ANALYSIS OF DIFFERENCES IN ATTITUDES BETWEEN MANAGERS AND NON-MANAGING EMPLOYEES[*]

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Abstract

The basic task of managers is to establish and maintain the conditions required for joint activities of individuals aimed at efficient achievement of goals set by the organization they work for. An organization, be it non-profit or for-profit, will perform better and fulfil its mission more efficiently if its employees have a more positive outlook on different aspects of their work, but also on other work-related issues. It is therefore advisable to conduct frequent attitude surveys of both managers and non-managing employees. The results of such analyses could then be the basis for taking appropriate decisions and measures in the domain of human resource management. The research presented in this paper seeks to explore the differences in attitudes between these two employee categories regarding different aspects of material and non-material character. With this in mind, a sample was gathered of 360 respondents from the area of Osijek-Baranja County. Appropriate methods of descriptive and inferential statistics, as well as factor analysis were used to analyze the collected data.

JEL classification: E24, J21

Keywords: attitudes of managers and employees, analysis of differences, human resource management, statistical methods

1. Introduction

Management is one of the crucial human activities that can be defined as a process of creating and maintaining an environment where individuals, working together in groups, efficiently achieve designated goals (Weihrich & Koontz; 1994, p. 4). In this context, managers are those people who assume tasks and functions of management in any kind of organizational venture. Managers can also be viewed simply as organizational members who are responsible for the work performance of other organizational members (Helms (ed.); 2006, pp. 498-499). They have formal authority to use the organizational resources and make decisions. It is common to differentiate here between three levels of management: top-level, middle-level, and first-level.

Numerous interactions take place even in relatively small organizations. One of the main prerequisites for successful operation of any organization is having a positive atmosphere where interactions between employees have an impact on its overall development. There is no doubt that higher job satisfaction, as well as satisfaction with other work-related life aspects, contribute to creating such a productive environment. In order to improve relations within an organization, be it non-profit or for-profit, it is necessary to regularly conduct opinion polls of all its employees regarding different issues of material and non-material character. Such surveys can help organizations to take appropriate decisions and measures in terms of human resource management.

Human resource management is the management function devoted to acquiring, training, appraising, and compensating employees (Benowitz (ed.); 2001, pp. 98-99). Actually, all managers have to manage human resources in one way or another; however, larger organizations need to establish a special department for this purpose. The activities of managers who manage human resources contribute directly to shaping an organization based on competent and motivated employees, who engage in team work in order to fulfil the set goals. Since human resources are the key factor in any organization, understanding this management function can help all those in charge to carry out their tasks more effectively.

Modern management theories emphasize that an organization's success depends greatly on satisfaction of its employees, and thus also on the relationships established between managers and non-managing employees. Starting from these assumptions, the present paper is intended to explore the differences in attitudes between these two groups of employees regarding certain aspects of their work. In addition, the survey included some questions on respondents' living conditions, which are directly connected to their employment.

2. Research methodology

The survey that helped us to gather the data was conducted by a questionnaire. The purpose of the survey and the instructions on filling in the questionnaire were explained to each respondent orally. The survey was anonymous.

Appropriate methods of descriptive and inferential statistics were used to analyze the data. In describing the respondent sample, relative frequencies were determined in addition to the absolute frequencies, and two-way tables were formed by grouping according to the modalities of the selected features. In the case of the variable defined as respondent age basic descriptive statistics were calculated.

For the research variables that represent employee attitudes on different job and life aspects it was also calculated basic descriptive statistics and composed 95% confidence intervals for the mean. In examining the significance of differences in attitudes between the two defined groups it was applied the t-test (statistically

significant differences confirmed at the significance level $p<0.05$), whereas the bar chart of the means of the research variables is included in the paper in order to visually present the obtained results.

In this paper, factor analysis was used in order to determine a smaller number of factors that can explain the correlation pattern within the set of observed variables. In this way, we set apart the factors that helped us to interpret the largest part of the common variance of the variables that reflect perceptions of the surveyed respondents.

3. Respondent sample and research variables

For this research a quota sample was formed. In this, an effort is made to systematically transfer known characteristics of a population to chosen sample units. In our case, three characteristics of employees were taken into account – gender, age, and level of education. The structure of the employed population in Osijek-Baranja County according to the stated characteristics was determined on the basis of Census 2001. In terms of the stated characteristics, the respondent shares in the sample correspond to thus determined structure.

The sample consisted of 360 employees from the area of Osijek-Baranja County. It included 60 managers (16.67%) and 300 employees who, at the time of the survey, did not perform any managerial functions, accounting for 83.33% of all the respondents.

Table 1 was obtained by simultaneous grouping according to modalities of characteristics that represent gender and the respondent function within an organization.

GENDER	FUNCTION		TOTAL
	Manager	Employee	
Male	42 (70.00%)	170 (56.67%)	212 (58.89%)
Female	18 (30.00%)	130 (43.33%)	148 (41.11%)
TOTAL	60 (100.00%)	300 (100.00%)	360 (100.00%)

Table 1. Distribution of surveyed employees by gender and function within an organization

Male respondents account for a higher percentage in the sample. They are prevailing in the group of managers, accounting for 70% of respondents.

Table 2 provides basic descriptive statistics that refer to the respondents' age relative to their function within an organization. The last column in the table contains the data calculated on the basis of data for all the respondents.

DESCRIPTIVE STATISTICS	FUNCTION		TOTAL
	Manager	Employee	
Number of data	60	300	360
Mean	43.083	38.920	39.614
Median	43.500	39.000	40.000
Minimum value	24.000	18.000	18.000
Maximum value	70.000	65.000	70.000
Range	46.000	47.000	52.000
Lower quartile	35.250	30.250	32.000
Upper quartile	50.000	46.000	47.000
Quartile range	14.750	15.750	15.000
Standard deviation	10.585	10.791	10.854
Variation coefficient	24.569	27.726	27.399

Table 2. Basic descriptive statistics referring to respondents' age relative to their function within an organization

On average, respondents performing managerial functions in an organization were about four years older than other employees. The youngest surveyed manager was 24, whereas the youngest employee was 18 years of age. For both distributions an approximately equal value of standard deviation was established. Based on the calculated variation coefficients it can be concluded that age-related manager distribution is characterized by a somewhat lower level of data variability.

Table 3 was formed by grouping the data according to modalities of features that represent the respondents' education level and their function within an organization. In order to simplify the review, only three modalities of the variable 'education level' were defined.

LEVEL OF EDUCATION	FUNCTION		TOTAL
	Manager	Employee	
No education, incomplete primary school, and primary school	3 (5.00%)	90 (30.00%)	93 (25.83%)
Secondary school	27 (45.00%)	179 (59.67%)	206 (57.22%)
Higher education (post-secondary school)	30 (50.00%)	31 (10.33%)	61 (16.94%)
TOTAL	60 (100.00%)	300 (100.00%)	360 (100.00%)

Table 3. Distribution of surveyed employees by education level and function within an organization

In keeping with our expectations, managers were on the whole more highly educated than other employees in our sample. Half of the managers had graduated from college or university, whereas only 10% of non-managing employees had completed some form of higher education. It should be noted that three owner-managers had not completed secondary school, thus standing out in the sample.

In order to examine statistical significance of differences in attitudes between managers and non-managing employees, 15 research variables were determined:

- Assessment of the income earned in the organization (V1);
- Assessment of current job (V2);
- Assessment of work space quality (V3);
- Assessment of technical facilities in work space (V4);
- Assessment of interpersonal relationships in the organization (V5);
- Assessment of relationship with superiors, if any (V6);
- Assessment of job security (V7);
- Assessment of possibilities for advancement in the organization (V8);
- Assessment of own dedication at work (V9);
- Assessment of possibilities for training in the organization (V10);
- Assessment of possibility to cover life expenses (V11);
- Assessment of insurance, such as savings, in case of emergencies (V12);
- Assessment of the amount of own leisure time (V13);
- Assessment of own material wealth (V14);
- Assessment of own risk-taking propensity (V15).

In this research, respondent attitudes were measured on a 5-degree scale, ranging from 1 as the lowest to 5 as the highest grade.

4. Descriptive statistics and t-test results

Table 4 contains the values of basic descriptive statistics (means, medians and standard deviations) calculated for the 15 research variables. The table also states 95% confidence intervals for the mean.

VARIABLE	DESCRIPTIVE STATISTICS			95% CONFIDENCE INTERVAL FOR THE MEAN	
	Mean	Median	Standard deviation	Lower bound	Upper bound
V1	2.825	3.000	1.058	2.715	2.935
V2	3.156	3.000	1.163	3.035	3.276
V3	3.134	3.000	1.175	3.012	3.257
V4	3.139	3.000	1.200	3.014	3.263
V5	3.331	3.000	1.216	3.205	3.458
V6	3.286	3.000	1.210	3.157	3.415
V7	3.144	3.000	1.283	3.012	3.277
V8	2.606	3.000	1.283	2.473	2.739
V9	4.089	4.000	0.928	3.993	4.185
V10	2.624	3.000	1.356	2.483	2.765
V11	2.808	3.000	1.096	2.694	2.922
V12	1.994	2.000	1.037	1.887	2.102
V13	2.833	3.000	1.120	2.717	2.949
V14	2.711	3.000	1.061	2.601	2.821
V15	2.747	3.000	1.060	2.637	2.856

Table 4. Basic descriptive statistics established for 15 research variables and 95% confidence intervals for the mean

On average, respondents assessed with the highest grade their own dedication at work (V9). This was the only variable with the average grade higher than 4. There is a 95% probability that the population mean for this variable is higher than 3.993, and lower than 4.185. It is followed by the assessment of interpersonal relationships in the organization (V5), and the assessment of relationship with superiors, if the respondent had any (V6). The lowest average grade was calculated for the variable defined as insurance, such as savings, in case of emergencies (V12). In our research, this was the only variable with the average grade lower than 2.

Table 5 lists basic descriptive statistics calculated for the analyzed research variables with respect to the function of employees in an organization, as well as t-test results, which was used to test the hypothesis that two population means are equal.

| VARIABLE | FUNCTION | | | | T-TEST | |
| | Manager | | Employee | | | |
	Mean	Standard deviation	Mean	Standard deviation	t-value	p-level
V1	**3.517**	**1.081**	**2.687**	**0.999**	**5.792**	**0.000**
V2	**3.633**	**1.178**	**3.060**	**1.138**	**3.543**	**0.000**
V3	**3.610**	**1.114**	**3.040**	**1.166**	**3.456**	**0.001**
V4	**3.667**	**1.084**	**3.033**	**1.196**	**3.801**	**0.000**
V5	**3.633**	**1.104**	**3.271**	**1.230**	**2.117**	**0.035**
V6	3.512	1.162	3.253	1.216	1.309	0.192
V7	**3.500**	**1.255**	**3.073**	**1.278**	**2.367**	**0.018**
V8	**3.373**	**1.312**	**2.455**	**1.224**	**5.204**	**0.000**
V9	**4.333**	**0.795**	**4.040**	**0.946**	**2.248**	**0.025**
V10	**3.400**	**1.330**	**2.468**	**1.309**	**5.019**	**0.000**
V11	**3.650**	**0.988**	**2.639**	**1.038**	**6.941**	**0.000**
V12	**2.683**	**1.172**	**1.857**	**0.952**	**5.897**	**0.000**
V13	2.683	1.200	2.863	1.102	-1.137	0.256
V14	**3.417**	**0.907**	**2.570**	**1.034**	**5.904**	**0.000**
V15	**3.300**	**1.062**	**2.635**	**1.025**	**4.554**	**0.000**

Table 5. Basic descriptive statistics referring to 15 research variables, with respect to the characteristic defined as employee's function within an organization, and t-test results

In comparison to non-managing employees, the surveyed managers gave a lower average grade only to the amount of own leisure time (V13). Overall test results indicate that the only statistically significant differences are not to be found in this variable, and the variable defined as relationship with superiors (V6). For all the other research variables it was confirmed that statistically significant differences exist at the level $p < 0.05$.

The means of the analyzed variables with respect to the characteristic defined as employee's function within an organization are shown in Figure 1.
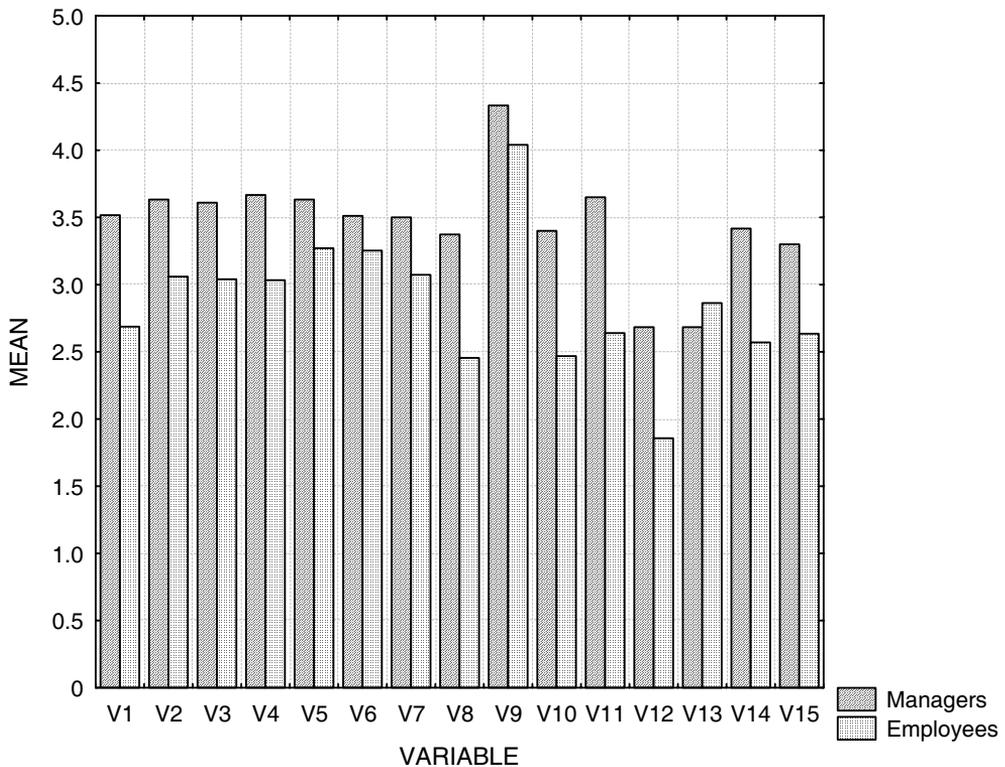
Figure 1. Mean of analyzed variables with respect to the characteristic defined as employee's function within an organization

The obtained results indicate that managers have on average more positive perceptions of different employment aspects and other work-related issues.

5. Factor analysis of research variables

One of our research goals was to apply factor analysis in order to determine a smaller number of factors that could interpret the correlation pattern within the set of observed variables. To verify whether the data were adequate for conducting this type of analysis, it was first calculated the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, which had the value of 0.873. It was thus confirmed that the collected data were suitable for conducting factor analysis. In the framework of factor analysis, extraction was performed by the method of principal components. To determine the number of main components we used the Kaiser criterion. Through such limitation, the area of 15 variables was reduced to three main components which explained 55.824% of total

variance. Table 6 contains eigenvalues, percent of variance and cumulative percentages of extraction and rotation sums of squared loadings.

COMPONENT	EXTRACTION SUMS OF SQUARED LOADINGS			ROTATION SUMS OF SQUARED LOADINGS		
	Eigenvalue	Percent of variance	Cumulative percentage of variance	Eigenvalue	Percent of variance	Cumulative percentage of variance
1	5.572	37.150	37.150	4.398	29.317	29.317
2	1.780	11.866	49.016	2.912	19.415	48.732
3	1.021	6.809	55.824	1.064	7.092	55.824

Table 6. Eigenvalues, percent of variance and cumulative percentage of extraction and rotation sums of squared loadings

To increase the interpretability of the components they were subjected to rotation. Table 7 lists the correlations between 15 analyzed variables and the three factors, which were determined after the method of varimax rotation was applied.

VARIABLE	FACTOR		
	1	2	3
V1	0.481	**0.547**	-0.273
V2	**0.728**	0.322	-0.209
V3	**0.730**	0.201	0.066
V4	**0.761**	-0.023	0.105
V5	**0.722**	0.086	0.169
V6	**0.727**	0.217	0.170
V7	**0.685**	0.145	-0.051
V8	**0.602**	0.395	-0.193
V9	**0.548**	0.040	-0.093
V10	**0.537**	0.451	-0.165
V11	0.146	**0.770**	0.014
V12	0.086	**0.754**	0.042
V13	0.044	0.235	**0.865**
V14	0.101	**0.758**	0.183
V15	0.114	**0.491**	0.116

Table 7. Rotated component matrix (varimax rotation)

The first factor was formed by means of the following nine variables: assessment of current job (V2), assessment of work space quality (V3), assessment of technical facilities in work space (V4), assessment of

interpersonal relationships in the organization (V5), assessment of relationship with superiors, if any (V6), assessment of job security (V7), assessment of possibilities for advancement in the organization (V8), assessment of own dedication at work (V9), and assessment of possibilities for training in the organization (V10). These variables refer primarily to particular aspects of employment, i.e. job, which is why the factor extracted in this way can be called - *the factor of job satisfaction*. The strongest correlation with this factor was shown by the variable representing the assessment of technical facilities in work space (V4), whereas the weakest correlation showed the variable defined as the assessment of possibilities for training in the organization (V10).

Five variables participated in forming the second factor: assessment of the income earned in the organization (V1), assessment of possibility to cover life expenses (V11), assessment of insurance, such as savings, in case of emergencies (V12), assessment of own material wealth (V14), and assessment of own risk-taking propensity (V15). The variables making up the second factor are mostly material in character. The factor isolated in this manner can be called - *the factor of satisfaction with income and wealth*. The variable that reflects the assessment of own risk-taking propensity (V15) also contributes to the second factor. Although the correlation here is the weakest, it can be concluded that managers and employees make a certain connection between income and wealth on one hand, and risk propensity on the other.

The third factor was formed by a single variable of non-material character, defined as the assessment of the amount of own leisure time (V13). For this reason this factor was called - *the factor of satisfaction with own leisure time*. The correlation between the stated variable and this third factor is rather strong.

6. Conclusion

Human resources are the most important factor in any organization. There is no doubt that an organization will be able to fulfil its tasks and plans more efficiently and effectively if its employees have more positive perceptions of their jobs, and also of work-related life conditions. Within the function of human resource management it is therefore necessary to conduct permanent opinion polls of employees in general, i.e. of both managers and non-managing employees. Such surveys can provide the information required for taking measures aimed at improving material and non-material working conditions, and thus also overall relations within an organization.

In line with this way of thinking, in this paper the results of a survey that examined the attitudes of managers and other employees from the area of Osijek-Baranja County have been presented. The research has shown that different aspects of employment and work-related issues received higher average grades from managers than from other employees. The only exception was the assessment of the amount of own leisure time. Statistical significance

of differences was confirmed for 13 research variables under scrutiny here. Factor analysis was also applied in the paper, which helped us to determine three factors: factor of job satisfaction, factor of satisfaction with income and wealth, and factor of satisfaction with own leisure time.

Finally, it should be noted that the intention of this research was also to spur the interest in this topic in Croatian research and professional community, and to encourage systematic studies of these issues. Taking into account what adverse effects might ensue if these topics are disregarded, we believe it is crucial to give them due attention in the framework of human resource management without any delay.

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