

## **ANALYSIS OF THE INFLUENCE OF WORKING TIME FLEXIBILITY AND LABOUR LAW STATUS FLEXIBILITY ON THE REDUCTION OF THE UNEMPLOYMENT RATE**

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**Abstract:** *With the aim of analyzing the impact of employment in the observed flexible forms of work on the unemployment rate in Austria, Croatia, Italy, Hungary and Slovenia, the author systematically investigated and analyzed the impact of working time flexibility and labour law status flexibility on the unemployment rate. The aim of this paper is to investigate the connection between the unemployment rate and the proportion of people surveyed in the sample who work in the following flexible forms of work: work in shifts, evening work, night work, work on Saturdays, work on Sundays and work from home. The research in the paper was conducted on the EU LFS official data set obtained on the basis of the RPP 35/2020-LFS project approved by the European Commission and Eurostat. The author analyzed a sample of 447,031 respondents in the period from 2008 to 2018. In the research part of the work, a statistically significant model of the linear association of the criterion variable of the unemployment rate with the predictor variable SENSSH and a statistically significant model of the nonlinear association of the criterion variable of the unemployment rate with the predictor variable SENSSH will be generated for each observed EU country. Based on an extensive analysis of data from selected EU member states, results were obtained that indicate an evident reduction in the unemployment rate in 80% of the observed countries through the introduction of flexible forms of employment.*

**Keywords:** *flexible forms of work, unemployment rate, labour market, EU countries.*

**JEL Classification:** *J21, J64, O17, O52.*

### **INTRODUCTION**

The extent of the presence of non-standard forms of employment in different economies depends on the applicable laws, the offer on the demand side (employers) and the interest in that offer on the supply side (employees). Non-standard employment

benefits employers more than employees because it often implies worse working conditions and lower wages. (Zieliński, 2020) (Holscher, Perugini, & Pompei, 2011) write about wage inequality, flexibility and duality of the labour market in Eastern and Western Europe. The authors show the complexity and heterogeneity of the labour market of EU member states in 2007 at the beginning of the economic crisis in the context of components related to differences in earnings, with a special emphasis on the dimensions of labour market flexibility that can be identified with contractual arrangements - temporary versus permanent employment and self-employment.

A large number of organizations have recently experienced various changes in organizational structures and business processes as a result of changes in the business environment. (Galić, Sudarić, & Galić, 2022) From 2007 to today, certain previously mentioned changes have taken place: from legislative, institutional, technological to social and the very frequency of application of contractual arrangements, such as temporary employment and self-employment. It would be interesting to compare the incidence of the aforementioned contractual arrangements in 2020 and 2021 in the context of the crisis caused by the pandemic.

Likewise, job insecurity affects individual well-being and organizational performance. Many studies show a correlation between job insecurity and flexible employment. (Rehman, Hawryszkiewicz, Sohaib, Namisango, & Samad Dahri, 2023) However, this area is certainly not yet sufficiently researched, and this work aims to analyze the issue in the form of correlation between the working time flexibility and the labour law status flexibility and the economic development of selected countries of the European Union through their effect on reducing the unemployment rate, and conclusions are drawn individually, for each country. The countries were selected based on their geopolitical position and similarities in the mentality and work habits of the population, and an additional condition was EU membership. By using non-linear regression models, knowledge about complex interactions on the labour market was deepened, with a special focus on the effects of the flexibility model, which is more pronounced in certain EU countries. Also, using non-parametric methods, differences in the flexibility of individual labour markets were precisely identified, which gives an in-depth insight into the concrete state of the labour market of selected EU countries in the period from 2008 to 2018.

The research is based on the following research question:

- Is the unemployment rate lower in those countries that have a greater share of flexible forms of work – work in shifts, evening and night work, work on Saturdays and Sundays and work from home?

In accordance with previous theoretical knowledge and empirical research, the hypothesis that will be accepted or rejected by the research is:

Hypothesis 1 (H1).

With the increase in the share of work in shifts, evening and night work, work on Saturdays and Sundays, and work from home, the unemployment rate decreases.

Explanation:

A statistically significant model will be generated for each EU country:

- a) linear associations of the criterion variable *unemployment rate* with the pre-

dicator variable *SENSSH*<sup>1</sup>

b) non-linear associations of the criterion variable *unemployment rate* with the predictor variable *SENSSH*

Statistical processing and analysis of hypothesis H1. will receive conclusions about the impact of flexible forms of work analyzed in the hypothesis on the unemployment rate as the most commonly used indicator of the prosperity of the labour market and an important measure that projects the state of the economy, which consequently affects the level of development of the countries that are the subject of analysis in the hypothesis H1.

The aim of the paper is to analyze the relationship between the unemployment rate and the share of flexible forms of employment. Although many authors have made their contribution in the field of flexibility in the labour market, this work will additionally try to contribute to filling the gap in the literature, the knowledge and conclusions of which sought to perceive the role and significance of incorporating flexible forms of work in the form of reducing the unemployment rate of people on the labour market. The work includes research and analysis of the impact of integrating flexible forms of work in Austria, Croatia, Italy, Hungary and Slovenia in the period from 2008 to 2018, in a sample of 447,031 people<sup>2</sup>.

Internal coherence in the research process in the paper is achieved through a series of six chapters. In the introductory part of the paper, initial considerations are presented, the need for research, its justification and relevance are explained. Also, a research question is asked and the basic hypothesis of the work is defined on the basis of which the research is conducted. In this chapter, the goal of the research is defined. The second chapter provides an overview of the main achievements in the field of labour market flexibility and its impact on unemployment rates in the European Union based on scientific and professional literature, referring to eminent authors in the said field. In the third chapter, the variables that will be used in the work and the methodology of their calculation will be defined. Furthermore, in the results and discussion chapter, the research sample will be analyzed and the research data will be statistically processed and analyzed. Likewise, the subject and problem of the research will be discussed, analyzing the existing information and its sources, checking the set hypothesis with the obtained results of the conducted research.

After the fourth chapter, there is a conclusion in which the results of the research will be summarized, the connection between the contributions and the goals will be shown, and suggestions for future research on the described issue will be presented. After the conclusion, the literature will be cited.

## LITERATURE OVERVIEW

Several authors deal with the subject of labour market flexibility, employment

<sup>1</sup> SENSSTH = the total number of people who work in one of the following flexible forms of work: in shifts/evening work/night work/work on Saturdays and Sundays/work from home

<sup>2</sup> The data presented in this paper are a segment of the empirical part of the author's doctoral dissertation in which the unemployment rate in the EU is analyzed in the context of the increase / decrease in the share of flexible forms of work: shift work, evening work, night work, work on Saturdays, work on Sundays and work from home.

and unemployment rates. One of the most relevant authors is certainly (Baráth & Wojčák, 2020) who in their work analyzed the effects of changes in the unemployment rate, GDP per capita and reduced working hours in selected European countries. At the same time, in the same article, they assert which of the economic indicators significantly directly or indirectly affect the flexibility of employee selection and work-life balance in the selected countries. The same authors (Baráth & Wojčák, 2017) wrote three years earlier about the differences in the application of part-time working hours in EU countries, their advantages and disadvantages. Baráth and Wojčák summarized the positive and negative aspects of fixed-term work, its applications in organizations, advantages and disadvantages for employees in EU countries. (Sweet & Meiksins, 2012) state that the new economy requires more flexible forms of work. Likewise, (Avram, 2020) points out that jobs with unstable working hours and wages are part of the long-term trend towards deregulation of the labor market. In his work, (Zieliński, 2019) examines the correlation between changes in the level of employment and the unemployment rate and the share of non-standard (flexible) forms of employment in the countries of the European Union in a long-term perspective. The results of the analysis show that Germany has become the most flexible economy (both in terms of response to changes in employment levels and unemployment rates) together with Luxembourg, Greece, Spain and Poland, which are also characterized by relatively high flexibility. (Pavlopoulos & Chkalova, 2022) state that part-time working hours are most effective in protecting workers from unemployment in companies that have extended the use of the program to many workers and relatively few hours, and that have either moderately used agency temporary workers or extensively used fixed-term contracts.

On the other hand, employees are reluctant to accept non-standard forms of employment due to the following reasons: the risk of remaining in the flexible segment of the labour market, greater probability of unemployment, worse working conditions, lower levels of wages and social benefits, and fewer opportunities for development and advancement. (Need, Steijn, & Gesthuizen, 2005), (Redpath, Hurst, & Devine, 2009) and (Fouarge, de Grip, Smits, & de Vries, 2011). (Vansteenkiste, Verbruggen, & Sels, 2016) points out that people with adaptable careers are not inclined to search for flexible employment. In addition, the foregoing may in certain cases prevent the likelihood of re-employment of people. People who sought employment more flexibly also became underemployed more often and as such experienced a more negative quality of work.

Job insecurity can be analyzed by investigating non-permanent and part-time employment (Choonara, 2019). Labor relations based on temporary employment are the central dimension of job insecurity, which affects greater job insecurity and encourages the emergence of unemployment. (Almeida & Santos, 2020) and the authors (Dosi, Pereira, Roventini, & Virgillito, 2017) state that more “flexible” and “fluid” labour markets, although they allow a faster redistribution of labour among companies, can also make the entire economic system more fragile, prone to recession and more unstable. Their results show that apparently more rigid labour markets and labour relations are conducive to aligning successes that lead to higher and smoother growth. Likewise, the authors (Kolasa, Rubaszek, & Walerych, 2021) point out that working time flexibility can have certain negative consequences at the macroeconomic level:

it can increase unemployment fluctuations. (Ferreiro & Gómez, 2018) found through the analysis in the paper that greater flexibility is not associated with better results of permanent employment and that less flexibility is not associated with worse results of permanent employment. (Liotti, 2020) points to the fact that labour market reforms, aimed at introducing flexibility measures, contribute to an increase in youth and adult unemployment, analyzed on a sample of twenty Italian regions from 2001 to 2016. (Soidre, 2004) states that resistance to demands for financial flexibility, time and space flexibility is stronger among people in lower socio-economic positions, but not functional flexibility, where resistance is most widespread among professional and qualified categories. (Barbieri, 2009) cites higher risks of unemployment after the contract expires and entry into the framework of insecure employment as the lack of fixed-term work. Barbieri conducted the research in 2009, after which much has changed in the EU in terms of employee protection and employment dynamics. Thus, subsequent authors point out that in their analyses they did not find evidence that less employment protection improves the performance of the labour market. (Bassanini & Duval, 2006) and (Adascalitei & Pignatti, 2015). (Ganßmann, 2000), (Carmeci & Mauro, 2003), (Herwartz & Niebuhr, 2011) and (Ball, Leigh, & Loungani, 2013) believe that a generous social welfare system, a rigid labour market and a restrictive labour law have a negative effect on long-term economic growth and employment work. Likewise, the authors (Andersson, Andersson, Hårsman, & Daghbashyan, 2015) point out that flexible labour market regulations and above-average levels of interpersonal trust are institutional factors that reduce unemployment. (Bande & Karanassou, 2009) study the flexibility of the labour market and the regional dynamics of the unemployment rate. They state that the degree of labour market flexibility differs between regions with high and low unemployment.

The paper analyzed the unemployment rate in the context of the following forms of flexibility on the labour market; work in shifts, evening and night work, work on Saturdays and Sundays and work from home. The results differ in that the analysis of the data in the paper found that the flexibility of the labour market is specific for each country, and the increase in shift work, evening and night work, work on Saturdays and Sundays, and work from home affects the reduction of the unemployment rate in the future countries: Austria, Italy, Hungary and Slovenia.

## **METHODOLOGY**

The research in this paper is based on official data on the labour force survey of the European Union (EU LFS). The paper analyses the data of employed and unemployed persons over the age of 15 and under the age of 64 who live in households in Austria, Croatia, Italy, Hungary and Slovenia in the period from 2008 to 2018 based on the EU LFS official data set from the project RPP 35/2020-LFS. In this chapter, the variables used in the work and the methodology of their calculation are defined, and the research sample is presented. Table 1 shows the analyzed variables and their description.

**Table 1.** List and description of the analyzed variables – detailed codification

<b>SHIFTWK</b>	<b>Work in shifts</b>
1	Person works in shifts
2	Person sometimes works in shifts
3	Person never works shifts
9	Not applicable (STAPRO≠3; not employed)
empty	No answer
<b>EVENWK</b>	<b>Evening work (4:00 p.m. - midnight)</b>
1	Person usually works in the evening
2	Person sometimes works in the evening
3	Person never works in the evening
9	Not applicable (did not work because he was dismissed / was obliged to do compulsory military or community service / Others (15 years or older) who neither worked nor had a job or job during the reference week / a child under 15)
empty	No answer
<b>NIGHTWK</b>	<b>Night work</b>
1	Person usually works at night
2	Person sometimes works at night
3	Person never works at night
9	Not applicable (did not work because he was dismissed / was obliged to do compulsory military or community service / Others (15 years or older) who neither worked nor had a job or job during the reference week / a child under 15)
empty	No answer
<b>SATWK</b>	<b>Working on Saturdays</b>
1	Person usually works on Saturdays
2	Person sometimes works on Saturdays
3	Person never works on Saturdays
9	Not applicable (did not work because he was dismissed / was obliged to do compulsory military or community service / Others (15 years or older) who neither worked nor had a job or job during the reference week / a child under 15)
empty	No answer
<b>SUNWK</b>	<b>Working on Sundays</b>
1	Person usually works on Sundays
2	Person sometimes works on Sundays
3	Person never works on Sundays
9	Not applicable (did not work because he was dismissed / was obliged to do compulsory military or community service / Others (15 years or older) who neither worked nor had a job or job during the reference week / a child under 15)
empty	No answer
<b>HOMEWK</b>	<b>Working from home</b>
1	Person usually works from home
2	Person sometimes works from home
3	Person never works from home
9	Not applicable (did not work because he was dismissed / was obliged to do compulsory military or community service / Others (15 years or older) who neither worked nor had a job or job during the reference week / a child under 15)
empty	No answer

**Source:** the author's elaboration based on (EU Labor Force Survey, 2020)

In hypothesis H1 the *SENSSH* variable and *the unemployment rate* variable were used. Data for *the unemployment rate* variable were taken from the EUROSTAT database for the period from 2008 to 2018 for analysed European Union countries and are presented in table 2. The data refer to the population aged 15 to 74.<sup>3</sup>

**Table 2.** Unemployment rate in EU countries from 2008 to 2018 (data shown in %)

Year State	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Austria</b>	4,1	5,3	4,8	4,6	4,9	5,4	5,6	5,7	6	5,5	4,9
<b>Croatia</b>	8,6	9,2	11,7	13,7	16	17,3	17,3	16,2	13,1	11,2	8,5
<b>Italy</b>	6,7	7,8	8,4	8,4	10,7	12,2	12,7	11,9	11,7	11,2	10,6
<b>Hungary</b>	7,8	10	11,2	11	11	10,2	7,7	6,8	5,1	4,2	3,7
<b>Slovenia</b>	4,4	5,9	7,3	8,2	8,9	10,1	9,7	9	8	6,6	5,1

**Source:** author's elaboration based on data from (Eurostat, 2020)

Table 3 shows the total number of respondents in the sample according to classes, that is, age groups and EU countries in the period from 2008 to 2018 - a total of 447,031 respondents.

**Table 3.** Total number of respondents in the sample according to classes, ie. age groups and EU countries

Class State	15 – 24 years	25 – 54 years	55 – 64 years	Total
	10.895	26.555	3.528	40.978
Croatia	5.698	14.397	2.355	22.450
Italy	53.311	181.234	19.977	254.522
Hungary	20.800	72.087	10.712	103.599
Slovenia	4.484	18.690	2.308	25.482
Σ	95.188	312.963	38.880	447.031

**Source:** author's elaboration based on data from the RPP 35/2020-LFS project

The data from the research sample were processed primarily by statistical procedures for calculation using statistical programs SPSS and Statistica. Statistical significance was set in the analysis at the level of  $\alpha = 0.05$ . The obtained conclusions refer exclusively to the observed sample, not to the population at all.

In hypothesis H1 linear correlation analysis was used and correlation coefficient, determination coefficient was calculated and statistical significance was attached. Also, regression analysis was used - a multiple regression model, namely multiple linear regression and multiple nonlinear regression, where the significance of the model, the coefficient of determination, the direction of regression and the associated weights of the predictor variables were determined.

<sup>3</sup> According to the guidelines of the International Labor Organization, Eurostat defines an unemployed person as a person aged 15 to 74 (in Italy, Spain, the United Kingdom, Iceland, Norway: 16 to 74) (Eurostat, Unemployment, 2010)

**Table 4.** Description of labels used in statistical analysis

Label	Label description
R	correlation coefficient
R <sup>2</sup>	determination coefficient
t	the test statistic value for the coefficient
F	the test statistic value for the model
p	statistical significance level
SNZ	unemployment rate
SENSSH	the total number of persons who have a flexible form of employment

Source: (Blažević Dević, 2023)

## RESULTS AND DISCUSSION

In statistical processing of hypothesis H1 a statistically significant model was generated for analysed EU countries:

- linear relationship between the criterion variable unemployment rate and the predictor variable *SENSSH*
- non-linear relationship of the criterion variable unemployment rate with the predictor variable *SENSSH*

The *unemployment rate* variable under hypothesis H1 it was used for analysis as a decimal number transformed from the amount of the unemployment rate per year for all countries individually. Likewise, a stochastic error variable (residual deviation) marked with the letter *e* is included in each model for each country.

Table 5 shows the results of a linear correlation analysis with one predictor and one criterion and the results of a non-linear regression analysis of the connection between the variable *total number of people who have a flexible form of employment* and the *unemployment rate* variable for Austria. The table also lists the correlation coefficient (R), determination coefficient (R<sup>2</sup>), level of statistical significance (p) and other parameters of correlation and regression analysis.

**Table 5.** Results of linear correlation and non-linear regression analysis of the connection between the predictor variable *the total number of people who have a flexible form of employment* and the criterion for variable *unemployment rate* for Austria

Linear model $SNZ = b_0 + b_1 \cdot SENS SH + e$			
R = -0,70; R <sup>2</sup> = 0,48; t = -2,90; p = 0,02			
	b <sub>0</sub>	b <sub>1</sub>	
SENSSH	15,90	-0,000206	
Non-linear model $SNZ = b_1 \cdot SENS SH + b_2 \cdot SENS SH^2 + e$			
R = 0,70; R <sup>2</sup> = 0,49; F = 4,38; p = 0,05			
	b <sub>1</sub>	b <sub>2</sub>	p
SENSSH	0,000000	0,000394	< 0,01

Source: author



The table shows that the linear model is statistically significant. Furthermore, in the linear model, the variable *SENSSH* has a statistically significant influence on the criterion variable of *the unemployment rate*.

It is evident from the table that the nonlinear model is at the limit of statistical significance. In the non-linear model, the variable *SENSSH* has a statistically significant influence on the criterion variable.

Thus, hypothesis H 1 for Austria is confirmed.

Table 6 shows the results of a linear correlation analysis with one predictor and one criterion and the results of a non-linear regression analysis of the connection between the variable *total number of people who have a flexible form of employment* and *the unemployment rate* variable for Croatia. The table also lists the correlation coefficient (R), determination coefficient (R<sup>2</sup>), level of statistical significance (p) and other parameters of correlation and regression analysis.

**Table 6.** Results of linear correlation and non-linear regression analysis of the connection between the predictor variable *the total number of people who have a flexible form of employment* and the criterion for variable *unemployment rate* for Croatia

<b>Linear model</b> SNZ = $b_0 + b_1 \cdot \text{SENSSH} + e$			
R = -0,49; R <sup>2</sup> = 0,24; t = -1,67; p = 0,13			
	$b_0$	$b_1$	
SENSSH	25,00	-0,001180	
<b>Non-linear model</b> SNZ = $b_1 \cdot \text{SENSSH} + b_2 \cdot \text{SENSSH}^2 + e$			
R = 0,56; R <sup>2</sup> = 0,32; F = 2,08; p = 0,18			
	$b_1$	$b_2$	p
SENSSH	0,000000	0,003669	< 0,01

**Source:** author

The table shows that the linear model is not statistically significant. Furthermore, in the linear model, the variable *SENSSH* does not have a statistically significant influence on the criterion variable of *the unemployment rate*.

It is evident from the table that the nonlinear model is not statistically significant. In the non-linear model, the variable *SENSSH* has a statistically significant influence on the criterion variable.

Thus, hypothesis H 1 for Croatia is rejected.

Table 7 shows the results of a linear correlation analysis with one predictor and one criterion and the results of a non-linear regression analysis of the connection between the variable *total number of people who have a flexible form of employment* and *the unemployment rate* variable for Italy. The table also lists the correlation coefficient (R), determination coefficient (R<sup>2</sup>), level of statistical significance (p) and other parameters of correlation and regression analysis.

**Table 7.** Results of linear correlation and non-linear regression analysis of the connection between the predictor variable *the total number of people who have a flexible form of employment* and the criterion for *variable unemployment rate* for Italy

<b>Linear model</b> $SNZ = b_0 + b_1 \cdot SENSSH + e$			
R = -0,95; R <sup>2</sup> = 0,90; t = -8,77; p < 0,01			
	b <sub>0</sub>	b <sub>1</sub>	
SENSSH	31,05	-0,000188	
<b>Non-linear model</b> $SNZ = b_1 \cdot SENSSH + b_2 \cdot SENSSH^2 + e$			
R = 0,91; R <sup>2</sup> = 0,83; F = 21,81; p < 0,01			
	b <sub>1</sub>	b <sub>2</sub>	p
SENSSH	0,000000	0,000344	< 0,01

Source: author

The table shows that the linear model is statistically significant. Furthermore, in the linear model, the variable *SENSSH* has a statistically significant influence on the criterion variable of *the unemployment rate*.

It is interesting to point out that the coefficient of determination in the linear model is statistically significant and amounts to 0.90, which indicates that 90% of the variability of the criteria is determined by the used predictor.

In the non-linear model, the coefficient of determination is also statistically significant and amounts to 0.83, which indicates that 83% of the variability of the criteria is determined by the used predictor.

It is evident from the table that the nonlinear model is statistically significant. In the non-linear variable model, *SENSSH* has a statistically significant influence on the criterion variable.

Thus, hypothesis H 1 for Italy is confirmed.

Table 8 shows the results of a linear correlation analysis with one predictor and one criterion and the results of a non-linear regression analysis of the connection between the variable *total number of people who have a flexible form of employment* and *the unemployment rate* variable for Hungary. The table also lists the correlation coefficient (R), determination coefficient (R<sup>2</sup>), level of statistical significance (p) and other parameters of correlation and regression analysis.

**Table 8.** Results of linear correlation and non-linear regression analysis of the connection between the predictor variable *the total number of people who have a flexible form of employment* and the criterion for *variable unemployment rate* for Hungary

<b>Linear model</b> $SNZ = b_0 + b_1 \cdot SENSSH + e$			
R = 0,83; R <sup>2</sup> = 0,69; t = 4,44; p < 0,01			
	b <sub>0</sub>	b <sub>1</sub>	
SENSSH	-31,24	0,000827	
<b>Nonlinear model</b> $SNZ = b_1 \cdot SENSSH + b_2 \cdot SENSSH^2 + e$			
R = 0,82; R <sup>2</sup> = 0,68; F = 9,59; p < 0,01			

	$b_1$	$b_2$	p
SENSSH	0,000000	-0,000508	< 0,01

**Source:** author

The table shows that the linear model is statistically significant. Furthermore, in the linear model, the variable *SENSSH* has a statistically significant influence on the criterion variable of *the unemployment rate*.

It is evident from the table that the nonlinear model is statistically significant. In the non-linear variable model, *SENSSH* has a statistically significant influence on the criterion variable.

Thus, hypothesis H 1 for Hungary is confirmed.

Table 9 shows the results of a linear correlation analysis with one predictor and one criterion and the results of a non-linear regression analysis of the connection between the variable *total number of people who have a flexible form of employment* and *the unemployment rate* variable for Slovenia. The table also lists the correlation coefficient (R), determination coefficient (R<sup>2</sup>), level of statistical significance (p) and other parameters of correlation and regression analysis.

**Table 9.** Results of linear correlation and non-linear regression analysis of the connection between the predictor variable *the total number of people who have a flexible form of employment* and the criterion for *variable unemployment rate* for Slovenia

<b>Linear model</b> SNZ = $b_0 + b_1 \cdot \text{SENSSH} + e$			
R = -0,84; R <sup>2</sup> = 0,71; t = -4,65; p < 0,01			
	$b_0$	$b_1$	
SENSSH	30,96	-0,001144	
<b>Non-linear model</b> SNZ = $b_1 \cdot \text{SENSSH} + b_2 \cdot \text{SENSSH}^2 + e$			
R = 0,85; R <sup>2</sup> = 0,72; F = 11,62; p < 0,01			
	$b_1$	$b_2$	p
SENSSH	0,000000	0,001879	< 0,01

**Source:** author

The table shows that the linear model is statistically significant. Furthermore, in the linear model, the variable *SENSSH* has a statistically significant influence on the criterion variable of *the unemployment rate*.

It is evident from the table that the nonlinear model is statistically significant. In the non-linear variable model, *SENSSH* has a statistically significant influence on the criterion variable.

Thus, hypothesis H 1 for Slovenia is confirmed.

The research question in the paper is related to the influence of the increase in the share of flexible forms of work on the unemployment rate. The results point to the fact that in 80% of the analyzed countries there is a noticeable decrease in the unemployment rate with an increase in the share of flexible forms of work such as work in shifts, evening and night work, work on Saturdays and Sundays and work from home,

which confirms hypothesis H1. It is often argued that differences between unemployment rates in countries or regions are partly explainable in terms of different degrees of labor market “rigidity” - or, more positively, “flexibility”. It is believed that price shocks arising in conditions of “rigid” labour markets lead to higher structural unemployment, while “flexible” labour markets enable adjustments to such shocks without or with little loss of employment. (Klau & Mittelstadt, 1986) The authors (Bande & Karanassou, 2009) and (Baráth & Wojčák, 2020) also state in their work that differences in regional unemployment rates depend on the degree of regional flexibility of the labour market, which is confirmed by hypothesis H1 in which it is stated that the increase in the share of flexible forms of work reduces the unemployment rate.

What should definitely be highlighted are the limitations of the work and guidelines for future research. First of all, the limitation of the research is reflected in the fact that the observed period is limited to eleven years, more precisely from 2008 to 2018. In the empirical part of the paper, the analysis is limited to flexibility of working hours and flexibility of labour law status in the context of the following variables: shift work, evening work, night work, work on Saturdays, work on Sundays and work from home. The research was not extended to the analysis of the flexibility of the work process and the flexibility of the work organization, which is a recommendation for further research within the framework of the flexibility of the labour market. In hypothesis H1 there is a limitation related to the use of the unemployment rate which, according to the guidelines of the International Labour Organization, refers to persons aged 15 to 74 years (except in Italy, Spain and the United Kingdom from 16 to 74 years). The sample analyzed in the paper includes persons aged 15 to 64 in the period from 2008 to 2018. In that period, the figure related to people over 64 years of age would not significantly influence and contribute to the change, through the analysis of the obtained results, since until 2018 the share of people in the EU who are older than 64 years and still participate in the labour market, is not significant. In the European Union in 2018, rates above 15% were recorded only in Estonia (which also has the highest rate of 26%), Romania, Lithuania, Portugal, the United Kingdom, Ireland, Sweden and Latvia. Therefore, a recommendation for further research would certainly be to analyze the share of the workforce aged over 65 in all EU countries after 2018.

## CONCLUSION

Not so long ago, policy makers realized the importance of introducing the concept of flexibility. The core of the concept itself is made up of various flexible forms of the work process, labour law status, working hours and work organization. Various atypical, as well as typical, flexible contractual arrangements ensure more efficient and faster adaptation of workers, as well as entrepreneurs, to new circumstances and conditions on the labour market. By validating the results obtained in hypothesis H1 in relation to the assumption that with an increase in the share of work in shifts, evening and night work, work on Saturdays and Sundays, and work from home, the unemployment rate decreases, an interesting fact was observed that this hypothesis was confirmed for the countries: Austria, Italy, Hungary and Slovenia. The results indicate that in most of the analyzed countries there is a noticeable decrease in the unemployment rate with an increase in the share of flexible forms of work such as shift work, evening and night work, work on Saturdays and Sundays and work from home, which indicates

the fact that people's attitudes have changed related to flexible forms of work. Today, people do not only aim for permanent full-time jobs, as an increasing number of people want to achieve coherence between their business and private lives. Equally, through part-time work, to which young people are increasingly striving recently, people have more time to devote to other activities, or through part-time work, parents are able to devote themselves to children or caring for elderly parents. From the perspective of employers, flexible forms of work enable greater control over employee turnover and influence the reduction of costs related to new hires and training of new employees. Following the detected limitation in this paper, which is reflected in the limitation of the observed period to 11 years, more precisely from 2008 to 2018, it can be reasoned that it would be interesting to analyze these phenomena for the period from 2019 to today in order to investigate the effects of changes created in that period on the operationalization of the concept of flexibility, especially flexible forms of work, and, in comparison, the concept of flexicurity, the postulates of which were formulated and proved by a successful example in Denmark.

Likewise, in the empirical part of the dissertation, the analysis is limited to flexibility of working hours and flexibility of labour law status in the context of the following variables: work in shifts, evening work, night work, work on Saturdays, work on Sundays and work from home. The recommendation for further research in this context, and in the sphere of constant growth and development of digital platforms, is to investigate the implementation and effect of new forms of employment such as: freelancer, group employment, job sharing, temporary management and other types of new forms of work in the digital economy of the EU.

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