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## **INTERNET ADDICTION – EMPIRICAL VERIFICATION FOR SLOVENIA**

Mateja Gorenc<sup>1</sup>, Borka Jerman Blažič<sup>2</sup>, Anita Goltnik Urnaut<sup>3</sup>

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### **Abstract**

The Internet has become an essential part of the day and the working lives of many people. Daily use of the Internet has the potential to become the worrying problem of the moment as some of Internet users begin to neglect their families, abandon hobbies, are late for work and, thus, lose contact with reality only to spend as much time as possible on the Internet. The aim of the research was to explore Internet addiction in Slovenia. We have designed a structural model to study Internet addiction. The research was conducted to collect data on Internet addiction. The sample surveys included employed people in Slovenia. Our results indicate a serious problem with Internet addiction. The predicted model in this study can be used for further research on Internet addiction.

**Key words:** Internet addiction, addiction to computer games, addiction to social networks, addiction to online shopping, addiction to pornographic content, addiction to sports betting and gambling, loneliness.

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### **Introduction**

In the scientific literature on the topic of Internet addiction, we have come across the usage of different terms. These terms refer to difficulties in the use of Internet services and its impact on human behavior. Kimberly Young (Young, S., 1996 b, p. 20) says that addiction is a tendency or control that causes an uncontrolled behavior in an individual, but despite the problems that a substance or act brings, the addicted person still uses or does it. Young says that addiction is associated with instincts that an individual cannot control and that it is

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<sup>1</sup> Mateja Gorenc, a doctoral student of Business Informatics, with a Master's degree in Business studies and a university graduate in mathematics, employed in the sector of information technologies in the service of the programming and management of applications (mateja.gorenc@gmail.com)

<sup>2</sup> Institut "Jožef Štefan" Ljubljana, Slovenia (borka@e5.ijs.si)

<sup>3</sup> Faculty of Commercial and Business Sciences Celje, Slovenia (anita.urnaut@sc-sg.si)

often accompanied with loss of the control of use. Addicted individuals still use or do something harmful to their health or behavior; despite knowing that such actions are detrimental, individuals cannot stop (Young & Case, 2004, pp. 106-107). According to Griffiths (2010, p. 464), internet addiction is a kind of technology dependency, which means that you depend on technology such as computers, television, mobile phones, and, on the other hand, it is a behavioral addiction, which means that the addiction causes changes in behavior, which happens in the excessive use of various substances and actions or in compulsive gambling.

The signs of addiction which indicate that a person to some extent is behaving uncontrollably are as follows (Young, K. S., 1998, p. 198):

- A person thinks only about their previous activities on the web or plans activities that will be implemented upon their next connection as well as being concerned about them;
- A person feels the need to be increasingly connected to the network and to use it for longer periods of time in order to achieve the expected satisfaction or calmness;
- A person has often sought to control, reduce or terminate the use of the internet, but did not succeed;
- A person is restless, moody, depressed, and irritable when trying to reduce their use of Internet services;
- A person has risked the loss of a significant relationship or jeopardized their studies or work due to the use of Internet services;
- A person has lied to family members, loved ones or other significant people in their lives to conceal how much time she or he spends on internet services;
- A person uses internet services (in the following text "Internet") as an escape from their everyday problems.

Despite the growing interest and attention of researchers in this field, today, there are many issues on the topic of internet addiction. Many questions on this topic still have vague answers and vague explanations and there are vague comparisons among established research findings. These unexplained concepts include three closely related problem areas: terminology, diagnostic concepts and measurements. In the field of terminology, there is a relatively high heterogeneity.

In addition to Internet dependency (Goldberg, 1995), there is widespread use of the following concepts: problematic Internet usage (Caplan, 2002, pp. 552-575) (Shapiro, Goldsmith, Keck, Khosla, & McElroy, 2000, p. 267-272) , the pathological use of the Internet (Morahan-Martin &

Schumacher, 2000, p. 13-29), compulsive Internet use (Greenfield, 1999, p. 403-412) and excessive Internet use (Hansen 2002, pp. 232-236). Using the terminology is closely correlated to an addiction to the Internet. The use of the terms 'Internet addiction' or 'pathological Internet use' implicitly argue that this phenomenon is incorporated as an independent, psychiatric disorder among other mental disorders (Griffiths M., 2000, p. 211–218), (Mitchell, 2000, p. 355–632), (Morahan–Martin, 2005, p. 39–48), (Treuer, Fábíán, & Füredi, 2001, p. 283). Recognising the concept of Internet addiction is due to the definition of compulsive and impulsive symptoms that affect the working and educational problems that are caused by excessive use of the Internet. Goldberg (1995) was the first to attempt to describe the phenomenon of internet addiction. He used the criteria for dependence on psychoactive substances to measure Internet addiction. Brenner (1997, p. 879-882) created a 32-page long questionnaire to measure internet addiction (the title of the questionnaire was: The Relationship between Internet and Addiction Behavior), the questionnaire has never been used. Young (1996, p. 899-902) initially believed that internet addiction was similar to addictions such as other behavioral addictions. She thought that the model for the dependence on chemical substances could be appropriate for Internet addiction, similar to pathological gaming (Young, K., 1998b, p. 237-244). In her 8 question questionnaire, she determined that if respondents answered 5 questions affirmatively, they were addicted to the Internet. This questionnaire is sometimes used for research, but has never been tested in systematic psychometric tests. Young's second scale comprised 20 questions to test Internet addiction and these show enough internal consistency (Widyanto & McMurrin, 2004, p. 443–450). Davis, Flett and Besser (2002, p. 331–345) used an online survey that revealed four dimensions associated with the problematic use of the Internet: a reduced impulse of control, loneliness/depression, social comfort and diversion. Nichols in Nicki (2004, p. 381–384) added two additional items (exceptional importance and changing moods) and created a scale for measuring addiction to the Internet with 36 questions. On the basis of psychometric analysis, we have reduced the number of questions to 31.

### **Theory Development and Hypotheses**

Internet addiction has been the subject of many studies and scientific papers over the last sixteen years. The first to address the concept of Internet addiction was the American researcher and psychologist, Dr. Kimberly S. Young. Young, in her study of Internet addiction, arranged people into groups according to who has the greatest predisposition to become addicted to the internet. In one of the groups, she placed people with emotional and psychological problems. Young found that as many

as 54 percent of Internet addicts reported prior chronic depression, anxiety and low self-esteem. She also discovered that many Internet addicts acquire a new identity. Their identity changes depending on their mood and desires. Lonely people will present themselves as social, open and of a friendly nature; people with low self-esteem, will present themselves as brave, confident, open, and so on (Young K. S., 1998a, p. 62–63).

In the existing literature we can distinguish five main categories of Internet addiction (Young 1998a, Young, Pistner, O'Mara et al. 2000; Cantelmi 2009):

- Dependence on virtual sex: watching, recording, sharing on-line pornography or conversations in chat rooms for adults.
- Dependence on virtual relationships: making friends in chat rooms. This friendship eventually becomes more important than real life. This can result in virtual infidelity, which in turn brings problems in marriage and family.
- Dependence on the activity on the network: compulsive behaviors associated with different activities within the network, such as gambling (poker, online casinos and bookmakers etc.), excessive online shopping and trade (online shops, eBay, etc.) with the consequential loss of large amounts of money and impacts on the financial sector, relationships, work or school.
- Dependence on information: an excessive search and collection of information from the Internet and their organization on the computer.
- Dependence on online virtual games: obsessive gambling. Individuals will visit e-casinos and eventually lose a lot of money. This affects their job and more meaningful relationships (family, friends).

For present sociological research, the correlation between the use of the Internet and the psychological and social characteristics of an individual (eg. the loneliness and low self-esteem) is very interesting. Many authors who deal with this even predict that the internet has some sort of potential that causes users to become dependent on it. For example, a man who is isolated or low in confidence will develop preferences for internet social interaction more easily than mentally or socially healthy people (Caplan, 2002, p. 629). Davis, who studied this phenomenon, says that individuals who suffer from certain psychological or social problems, such as loneliness, have by their very nature more negative perceptions of their social status than people without these problems. Thus, these people develop preferences for internet social interaction as an alternative to live communication because it is perceived to be safer

and easier for them to reveal themselves (Caplan, 2002, p. 627). Morahan-Martin and Schumacherb (2003, p. 13–29) conducted a study on the excessive use of the Internet and loneliness. Loneliness has been associated with excessive use of the Internet. Loneliness was measured with a scale known as the UCLA Loneliness Scale and they reached the conclusion that lonely people use the Internet primarily for relaxation, making new friends, talking with people with the same interests, and out of boredom. Lonely people prefer online communication rather than communicating face to face as they relax online.

Based on previous studies of Internet addiction (Young 1998a, Young, Pistner, O'Mara et al. 2000; Cantelmi 2009; Caplan, 2002; Morahan-Martin in Schumacherb, 2003), I formed a hypothesis that I, through research and conducted empirical study, would disprove or confirm. Based on the set hypotheses, I made a structural model (see Figure 1). The basis for creating hypotheses included the results of previous research on Internet addiction outside Slovenia.

H1: There is a correlation between addiction to computer games and Internet addiction.

H2: There is a correlation between addiction to social networks and Internet addiction.

H3 There is a correlation between the effects of addiction to social networks in everyday life and Internet addiction.

H4: There is a correlation between addiction to virtual communication and Internet addiction.

H5: There is a correlation between addiction to online shopping and Internet addiction.

H6: There is a correlation between addiction to pornography and Internet addiction.

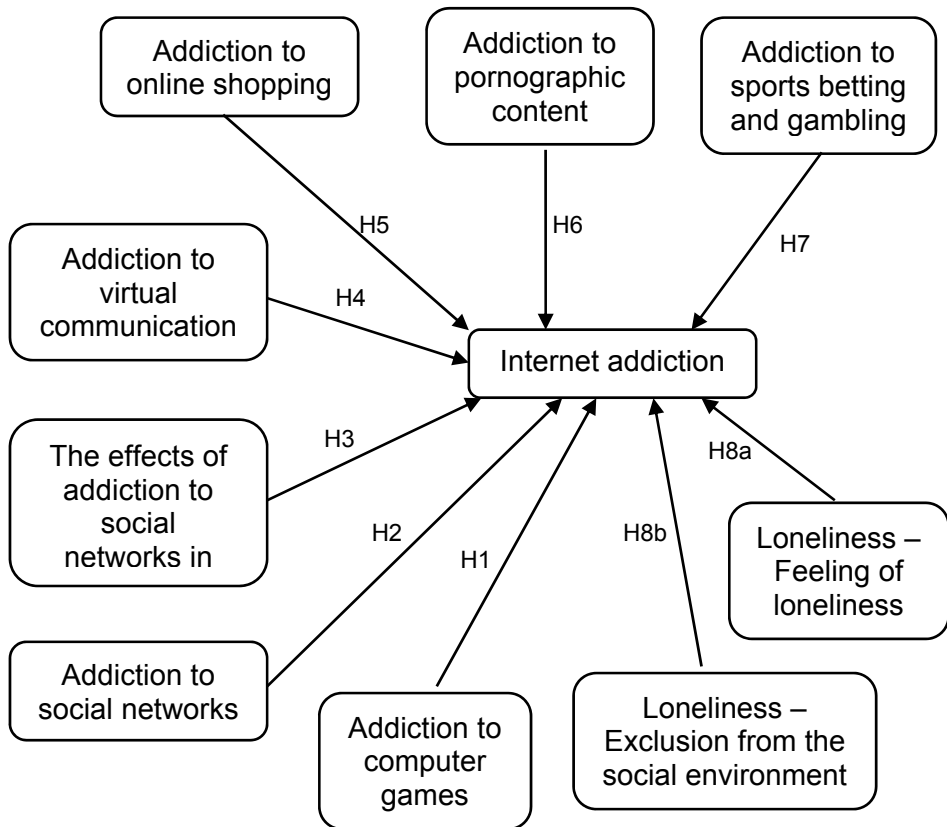
H7: There is a correlation between addiction to sports betting and gambling and Internet addiction.

H8a: There is a correlation between feelings of loneliness and Internet addiction.



H8b: There is a correlation between exclusion from the environment and Internet addiction.

Figure 1: Structural model of Internet addiction



Source: Author's work, 2015

### **Methodology**

The quantitative research involved 1651 people of which 599 responded by filling out an online survey; of these, 448 questionnaires were valid and 151 questionnaires were eliminated; the real sample of the quantitative research is therefore N = 448, and it is represented by employees in the Republic of Slovenia, aged 18 to 65 who use a computer at work and have a connection to the Internet. The quantitative survey took place from 1.6.2016 to 30.6.2015.

**Table 1: Demographic variables**

<b>Demographic variables</b>	<b>Sample (N=448)</b>
Sex	
Female	45.5 %
Male	54.5 %
Age (years)	
Below 30	8.5 %
30 – 40	31.0 %
40 – 50	36.6 %
50 or above	23.8 %
Education	
Secondary School (V) or less	20.3 %
College (VI)	12.5 %
Faculty, College, Academy of Arts (VII)	48.0 %
Specialization or Master's Degree (VII/2)	19.2 %
Income	
Up to 1.000 EUR	32.1 %
1.000 EUR - 2.000 EUR	55.4 %
2.000 EUR - 3.000 EUR	8.3 %
Over 3.000 EUR	3.1 %
No answer was provided	1.1 %
Job Sector	
public sector	50.7 %
private sector	49.3 %
Organization Size	
Micro or small organization	23.7 %
middle-sized organization	31.1 %
large organization	45.2 %
Region	
East	45.8 %
Central	33.9 %
West	20.3 %

Source: Own research

The basis for the understanding of the interactions between variables and the first key condition for the implementation of the linear regression analysis is the determination of interconnections among pairs of independent variables, and between independent and dependent variables (Tabacnick & Fidell, 2013, p. 326). In Tables 2 to 4, we summarize the regression analysis for Internet addiction (values of correlation coefficients, values of determination and adjusted determination coefficients), the F - test (ANOVA) and t statistics (values of regression coefficients) with the help of which we examined the hypothesis on a sample of employees. Based on the results, the hypotheses were confirmed, partly confirmed and rejected. The presentation of the results in the above-mentioned tables is followed by a descriptive presentation of the results obtained from the sample of employees. At the end, there is a descriptive display of the summary of the hypotheses' regression analysis.

**Table 2: Results of the verification of hypotheses of Internet addiction - coefficients (correlation, determination)**

<b>Hypothesis</b>	<b>Dependent Variable</b>	<b>Independent Variable</b>	<b>R Square</b>	<b>Adjusted R Square</b>
H1	Internet addiction	Addiction to computer games	0.675	0.455
H2	Internet addiction	Addiction to social networks	0.605	0.366
H3	Internet addiction	The effects of addiction to social networks in everyday life	0.474	0.225
H4	Internet addiction	Addiction to virtual communication	0.356	0.127
H5	Internet addiction	Addiction to online shopping	0.519	0.269
H6	Internet addiction	Addiction to pornographic content	0.610	0.372
H7	Internet addiction	Addiction to sports betting and gambling	–	–
H8a	Internet addiction	Feeling of loneliness	0.201	0.040
H8b	Internet addiction	Exclusion from the social environment	0.242	0.059

Source: Own research

**Table 3: Results of the verification of hypotheses of Internet addiction - coefficients of F test (ANOVA)**

<b>Hypothesis</b>	<b>Dependent Variable</b>	<b>Independent Variable</b>	<b>F</b>	<b>Sig.</b>
H1	Internet addiction	Addiction to computer games	372.384	0.000
H2	Internet addiction	Addiction to social networks	257.100	0.000
H3	Internet addiction	The effects of addiction to social networks in everyday life	129.540	0.000
H4	Internet addiction	Addiction to virtual communication	64.668	0.000
H5	Internet addiction	Addiction to online shopping	164.410	0.000
H6	Internet addiction	Addiction to pornographic content	264.440	0.000
H7	Internet addiction	Addiction to sports betting and gambling	–	–
H8a	Internet addiction	Feeling of loneliness	4.002	0.048
H8b	Internet addiction	Exclusion from the social environment	5.919	0.017

Source: Own research

Table 4: Results of the verification of hypotheses of Internet addiction - t statistics → regression coefficients

Dependent Variable	Independent Variable	Unstandard. Coef.		Stand. Coef.	t	Sig.
		B	Std. Error	Beta		
Internet addiction	Addiction to computer games	0.680	0.040	0.675	19.300	0.000
Internet addiction	Addiction to social networks	0.634	0.040	0.605	16.034	0.000
Internet addiction	The effects of addiction to social networks in everyday life	0.514	0.045	0.474	11.381	0.000
Internet addiction	Addiction to virtual communication	0.394	0.049	0.356	8.042	0.000
Internet addiction	Addiction to online shopping	0.529	0.041	0.519	12.822	0.000
Internet addiction	Addiction to pornographic content	0.620	0.038	0.610	16.261	0.000
Internet addiction	Addiction to sports betting and gambling	-	-	-	-	-
Internet addiction	Feeling of loneliness	0.334	0.167	0.201	2.000	0.000
Internet addiction	Exclusion from the social environment	0.406	0.167	0.242	2.433	0.000

Source: Own research

## Results

To continue, we descriptively present the results obtained to verify the hypotheses of Internet addiction presented in Tables 2 to 4.

### **H1: There is a correlation between addiction to computer games and Internet addiction.**

The multiple correlation coefficient R shows the strength of the relationship between the dependent and independent variables. It amounts to 0,675, which shows a strong correlation. The multiple coefficient of determination makes it clear that we have managed to explain 45.5% of the total variance (Internet addiction) with the impact of the independent variable (addiction to computer games) representing 54.5% of the unexplained impact. We are talking about a moderate correlation between the dependent and independent variables. The reliability of the obtained regression function was measured with an F - test, wherein, depending on the value of Sig. (Significance level of less than 0.05) we can argue that the prediction from the regression model of Internet addiction is good and of quality. To verify the H1 hypothesis, we examined the value of the statistical characteristics of the standardized regression coefficient ( $\beta$ ) and the value of the significance level. A

significance level lower than 0.05 indicates there is an influence of the independent variable (addiction to computer games) on Internet addiction. Based on the results obtained and the value of the regression coefficient  $\beta$ , we can confirm the H1 hypothesis and conclude that Internet addiction is affected by addiction to computer games as well as other unexplored influences, so it would make sense to also involve other relevant factors of addiction with computer games in the study, which influence Internet addiction.

**H2: There is a correlation between addiction to social networks and Internet addiction.**

The correlation coefficient R and the coefficient of determination R<sup>2</sup> indicate a moderate correlation between the dependent and independent variables and a strong correlation between the two variables. Depending on the level of significance (Sig.), we can say that the prediction from the regression model is of quality. The power of the independent and dependent variables is moderate. The standardized regression coefficient is 0.605. Based on the results obtained and the value of the regression coefficient  $\beta$ , the hypothesis H2 can be fully confirmed.

**H3 There is a correlation between the effects of addiction to social networks in everyday life and Internet addiction.**

The correlation coefficient R and the coefficient of determination R<sup>2</sup> indicate a low correlation between the dependent variable (Internet addiction) and the independent variable (addiction to social networks in everyday life). The power of the independent and dependent variables is moderate. The standardized regression coefficient is 0.474. Based on the results obtained and the value of the regression coefficient  $\beta$ , hypothesis H3 can be fully confirmed.

**H4: There is a correlation between addiction to virtual communication and Internet addiction.**

The correlation coefficient R and the coefficient of determination R<sup>2</sup> indicate a low correlation between the dependent variable (Internet addiction) and the independent variable (addiction to virtual communication). The power of the independent and dependent variables is low. The standardized regression coefficient is 0.394. Based on the results obtained and the value of the regression coefficient  $\beta$ , hypothesis H4 can be fully confirmed.

**H5: There is a correlation between addiction to online shopping and Internet addiction.**

The correlation coefficient R and the coefficient of determination R<sup>2</sup> indicate a moderate correlation between the dependent variable

(Internet addiction) and the independent variable (addiction to online shopping). The power of the independent and dependent variables is moderate. The standardized regression coefficient is 0.525. Based on the results obtained and the value of the regression coefficient  $\beta$ , hypothesis H5 can be confirmed in its entirety.

**H6: There is a correlation between addiction to pornography and Internet addiction.**

The correlation coefficient R and the coefficient of determination R<sup>2</sup> indicate a moderate correlation between the dependent (addiction to the Internet) and independent variables (addiction to pornography). The power of the independent and dependent variables is moderate. The standardized regression coefficient is 0.620. Based on the results obtained and the value of the regression coefficient  $\beta$ , hypothesis H6 can be fully confirmed.

**H7: There is a correlation between addiction to sports betting and gambling and Internet addiction.**

This set of questions suffered a lack of answers because almost all respondents replied that they had never engaged in sports betting and gambling. Hypothesis H7 was therefore rejected due to the conclusion that the respondents do not have a problem with addiction to sports betting and gambling.

**H8a: There is a correlation between feelings of loneliness and Internet addiction.**

The correlation coefficient R and the coefficient of determination R<sup>2</sup> indicate a low correlation between the dependent (Internet addiction) and independent variables (loneliness - the feeling of loneliness). The power of the independent and dependent variables is low. The standardized regression coefficient is 0.486. Based on the results obtained and the value of the regression coefficient  $\beta$ , hypothesis H8a can be fully confirmed.

**H8b: There is a correlation between exclusion from the environment and Internet addiction.**

The correlation coefficient R and the coefficient of determination R<sup>2</sup> indicate a low correlation between the dependent (Internet addiction) and independent variables ((loneliness - exclusion from the environment). The power of the independent and dependent variables is low. The standardized regression coefficient is 0.406. Based on the results obtained and the value of the regression coefficient  $\beta$ , hypothesis H8b can be fully confirmed.

In Tables 5 to 8, we investigate demographic factors (gender, age, education, income, job sector, region, size of the organization) for Internet addiction.

Table 5: Results based on the sex of respondents

		Group Statistics			Levene's Test for Equality of Variances		t-test for Equality of Means		
		N	Mean	Std. Dev.	F	Sig.	t	df	Sig.
Gender	Female	204	0.08	1.14	9.62	0.002	1.66	446	0.096
	Male	244	-0.07	0.82					
Job Sector	public sector	227	-0.01	0.97	0.70	0.403	-0.33	446	0.738
	private sector	221	0.01	0.98					

Source: Own research

Table 6: Results based on age group, education, income, job sector, region and size of the organization

Demographic variables	N	Mean	Std. Deviation
<b>Age (years)</b>			
Below 30	38	0.142	1.257
30 - 40	138	0.094	1.090
40 - 50	163	-0.027	0.991
50 or above	106	-0.122	0.669
<b>Education</b>			
Secondary School (V) or less	91	-0.087	0.839
College (VI)	56	-0.009	1.067
Faculty, College, Academy of Arts (VII)	215	0.059	1.086
Specialization or Master's Degree (VII/2)	86	-0.049	0.779
<b>Income</b>			
Up to 1.000 EUR	144	-0.048	0.874
1.000 EUR - 2.000 EUR	248	-0.008	1.019
2.000 EUR - 3.000 EUR	37	0.224	1.177
Over 3.000 EUR	14	0.177	0.986
<b>Job Sector</b>			
public sector	227	-0.015	0.979
private sector	221	0.016	0.988
<b>Region</b>			
East	205	-0.114	0.764
Central	152	0.173	1.256
West	91	-0.032	0.862

Source: Own research

Table 7: Results displayed according to age, education, income, job sector, region and size of the organization - coefficients of F test (ANOVA)

Dependent Variable	Independent Variable	F	Sig.
Internet addiction	age	1.266	0.286
Internet addiction	education	0.569	0.636
Internet addiction	income	0.905	0.439
Internet addiction	region	3.834	0.022
Internet addiction	size of the organization	1.849	0.159

Source: Own research

Table 8: Multiple comparison of Internet addiction for the region

(I) Region	(J) Region	The difference arithmetic mean (I-J)	Std. Error	Sig.
East	Central	-0.287	0.115	0.039
	West	-0.082	0.105	0.820
Central	East	0.287	0.115	0.039
	West	0.205	0.136	0.350
West	East	0.082	0.105	0.820
	Central	-0.205	0.136	0.350

Source: Own research

On the basis of the data in Table 5, we decided that sex does not affect Internet addiction.

Table 6 shows the respondent average based on age group, where it is evident that internet addiction declines with age. Table 6 shows the average of respondents by level of education, income, region and size of organization. Table 7 shows that education, income and the size of organization do not have any impact on Internet addiction. Internet addiction is affected by region. Table 8 shows that the central Slovenian region has an impact on Internet addiction, eastern and western Slovenia shows no effect on Internet addiction.



**Table 9: Correlation matrix of Internet addiction**

		1	2	3	4	5	6	7	8	9
1	PC	1	<b>0.675**</b>	<b>0.605**</b>	<b>0.474**</b>	<b>0.356**</b>	<b>0.519**</b>	<b>0.610**</b>	<b>0.201*</b>	<b>0.242*</b>
	Sig.		0.000	0.000	0.000	0.000	0.000	0.000	0.048	0.017
	N		448	448	448	448	448	448	97	97
2	PC		1	<b>0.359**</b>	<b>0.541**</b>	<b>0.168**</b>	<b>0.397**</b>	<b>0.589**</b>	0.098	<b>0.319**</b>
	Sig.			0.000	0.000	0.000	0.000	0.000	0.339	0.001
	N			448	448	448	448	448	97	97
3	PC			1	0.066	<b>0.104*</b>	<b>0.414**</b>	<b>0.299**</b>	-0.057	<b>0.256*</b>
	Sig.				0.166	0.028	0.000	0.000	0.579	0.011
	N				448	448	448	448	97	97
4	PC				1	0.039	<b>0.142**</b>	<b>0.265**</b>	0.137	0.099
	Sig.					0.405	0.003	0.000	0.179	0.335
	N					448	448	448	97	97
5	PC					1	<b>0.333**</b>	<b>0.349**</b>	<b>0.289**</b>	0.061
	Sig.						0.000	0.000	0.004	0.555
	N						448	448	97	97
6	PC						1	<b>0.413**</b>	0.070	0.130
	Sig.							0.000	0.495	0.205
	N							448	97	97
7	PC							1	<b>0.229*</b>	0.133
	Sig.								0.024	0.193
	N								97	97
8	PC								1	0.125
	Sig.									0.222
	N									97
9	PC									1
	Sig.									
	N									

Note:

PC – Pearson Correlation

Sig – Sig. (2-tailed)

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

1 – Internet addiction

2 – Addiction to computer games

3 – Addiction to social networks

4 – The effects of addiction to social networks in everyday life

5 – Addiction to virtual communication

6 – Addiction to online shopping

7 – Addiction to pornographic content

8 – Loneliness – Feeling of loneliness

9 – Loneliness – Exclusion from the social environment

Source: Own research

The results of the correlation matrix (Table 9) of Internet addiction show that the greatest impact on internet addiction is held by computer games (linear, positive and medium correlation), then addiction to pornography (linear, positive and medium correlation), addiction to social networks (linear, positive and medium correlation), addiction to online shopping (linear, positive and medium correlation), the effects of addiction to social networks in everyday life (linear, positive and medium correlation), addiction to virtual communication (linear, positive and mean correlation), isolation (exclusion from the environment) (linear, positive and low correlation) and loneliness (the feeling of solitude) (linear, positive and low correlation). If the addiction to the Internet increases, this results in an increase in the addiction to computer games, addiction to pornography, addiction to social networks, addiction to online shopping, the effects of addiction to social networks in everyday life, addiction to virtual communication, isolation (exclusion from the environment), loneliness (the feeling of solitude), and vice versa.

From the correlation matrix of internet addiction (Table 9), it is evident that the independent variables (addiction to computer games, addiction to social networks, the effects of addiction to social networks in everyday life, addiction to virtual communication, addiction to online shopping and addiction to pornography) are associated with the dependent variable (internet addiction). The independent variables of loneliness (the feeling of loneliness and isolation, exclusion from the environment) are, on the other hand, not associated with the dependent variable. Some other independent variables, however, are related to each other.

## **Discussion**

We set up a fundamental thesis, derived from the basic research questions: Internet addiction is influenced by addiction to computer games, addiction to social networks, the effects of addiction to social networks in everyday life, addiction to virtual communication, addiction to online shopping, addiction to pornography, addiction to sports betting and gambling, and loneliness (exclusion from the environment and the feeling of loneliness).

**Table 10: Verification of the hypotheses of Internet addiction**

Hypothesis		Decision of the qualitative research
Addiction to computer games	H1: There is a correlation between addiction to computer games and Internet addiction.	confirmed
Addiction to social networks	H2: There is a correlation between addiction to social networks and Internet addiction.	confirmed
The effects of addiction to social networks in everyday life	H3: There is a correlation between the effects of addiction to social networks in everyday life and Internet addiction.	confirmed
Addiction to virtual communication	H4: There is a correlation between addiction to virtual communication and Internet addiction.	confirmed
Addiction to online shopping	H5: There is a correlation between addiction to online shopping and Internet addiction.	confirmed
Addiction to pornographic content	H6: There is a correlation between addiction to pornography and Internet addiction.	confirmed
Addiction to sports betting and gambling	H7: There is a correlation between addiction to sports betting and gambling and Internet addiction.	refuted
Loneliness	H8a: There is a correlation between feelings of loneliness and Internet addiction.	confirmed
Loneliness	H8b: There is a correlation between exclusion from the environment and Internet addiction.	confirmed

Demographic variables		
Gender	H9a: There is a correlation between sex and Internet addiction.	refuted
Age	H9b: There is a correlation between age and Internet addiction.	refuted
Education	H9c: There is a correlation between education and Internet addiction.	refuted
Income	H9d: There is a correlation between income and Internet addiction.	refuted
Region	H9e: There is a correlation between region and Internet addiction.	confirmed
Job Sector	H9f: There is a correlation between job sector and Internet addiction.	refuted
Organization Size	H9g: There is a correlation between organization size and Internet addiction.	refuted

Source: Own research

From Table 10, it is evident that we have confirmed hypothesis H1 on the sample of employees, which means that we have confirmed the correlation between addiction to computer games and Internet addiction. We have also confirmed hypothesis H2, which means that we have confirmed the correlation between addiction to social networks to Internet addiction. Hypothesis H3 has also been confirmed, which means that we have confirmed the correlation between the effects of addiction to social networks in everyday life and Internet addiction. Hypothesis H4 has been confirmed, which means that we have confirmed the correlation between addiction to virtual communication and Internet addiction. Hypothesis H5 has been confirmed, which means that we have confirmed the correlation between addiction to online shopping and Internet addiction. Hypothesis H5 has been confirmed, which means that we have confirmed the correlation between addiction to pornography and Internet addiction. Hypothesis H7 has been rejected, because there is no correlation between addiction to sports betting and gambling and Internet addiction. Hypothesis H8a has been confirmed, which means that we have confirmed the correlation between loneliness (a feeling of loneliness) and Internet addiction. Hypothesis H8b has been confirmed, which means that we have confirmed the correlation between loneliness (exclusion from the environment) and Internet addiction.

Hypothesis H9a has been rejected, because there is no correlation between sex and Internet addiction. This means that we have not

confirmed the correlation between sex and internet addiction. Hypothesis H9b has been rejected, because there is no correlation between age and Internet addiction. This means that we have not confirmed the correlation between age and internet addiction. Hypothesis H9c has been rejected, because there is no correlation between education and Internet addiction. This means that we have not confirmed the correlation between education and internet addiction. Hypothesis H9d has been rejected, because there is no correlation between income and Internet addiction H9e has been confirmed, which means that we have confirmed the correlation between region and Internet addiction. Hypothesis H9g has been rejected, because there is no correlation between job sector and Internet addiction. This means that we have not confirmed the correlation between job sector and internet addiction. Hypothesis H9a has been rejected, because there is no correlation between the size of an organization and Internet addiction. This means that we have not confirmed the correlation between the size of an organization and internet addiction.

### **Conclusion**

My research is original due to the specificity of Slovenia, as we have taken into account the country's specificity. This has also been proven with the imperfect matching of the results of a survey carried out despite the use of similar indicators. If we compare our results of Internet addiction with the survey Young and Case (2004, pp. 108-110) conducted, we discover that in Young and Case's survey (2004, p. 108-110) employees, during their working hours, most commonly accessed pornography (42%), chat rooms (13%), gambling (12%), sport pages (8%), investment funds (7%) and shopping (7%) at work. In our study, we found that addiction to the Internet mostly depends on addiction to social networks and is then influenced by the effects of addiction to social networks in everyday life. Addiction to pornography and addiction to computer games show relatively similar effect on Internet addiction. As in the research carried out by Young and Case, Morahan-Martin and Schumacherb (2003, p. 13-29) conducted a study on the excessive use of the Internet and loneliness. Loneliness was associated with excessive use of the Internet. The same conclusion has also been reached in our study.

## **Resources**

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