation has been proven to have a positive and significant impact on job satisfaction and organizational commitment. Compensation has also been shown to mediate the relationship between demographic factors with job satisfaction and organizational commitment. In addition to having a significant effect on organizational commitment, job satisfaction also mediates the relationship between compensation system and organizational commitment.

Based on the aforementioned, the authors proposed the following hypotheses:

H1: Socio-demographic variables affect employees' attitudes (engagement, job satisfaction, and organizational commitment).

H2: Compensation system affects employees' attitudes (engagement, job satisfaction, and organizational commitment).

3. Methodology

In order to collect data for the research, the authors compiled an electronic Google Forms questionnaire consisting of three parts. The first part was related to socio-demographic factors such as gender, age and education of the employees. The second part considered issues related to the evaluation of the compensation system, and the third part was related to employee attitudes such as job satisfaction, engagement, and or-

ganizational commitment. In response to the difficulties in measuring character and personality traits, Likert developed a procedure for measuring attitudes using a scale (Boone & Boone, 2012). Respondents answered the questions in the questionnaire based on the Likert scale in the range of 1 - 5. (1 = strongly disagree, 5 = strongly agree). In the questionnaire, mark (R) indicates that the item is reverse coded.

3.1. Independent variables

The compensation system comprises of salary, incentives, and benefits, and it is based on measured performances of employees. The first and second questions from Table 2 represent “*Performance appraisal*”, and the other questions (3-8) represent “*Compensation*” in our model research. Questions from 3 to 8 are related to basic salary, incentives (bonuses and pay for performance), and benefits.

Table 2: Questionnaire on performance appraisal and compensation of employees

1	Periodic evaluation of my performance.
2	Fair appraisal of my performance.
3	Performance-related pay.
4	A bonus which depends on the organization’s profit.
5	A competitive salary.
6	An above-average salary for this function.
7	A fair compensation system.
8	An attractive benefit package.

Source: Boon et al. (2011).

Demographic factors we used in the model are gender (male/female), age (fewer than 25 years of life, from 25 to 34, from 35 to 44, from 45 to 55, and over 55 years old), and educational level (high school, three-year vocational studies, university bachelor, university master, and PhD level).

3.2. Dependent variables

Job satisfaction can be defined as an individual's cognitive, affective, and behavioural response to their job (Bakhshi et al., 2009). The work by author Weiss (2002) cites a quote by Locke from 1969, where job satisfaction is defined as "a pleasant emotional state that results from evaluating one's job as achieving or facilitating one's work values". This variable consists of 5 questions (Table 3) and it represents an overall job satisfaction index of employees.

Table 3: Job satisfaction questionnaire

1	I like the kind of work I do.
2	I like my job better than the average worker does.
3	I find real enjoyment in my work.
4	I feel a great sense of personal satisfaction when I do my job well.
5	Considering everything, I'm satisfied with my job.

Source: Morgeson & Humphrey (2006).

Work engagement is defined as a positive, affective and motivational state of high energy of employees combined with their high level of commitment and a strong focus on work (Timms et al., 2015). This variable consists of 9 questions (Table 4) and it represents an overall work engagement index of employees.

Table 4: Questionnaire to measure work engagement

1	At my work, I feel bursting with energy.
2	At my job, I feel strong and vigorous.
3	I am enthusiastic about my job.
4	My job inspires me.
5	When I get up in the morning, I feel like going to work.
6	I feel happy when I am working intensely.
7	I am proud of the work that I do.
8	I am immersed in my work.
9	I get carried away when I am working.

Source: Schaufeli et al. (2006); De Bruin & Henn (2013).

McCaul et al. (1995) define **organizational commitment** as “an attitude that employees have towards the organization – an affective and evaluation reaction towards the organization”. This variable consists of 6 questions (Table 5) and it represents an overall organizational commitment index of employees.

Table 5: Organizational Commitment questionnaire (OCQ)

1	I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.
2	I find that my values and the organization's values are very similar.
3	I am proud to tell others that I am part of this organization.
4	It would take very little change in my present circumstances to cause me to leave this organization. (R)
5	There's not too much to be gained by sticking with this organization indefinitely. (R)
6	Deciding to work for this organization was a definite mistake on my part. (R)

Source: Yousef (2003).

The research was conducted in the period from March to July 2022 on a sample of 764 employees from various companies in the Republic of Serbia. Data collection is performed via an electronic survey Google Forms, where respondents had the opportunity to answer the questions posed in the questionnaire at any time through their electronic devices. The rate of response was 25.4%.

Table 6: Sample characteristics – socio-demographic

Gender	Number	Percent
Male	311	40.7
Female	453	59.3
Total	764	100.0
Age	Number	Percent
Fewer than 25	113	14.8
25 - 34	259	33.9
35 - 44	196	25.7
45 - 55	135	17.7
Older than 55	61	8.0
Total	764	100.0
Education	Number	Percent
High School	213	27.9
Three-year vocational studies	108	14.1
Bachelor	247	32.3
Master study	176	23.0
Master (Serbian version)	7	0.9
PhD study	13	1.7
Total	764	100.0

Source: authors' research.

Based on the data presented in Table 6, the largest number of respondents belong to the female population (59.3%), while the rest belong to the male population (40.7%). Analyzing the age structure of the respondents, we can establish that the largest number of respondents are between 25-34 years old, while the smallest number of them indicated that they have more than 55 years. In case of the educational structure, the largest number of employees have a bachelor's degree (32.3%), while the smallest number of them master's (Serbian version), only 0.9%. The sample consists of employees on managerial and professional positions.

4. Results

The first group of the results presents the reliability analysis. Some of the authors recommend the lowest acceptable limit of Cronbach's Alpha be 0.6 (Dakduk et al., 2019; Gasic & Berber, 2021; Berber et al., 2022). According to the data shown in Table 7, Cronbach's Alpha ranges from 0.784 (Organizational commitment), 0.886 (Compensation system), 0.917 (Job satisfaction) to the highest value recorded by Engagement of 0.933. The results indicate that the items in the questionnaire have a high internal consistency.

Table 7: Reliability statistics

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Compensation system	0.885	0.886	8
Job satisfaction	0.917	0.917	5
Engagement	0.934	0.933	9
Organizational commitment	0.781	0.784	6

Source: authors' research.

The second part of the analysis was dedicated to researching the relationship between gender, age, education, and the compensation system according to their attitudes such as job satisfaction, organizational commitment and engagement. The authors used regression models to investigate the proposed relationships. Multicollinearity, which often occurs in analyzes due to high intercorrelation of variables, was analyzed. The model didn't achieve multicollinearity because the VIF coefficients were lower than 3.3 (Kock, 2015).

According to the data in Table 8, the R-value for the first model (where the dependent variable is employee satisfaction) of 0.427 indicates a good level of prediction. The coefficient of determination R² is 0.183, which means that the model explains 18.3% of the variance of employee satisfaction. The basic model was significant (F (4, 759) = 42.362; p < 0.05).

Table 8: Model 1 summary – Job satisfaction

Model	R	R Square	Adjusted R Square	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
1	.427^a	0.183	0.178	0.183	42.362	4	759	0.000
a Predictors: (Constant), Compensation system, Education, Age, Gender								
b Dependent Variable: Job satisfaction								

Source: authors' research.

According to the data shown in Table 9, the first model is statistically significant. The F-ratio in the table showed that the regression model fit the data well. The independent variables in the model statistically predict the dependent variable (job satisfaction) F (4, 759) = 42.362, p < 0.05.

Table 9: Model 1 ANOVA – Job satisfaction

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	108.909	4	27.227	42.362	.000^b
	Residual	487.832	759	0.643		
	Total	596.741	763			
a. Dependent Variable: Job satisfaction						
b. Predictors: (Constant), Compensation system, Education, Age, Gender						

Source: authors' research.

Based on the results of the regression model with job satisfaction as a dependent variable shown in Table 10, age, education, and compensation system are statistically significantly related to job satisfaction because of the value of Sig. < 0.05. According to the positive beta coefficient, age of respondents in the sample predicted job satisfaction ($\beta = 0.057, p < 0.05$). The level of education of employees has a positive and statistically significant predictive effect job satisfaction ($\beta = 0.072, p < 0.05$), too. Perceived compensation system has a positive and statistically significant predictive effect on job satisfaction ($\beta = 0.376, p < 0.05$), too.

Table 10: Model 1 coefficients – Job Satisfaction

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	VIF
		B	Std. Error	Beta			Tolerance	
1	(Constant)	2.252	0.174		12.946	0		
	Gender	0.078	0.06	0.043	1.292	0.197	0.954	1.048
	Age	0.057	0.026	0.075	2.22	0.027	0.956	1.046
	Education	0.072	0.024	0.1	2.976	0.003	0.949	1.054
	Compensation s.	0.376	0.03	0.418	12.439	0.000	0.953	1.049
a Dependent Variable: Job satisfaction								

Source: authors' research.

According to the data in Table 11, the R-value for the second model (where the dependent variable was employee engagement) of 0.288 indicates a good level of prediction. The coefficient of determination, R^2 is 0.083, which means that the model explains 8.3% of the variance of employee engagement. The basic model was significant ($F(4, 753) = 17.074; p < 0.05$).

Table 11: Model 2 summary – Engagement

Model	R	R Square	Adjusted R Square	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
2	.288 ^a	0.083	0.078	0.083	17.074	4	753	0.000
a. Predictors: (Constant), Compensation system, Education, Age, Gender								
b. Dependent Variable: Engagement								

Source: authors' research.

The second model is also statistically significant. The F-ratio in Table 12 showed that the regression model fits the data well. The independent variables in the model statistically predict the dependent variable (employee engagement) $F(4, 753) = 17.074, p < 0.05$.

Table 12: Model 2 ANOVA – Engagement

Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	52.862	4	13.216	17.074	.000b
	Residual	582.831	753	0.774		
	Total	635.693	757			
a Dependent Variable: Engagement						
b Predictors: (Constant), Compensation system, Education, Age, Gender						

Source: authors' research.

Based on the results of the regression model given in Table 13, only employee compensation system has a positive and statistically significant relationship with employee engagement, while the socio-demographic factors haven't a statistically predictive effect on work engagement. Compensation system has a positive and statistically significant predictive effect on employee engagement ($\beta = 0.253; p < 0.05$).

Table 13: Model 2 coefficients – Engagement

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	VIF
		B	Std. Error	Beta			Tolerance	
2	(Constant)	2.736	0.191		14.335	0.000		
	Gender	0.066	0.067	0.035	0.991	0.322	0.952	1.050
	Age	-0.037	0.028	-0.047	-1.309	0.191	0.955	1.047
	Education	0.024	0.027	0.032	0.885	0.377	0.946	1.057
	Compensation s	0.253	0.033	0.273	7.628	0.000	0.954	1.049
a. Dependent Variable: Engagement								

Source: authors' research.

According to the data in Table 14, the R-value for the third model (where the dependent variable was organizational commitment) of 0.555 indicates a good level of prediction. The coefficient of determination R^2 is 0.308, which means that the model explains 30.8% of the variance of organizational commitment. The basic model was significant ($F(4, 759) = 84.491; p < 0.05$).

Table 14: Model 3 summary – Organizational commitment

Model	R	R Square	Adjusted R Square	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
3	.555 ^a	0.308	0.304	0.308	84.491	4	759	0.000
a. Predictors: (Constant), Compensation system, Education, Age, Gender								
b. Dependent Variable: Organizational commitment								

Source: authors' research.

The third model is also statistically significant. The F-ratio in Table 15 showed that the regression model fits the data well. The independent variables in the model statistically predict the dependent variable (organizational commitment) $F(4, 759) = 84.491, p < 0.05$.

Table 15: Model 3 ANOVA – Organizational commitment

Model	Sum of Squares	df	Mean Square	F	Sig.	
3	Regression	140.77	4	35.193	84.491	.000 ^p
	Residual	316.142	759	0.417		
	Total	456.912	763			
a Dependent Variable: Organizational commitment						
b Predictors: (Constant), Compensation system, Education, Age, Gender						

Source: authors' research.

Based on the results of the regression model with an organizational commitment as a dependent variable shown in Table 16, education and compensation system are statistically significantly related to organizational commitment. According to the positive beta coefficient, the level of education of employees predicted organizational commitment ($\beta = 0.047, p < 0.05$). Employee compensation system has a positive and statistically significant predictive effect on organizational commitment ($\beta = 0.43, p < 0.05$).

Table 16: Model 3 coefficients – Organizational commitment

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	VIF	
	B	Std. Error	Beta			Tolerance		
3	(Constant)	2.109	0.14		15.066	0		
	Gender	0.049	0.049	0.031	1.001	0.317	0.954	1.048
	Age	-0.003	0.021	-0.004	-0.126	0.900	0.956	1.046
	Education	0.047	0.019	0.075	2.409	0.016	0.949	1.054
	Compensation s.	0.430	0.024	0.546	17.659	0.000	0.953	1.049
a Dependent Variable: Organizational commitment								

Source: authors' research.

Discussion and Conclusion

The subject of the research was related to the investigation of the effects between the compensation system, socio-demographic factors, and employee attitudes such as job satisfaction, organizational commitment, and engagement of employees in the Republic of Serbia. The goal of the research was to determine the relations between the compensation system, socio-demographic factors, and employee attitudes. The authors collected data on the basis of a Google Forms electronic questionnaire. The authors presented descriptive statistics and performed the analysis of reliability statistics where the authors found that items in the questionnaire have a high internal consistency. After that, the authors used multiple regression analysis models to investigate the proposed relationships. Multicollinearity, which often occurs in analyses due to high intercorrelation of variables, was analysed. The model didn't achieve multicollinearity because the VIF coefficients were lower than 3.3 (Kock, 2015). A multiple regression analysis was performed for all three stated positions. Based on the results, hypothesis 1 was partially confirmed, while the second hypothesis was fully confirmed.

The first model was related to the analysis of the effects of the compensation system and socio-demographic factors on employee satisfaction. On the basis of the conducted empirical research, the authors established, based on the results of the regression model, that age ($\beta = 0.057, p < 0.05$), level of education ($\beta = 0.072, p < 0.05$), and compensation system ($\beta = 0.376, p < 0.05$) predicted job satisfaction as a dependent variable, which indicates that a higher number of years, a higher level of education as well as a better compensation system positively affects the satisfaction of employees in companies in the Republic of Serbia on a sample of 764 respondents. These results are in line with previously reported results, where the compensation system, socio-demographic factors, combined or individually, had a positive impact on job satisfaction. (Judge et al., 2010; Lai, 2011; Bashir et al., 2011; Yaseen, 2013; Vizano et al., 2020; Rahman et al., 2020).

Based on the results of regression model 2, only the compensation system ($\beta = 0.253; p < 0.05$) predicted employee engagement, while socio-demographic factors do not have a statistically predictive effect. This shows us that a better compensation system has a direct and positive impact on the engagement of employees in companies based on a sample of 764 employees in the Republic of Serbia. These results are in line with previously reported results, where a better com-

pensation system has a positive effect on employee engagement (Indriyani, 2017; Hoque et al., 2018; Maisonni et al., 2019) even with research that did not find relations between demographics and engagement (Schaufeli et al., 2006; Chaudhary & Rangnekar 2017).

Based on the results of regression model 3, we come to the conclusion that the level of education ($\beta = 0.047, p < 0.05$), and compensation system ($\beta = 0.43, p < 0.05$) predicted organizational commitment of employees on a sample of 764 employees in the Republic of Serbia. This tells us that a higher level of education and a better compensation system have a positive effect on organizational commitment. These results are consistent with previously reported results (Yamali, 2018; Ashraf, 2020; Tumi et al., 2022).

The research has significant theoretical and empirical implications. Regarding those theoretical, the results bring new insights into the effects of socio-demographic variables and the compensation system on the attitudes of employees in the Republic of Serbia. There is not much research that dealt with the concrete perceived compensation practice in companies in Serbia. The majority of previous research studies based in domestic business environment were related to job satisfaction and compensation satisfaction, usually investigated with Spector's job satisfaction survey (Djordjevic et al., 2017; Dramicanin et al., 2021; Gligorovic et al., 2014; Djordjevic et al., 2021). The paper is based on practice related to performance assessment and compensation (wage, incentives, and benefits), and therefore, it provides a relation between practice of rewarding and attitudes of employees. The practical implication lies in the knowledge that compensation has an effect on all three measured attitudes, which are very important in retaining employees in a company. Managers could use these results in terms of creating an adequate, fair, and competitive model of rewarding employees in order to enhance their engagement, job satisfaction, and organizational commitment. The mentioned attitudes are largely connected with the desire to stay or to leave a company (Suliman & Al-Junaibi, 2010; Satardien et al., 2019; Memon et al., 2020; Romeo et al., 2020).

Although the authors performed the reliability analysis, there is one important limitation of the present research related to the sample. Namely, the sample is based on the general public. The structure of the sample, regarding educational level, is not fully representative of the general population. A large share of the respondents in the sample has a higher education or above. The reason why this structure of the sample has been generated lies in the fact that the authors used the LinkedIn platform for gathering the responses, where people with higher education are present to a greater extent in comparison with employees with secondary and primary education. Also, the sample obtained only employees on professional and managerial positions, since those positions are offered with more complex compensations (diverse type of incentives and benefits). Although this limitation exists, the results are compared to previous research and they are in the line with the previous results.

Recommendations for future research refer to conducting the analysis on a larger number of employees so that the results of the analysis be more relevant. In addition to investigating the effects of the compensation system and socio-demographic factors on the attitudes of employees, it would be worth investigating the effects on employee behavior such as job performance, innovative work behaviour, and turnover intentions. In addition to socio-demographic factors, the effects of organizational factors such as the size of the organization, position in the company, belonging to the public or to the private sector, etc. can be examined. It may be important to improve the sample's structure in the future research, too.

REFERENCES

- [1] Ashraf, M. A. (2020). Demographic factors, compensation, job satisfaction and organizational commitment in private university: an analysis using SEM. *Journal of Global Responsibility*, 11(4), 407-436. DOI: 10.1108/JGR-01-2020-0010
- [2] Bakhshi, A., Kumar, K., & Rani, E. (2009). Organizational justice perceptions as predictor of job satisfaction and organization commitment. *International Journal of Business and Management*, 4(9), 145-154.
- [3] Balain, S., & Sparrow, P. (2009). *Engaged to perform: A new perspective on employee engagement*. Centre for Performance-led HR White Paper 09/04. Lancaster: Lancaster University Management School.
- [4] Bashir, M., Jianqiao, L., Zhao, J., Ghazanfar, F., & Khan, M. M. (2011). The role of demographic factors in the relationship between high performance work system and job satisfaction: A multidimensional approach. *International Journal of Business and Social Science*, 2(18), 207-218.
- [5] Berber, N. (2015). *Komparacija upravljanja kompenzacijama u Republici Srbiji i zemljama Evrope*. Doktorska disertacija. Subotica: Ekonomski fakultet u Subotici.
- [6] Berber, N., Gasic, D., Katic, I., & Borocki, J. (2022). The Mediating Role of Job Satisfaction in the Relationship between FWAs and Turnover Intentions. *Sustainability*, 14(8), 4502. DOI: 10.3390/su14084502
- [7] Boon, C., Den Hartog, D. N., Boselie, P., & Paauwe, J. (2011). The relationship between perceptions of HR practices and employee outcomes: examining the role of person-organisation and person-job fit. *The International Journal of Human Resource Management*, 22(01), 138-162. DOI: 10.1080/09585192.2011.538978

- [8] Boone, H. N., & Boone, D. A. (2012). Analyzing likert data. *Journal of extension*, 50(2), 1-5.
- [9] Cantiello, J., Fotter, M.D., Oetjen, D. & Zhang, N.J. (2015). The impact of demographic and perceptual variables on a young adult's decision to be covered by private health insurance. *BMC Health Services Research*, 15(1), 1-15. DOI: 10.1186/s12913-015-0848-6
- [10] Chaudhary, R., & Rangnekar, S. (2017). Socio-demographic factors, contextual factors, and work engagement: Evidence from India. *Emerging Economy Studies*, 3(1), 1-18.
- [11] Cook, J., & Wall, T. (1980). New Work Attitude Measures of Trust, Organizational Commitment and Personal Need Non-fulfilment. *Journal of Occupational Psychology*, 53(1), 39-52. DOI: 10.1111/j.2044-8325.1980.tb00005.x
- [12] Crossman, A. V., & Abou-Zaki, B. (2003). Job satisfaction and employee performance of Lebanese banking staff. *Journal of Managerial Psychology*, 18(4), 368-376. DOI: 10.1108/02683940310473118
- [13] Dakduk, S., Gonzalez, A., & Portalanza, A. (2019). Learn about structural equation modeling in smart-PLS with data from the customer behavior in electronic commerce study in Ecuador (2017). In *SAGE Research Methods Datasets Part 2*. SAGE Publications, Ltd. DOI: 10.4135/9781526498205
- [14] De Bruin, G. P., & Henn, C. M. (2013). Dimensionality of the 9-item Utrecht work engagement scale (UWES-9). *Psychological reports*, 112(3), 788-799. DOI: 10.2466%2F01.03.PR0.112.3.788-799
- [15] Djordjevic, B., Ivanovic-Djukic, M., & Lepojevic, V. (2017). Relationship of ages and gender of the employees in organisations in the Republic of Serbia and their job satisfaction. *Economic Themes*, 55(2), 263-280.
- [16] Djordjevic, B., Ivanovic-Djukic, M., Lepojevic, V., & Milanovic, S. (2021). Job satisfaction and organizational citizenship behaviour of employees in companies in the Republic of Serbia. *Strategic Management*, 26(3), 61-71. DOI: 10.5937/StraMan2103061D
- [17] Dramicanin, S., Peric, G., & Pavlovic, N. (2021). Job satisfaction and organizational commitment of employees in tourism: Serbian Travel agency case. *Strategic Management*, 26(4), 50-64. DOI: 10.5937/StraMan2104050D
- [18] Ehrhardt, K., Miller, J. S., Freeman, S. J., & Hom, P. W. (2011). An examination of the relationship between training comprehensiveness and organizational commitment: Further exploration of training perceptions and employee attitudes. *Human Resource Development Quarterly*, 22(4), 459-489. DOI: 10.1002/hrdq.20086
- [19] Fay, C. H., & Thompson, M. A. (2001). Contextual determinants of reward systems' success: An exploratory study. *Human Resource Management*, 40(3), 213-226. DOI: 10.1002/hrm.1012
- [20] Ferris, K. R., & Aranya, N. (1983). A Comparison of Two Organizational Commitment Scales, *Personnel Psychology*, 36(1), 87-98.
- [21] Gasic, D. (2021). The influence of national culture on the compensation system in selected countries. *Anali Ekonomskog fakulteta u Subotici*, 57(46), 3-20. DOI: 10.5937/AnEkSub2146003G
- [22] Gasic, D., & Berber, N. (2021). The influence of flexible work arrangement on employee behavior during the COVID-19 pandemic in the republic of Serbia. *Management: Journal of Sustainable Business and Management Solutions in Emerging Economies*, 26(3), 73-88. DOI: 10.7595/management.fon.2021.0026
- [23] Gligorovic, B., Terek, E., Glusac, D., Sajfert, Z., & Adamovic, Z. (2014). Job satisfaction and gender differences in job satisfaction of teachers in Serbian primary schools. *Journal of Engineering Management and Competitiveness (JEMC)*, 4(2), 94-100. DOI: 10.5937/jemc1402094G
- [24] Hoque, A. S. M. M., Awang, Z., Siddiqui, B. A., & Sabiu, M. S. (2018). Role of employee engagement on compensation system and employee performance relationship among telecommunication service providers in Bangladesh. *International Journal of Human Resource Studies*, 8(3), 19-37. DOI: 10.5296/ijhrs.v8i3.13081
- [25] Indriyani, A. U. (2017). Effect of compensation and benefit to employee engagement through organisation brand in Indonesia's startup company. *Jurnal Manajemen Teori dan Terapan | Journal of Theory and Applied Management*, 10(1), 83-92. DOI: 10.20473/jmt.v10i1.4805
- [26] Jolovic, I., & Berber, N. (2021). The influence of human resource management practices on turnover intention: The mediating role of organizational commitment. *Ekonomski izazovi*, 10(20), 96-114. DOI: 10.5937/Ekolzazov2120096J
- [27] Judge, T. A., Piccolo, R. F., Podsakoff, N. P., Shaw, J. C., & Rich, B. L. (2010). The relationship between pay and job satisfaction: A meta-analysis of the literature. *Journal of Vocational Behavior*, 77(2), 157-167. DOI: 10.1016/j.jvb.2010.04.002
- [28] Khan, A. J., Bhatti, M. A., Hussain, A., Ahmad, R., & Iqbal, J. (2021). Employee Job Satisfaction in Higher Educational Institutes: A Review of Theories. *Journal of South Asian Studies*, 9(3), 257- 266. DOI: 10.33687/jsas.009.03.3940
- [29] Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration (ijec)*, 11(4), 1-10. DOI: 10.4018/ijec.2015100101
- [30] Koskey, A. K., & Sakataka, W. (2015). Effect of reward on employee engagement and commitment at Rift Valley Bottlers Company. *International Academic Journal of Human Resource and Business Administration*, 1(5), 36-54.

- [31] Lai, H. H. (2011). The influence of compensation system design on employee satisfaction. *African Journal of Business Management*, 5(26), 10718-10723. DOI: 10.5897/AJBM11.005
- [32] Locke, E. A. (1970). Job satisfaction and job performance: A theoretical analysis. *Organizational Behavior and Human Performance*, 5(5), 484-500. DOI: 10.1016/0030-5073(70)90036-x
- [33] Mahmood Aziz, H., Jabbar Othman, B., Gardi, B., Ali Ahmed, S., Sabir, B. Y., Burhan Ismael, N., ... & Anwar, G. (2021). Employee Commitment: The Relationship between Employee Commitment And Job Satisfaction. *Journal of Humanities and Education Development*, 3(3), 54-66. DOI: 10.22161/jhed.3.3.6
- [34] Maisoni, H., Yasri, Y., & Abror, A. (2019, April). Effect of organizational culture, leadership and compensation on employee engagement in coca-cola amatil indonesia central sumatra. In *2nd Padang International Conference on Education, Economics, Business and Accounting (PICEEBA-2 2018)* (p. 553-561). Atlantis Press. DOI: 10.2991/piceeba2-18.2019.73
- [35] Marcoux, G., Guihur, I., & Leclerc, A. (2021). Co-operative difference and organizational commitment: The filter of socio-demographic variables. *The International Journal of Human Resource Management*, 32(4), 822-845. DOI: 10.1080/09585192.2018.1504105
- [36] Martocchio, J. J. (2017). *Strategic Compensation: A Human Resource Management Approach*, 9th Edition. United of America: Pearson.
- [37] McCaul, H. S., Hinsz, V. B., & McCaul, K. D. (1995). Assessing organizational commitment: An employee's global attitude toward the organization. *The Journal of Applied Behavioral Science*, 31(1), 80-90. DOI: 10.1177/0021886395311008
- [38] Memon, M. A., Salleh, R., Mirza, M. Z., Cheah, J. H., Ting, H., Ahmad, M. S., & Tariq, A. (2020). Satisfaction matters: the relationships between HRM practices, work engagement and turnover intention. *International Journal of Manpower*, 42(1), 21-50. DOI: 10.1108/IJM-04-2018-0127
- [39] Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology*, 91(6), 1321-1339. DOI: 10.1037/0021-9010.91.6.1321
- [40] Rahman, M. M., Chowdhury, M. R. H. K., Islam, M. A., Tohfa, M. U., Kader, M. A. L., Ahmed, A. A. A., & Donepudi, P. K. (2020). Relationship between socio-demographic characteristics and job satisfaction: evidence from private bank employees. *American Journal of Trade and Policy*, 7(2), 65-72. DOI: 10.18034/ajtp.v7i2.492
- [41] Romeo, M., Yepes-Baldo, M., & Lins, C. (2020). Job satisfaction and turnover intention among people with disabilities working in Special Employment Centers: The moderation effect of organizational commitment. *Frontiers in Psychology*, 11, 1035. DOI: 10.3389/fpsyg.2020.01035
- [42] Saks, A. M. (2022). Caring human resources management and employee engagement. *Human Resource Management Review*, 32(3), 100835. DOI: 10.1016/j.hrmmr.2021.100835
- [43] Satardien, M., Jano, R., & Mahembe, B. (2019). The relationship between perceived organisational support, organisational commitment and turnover intention among employees in a selected organisation in the aviation industry. *SA Journal of Human Resource Management*, 17(1), 1-8. DOI: 10.4102/sajhrm.v17i0.1123
- [44] Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and psychological measurement*, 66(4), 701-716. DOI: 10.1177/0013164405282471
- [45] Stangl Susnjar, G., Slavic, A. & Berber, N. (2017). *Menadzment ljudskih resursa*. Subotica: Ekonomski fakultet u Subotici.
- [46] Suarez-Albanchez, J., Blazquez-Resino, J. J., Gutierrez-Broncano, S., & Jimenez-Estevéz, P. (2021). Occupational health and safety, organisational commitment, and turnover intention in the Spanish IT consultancy sector. *International journal of environmental research and public health*, 18(11), 5658. DOI: 10.3390/ijerph18115658
- [47] Suliman, A. A., & Al-Junaibi, Y. (2010). Commitment and turnover intention in the UAE oil industry. *The International Journal of Human Resource Management*, 21(9), 1472-1489. DOI: 10.1080/09585192.2010.488451
- [48] Timms, C., Brough, P., O'Driscoll, M., Kalliath, T., Siu, O. L., Sit, C., & Lo, D. (2015). Flexible work arrangements, work engagement, turnover intentions and psychological health. *Asia Pacific Journal of Human Resources*, 53(1), 83-103. DOI: 10.1111/1744-7941.12030
- [49] Trisnawati, I., Erari, A., & Aisyah, S. (2022). Effects of Demographic Factors, Compensation, Job Satisfaction on Organizational Commitment (A Study on the Inspectorate Office of Merauke and Boven Digoel Regency). *Britain International of Humanities and Social Sciences (BioHS) Journal*, 4(2), 177-193. DOI: 10.33258/biohs.v4i2.648
- [50] Tumi, N. S., Hasan, A. N., & Khalid, J. (2022). Impact of compensation, job enrichment and enlargement, and training on employee motivation. *Business Perspectives and Research*, 10(1), 121-139. DOI: 10.1177%2F2278533721995353
- [51] Vanam, S. (2009). *Job engagement: examining the relationship with situational and personal factors*. San José State University. Master's Theses. 3349. DOI: <https://doi.org/10.31979/etd.87b9-v6tc>

- [52] Viet, V. (2015). Demographic Factors Affecting Organizational Commitment of Lecturers. *VNU Journal Of Science: Education Research*, 31(4), 16-25.
- [53] Vizano, N. A., Utami, W., Johanes, S., Herawati, A., Aima, H., Sutawijaya, A. H., ... & Catur Widayati, C. (2020). Effect of Compensation and Organization Commitment on Turnover Intention with Work Satisfaction as Intervening Variable in Indonesian Industries. *Systematic Reviews in Pharmacy*, 11(9), 287-298.
- [54] Weiss, H. M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. *Human Resource Management Review*, 12(2), 173-194. DOI: 10.1016/S1053-4822(02)00045-1
- [55] Yamali, F. R. (2018). Effect of Compensation, Competencies and Organizational Culture on Organizational Commitment its Implicationson Experts Performance of Construction Services Company in Jambi Province. *International Journal of Advances in Management and Economics*, 7(2), 29-42.
- [56] Yaseen, A. (2013). Effect of compensation factors on employee satisfaction-a study of doctor's dissatisfaction in Punjab. *International Journal of Human Resource Studies*, 3(1), 142-157. DOI: 10.5296/ijhrs.v3i1.3351
- [57] Yousef, D. A. (2003). Validating the dimensionality of Porter et al.'s measurement of organizational commitment in a non-Western culture setting. *The International Journal of Human Resource Management*, 14(6), 1067-1079. DOI: 10.1080/0958519032000106218
- [58] Yustrilia, I., Sujarwo, A., Rofiq, A., Ratmawati, D., & Satriyo, B. (2022). The Effect of HRM Pratices on Employee Engagement with Clan Culture as Moderating Variables. *Manajemen Bisnis*, 12(01), 19-30. DOI: 10.22219/mb.v12i01.14432

Received: 2022-09-05

Revision requested: 2022-12-23

Revised: 2022-12-29 (1 revision)

Accepted: 2022-12-05

About the Authors

Dimitrije Gašić

University of Novi Sad, Faculty of Economics in Subotica, the Republic of Serbia.
dimitrije.gasic@ef.uns.ac.rs



Dimitrije Gašić is a Teaching Assistant at the Faculty of Economics in Subotica, University of Novi Sad, the Republic of Serbia. He is an assistant in the scientific area of Management and student of doctoral studies at the Department of Business Economy and Management – module Entrepreneurial Management at the Faculty of Economics in Subotica, University of Novi Sad. He teaches the courses of Organizational Theory and Organizational Design (undergraduate studies) as well as the subjects Leadership and Employee Rewarding System (master studies). In addition, he is the author and coauthor of numerous scientific and professional papers in the field of human resource management.

Nemanja Berber

University of Novi Sad, Faculty of Economics in Subotica, the Republic of Serbia
nemanja.berber@ef.uns.ac.rs



Nemanja Berber is an Associate Professor at the Faculty of Economics in Subotica, University of Novi Sad, the Republic of Serbia. He works in the areas of human resource management, organisational behaviour, employee rewards, and talent management. His research interests include human resource management practice in Serbia and Central and Eastern European regions, especially employees' compensation, benefits, and training. He participates in CRANET (The Cranfield Network on International Human Resource Management) and CEEIRT (The Central and Eastern European International Research Team) projects on HRM and IHRM. He is engaged in several Erasmus+ projects. In addition, he is the author and coauthor of numerous scientific and professional papers in the field of human resource management.

Agneš Slavić

University of Novi Sad, Faculty of Economics in Subotica, the Republic of Serbia.
agnes.slavic@ef.uns.ac.rs



Agneš Slavić is a Full Professor at the Faculty of Economics in Subotica, University of Novi Sad, the Republic of Serbia. She delivers lectures in human resource management, organisational behaviour, talent management and urban management. Her research interests include human resource management practice in Serbia and Central and Eastern European regions, with the focus on training and development and staffing activities. She is the coordinator of CRANET (The Cranfield Network on International Human Resource Management) and CEEIRT (The Central and Eastern European International Research Team) projects on HRM and IHRM for Serbia. She is the author and coauthor of numerous scientific and professional papers in the field of human resource management.