

# Higher education and digitalization as drivers of entrepreneurship in Central and Eastern Europe

Research Article

Ramona Simut<sup>1\*</sup>, Daniel Pop<sup>2</sup>

<sup>1</sup> Faculty of Economic Sciences, University of Oradea, Oradea, Romania

<sup>2</sup> Doctoral School of Economic Sciences, University of Oradea, Oradea, Romania

Received 30 December 2025; Accepted 30 December 2025

**Abstract:** This study investigates the determinants of entrepreneurial activity in Central and Eastern Europe (CEE), focusing on the transition toward innovation-driven economies. Utilizing a balanced panel dataset comprising 11 EU member states, the research analyzes the impact of human capital and digital infrastructure on new business formation. The empirical strategy employs a panel data regression framework, adopting the random effects estimator as the appropriate specification based on the Hausman test results. The findings reveal that structural factors are the primary drivers of entrepreneurship in the region. Tertiary education and digitalization exhibit a positive and statistically significant impact on new business density. In contrast, short-term economic growth (gross domestic product per capita) did not exhibit a statistically significant impact, suggesting that entrepreneurial dynamics in the CEE region are becoming less cyclical and increasingly contingent upon structural determinants.

**Keywords:** Education • Entrepreneurship • Digitalization • Panel data • CEE region • Random effects

## 1. Introduction

Over the past two decades, the economic landscape of Central and Eastern Europe (CEE) has experienced a paradigm shift, transitioning from efficiency-driven models reliant on low-cost labor toward innovation-centric frameworks essential for global competitiveness. In this evolving context, entrepreneurship implies more than a mere survival strategy, and it acts as a key driver for modernizing the economy, boosting growth, and creating high-quality jobs. From a theoretical standpoint, higher education is widely recognized for equipping individuals with the cognitive capacity to identify and exploit knowledge spillovers, serving as a primary conduit for converting new knowledge into economic activity. Simultaneously, the integration of digital technologies has emerged as a determinant factor for SME performance and competitiveness, particularly by optimizing processes and reducing transaction costs. However, while this theoretical nexus is well established in the developed Western economies, empirical evidence specific to the CEE region remains fragmented and warrants further investigation.

The aim of this study is to empirically assess how human capital development and digital infrastructure influence the rate of new business formation within CEE. Diverging from traditional analyses that prioritize macroeconomic metrics like gross domestic product (GDP) growth, this research posits that structural determinants serve as more reliable drivers of entrepreneurial dynamics than cyclical economic fluctuations. Structurally, the article begins by reviewing the relevant literature regarding the interplay between human capital, digital technology, and entrepreneurship. This is followed by an outline of the dataset and econometric approach, detailing the panel data framework and diagnostic tests employed. The subsequent analysis reports the empirical outcomes derived from the model, while the final part of the study interprets these findings to offer conclusions and relevant policy implications.

## 2. Literature review

The relationship between education and entrepreneurship is fundamentally rooted in the capacity of human capital to recognize and exploit opportunities. According to

\* E-mail: simut.ramona@yahoo.com

Acs et al. (2013), knowledge generated by universities and research institutions acts as an exogenous source of entrepreneurial opportunity, with the entrepreneur serving as the conduit for converting this new knowledge into economic activity. Education, particularly within the “cognitive” institutional pillar, equips individuals with the specific skills, autonomy, and shared logic required to identify profitable market opportunities and innovation (Audretsch et al., 2021). Moreover, the necessity of a skilled workforce is paramount in the modern economic landscape. Investments in education and training not only enhance individual competence but also stimulate the creation of an economy based on knowledge and innovation (Tutak & Brodny, 2024). Empirical research further corroborates that human capital, developed through education, serves as an important determinant of sustainable economic competitiveness and is intrinsically linked to the fostering of entrepreneurial endeavors (Dabbous et al., 2023). Therefore, the concentration of skilled graduates and academic researchers acts as a catalyst for local innovation. This proximity allows new ideas to bypass the usual barriers to market entry, effectively transforming academic knowledge into viable business ventures (Acs et al., 2013). Building upon this theoretical framework, which links human capital accumulation to entrepreneurial capacity, we derive our first hypothesis.

*Hypothesis 1: There is a positive and statistically significant relationship between the level of tertiary education and the density of new businesses.*

Regarding the nexus of digitalization and entrepreneurship, recent scholarship identifies digital technologies as a disruptive force that reshapes business models, optimizes processes, and creates new avenues for value creation (Dabbous et al., 2023; Francu et al., 2025). Digitalization, encompassing connectivity and Internet usage, has been empirically shown to positively affect entrepreneurial activity by allowing entrepreneurs to acquire market insight, decrease transaction and communication costs, and extend their market scope (Dabbous et al., 2023; Grosu et al., 2025). The integration of digital technologies and digital intensity is a significant driver of business performance, facilitating the creation of new ventures by providing the essential infrastructure to compete and grow (Kádárová et al., 2023). Furthermore, digital multi-sided platforms mediate economic interactions and reduce search costs, creating networks that are essential for the scalability of new firms in the digital economy (Wibisono, 2023). Thus, widespread and reliable connectivity, alongside active internet usage, acts as an essential driver for new business formation by reducing barriers to entry and fostering innovation (Dabbous et al., 2023).

*Hypothesis 2: Digital infrastructure (internet usage) has a positive and significant impact on new business formation.*

While the contribution of entrepreneurship to GDP is a central theme in economic literature, evidence from transition economies suggests that structural factors often outweigh short-term economic variations in driving entrepreneurial dynamics. Although entrepreneurship is recognized as an engine for economic development and GDP growth (Gherghina et al., 2020), studies focused on CEE indicate that disparities in development are more closely linked to structural levels of digitization and innovation capabilities than to simple GDP metrics (Tutak & Brodny, 2024). Research demonstrates that CEE nations characterized as leaders in enterprise development are distinguished by their high adoption of modern technologies and structural support for innovation, whereas outsiders face challenges due to structural lags in these areas (Tutak & Brodny, 2024). In developing and transition economies, the institutional and structural context defined by the quality of human capital and digital infrastructure plays a more definitive role in fostering productive entrepreneurship than cyclical variations in GDP per capita (Audretsch et al., 2021). Therefore, in these regions, the ecosystem’s structural quality and institutional pillars are the primary drivers of dynamic business creation (Audretsch et al., 2021; Wibisono, 2023). To empirically validate whether these regions have shifted from necessity-driven to opportunity-driven entrepreneurship independent of economic cycles, we formulate the next hypothesis.

*Hypothesis 3: Entrepreneurial dynamics in CEE countries are driven more by structural factors (education and digitalization) than by short-term variations in GDP per capita.*

### 3. Data and methodology

The present study investigates the impact of human capital, proxied by Tertiary Education (Edu), and digital infrastructure, represented by Digitalization (Dig), on entrepreneurship dynamics, measured as New Business Density (NewBus), in CEE. In addition, GDP per capita (GDP) is included to control for the level of economic development. The empirical analysis covers a balanced panel of 11 EU member states from the CEE region (Bulgaria, Croatia, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia), utilizing annual data collected from Eurostat and the World Bank (WDI) (Eurostat, 2024; World Bank, 2024). A comprehensive description of these variables is presented in Table 1.

To quantify the impact of structural and economic drivers on new business formation, this study utilizes a linear panel data econometric model. The initial model, before applying any stationarity adjustments, assumes

Variable type	Abbreviation	Indicator name	Definition	Source	Time
Dependent	NewBus	New Business Density	New registrations per 1,000 people ages 15–64	World Bank	2006–2024
Independent	Edu	Tertiary Education	School enrollment, tertiary (% gross)	World Bank	2006–2024
Independent	Dig	Digitalization	Individuals using the Internet (% of population)	World Bank/Eurostat	2006–2024
Control	GDP	Economic Development	GDP per capita (constant 2015 US\$)	World Bank	2006–2024

**Table 1.** Description of variables.

Source: Eurostat and World Bank.

that new business density depends on human capital, digital infrastructure, and economic development. The general equation is expressed as follows:

$$\text{NewBus}_{it} = \beta_0 + \beta_1 \text{Edu}_{it} + \beta_2 \text{Dig}_{it} + \beta_3 \text{GDP}_{it} + \mu_{it} + \varepsilon_{it},$$

where  $i = 1, \dots, 11$  represents the cross-sectional dimension (the selected CEE countries),  $t = 2006, \dots, 2024$  denotes the time dimension (years),  $\text{NewBus}_{it}$  is the dependent variable,  $\text{Edu}_{it}$  and  $\text{Dig}_{it}$  are the independent variables,  $\text{GDP}_{it}$  is the control variable,  $\beta_0$  is the constant term, and  $\beta_1, \beta_2,$  and  $\beta_3$  are the coefficients to be estimated,  $\mu_{it}$  captures the unobserved country-specific effects (individual heterogeneity), and  $\varepsilon_{it}$  is the error term.

To verify and test the stationarity properties of the panel data and mitigate the risk of spurious regressions, we employed a comprehensive set of first-generation panel unit root tests that account for the specific characteristics of the dataset ( $N = 11, T = 19$ ).

Our study included both the Levin, Lin, and Chu (LLC) test (Levin et al., 2002), which assumes a common unit root process across cross-sections, and tests that allow for heterogeneity under the assumption of individual unit root processes, specifically Im, Pesaran, and Shin (IPS) (Im et al., 2003) and the Fisher-type tests (ADF-Fisher and PP-Fisher) (Choi, 2001; Maddala & Wu, 1999). All tests were specified with individual effects to capture country-specific characteristics. The null hypothesis, which assumes the presence of a unit root (nonstationarity), was tested against the alternative of stationarity. The rejection of the null hypothesis at the 5% significance level confirms that a variable is stationary ( $I(0)$ ), whereas failure to reject indicates the need for differencing to achieve integration.

The results presented in Table 2 reveal a mixed order of integration among the variables, a common characteristic in macroeconomic panel data analyses. Regarding New Business Density (NewBus) and GDP per capita (GDP), the applied tests (LLC, IPS, ADF, and PP) point to nonstationary behavior at levels, consistently failing to reject the null hypothesis ( $p > 0.05$ ). However, stationarity is strongly confirmed upon

first differencing ( $p < 0.0001$ ), classifying these variables as integrated of order one,  $I(1)$ . In contrast, the structural variables, Tertiary Education (Edu) and Digitalization (Dig), exhibit indications of stationarity at levels, particularly validated by the Levin, Lin & Chu test ( $p < 0.05$ ). Given their structural nature and slow evolution over time, treating them as  $I(0)$  was essential to preserve long-term information. Building upon the unit root test results, which indicated a mixed order of integration among the variables, the model specification was rigorously adapted to ensure statistical validity and mitigate the risk of spurious regression. Therefore, the variables identified as nonstationary at level, specifically *New Business Density* and *GDP per capita*, were transformed using the first difference operator ( $\Delta$ ) to achieve stationarity. In contrast, the structural variables, *Tertiary Education* and *Digitalization*, were entered into the model in their level form, as they were determined to be stationary ( $I(0)$ ). Accordingly, the final regression equation, capturing the impact of structural determinants on the dynamics of business formation, is specified as follows:

$$\Delta(\text{NewBus}_{it}) = \beta_0 + \beta_1 \text{Edu}_{it} + \beta_2 \text{Dig}_{it} + \beta_3 \Delta(\text{GDP}_{it}) + \mu_{it} + \varepsilon_{it}.$$

To identify the optimal econometric approach for the panel data analysis, the Hausman specification test was employed to adjudicate between the fixed effects (FE) and random effects (RE) models. This diagnostic tool is essential for determining whether the unobserved heterogeneity should be treated as deterministic constants specific to each entity (FE) or as stochastic variables (RE). Specifically, the test evaluates the null hypothesis that the RE estimator is appropriate. A rejection of this hypothesis, based on the Chi-square distributed test statistic, indicates that the RE model provides inconsistent estimates and that the FE specification is preferred. The Hausman test (Hausman, 1978) statistics follow a Chi-square distribution and is calculated as follows:

$$H = (\hat{\beta}_{FE} - \hat{\beta}_{RE})' [\text{Var}(\hat{\beta}_{FE}) - \text{Var}(\hat{\beta}_{RE})]^{-1} (\hat{\beta}_{FE} - \hat{\beta}_{RE}) \sim \chi^2(k),$$

where  $\hat{\beta}_{FE}$  and  $\hat{\beta}_{RE}$  denote the vectors of coefficients estimated by FE and RE, respectively.

Series/variable	Method	Statistic	Prob.	Statistic	Prob.	Integration
		(Level)		(1st diff.)		
New business density (NewBus)	Levin, Lin & Chu $t^*$	-0.201	0.4203	-6.8983	0.000*	$I(1)$
	Im, Pesaran and Shin W-stat	0.5737	0.7169	-6.2947	0.000*	
	ADF – Fisher Chi-square	17.7783	0.719	79.953	0.000*	
	PP – Fisher Chi-square	19.4536	0.6172	168.751	0.000*	
Tertiary education (Edu)	Levin, Lin & Chu $t^*$	-1.925	0.027*	—	—	$I(0)$
	Im, Pesaran and Shin W-stat	-1.2973	0.0973	—	—	
	ADF – Fisher Chi-square	33.2604	0.0583	—	—	
	PP – Fisher Chi-square	29.5995	0.1285	—	—	
Digitalization (Dig)	Levin, Lin & Chu $t^*$	-4.3019	0.0000*	—	—	$I(0)$
	Im, Pesaran and Shin W-stat	-1.3552	0.0877	—	—	
	ADF – Fisher Chi-square	33.1059	0.0604	—	—	
	PP – Fisher Chi-square	75.0604	0.0000*	—	—	
GDP per capita (GDP)	Levin, Lin & Chu $t^*$	3.1596	0.9992	-9.4617	0.0000*	$I(1)$
	Im, Pesaran and Shin W-stat	6.0438	1	-7.5605	0.0000*	
	ADF – Fisher Chi-square	1.2226	1	95.436	0.0000*	
	PP – Fisher Chi-square	2.5496	1	362.116	0.0000*	

**Table 2.** Panel unit root test.

Note: Statistical significance at the \*\*\*1% level, \*\*5%, and \*10%. Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. For Education and Digitalization, mixed results were obtained, but LLC and PP tests (for Digitalization) suggest stationarity at level.

Source: Authors' calculations using EViews 13.

As shown in Table 3, the Chi-square statistic is 5.6427 with a corresponding probability of 0.1303. Since  $p > 0.05$ , we fail to reject the null hypothesis, which states that the individual effects are uncorrelated with the regressors. This statistical evidence supports the use of the RE model as a consistent and efficient estimator for our panel.

## 4. Results and discussion

The estimation results of the RE model are summarized in Table 4. The regression analysis was performed using the Panel estimated generalized least squares method to account for unobserved heterogeneity across the 11 CEE countries.

The model demonstrates a robust goodness of fit for a panel data specification involving differenced variables.

Test summary	Chi-square statistic	Prob.	Decision
Cross-section random	5.6427	0.1303	RE selected

**Table 3.** Hausman test results.

Source: Authors' calculations using EViews 13.

The  $R^2$  value of 0.3188 indicates that the selected structural and macroeconomic variables explain approximately 31.9% of the variation in the *change* of new business density across the region. The  $F$ -statistic of 31.98 ( $p < 0.001$ ) confirms the joint statistical significance of the regressors, rejecting the null hypothesis that all slope coefficients are equal to zero.

Tertiary education acts as a powerful structural driver, exhibiting a positive and highly significant coefficient ( $\beta_1 = 0.01067$ ,  $p = 0.0000$ ). The magnitude of this effect is nearly identical to that of digitalization, suggesting that human capital and technological infrastructure are equally vital pillars for the entrepreneurial ecosystem. This finding supports Hypothesis 1, confirming that a higher gross enrollment ratio in tertiary education equips the workforce with the cognitive skills necessary to identify and exploit market opportunities, thereby boosting the rate of new firm creation. This interpretation aligns with the study by Acs et al. (2013), which posits that human capital is the conduit through which knowledge is transformed into economic activity. A similar result was reached by Dabbous et al. (2023), who empirically demonstrated that education exerts a statistically significant positive influence on sustainable competitiveness and entrepreneurial

Independent variable	Coefficient	Std. error	t-Statistic	Prob.
Tertiary education ( $Edu_{it}$ )	0.010674	0.002511	4.2502	0.0000***
Digitalization ( $Dig_{it}$ )	0.010785	0.001896	5.6873	0.0000***
GDP per capita ( $\Delta GDP_{it}$ )	0.054376	0.114765	0.4738	0.6361
Constant (C)	-0.531586	1.180256	-0.4504	0.6529
$R^2$	0.3188			
F-statistic	31.9883		(Prob: 0.0000)	
Total observations	209		(11 countries $\times$ 19 years)	

**Table 4.** RE regression results.

Note: Dependent variable:  $\Delta NewBus$ . \*\*\*Significance at 1%.

Source: Authors' calculations using EViews 13.

activity. Furthermore, Audretsch et al. (2021) verified this result, arguing that educational capital not only explains productive entrepreneurial activity but also enhances the ability to distinguish between profitable and nonprofitable opportunities.

The variable Digitalization exhibits the highest statistical significance in the model ( $t$ -statistic = 5.68,  $p = 0.0000$ ). The positive coefficient ( $\beta_2 = 0.01078$ ) indicates that a higher level of internet adoption accelerates the formation of new businesses. Specifically, a 1 percentage point increase in the share of the population using the Internet is associated with an annual increase of approximately 0.011 units in the growth of new business density. This validates Hypothesis 2, suggesting that digital infrastructure acts as a critical enabler in the CEE region by lowering entry barriers and facilitating entrepreneurial engagement. This conclusion is supported by Dabbous et al. (2023), who found that digitalization creates opportunities for entrepreneurs to set up new ventures by reducing transaction and communication costs. Moreover, Kádárová et al. (2023) corroborated these findings, showing that the integration of digital technologies and digital intensity significantly drives business performance and competitiveness. Finally, Tutak and Brodny (2024) also verified this relationship, emphasizing that digitalization is becoming an indispensable part of growth strategy and a key factor in supporting business innovation in developing economies.

Contrary to traditional macroeconomic assumptions, which posit that economic growth acts as a primary catalyst for investment and business expansion, a relationship empirically observed in other contexts by Gherghina et al. (2020) and Kádárová et al. (2023), the coefficient for GDP per capita ( $\Delta GDP$ ) in this model is not statistically significant ( $\beta_3 = 0.054$ ,  $p = 0.6361$ ). Although the relationship remains positive, the lack of statistical significance implies that entrepreneurial activity in the CEE region is no longer strictly tied to short-term GDP fluctuations. This evidence supports Hypothesis 3,

signaling a maturing ecosystem where the motivation for starting a business is transitioning from immediate survival needs toward seizing opportunities based on structural readiness. This interpretation aligns with the study by Acs et al. (2013), which argues that entrepreneurial action is a response to specific contexts rich in knowledge and institutional support rather than merely aggregate economic output. Furthermore, Audretsch et al. (2021) reached a similar conclusion regarding transition economies, suggesting that the quality of entrepreneurship (productive vs unproductive) is determined more by the institutional pillars and resource availability than by raw economic growth. Thus, the current entrepreneurial wave in CEE appears driven by the qualitative accumulation of skills and digital maturity, as emphasized by Tutak and Brodny (2024), rather than immediate economic booms.

## 5. Conclusions

The primary objective of this research is to examine the interplay between education, digitalization, and economic development in fostering entrepreneurship across CEE. By employing a robust econometric approach based on a balanced panel of 11 countries, the study highlights the shifting paradigm of the regional business environment from an efficiency-driven model to an innovation-driven economy, where structural readiness plays a more decisive role than cyclical economic growth.

The empirical evidence validates that structural factors are now the primary drivers of entrepreneurial dynamics in the region. Human capital emerged as a fundamental pillar, confirming that a higher share of tertiary education equips the workforce with the necessary cognitive skills to identify market opportunities. Digitalization proved to be a significant catalyst, democratizing entrepreneurship by lowering entry

barriers and transaction costs. Conversely, the study revealed that short-term GDP per capita fluctuations were not a significant predictor, implying that the decision to start a business is driven more by capability than by the immediate economic climate.

From a policy perspective, the data imply that stimulating new business creation in the CEE region necessitates a broader approach than simply providing financial subsidies or depending on macroeconomic growth. To stimulate long-term entrepreneurship, public policies should prioritize integrating entrepreneurial and digital skills into higher education curricula and expanding high-speed Internet access to rural areas to unlock latent potential. Governments should focus on structural stability through education and technology rather than relying solely on economic cycles to naturally generate new firms.

The study acknowledges certain limitations regarding the model's scope, indicating that other unobserved variables (fiscal policies, cultural attitudes toward risk, or institutional quality) also influence entrepreneurship. Future research could expand the current analysis by incorporating these institutional variables or by extending the time series as more postpandemic data becomes available to provide a more granular view of the CEE entrepreneurial landscape.

## Funding information

Authors state no funding involved.

## Author contributions

Both authors contributed equally in the writing of the article.

## Conflict of interest statement

Authors state no conflict of interest.

## References

- Acs, Z. J., Audretsch, D. B., & Lehmann, E. E. (2013). The knowledge spillover theory of entrepreneurship. *Small Business Economics*, *41*(3), 757–774. doi: 10.1007/s11187-013-9505-9.
- Audretsch, D. B., Belitski, M., & Cherkas, N. (2021). Entrepreneurial ecosystems in cities: The role of institutions. *PLOS ONE*, *16*(3), e0247609. doi: 10.1371/journal.pone.0247609.
- Choi, I. (2001). Unit root tests for panel data. *Journal of International Money and Finance*, *20*(2), 249–272. doi: 10.1016/S0261-5606(00)00048-6.
- Dabbous, A., Barakat, K. A., & Kraus, S. (2023). The impact of digitalization on entrepreneurial activity and sustainable competitiveness: A panel data analysis. *Technology in Society*, *73*, 102224. doi: 10.1016/j.techsoc.2023.102224.
- Eurostat. (2024). *Digital economy and society statistics – households and individuals*. Retrieved from <https://ec.europa.eu/eurostat>.
- Francu, C. C., Grosu, R. M., Coman, I. F., & Sava, Ş. (2025). Exploring the nexus of entrepreneurship and digitalization: A review of the state-of-the-art literature. *Proceedings of the 19th International Conference on Business Excellence 2025* (pp. 4038–4051). doi: 10.2478/picbe-2025-0309.
- Gherghina, Ş. C., Botezatu, M. A., Hosszu, A., & Simionescu, L. N. (2020). Small and Medium-Sized Enterprises (SMEs): The engine of economic growth through investments and innovation. *Sustainability*, *12*(1), 347. doi: 10.3390/su12010347.
- Grosu, R. M., Kostadinova, N., Coman, I. F., & Zgura, I. D. (2025). Entrepreneurship and digitalization: A review of the highly cited literature in the research area of Business Economics. In C. Vasiliu, D. C. Dabija, A. Tziner, D. Pleşea, & V. Dinu (Eds.), *11th BASIQ International Conference on New Trends in Sustainable Business and Consumption. Oradea, Romania, 26–28 June 2025* (pp. 188–195). Editura ASE. doi: 10.24818/BASIQ/2025/11/027.
- Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica*, *46*(6), 1251–1271. doi: 10.2307/1913827.
- Im, K. S., Pesaran, M. H., & Shin, Y. (2003). Testing for unit roots in heterogeneous panels. *Journal of Econometrics*, *115*(1), 53–74. doi: 10.1016/S0304-4076(03)00092-7.
- Kádárová, J., Lachvajderová, L., & Sukopová, D. (2023). Impact of digitalization on SME performance of the EU27: Panel data analysis. *Sustainability*, *15*(13), 9973. doi: 10.3390/su15139973.
- Levin, A., Lin, C. F., & Chu, C. S. J. (2002). Unit root tests in panel data: Asymptotic and finite-sample properties. *Journal of Econometrics*, *108*(1), 1–24. doi: 10.1016/S0304-4076(01)00098-7.
- Maddala, G. S., & Wu, S. (1999). A comparative study of unit root tests with panel data and a new simple test. *Oxford Bulletin of Economics and Statistics*, *61*(S1), 631–652. doi: 10.1111/1468-0084.61.s1.13.

Tutak, M., & Brodny, J. (2024). Technological progress in central and eastern Europe: Digitalization and business innovation leaders and outsiders. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(4), 100404. doi: 10.1016/j.joitmc.2024.100404.

Wibisono, E. (2023). The digital entrepreneurial ecosystem in the European Union: Evidence from

the digital platform economy index. *European Planning Studies*, 31(6), 1270–1292. doi: 10.1080/09654313.2023.2202683.

World Bank. (2024). *World development indicators: Entrepreneurship and economy*. Retrieved from <https://databank.worldbank.org/source/world-development-indicators>.