

Dr. sc. Marija Šimić Šarić<sup>1</sup>

# ENTREPRENEURIAL FRAMEWORK CONDITIONS AND THE YOUTH UNEMPLOYMENT – ANALYSIS FOR CROATIA

*Prethodno priopćenje / Preliminary communication*

UDK / UDC: 331.56-053.81

DOI: 10.51650/ezrvs.19.3-4.15

Primljeno / Received: 31/10/2025

Prihvaćeno / Accepted: 05/12/2025

*Young people face the problem of entering the labour market due to high youth unemployment rates. High youth unemployment rates are a problem faced by many economies around the world. To bridge this problem, countries are trying to encourage young people to enter entrepreneurship. Namely, young people are the future of any society and for economic growth are an important source, although they lack experience and skills. Entrepreneurial framework conditions affect entrepreneur activities of any economy. Due to that, the aim of this paper is to identify the relationship of entrepreneurship framework conditions with youth unemployment in Croatia for the period from 2002 until 2024. The results of the descriptive statistics show how the lowest average value is determined for the variables basic school entrepreneurial education and training taxes and bureaucracy. On the other hand, variables physical and services infrastructure, internal market dynamics and post school entrepreneurial education and training record highest average values. As a result, of the Ordinary Least Squares (OLS) regression financing for entrepreneurs is statistically significant at the 5% level and it negatively affects youth unemployment rate, that is growth of financing decreases youth unemployment rate.*

**Keywords:** youth unemployment; entrepreneurial framework conditions; Croatia.

## 1. Introduction

In the world, there are nearly 1.3 billion young people aged from 15 to 24 years (Fung and Nga, 2022). Looking at the long-term period, their inclusion in the labour market is very important for the socio-economic development of the country. However, within the European labour market, young individuals constitute a particularly vulnerable cohort, persistently exhibiting higher unemployment rates relative to other segments of the workforce (Vasilescu et al., 2025). As of January 2024, the youth unemployment rate in the European Union stood at 14.9%, a figure that has remained approximately double the general unemployment rate for individuals

<sup>1</sup> Associate professor, University of Split, Faculty of Economics, Business and Tourism in Split, Cvite Fiskovića 5, 21000 Split, Croatia; e-mail: msimic@efst.hr

aged 15 to 74 over recent decades (European Commission, 2025). In Croatia, this challenge is even more pronounced, with the youth unemployment rate reaching 16.8% (Trading Economics, 2025). In addition, Croatia is known for the long emigration history, with the last exodus in 2013, after EU joining. In front of the political stakeholders and government, key challenges are brain drain and youth unemployment. To improve the youth employment in Croatia adequate education and training programs are needed as well as practical orientation (Hornstein Tomić and Taylor, 2018).

Unemployment, in particular youth unemployment is a complex, global and problematic issue (Ćočkalo et al., 2017, Pavlović et al., 2017; Bölükbas, 2019; Alfonsi et al, 2020; Boris et al., 2021; Fung and Nga 2022, Bucevska and Kozheski, 2022, Bouraima et al., 2025, Šimičević, 2025) that must be solved. According to OECD (2025) unemployed “are people of working age, from 15 to 74 years, who are without work, are available for work, and have taken specific steps to find work”, whereby youth unemployment refers to the share of the labor force ages 15-24 (World Bank Group, 2025) or 15 to 29 year (Eurostat, 2025) which is unemployed.

Considering these circumstances, it becomes imperative for young people to identify alternative means of labour market integration, among which entrepreneurship has emerged as a particularly viable and strategic option (Stoica et al., 2020; Pfeifer et al., 2021; Vasilescu et al., 2025, Vutsova et al., 2023). Furthermore, Orobica et al. (2020) highlight that both youth and women entrepreneurs make a substantial contribution to national development and economic growth through employment generation, innovation, and related activities (Stoica et al., 2020; Ionescu, 2020; Sulejman, 2020). They represent a crucial component of society, upon whose dynamism and productivity the future progress and sustainability of nations fundamentally depend (Gulzar and Fayaz, 2023). Due to high levels of youth unemployment in Europe, the members of EU try to foster entrepreneurship. That process is not easy due to the lack of experience and skills of young people. To prevent this problem, it is necessary to introduce entrepreneurship education into schools as well as to mentor them and give good example (Vutsova et al., 2023).

The entrepreneurial framework conditions (EFCs) refer to “a set of structural conditions of entrepreneurial activity” (Gomes et al., 2023, p. 2). The status of EFCs is directly linked to entrepreneurial capacity, preferences, and opportunities, which in turn influence business dynamics (Gabor, 2018). Moreover, the development of entrepreneurship and its impact on economic growth depend significantly on both entrepreneurial participants and environmental factors (Pfeifer et al., 2021). According to Gomes et al. (2023, p. 2), entrepreneurial ecosystems are defined as “unique sets of contextual and individual actors that stimulate the exploration and discovery of entrepreneurial market opportunities through competitiveness and innovation to achieve economic growth.” Different countries possess distinct EFCs, which either positively or negatively affect the inputs and outputs of entrepreneurial activity.

Considering the previously stated, and a lack of such research to the best of author’s knowledge, objective of this paper is to explore the relationship and impact between youth unemployment and entrepreneurial framework conditions in Croatia for the period from 2002 until 2024.

## 2. Theoretical review

### 2.1. Entrepreneurship in the CEE region

Balkan economies as well as Central and Eastern economies during the communist ideology experienced a huge nationalization. This outcome led to the expropriation of entrepreneurs across many economic sectors. Final consequences of the communist ideology resulted in lower development of business. Also, this subsequently hindered the development of private and family firms in post-communist economies, where such enterprises are typically smaller and less profitable compared to their counterparts in Western and Northern Europe (Brzozowski et al., 2022).

Small and medium enterprises as well as entrepreneurship plays a very important role in Balkans national economies, including Croatia. Their role is visible through the prosperity of the economy, increase of standard of living as well as reduction of the unemployment (Radlović et al., 2020, Čočkalović et al., 2020b, Miklošević et al., 2023, Csákné Filep et al., 2025). According to Cepor (2025), small and medium sized enterprises in Croatia account for 99.7% of the total number of companies which is like other European countries. A great influence on their business, both daily and on their long-term business, has government policies and programs, as well as the legislative and institutional framework. But, for all Western Balkan countries entrepreneurs predominantly rely on informal practices to bridge over shortcomings of formal institutions. Lack of adequate institutional framework and support negatively affects entrepreneurial activity since development of formal institutions is a very important factor for economic results of post-socialist economies (Brzozowski et al., 2022, Najev Čačija et al., 2023). Also, in Croatia the entrepreneurial activity is still underdeveloped and the entrepreneurial climate acts more like a barrier than a stimulator for entrepreneurial activity (Najev Čačija et al., 2023). According to Čočkalović et al. (2020b), entrepreneurial activities primarily originate from individual attributes rather than environmental factors, underscoring the greater importance of cultivating entrepreneurial knowledge and competencies over the provision of resources and infrastructure (Čočkalović et al., 2020b).

Table 1 shows the competitiveness ranking of the Eastern Europe economies for the period from 2021 till 2025. According to the data in table 1 Croatia is on the 9<sup>th</sup> place out of 11 Eastern Europe economies. The best ranking in all Croatia achieved in 2022, but from them to now the ranking has been deteriorating. Looking at the rankings of the best placed economies of Eastern Europe in 2025, Lithuania (21) and Czech Republic (25), Croatia is approximately 30 places behind.

Regarding the way of finance of entrepreneurial activity in Croatia, it is necessary to point out how is predominantly (co)financed by bank loans, and programs implemented by the Croatian Bank for Reconstruction and Development (HBOR) and HAMAG-BICRO, through which, in cooperation with commercial banks, funds from EU funds are also placed (CEPOR, 2025). The use of alternative ways of finance, like private equity, venture capital, business angels and crowdfunding is still underdeveloped (Šimić Šarić, 2024). Also, SMEs have difficulties in obtaining microloans (Radlović et al., 2020).

Table 1: IMD World Competitiveness ranking of economies- overall

	2021	2022	2023	2024	2025
Lithuania	30	29	32	30	21
Czech Republic	34	26	18	29	25
Estonia	26	22	26	33	33
Latvia	38	35	51	45	38
Slovenia	40	38	42	46	46
Hungary	42	39	46	54	48
Romania	48	51	48	50	49
Poland	50	49	53	59	52
Croatia	59	46	50	51	53
Bulgaria	53	53	57	58	57
Slovak Republic	50	19	53	59	63
Number of countries ranked	69	69	69	69	69

Source: author according to IMD (2025)

Youth entrepreneurship represents a sub-domain of entrepreneurship (Ćočkalo et al., 2020a). and comparing to “entrepreneurship”, it is more important due to his effects on the youth unemployment reduction, increase in innovations and overall economic growth (Ćočkalo et al., 2020b). For students, potential future youth entrepreneurs, learning experience is more important than just knowledge (Huszák et al., 2025). According to Jelinčić et al. (2022) “university graduates are not sufficiently prepared for entering the labor market and due to a lack of provision of appropriate skills by university programs, there is a decreased employability of graduates”. Also, in Croatia the education system does not promote entrepreneurial education as well as innovativeness of young people. Furthermore, the main obstacles for young entrepreneurs in Croatia according to Radlović et al. (2020) are corruption, continual changes in legislation, deficit of capital, unfair competition etc. Bureaucracy is highly highlighted as a discouraged factor for potential entrepreneurs.

## 2.2. Entrepreneurship and youth unemployment

Sulejman (2020) in her research analyzed the relationship between youth unemployment and entrepreneurship, for 33 countries, in the period from 2008 until 2016. She concluded how the Growth Competitiveness Index negatively affects youth unemployment, but the variable is not statistically significant. On the other hand, total early-stage Entrepreneurial Activity (TEA) has a negative but statistically significant effect on youth unemployment. In their study, Fung and Nga (2022) investigated the relation between youth unemployment and inflation on economic growth in ASEAN countries for the period from 1996 to 2019. According to the results obtained, a one-percentage increase in youth unemployment leads to a decrease in economic growth of 0.24 percent. Regarding the inflation, there is a positive

effect of economic growth. Furthermore, Bölükbas (2019) researched the relationship between economic growth and employment, unemployment and youth unemployment for Balkan countries in the period from 1996 until 2017. According to the results, all four variables show a causal relationship with each other in four countries: Serbia, Slovenia, Greece and Croatia. In Greece and Croatia, the causality of economic growth to employment is unidirectional, whereby in Serbia it is reversed. In Albania, Romania, Bulgaria and Slovenia causality of employment and economic growth does not exist. According to Šimičević (2025) unemployment from the economic view is being investigated with her relationship to inflation, economic growth and current account balance. It is assumed, theoretically, that an increase in unemployment results in a decrease in inflation, while a decrease in unemployment stimulates an increase in consumption, production and wages.

Table 2 summarizes studies undertaken about the relationship between economic growth and unemployment and reverse.

Table 2: Review of different studies

Studies	Country (Countries)	Periods	Results
<b>Studies Examining Balkan Countries</b>			
Vutsova et al. (2023)	Western Balkan Region, 8 countries		The aim of the study is to consider youth entrepreneurship as a possible solution to youth unemployment. One of the findings is that the legal framework needs updating and strengthening.
Fetai et al. (2017)	Western Balkans	1994-2015	The study finds the economic growth determinants. It is shown that there is a negative relationship between unemployment and per capita growth.
Misini and Badivuku-Pantina (2017)	Kosovo	2004-2014	Empirical results of the study show that, for the GDP increase of 1%, there is a negative effect on unemployment reduction in average of -0.43%.
Balliu (2016)	Western Balkans	2000-2015	The study finds that unemployment has a negative effect on GDP. The result is meaningful because country GDP increases with the reduction of unemployment rate.
Dritsakis and Stamatiou (2016)	Greece	1995-2015	Authors found unidirectional causal relationship between unemployment and economic growth for the short and long-run.
Ndregjoni and Zerelli (2015)	4 Balkan countries	2000-2013	The findings show how Okun's relationship between changes in the unemployment rate and output growth may vary significantly over time.
Sadiku et al. (2015)	FYR of Macedonia	2000-2012	The study states that there is not any causal relationship between economic growth and unemployment. However, a change in the real GDP growth rate does not cause a unemployment change and vice-versa.

Studies	Country (Countries)	Periods	Results
Nikoli (2014)	Albania	2000-2013	The study finds that Okun's law does not apply to the Albanian economy. It also emphasized that economic conditions of the country are affected by the economic crises.
<b>Studies Examining Other Countries</b>			
Fung and Nga (2022)	ASEAN countries	1996-2019	Authors show that a one-percentage increase in youth unemployment decreases economic growth by 0.24 percent. Also, there is a positive effect of inflation on economic growth.
Sulejman (2020)	Transition and Middle East and North Africa (MENA) countries	2008-2016	Results show that Growth Competitiveness Index has negative effect on youth unemployment, but the variable is not statistically significant. Total early-stage Entrepreneurial Activity (TEA) is statistically significant and it has a negative effect on youth unemployment.
Bölükbaş (2018)	20 Emerging economies	1991-2016	Authors used panel causality test that showed statistically significant bidirectional causality between economic growth and youth unemployment. Also, cointegration relationship between the variables was found.
Abraham and Ozemhoka (2017)	Low-income countries of Sub-Saharan Africa.	1991-2013	The findings of the paper reveal negative relationships between youth unemployment and economic growth variables in the low-income countries of Sub-Saharan Africa. On the other hand, the authors find a positive relationship between the variables in the individual countries.
Aksu (2017)	Turkey	1960-2009	Econometric analysis finds no short-term relationship between economic growth and employment, but economic growth is influenced by employment in the long run.
Meyer (2017)	South Africa	2002-2016	It is found that long run cointegration relationships exist among the employment, inflation, real GDP, and the repo rate. The results also show that changes in employment are caused by economic growth and repo rate.
Uras (2016)	Turkey	2000-2014	The study shows no causality relationship from unemployment to economic growth, but it exists in a reverse way.
Akkemik (2007)	Turkey	1988-2004	The results find that the adjustments in the labour market cause lag in GDP growth. There is a delay of more than four periods in labour markets response to GDP change.

Source: Bölükbaş (2018, p. 388-389) and authors' research

### 2.3. Entrepreneurial framework conditions and economic growth

For an entrepreneurship ecosystem, most important components are entrepreneurial framework conditions (EFCs) and they represent an important „oxygen of resources, incentives, markets and supporting institutions for the creation and growth of new firms,“ (Gabor, 2018). According to the GEM survey, nine framework conditions of entrepreneurial environment are analyzed. In Table 3 descriptions of entrepreneurship conditions are given.

Table 3: Definition of entrepreneurship framework conditions

<b>Entrepreneurship framework condition (EFC)</b>	<b>Description</b>
Entrepreneurial Finance	Availability of financial resources for new and growing firms (including equity, debt, grants and subsidies, private investors, etc.).
Government Policies: Support and Relevance	The extent of public policies focused on supporting new and growing firms.
Government Policies: Taxes and Bureaucracy	The extent to which taxes and regulations do not harm new and growing firms.
Government Entrepreneurship Programs	The presence of programs focused on enhancing new and growing firms.
Entrepreneurial Education at School Stage	Attention given to building creativity, self-confidence, or basic understanding of market and entrepreneurial principles in primary and secondary schools.
Entrepreneurial Education at Post School Stage	Availability of programs that prepare for starting and managing new or growing firms at all types of higher educational institutions including universities, colleges, vocational or professional schools.
R&D Transfer	Availability of new knowledge, and affordability of new technologies for new and growing firms.
Commercial and Professional Infrastructure	Availability and affordability of business suppliers, contractors, consultants, legal, accounting and banking services.
Internal Market Dynamics	Perception of dramatic changes in markets.
Internal Market Burdens or Entry Regulation	The extent to which new and growing firms are free to enter existing markets.
Physical Infrastructures	Ease of access to communication, utilities, transportation, land and space at a price that does not discriminate against new and growing firms.
Cultural and Social Norms	The extent to which national culture supports individual success, self-sufficiency, risk taking, innovativeness and individual responsibility.

Source: GEM (2025a) <https://www.gemconsortium.org/wiki/1154>

In her paper, Gabor (2018) analyzed the relation between entrepreneurial framework conditions and economic growth of innovation-driven and efficiency-driven economies from EU. The results of the analysis showed atypical results. Namely, countries that made cluster 1, like Croatia, Greece, Finland, Hungary, Italy, Poland, Romania, Slovenia, Spain and United Kingdom, showed existence of market openness with the lack of commercial infrastructure for it. Furthermore, the results provided also showed lack of coherent national policy, especially for cultural and social norms. At the end, Gabor concludes that the entrepreneurship of countries is determined by national policies, like general, social and cultural norms as well as internal market – openness and commercial infrastructure. Furthermore, the findings of Pfeifer et al. (2021) reveal a decline in the national entrepreneurial environment in Croatia. There is a notable difference in how experts perceive these conditions based on whether they have prior entrepreneurial experience or not. Additionally, the perception of the quality of national entrepreneurship conditions varies over time, with observable differences during the 2015-2018 period. This indicates that both the background of the experts and the timing influence how the entrepreneurial conditions in Croatia are evaluated.

Gomes et al. (2023) analyzed the influence of EFCs on the economic growth of OECD countries for the period from 2000 until 2020. The countries were divided according to the income level. According to the obtained results the presence of commercial, professional, physical, and service infrastructures, along with government support and policies, R&D transfers, cultural and social norms, and access to financing for entrepreneurs, positively influence economic growth regardless of a country's national income level. However, basic entrepreneurial education does not significantly explain economic growth in high-income economies, and post-education programs are not significant in stimulating growth in upper-middle-income economies. Interestingly, government programs tend to have a negative impact on economic growth in OECD and high-income countries both when analyzed collectively and individually, whereas they have a positive effect in upper-middle-income economies. Additionally, taxes and bureaucracy have opposite effects: they negatively influence upper-middle-income economies while benefiting high-income economies. The internal market dynamics and openness similarly show differing effects, with upper-middle-income economies experiencing a negative impact, while high-income economies benefit positively from these factors. Table 4 summarizes research based on data from the Global Entrepreneurship Monitor (GEM).

Table 4: GEM based research – literature review

Topic	Principal research focus	Author(s)
Entrepreneurial conditions	Influence on entrepreneurial activity (EA)	De Clercq, Lim, and Oh (2013), Sampaio et al. (2018)
	Impact on prevalence of male/female EA	Verheul, Van Stel, and Thurik (2006), Hechavarria and Ingram (2019)
	Impact on prevalence of opportunity or necessity driven EA	Terjesen and Amorós (2010)
	Relationship with different stages of EA (intention, nascent, early, etc.)	Teixeira et al. (2018)
	Effect on growth aspiration (innovation)	Savosh (2019)
Entrepreneurial conditions comparisons	Cross national	Kitsios and Sitardis (2017)
	Different stages of economic development (factor driven, efficiency driven, or innovation driven)	Alvarez et al. (2011), Gabor (2018)
	Specific contexts (transitional countries)	Chepureenko (2017)
	Specific geographic regions	Tominc and Rebernik (2007), Andonova, Nikolova, and Dmitrov (2019)
Components of the national entrepreneurship framework conditions (EFCs)	Entrepreneurship education, knowledge transfer, intellectual property rights	Fellnhofer and Kraus (2015), De Clercq and Arenius (2006), Autio and Acs (2010)
Differences in expert perceptions of EFCs	Expert specialization	Lee and Wong (2004), Correia et al. (2016), Pfeifer et al. (2021)
	Location (core vs. peripheral)	Felzensztein, Gimmon, and Aqueveque et al. (2013)
	Time	Silva, Correia, and Duarte (2018), Pfeifer et al. (2021)

Source: authors according to Pfeifer et al. (2018, p. 4) and authors' research

### 3. Data and results

Data for youth unemployment in Croatia were taken from the Eurostat database (Eurostat, 2025a) for the period from 2002 until 2024. The data is expressed monthly. The analysis required annual values, so first arithmetic means were calculated for each year individually. Regarding entrepreneurial framework conditions, data were taken from the Global Entrepreneurship Monitor – GEM (GEM, 2025). GEM research provides important feedback on what entrepreneurs and experts think about entrepreneurship in Croatia (Singer et al., 2024). Respondents rate various aspects of the entrepreneurial environment on a scale from 0 (very

poor) to 10 (excellent). According to the obtained results (Table 5) the average rate of unemployment in Croatia is 29.69%, with a maximum value of as much as 50.57% and the minimum value of 16.88 %. Regarding the EFCs the highest mean value has the variable physical and services infrastructure followed by internal market dynamics and post school entrepreneurial education and training. The variables basic school entrepreneurial education and training taxes and bureaucracy achieve the lowest average value of 3.00 and 3.10. The results are in line with the results of Radlović et al. (2020) which emphasize the problem of bureaucracy and corruption. Also, the lack of entrepreneurial education is in line with the results of Jelinčić et al. (2022).

Table 5: Descriptive statistics for the observed variables – EFCs and youth unemployment

Variable	mean	std	min	max
Financing for entrepreneurs	3.86	0.57	3.17	4.97
Governmental support and policies	3.44	0.34	2.72	4.02
Taxes and bureaucracy	3.10	0.50	2.23	4.25
Governmental programs	3.92	0.34	3.28	4.53
Basic school entrepreneurial education and training	3.00	0.40	2.20	3.68
Post school entrepreneurial education and training	4.04	0.50	3.28	4.87
R&D transfer	3.42	0.28	2.83	3.83
Commercial and professional infrastructure	4.54	0.30	3.73	5.00
Internal market dynamics	5.80	0.39	5.08	6.53
Internal market openness	3.53	0.23	3.03	3.95
Physical and services infrastructure	5.90	0.29	5.13	6.37
Cultural and social norms	3.44	0.43	2.70	4.08
Youth Unemployment	29.69%	9.51%	16.88%	50.57%

Source: own calculation

Data analysis using Ordinary Least Squares (OLS) regression is employed to detect EFCs variables influencing the youth unemployment rate in Croatia. Since the number of predictors (11) is high relative to the number of observations (21), I utilized LASSO (Least Absolute Shrinkage and Selection Operator) regression to choose the relevant independent variables. LASSO (Least Absolute Shrinkage and Selection Operator) is a statistical method for regularization and variable selection. Ordinary Least Squares (OLS) regression minimizes the sum of squared differences between observed and predicted values, while LASSO regression adds the penalty term to this sum. The sum of squared differences (residual sum of squares - RSS) is calculated as:

$$RSS = \sum_{i=0}^n (y_i - \hat{y}_i)^2 \quad (1)$$

where  $y_i$  is observed value and  $\hat{y}_i$  is predicted value for data point  $i$ . In LASSO regression loss function is defined as sum of RSS and penalty term:

$$Loss = RSS + \lambda \sum_{j=1}^p |\beta_j| \quad (2)$$

were are model coefficients,  $p$  is the number of features and  $\lambda$  is regularization parameter. The penalty term shrinks the coefficients of less relevant features towards zero effectively performing feature selection. Another benefit of LASSO regression is reduction of overfitting what is especially important for small datasets. Limitations of LASSO regression includes possible shrinkage of important coefficients. Also, in case of correlated predictors, one can be arbitrarily chosen while other variables are discarded. LASSO results are sensitive to the selection of  $\lambda$  value. For my dataset only variable Financing for entrepreneurs has value of LASSO coefficients different from 0 (-9.96). Therefore, I performed OLS regression with single predictor (Financing for entrepreneurs) and youth unemployment rate as dependent variable (table 6).

Table 6: Single predictor OLS regression for unemployment rate. Standard errors are in parentheses. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Variables	
Financing for entrepreneurs	-8.3577** (3.155)
Constant	61.9589*** (12.305)
R <sup>2</sup>	0.251
Adjusted R <sup>2</sup>	0.215
Breusch-Pagan Test p-value	0.73

It can be seen that variable financing for entrepreneurs is statistically significant at the 5% level and it negatively affects youth unemployment rate, that is growth of financing decreases youth unemployment rate. The relatively low values of R<sup>2</sup> and adjusted R<sup>2</sup> indicate modest model fit what can be explained by fact that only one predictor was chosen due to low number of observations. For each one unit increase in financing, youth unemployment decreases by about 8.36 percent's, while keeping other predictors constant.

#### 4. Conclusion

Youth unemployment is a problem faced by many countries in the world. In Croatia the situation is not different. Due to the importance of young people for the economy, it is necessary to find a way to include them in the labour market. Many governments try to foster youth entrepreneurship. For that reason, education, mentorship and entrepreneurial knowledge are necessary as well as adequate entrepreneurial environment. The entrepreneurial environment is being observed through entrepreneurial framework conditions. Global entrepreneurial monitor monitors eleven conditions. According to the results in Croatia, for the observed period, EFCs basic school entrepreneurial education and training taxes and

bureaucracy represent limiting factors due to lowest average values. On the other hand, factors like physical and services infrastructure, internal market dynamics and post school entrepreneurial education and training are stimulating factors because they record the highest average values in the observed period. Looking at the impact of EFCs on youth unemployment, only the factor financing for entrepreneurs showed statistical significance and negative effect. Due to the results obtained government needs to reduce bureaucracy, frequent changes in tax rates and ensure adequate education. Furthermore, universities should adjust their education programs in order to ensure that's students start thinking in an entrepreneurial way.

Since the number of observations is relatively small, OLS regression analysis was limited to only one predictor chosen based on values obtained with LASSO regression. Because of that, the model has modest explanatory power what emphasizes the need to include more variables. Future work will include data from more countries what would enable usage of more predictors to get results that are more conclusive.

## LITERATURE

1. Alfonsi, L., Bandiera, O., Bassi, V., Burgess, R., Rasul, I., Sulaiman, M., & Vitali, A. (2020). Tackling youth unemployment: Evidence from a labor market experiment in Uganda. *Econometrica*, 88(6), 2369-2414.
2. Boris, O., Parakhina, V., & Gorlov, S. (2021). Youth Entrepreneurship as a Factor in Solving Socio-Economic Problems in the Conditions of the Coronavirus Pandemic. *International Transaction Journal of Engineering Management and Applied Sciences and Technologies*, 12, 12a13d.
3. Bouraima, M. B., Qian, S., Sangaré-Oumar, M. M., Qiu, Y., & Zonon, B. I. P. (2025). A multi-criteria decision-making framework for addressing youth unemployment in developing countries: Pathways to sustainable solutions. *Journal of Intelligent Decision Making and Information Science*, 2, 186-196.
4. Bölükbaş, M. (2019). The Relationship of Economic Growth with Employment, Unemployment and Youth Unemployment in the Balkan Countries: An Empirical Analysis. *İzmir İktisat Dergisi*, 34(3), 385-398.
5. Brzozowski, J., Šimić Banović, R., & Alpeza, M. (2022). Overcoming constraints to immigrant entrepreneurship in Croatia: the role of formal and informal institutions. *Post-Communist Economies*, 34(8), 1109-1136.
6. Bucevska, V., & Kozheski, K. (2022). DETERMINANTS OF YOUTH UNEMPLOYMENT IN SEE COUNTRIES. *Management Research & Practice*, 14(4).
7. CEPOR (2025). *Izvešće o malim i srednjim poduzećima u Hrvatskoj – 2024*. Zagreb. Hrvatska.
8. Csákné Filep, J., Timár, G., & Szennay, Á. (2025). Analysing the Impact of Entrepreneurship Education on Early-Stage Entrepreneurship—Focusing on the Transitional Countries of Central and Eastern Europe. *Administrative Sciences*, 15(2), 36.

9. Čočkaló, D., Đorđević, D., Nikolić, M., Stanisavljev, S., & Terek, E. (2017). Analysis of possibilities for improving entrepreneurial behaviour of young people: Research results in Central Banat district. *Journal of Engineering Management and Competitiveness (JEMC)*, 7(2), 97-108.
10. Čočkaló, D., Đorđević, D., Bakator, M., Nikolić, M., Stanisavljev, S., & Terek, E. (2020a). NATIONAL COMPETITIVENESS AND YOUTH ENTREPRENEURSHIP: RESEARCH FROM THE CENTRAL BANAT REGION. *ENGINEERING MANAGEMENT AND COMPETITIVENESS (EMC 2020)*, 169.
11. Čočkaló, D., Đorđević, D., Bogetić, S., & Bakator, M. (2020b). Youth entrepreneurship development: A review of literature and ten-year research results. *Journal of Engineering Management and Competitiveness (JEMC)*, 10(2), 151-161.
12. European Commission (2025) Youth employment support, Available at: [https://employment-social-affairs.ec.europa.eu/policies-and-activities/european-employment-strategy/youth-employment-support\\_en](https://employment-social-affairs.ec.europa.eu/policies-and-activities/european-employment-strategy/youth-employment-support_en) [accessed 12.5.2025.]
13. Eurostat (2025). Glossary: Youth unemployment, Available at: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Youth\\_unemployment](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Youth_unemployment) [accessed 31.10.2025.]
14. Eurostat (2025a). Unemployment rate (%) - monthly data, Available at: [https://ec.europa.eu/eurostat/databrowser/view/ei\\_lmhr\\_m\\_\\_custom\\_18659587/default/table](https://ec.europa.eu/eurostat/databrowser/view/ei_lmhr_m__custom_18659587/default/table) [accessed 20.10.2025.]
15. Fung, Y. V., & Nga, L. H. J. (2022). An investigation of economic growth, youth unemployment and inflation in ASEAN countries. *International Journal of Academic Research in Business and Social Sciences*, 12(1), 1731-1755.
16. Gabor, M. R. (2018). Entrepreneurial Framework Conditions and Sustainable Growth in Europe. A Multimethod Analysis. *Annals of "Dunarea de Jos" University of Galati Fascicle I. Economics and Applied Informatics*, 1(1), 154-161.
17. Global Entrepreneurship Monitor (GEM) (2025). Entrepreneurial Framework Conditions, Available at: <https://www.gemconsortium.org/data/key-nes> [accessed 24.9.2025.]
18. Global Entrepreneurship Monitor (GEM) (2025a) Definition, Available at: <https://www.gemconsortium.org/wiki/1154> [accessed 24.9.2025.]
19. Gomes, S., Ferreira, J. J., & Lopes, J. M. (2023). Entrepreneurial conditions and economic growth in entrepreneurial ecosystems: Evidence from OECD countries. *The International Journal of Entrepreneurship and Innovation*, 14657503231156340.
20. Gulzar, F., & Fayaz, A. (2023). Youth entrepreneurial intentions: an integrated model of individual and contextual factors. *International Journal of Organizational Analysis*, 31(5), 1279-1303.
21. Hornstein Tomić, C., & Taylor, K. (2018). Youth unemployment, the brain drain and education policy in Croatia: A call for joining forces and for new visions. *Policy Futures in Education*, 16(4), 501-514.
22. Huszák, L., Kauppinen, A., Saßmannshausen, S. P., Sobolieva, T., & Steger, T. (2025, February). Entrepreneurship Education in the Danube Region. In *Entrepreneurship Education in Central and East Europe* (pp. 7-14). Nomos Verlagsgesellschaft mbH & Co. KG.
23. IMD (2025). IMD World Competitiveness Booklet 2025, Switzerland

24. Ionescu, A. M. (2020). ENTREPRENEURSHIP FRAMEWORK CONDITIONS AS PREDICTORS OF EARLY-STAGE ENTREPRENEURIAL ACTIVITY. In *7th SWS International Scientific Conference on Social Sciences ISCSS 2020* (pp. 217-224).
25. Jelinčić, D. A., Baturina, D., & Franić, S. (2022). Impact of Service Learning on Social Entrepreneurship and Youth Employment in Croatia. *Interdisciplinary Description of Complex Systems: INDECS*, 20(4), 319-335.
26. Miklosevic, I., Saldic, E., & Cobovic, M. V. (2023). Entrepreneurship in the Republic of Croatia-analysis for the period from 2017-2021. *Economic and Social Development: Book of Proceedings*, 160-171
27. Najev Čačija, L., Lovrinčević, M., & Bilic, I. (2023). The role of demographic factors and prior entrepreneurial exposure in shaping the entrepreneurial intentions of young adults: the case of Croatia. *Sustainability*, 15(6), 5151.
28. OECD (2025). Unemployment rate by age group, Available at: <https://www.oecd.org/en/data/indicators/unemployment-rate-by-age-group.html> [accessed 31.10.2025.]
29. Orobias, L. A., Tusiime, I., Mwesigwa, R., & Ssekiziyivu, B. (2020). Entrepreneurial framework conditions and business sustainability among the youth and women entrepreneurs. *Asia Pacific Journal of Innovation and Entrepreneurship*, 14(1), 60-75.
30. Pavlović, D., Zubović, J., & Obradović, V. (2017). Relationship of the youth unemployment and determinants of the labour market in the Balkan countries. *Industrija: časopis za ekonomiku industrije*, 45(4), 153-166.
31. Pfeifer, S., Singer, S., Šarlija, N., & Peterka, S. O. (2021). Perception of the national entrepreneurship conditions—differences across time and expert specialization. *The South East European Journal of Economics and Business*, 16(1), 1-17.
32. Radlović, I., Hunjet, A., & Kozina, G. (2020). Development of Small and Medium Entrepreneurship in the Republic Of Croatia. *ENTRENOVA-ENTERPRISE RESEARCH INNOVATION*, 6(1), 333-340.
33. Singer, S., Šarlija, N., Pfeifer, S., Oberman Peterka, S. (2024) *Što čini Hrvatsku (ne) poduzetničkom zemljom? GEM Hrvatska 2023*, CEPOR – Centar za politiku razvoja malih i srednjih poduzeća i poduzetništva, Zagreb.
34. Stoica, O., Roman, A., & Rusu, V. D. (2020). The nexus between entrepreneurship and economic growth: A comparative analysis on groups of countries. *Sustainability*, 12(3), 1186.
35. Sulejman, R. (2020). The influence of entrepreneurship in youth unemployment in transition and MENA countries. *Zbornik Veleučilišta u Rijeci*, 8(1), 243-251.
36. Šimić Šarić, M. (2024). Financijsko-tržišni potencijal hrvatskih malih i srednjih poduzeća u privlačenju rizičnog kapitala. *Zbornik radova Veleučilišta u Šibeniku*, 18(1-2), 65-78.
37. Šimičević, V. (2025). Nezaposlenost u Hrvatskoj: Trendovi i izazovi u digitalnom dobu (2010.-2024.). *Croatian regional development journal*, 6(1), 1-17.
38. Trading Economics (2025). Croatia Youth Unemployment rate, Available at: <https://tradingeconomics.com/croatia/youth-unemployment-rate> [accessed 20.10.2025.]
39. Vasilescu MD, Crivoi E-S, Munteanu A-M (2025) Exploring entrepreneurial intention among European Union youth by education and employment status. *PLoS ONE* 20(1):e0318001.

40. Vutsova, A., Arabadzhieva, M., & Angelova, R. (2023). The youth entrepreneurship as response to the youth unemployment-examples of Western Balkan region. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, 8(6), 21.
41. World Bank Group (2025). Metadata Glossary, Available at: <https://databank.worldbank.org/metadataglossary/world-development-indicators/series/SL.UEM.1524.ZS> [accessed 31.10.2025.]

Sažetak

#### **ELEMENTI PODUZETNIČKE OKOLINE I NEZAPOSLENOST MLADIH – ANALIZA ZA HRVATSKU**

*Mladi se suočavaju s problemom ulaska na tržište rada zbog visoke stope nezaposlenosti mladih. Visoke stope nezaposlenosti mladih problem su s kojim se suočavaju mnoga gospodarstva diljem svijeta. Kako bi premostile taj problem, zemlje pokušavaju potaknuti mlade da se uključe u poduzetništvo. Naime, mladi su budućnost svakog društva i važan su izvor gospodarskog rasta, iako im nedostaje iskustva i vještina. Elementi poduzetničke okoline utječu na poduzetničke aktivnosti svakog gospodarstva. Zbog toga je cilj ovog rada utvrditi odnos elemenata poduzetničke okoline s nezaposlenošću mladih u Hrvatskoj za razdoblje od 2002. do 2024. godine. Rezultati deskriptivne statistike pokazuju kako je najniža prosječna vrijednost određena za varijable osnovnoškolsko poduzetničko obrazovanje i osposobljavanje, državne politike: porezi i birokracija. S druge strane, varijable fizička infrastruktura, dinamika unutarnjeg tržišta i tercijarno poduzetničko obrazovanje i osposobljavanje bilježe najviše prosječne vrijednosti. Kao rezultat regresije najmanjih kvadrata (OLS) financiranje za poduzetnike statistički je značajno na razini od 5% i negativno utječe na stopu nezaposlenosti mladih, odnosno rast financiranja smanjuje stopu nezaposlenosti mladih.*

**Ključne riječi:** mladi; nezaposlenost mladih; elementi poduzetničke okoline; Hrvatska.

