

ANALYSIS OF THE CORRELATION BETWEEN MARITAL STATUS, SMOKING HABITS AND EMPLOYEE ENGAGEMENT

ANALIZA KORELACIJE IZMEĐU BRAČNOG STATUSA, NAVIKE PUŠENJA I ZAPOSLENJA

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Abstract: *This original paper examines the correlation between different marital status, different smoking habits and employee engagement on a random sample of 632 respondents, employed in the public and economic sector in Slovenia. The main goal of the research was to determine whether (and how) different marital status and different smoking habits influence the employee engagement. A written survey was conducted from 1 January 2015 to 15 March 2015. For statistical analysis we applied IBM SPSS 20 and univariate regression analysis. Based on linear regression ($F(1, 630) = 0.099$, $p\text{-value} = 0.7530$, $R\text{-square} = 0.0001$) we established that there is no statistical significance at a 5% significance level of the correlation between different marital status and employee engagement. We also established ($F(1, 630) = 6.8708$, $p\text{-value} = 0.0089$, $R\text{-square} = 0.0108$) that there is a statistical significance at a 5% significance level of the correlation between different smoking habits and employee engagement.*

Key words: *employee, engagement, marital status, smoking, linear regression*

Sadržaj: *Ovaj originalni rad istražuje povezanost između bračnog statusa, različitih navika pušenja i angažovanja zaposlenih na slučajnom uzorku od 632 ispitanika, zaposlenih u javnom i privatnom sektoru u Sloveniji. Osnovni cilj istraživanja bio je da se utvrdi da li (i koliko) bračno stanje i različite navike pušenja utiču na angažovanje zaposlenih. Istraživanje je sprovedeno od 1. januara 2015. do 15. marta 2015. godine. Za statističku analizu primenili smo IBM SPSS 20 i univarijantnu regresionu analizu. Na osnovu linearne regresije ($P(1, 630) = 0,099$, $p\text{-vrednost} = 0,7530$ $R\text{-kvadrat} = 0,0001$) ustanovili smo da ne postoji statistički značajna korelacija na nivou 5% značajnosti između bračnom statusa i angažovanja zaposlenih. Takođe utvrdili smo ($F(1, 630) = 6.8708$, $vrednost\ p = 0.0089$ $R\text{-kvadrat} = 0.0108$) da postoji statistički značajna korelacija na nivou 5% značajnosti između različitih navika pušenja i angažovanja zaposlenih.*

Ključne reči: *zaposleni, angažovanje, bračni status, pušenje, linearna regresija*

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1. INTRODUCTION

It is necessary to respect and educate employees who must participate in the running of the firm and remain motivated at the same time, since only motivated, informed and engaged employees can create the competitive advantage of a modern enterprise. The purpose of this paper is to investigate whether and how these two selected variables influence the dependent variable under the study defined as Y-a (engagement of employees). The aim of the study is to contribute to the understanding of how two independent variables (X_1 - a Dummy variable for marital status; $X_1= 0$ for have been married; $X_1= 1$ for otherwise, X_2 - Dummy variable for the different smoking habits; $X_2= 0$ for non smoking, $X_2= 1$ for otherwise) impact the Y variable based on linear regression models. This is a completely new research of the impact which different marital status and smoking habits have on the employee's engagement at work.

The main research hypothesis is that the independent of variables (X_1) is statistically significant for explanation of variability in variable (Y- engagement of employee).

An additional research hypothesis states that the independent variable (X_2) is statistically significant for explanation of variability in variable (Y). The following programs were applied for the analysis:

IBM SPSS 20 and Excel. We applied descriptive analysis and linear regressions. Research data was obtained from a survey, which was conducted through a questionnaire. Excel and IBM SPSS 20 were applied for data interpretation.

2. EMPLOYEE ENGAGEMENT AND ORGANIZATION OUTCOMES

Kahn [1, p.694] was the first scholar to define "personal engagement" as the "harnessing of organization member's selves to their work roles: in engagement, people employ and express themselves physically, cognitively, emotionally and mentally during role performances".

Employee engagement is a business management concept. An "engaged employee" is one who is fully involved in, and enthusiastic about their work, and thus will act in a way that furthers their organization's interests. According to Scarlett Surveys, "Employee Engagement is a measurable degree of an employee's positive or negative emotional attachment to their



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job, colleagues and organization that profoundly influence their willingness to learn and perform is at work". Thus engagement is distinctively different from employee satisfaction, motivation and organizational culture [2]. Work engagement has been defined as "a positive, fulfilling work-related state of mind that is characterized by vigor, dedication, and absorption" [3, p. 702]. Employee engagement is a distinct and unique construct that consists of cognitive, emotional, and behavioral components that are associated with individual role performance [4]. Work engagement is defined as a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption [5]. Maslach [6] noted that engagement is characterized by energy, involvement, and efficacy-the direct opposites of the three burnout dimensions, exhaustion, cynicism and ineffectiveness.

Employee engagement is a workplace approach designed to ensure that employees are committed to their organization's goals and values, motivated to contribute to organizational success, and are able at the same time to enhance their own sense of well-being. There are differences between attitude, behavior and outcomes in terms of engagement. An employee might feel pride and loyalty (attitude); be a great advocate of their company to clients, or go the extra mile to finish a piece of work (behavior).

Outcomes may include lower accident rates, higher productivity, fewer conflicts, more innovation, lower numbers leaving and reduced sickness rates. But we believe all three – attitudes, behaviors and outcomes – are part of the engagement story. There is a virtuous circle when the pre-conditions of engagement are met when these three aspects of engagement trigger and reinforce one another. Engaged organizations have strong and authentic values, with clear evidence of trust and fairness based on mutual respect, where two ways promises and commitments – between employers and staff – are understood, and are fulfilled [7]. Vorina [8] study shows the positive correlation between the engagement of employees and their satisfaction with life.

Vorina, David, Vrabič-Vukotić [9] study shows that when the development of ICT skills is increased, the same applies to the level of employee engagement. Vorina and Veljković [10], based on the linear regression analysis, n=780, established that the correlation between the investment in new technologies and employee engagement is statistically significant. The authors established that the engagement of employees would increase if the investment in new



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technologies did so as well. In addition, they established that a positive correlation between employee engagement and encouragement of employees to learn and educate is statistically significant as well.

3. METHODS AND RESEARCH

Sample. For this research we selected a population - residents of the statistical region Savinjska in Slovenia. The observed unit consisted of people over 15 years old, employed by an enterprise or an institution. The sampling frame consisted of residents from different places and towns in the statistical region of Savinjska. The sample consisted of 632 respondents. The study included 291 (46.04 %) men, 341 women (53.95 %), 316 (50 %) respondents who don't smoke and 316 (50 %) respondents who smoke regularly or occasionally. 263 (41.61 %) respondents were married and 369 (58.39 %) were single. The average age of respondents was 35.93 years, standard deviation was 10.63 years.

Accessories-description questionnaire. The questionnaire consists of twelve-one closed-ended questions, of which three are related to demographic data (gender, age, marital status and smoking habits) of respondents. The questionnaire was compiled by ourselves, however for the part of the questionnaire measuring employee engagement we applied the UtrechtWork Engagement Scale (UWES) which is composed of 9 items. The UWES-9 (Schaufeli & Bakker, 2003) questionnaire consists of 9 items: S1. At my work, I feel bursting with energy. S2. At my job, I feel strong and vigorous. S3. I am enthusiastic about my job. S4. My job inspires me. S5. When I get up in the morning, I feel like going to work. S6. I feel happy when I am working intensely. S7. I am proud of the work that I do. S8. I am immersed in my job. S9. Employee engagement was measured using 6 degrees Likert's scale (0-never, ..., 6-always).

Working methods and measuring procedures. Interviews (face to face) were conducted from 5 January 2015 to 16 March 2015. We interviewed friends and acquaintances. During the interview we had great help from the students of the School of Economics Celje, Vocational College. Replying to the questionnaire took about 2 minutes.

U methods, data processing. The collected data was analyzed by applying IBM SPSS, version 20. We have also applied the Microsoft tools Word and Excel. Regarding the purpose and objectives of the research we applied linear regression.

Verification of the adequacy of the measurement instrument. For measuring



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employee engagement we applied the UWES-9 questionnaire. We calculated Cronbach's alpha is 0.914 (Table 1) which means a lot or exemplary reliability of measurement.

Cronbach's Alpha	N of items
0.914	9

Table 1. Reliability Statistics, engagement
Source: SPSS 20, Author's creation

4. RESEARCH FINDINGS

The first hypothesis was tested through models of linear regression. In Model I we chose independent variables X_1 - a; Dummy variable for marital status; $X_1= 0$ for have been married; $X_1= 1$ for otherwise). The dependent variable (Y-employee engagement) was measured as the sum of 9 factors by UWES-9. The linear multiple regression Model I (1) with estimated parameters is:

$$Y = 36.22 + 0.26X_1 \quad (1)$$

$n = 632$, R-squared = 0.0001, Adjusted R-squares = -0.0001, Standard Error = 10.11. In Model I (Table 2, 3, 4) 0 % of total sum of squares is explained by the estimated model. Variables X_1 (p-value = 0.753), are not statistically significant. Hypothesis 1 is rejected.

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.0125	0.0001	-0.0013	10.1151

Table 2. Regression Model I: K=1, n=632
Source: IBM SPSS 20, Excel, Author's creation

Model I	Sum of Squares	df	F	P-value
Regres.	10.13886	1	0.099	0.7530
Resid.	64458.48	630		
Total	64468.62	631		

Table 3. Regression Model I, F-test
Source: IBM SPSS 20, Excel, Author's creation

	Coeff.	Standard Error	t Stat	P-value
Intercept.	36.22814	0.623723	58.08368	3.6E-255
X_1	0.256958	0.816276	0.314793	0.753023

Table 4. Regression Model I: K=4, n=508
Source: IBM SPSS 20, Excel, Author's creation

The second hypothesis was also tested through models of linear regression. In Model II we chose independent variables X_2 - Dummy variable for different smoking habits; $X_2= 0$ for non smoking, $X_2= 1$ for otherwise). The dependent variable (Y-employee engagement) was measured as the sum of 9 factors by UWES-9.

The linear multiple regression Model II (2) with estimated parameters is:

$$Y = 37.42 - 2.0981X_2 \quad (2)$$

n = 632, R-squared = 0.0108, Adjusted R-squares = -0.009, Standard Error = 10.061. Variable X_2 (p-value = 0.0089) is statistically significant.

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.1038	0.0108	0.009	10.061

Table 5. Regression Model I: K=1, n=632
Source: IBM SPSS 20, Excel, Author's creation

Model I	Sum of Squares	df	F	P-value
Regres.	695.5206	1	6.8708	0.0089
Resid.	63773.1	630		
Total	64468.62	631		

Table 6. Regression Model II, F-test
Source: IBM SPSS 20, Excel, Author's creation

	Coeff.	Standard Error	t Stat	P-value
Intercept.	37.427	0.565985	66.12757	1,2E-285
X_2	-2.0981	0.800424	-2.62124	0.008973

Table 7. Regression Model II: K=1, n=632
Source: IBM SPSS 20, Excel, Author's creation

In Model II (Table 5, 6, 7) 1.08 % of total sum of squares is explained by the estimated model. Variable X_2 (p-value=0.0089) is statistically significant at a 5% significance level. The regression coefficient β_2 ($\beta_2=-2.0981$) indicates that the non-smoking respondents are more engaged at work than others (who smoke). Therefore hypothesis 2 is accepted.

5. CONCLUSION

In this paper we presented an original research, observing the correlation between two independent variables (X_1 - a Dummy variable for marital status; $X_1= 0$ for married; $X_1= 1$ for otherwise, X_2 - Dummy variable for the different smoking habits; $X_2= 0$ for non smoking, $X_2= 1$ for otherwise) and their impact on the Y variable based on linear regression models. All data are based on the author's research. Linear regression Model I, with n=632 and K=1 regressors, indicated that variable X_1 isn't statistically significant. Model II, with n=632 and K=1 regressors, indicated that variable X_2 is statistically significant at a 5 % significance level. The regression coefficient β_2 ($\beta_2=-2.0981$) indicates that the respondents who don't smoke are more engaged at work than the respondents who smoke. We established, that there is no correlation between marital status and work engagement, but on the other hand we established that non-smoking respondents are more engaged at work than the respondents who smoke. Finally, this research rejected the first hypothesis, the main research hypothesis, which stated that at least one independent of variables (X_1) is statistically significant for explanation of variability in variable Y- engagement of employee. The additional hypothesis, that the independent variable (X_2) is statistically significant for explanation of variability in variable Y was accepted.

In further research it would be interesting to include other independent variables such as sex, age, political status, etc. in the multiple regression model.

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