Economic Horizons, May - August 2024, Volume 26, Number 2, 191 - 209
UDC: 33 ISSN: 1450-863 X

Review paper
UDC: 334.722:331.5(4-6EU)
doi:10.5937/ekonhor2402201G

THE COMPARATIVE DYNAMICS OF ENTREPRENEURSHIP AND TRADITIONAL EMPLOYMENT IN THE SEMI-PERIPHERY OF THE EU

Márton Gosztonyi

Asia-Europe Institute - Universiti Malaya, Malaysia

This study explores the socioeconomic dynamics between entrepreneurship and traditional employment within the framework of the semi-periphery of the European Union, specifically focusing on Hungary. A mix of the ridge, LASSO, elastic net, and polynomial regression techniques are used so as to analyze a representative 2022 dataset, examining how individual self-perceptions and local socioeconomic environments influence employment types. The analysis made in this study reveals that, while entrepreneurship and traditional employment often exist on a continuum, they are influenced by the distinct socioeconomic and perceptual factors that contribute to a fluid employment landscape. The key findings indicate significant variations in how entrepreneurs and traditional employees perceive local economies, trust in institutions, and view their personal roles within the economic system. The study reveals critical details in the interplay between personal aspirations and a broader socioeconomic context, suggesting a complex, intertwined relationship that challenges traditional dichotomies between employment types.

Keywords: entrepreneurship, traditional employment, regularized regression techniques, European union, semi-peripheral dynamics

JEL Classification: J01, L26 C4, B50

INTRODUCTION

The comparative analysis of entrepreneurship and traditional employment has emerged as a crucial area of academic inquiry, especially within the evolving frameworks of modern economies (Mahieu, Melillo & Thompson, 2022; Xu, 2023). Despite this growing interest, there remains a notable dearth of comprehensive studies examining the interplay between these two primary employment modes in the context of flexible capitalism (Narotzky, 2015). Addressing this gap, this research adopts a systemic approach in order to explore the nuanced roles of entrepreneurship and traditional employment in Hungary, an EU member state characterized by its semi-peripheral economy.[1] By focusing on both contextual and individual factors and

* *Correspondence to:* M. Gosztonyi, Asia-Europe Institute - Universiti Malaya, Kuala Lumpur, Federal Territory of Kuala Lumpur, Malaysia; e-mail: gosztonyi.marton@um.edu.my

incorporating perception theory, this research study offers a multifaceted understanding of how the socioeconomic status, local economic perceptions, trust in institutions, and individual self-conceptions interact so as to influence employment choices.

The impetus for this study stems from the recognition of the dynamic and fluid nature of employment landscapes in semi-peripheral economies. With its unique economic position in the EU, Hungary provides an ideal context for examining these dynamics. A lack of the comparative studies that integrate both entrepreneurial and traditional employment perspectives in such economies highlights a significant research gap this study aims to fill. Additionally, understanding the individual perceptions and socioeconomic factors that drive employment choices is critical for developing the policies and programs that support both entrepreneurial ventures and traditional employment.

This study makes several key contributions to the literature. By integrating the ridge, LASSO, elastic net, and polynomial regression techniques, this research study provides a robust analytical framework so as to understand the complex interplay between socioeconomic factors and individual perceptions. Shifting the focus from purely contextual analyses in order to include the individual-level factors and perceptions, a deeper insight into the drivers of employment choices is enabled in this study. Focusing on Hungary, the unique challenges and opportunities within the semi-peripheral EU economies are highlighted, simultaneously contributing to a more comprehensive understanding of the employment dynamics in place in these regions. By incorporating perception theory, the manner how the individual self-conceptions and perceptions of the local economy and social institutions influence employment types is examined, providing a thorough view of the psychological underpinnings of employment decisions at the same time.

Several gaps in the existing literature are addressed in this research study. There is a scarcity of studies comparing entrepreneurship and traditional employment within the same analytical framework, particularly in the context of flexible capitalism. Previous research has often overlooked the role of individual perceptions in influencing employment choices, whereas this gap has been filled in this research study by incorporating perception theory into the analysis made in it. While much of the literature focuses on either the core or the peripheral economies, this study sheds light on the semi-peripheral context, simultaneously offering the insights that are relevant for a broader range of economic settings. By addressing these gaps, this research not only contributes to the theoretical understanding of employment dynamics but also provides practical implications for policymakers and practitioners, aiming to foster both entrepreneurship and traditional employment in semi-peripheral economies.

LITERATURE REVIEW

The conversation distinguishing entrepreneurs from traditional employees has become more pronounced against the backdrop of shifting economic landscapes. Historically, the studies exploring the socioeconomic characteristics of entrepreneurship and employment have primarily focused on these roles separately. In the early 1990s, there was a notable increase in academic interest in the socioeconomic aspects of entrepreneurship. D. L. Birch (1990) posited that nascent small firms underpinned job creation and economic evolution, a perspective deeply rooted in J. A. Schumpeter's conceptualization of entrepreneurs as harbingers of innovation fostering economic progress. Later reinterpretation emerged, defining entrepreneurs as the innovators who harnessed resources so as to pinpoint and leverage opportunities, thus driving economic and social advancement (Shane & Venkataraman, 2000). Researchers further delineated entrepreneurs as agile, risk-resilient individuals with adept execution capabilities (Sarasvathy, 2001; Baker & Nelson, 2005; Aleksić-Mirić, Aničić & Petrović, 2023). Additionally, research has supported these economic perspectives by highlighting the role of entrepreneurship in driving innovation-led economic development, intertwined

with socio-relational factors (Acs & Audretsch, 2003; Alshibani, Kristoffersen & Volery, 2024).

Simultaneously, the perspective on the socioeconomic aspects of traditional employment has also evolved. Traditionally, based on organizational theory, employees were viewed as the contractual members of organizations, exchanging tasks for a compensation (Coase, 1937). This perspective developed so as to recognize the intricate relationships between employees, employers, and broader organizational structures (Blau, 1986), encompassing both transactional and sociopsychological interactions (Rousseau, 1995). In the era of digital transformation, employees have emerged as the essential repositories of knowledge and catalysts for change, pivotal for organizational adaptability and sustaining a competitive edge (Asensio & Ferreira, 2024). Their fundamental role in shaping organizational culture and the strategic direction has become more apparent (Đorđević, Milanović & Stanković, 2021; Park, Feng & Jeong, 2024).

Unsurprisingly, the entrepreneur-employee dichotomy is intricately influenced by the factors such as the gender (Audretsch, Keilbach & Lehmann, 2006), age (Zahra, Rawhouser, Bhawe, Neubaum & Hayton, 2008), education, ethnicity (Light & Dana, 2013), and spatial income dynamics (Hyytinen & Ruuskanen, 2007), underscoring their substantial explanatory significance. Recent research in the socioeconomic field underscores the complex dynamics between entrepreneurship and traditional employment, offering detailed insights into their respective opportunities and challenges. Importantly, the distinction between the "employee" and the "entrepreneur" has gradually blurred, with their definitions increasingly overlapping (Hurst & Pugsley, 2011; Piketty, 2014; Kenney & Zysman, 2016). This convergence highlights the need for a comprehensive exploration of both areas, considering the evolving nature of work and socioeconomic structures – the discourse that this current research study of ours aims to enhance.

Recent research emphasizes the critical role of individual behavior in distinguishing entrepreneurs from employees, highlighting the importance of integrating perception theory into the comparative study contained herein. In entrepreneurship research, constructivist perception theory is prominent, suggesting that perceptions are shaped by a blend of past experiences and intersubjective interpretations of sensory data (Gregory, 1980), which stands in contrast to the ecological perspective that suggests perceptions are formed from an objective understanding of the environment (Gibson, 1986). Currently, research in entrepreneurial and employees' perceptions tends to adopt the constructivist approach influenced by both environmental and individual factors. In the 1990s, the research studies based on this theory investigated how entrepreneurs perceived their roles in economic outcomes, such as job creation and innovation promotion. Additional research, such as that done by D. G. Blanchflower and A. J. Oswald (1998), examined the wellbeing and financial satisfaction of both entrepreneurs and employees, often associating economic perceptions with trust in social institutions.

Early research recognized trust as essential for business success and, over time, has evolved so as to emphasize the complexity of trust in entrepreneurship (Mayer & Antoine Habersetzer, 2015), including its interplay with social capital and networks. More recent studies have focused on the role of trust in fostering innovation within entrepreneurial ecosystems (Nahapiet & Ghoshal, 1998; McEvily, Perrone & Zaheer, 2003). Simultaneously, the importance of trust in employee contexts has become increasingly apparent. Initial works, such as those by D. M. Rousseau (1995), highlighted the critical nature of trust in employee–employer relationships. Later studies have delved into the psychological contracts that underpinned that trust, examining its effects on organizational loyalty and productivity (Dirks & Ferrin, 2002; Chandna, 2022; Park *et al*, 2024). Current research shifts the focus to the influence of leadership on building organizational trust and its subsequent effects on employees' efficiency and wellbeing (Asensio & Ferreira, 2024).

However, researchers have extended perception theory to the self-perceptions of entrepreneurs and employees as well, simultaneously illuminating

distinct self-views held by each group. Classical studies indicate that entrepreneurs often perceive themselves as more efficient and autonomous than employees due to the inherent demands of entrepreneurial roles requiring self-reliance and innovation (Anderson, Dunkelberg & Condon, 1990). J. H. Dyer, H. B. Gregersen, and C. Christensen (2008) highlighted the fact that entrepreneurs often saw themselves as self-directed visionaries, the trait that drives them to initiate and lead businesses, the consistency observed across various sectors (Kenny & West, 2010). On the other hand, employees typically view themselves as the essential parts of the organizational framework, which contributes to their sense of security (Proudfoot & Kay, 2018; Bošković, 2021). However, this structured setting can sometimes inhibit the personal development and creativity of employees (Çekmecelioğlu & Günsel, 2011; Đorđević *et al*, 2021).

In summary, perception theory delves into both the socioeconomic landscape, including trust in institutions, and individuals' self-perceptions. While the interplay of the economic perception and trust in shaping entrepreneurial and employment paths is an evolving discourse warranting further exploration, substantial insights have been gathered on the self-perceptions that distinguish entrepreneurs from employees. However, comprehensive analysis remains crucial to unravel the intertwining dynamics of the economic perception, trust, and individual self-views within both domains, thereby enriching the understanding of the intricate backdrop that shapes these sectors.

In this paper, a systemic approach complemented by a specific focus, centering on a semi-peripheral European Union member state is utilized. The growing interest in the complex economic and social dynamics of semi-peripheral nations arises from their unique position bridging the central and the peripheral economies, presenting distinct opportunities and challenges. This study is dedicated to conducting an investigation into the entrepreneurial and employment dynamics in place in these regions and illuminates the simultaneous processes of economic divergence and economic convergence (Mayer *et al*, 2015), potentially predicting critical long-term economic trajectories, especially in the fields such as technology and innovation which are essential for maintaining competitiveness. Furthermore, the diverse socio-cultural complexities of these regions provide a fertile basis for the future research that could extend to either the core or the peripheral countries. The need for a systemic perspective is driven by the complex nature of entrepreneurial and employee ecosystems, which are nonlinear, third-order systems far from equilibrium. These systems are characterized by multiphase linkages, autopoiesis, and the hierarchy of control parameters (Nicolis, 2012), necessitating the adoption of a system-based analytical framework. Ultimately, exploring the trajectories of entrepreneurs and employees is crucial due to their significant influence on a nation's economic health and social cohesion. This research study has the goal to enrich this discourse by merging contextual and individual-level systematic analyses.

This study shifts the focus from analyzing the macro-context to the individual, micro-context elements, simultaneously integrating insights from socioeconomic environments (Sarasvathy, 2001; Baker & Nelson, 2005) with individual perceptions (Sarason, Dean & Dillard, 2006). This approach enables the examination of how broader economic and social frameworks interact with personal perceptions and behaviors, enhancing the understanding of their influence on entrepreneurial and employment dynamics. Distinctively, entrepreneurs and employees are compared across various socioeconomic dimensions: the gender (Audretsch *et al*, 2006), education (Zahra *et al*, 2008), generational shifts (Light & Dana 2013), and the factors such as foreign work experience and income (Hyytinen & Ruuskanen 2007). Drawing from the literature, the perceptions of both entrepreneurs and employees of their own views on the local economy and social institutions (Nahapiet & Ghoshal, 1998; McEvily *et al*, 2003), and self-perception (Proudfoot & Kay, 2018) are gauged. Then, the systemic relationship between the contextual and perceptual variables is assessed. This research study is guided by the following hypotheses:

H1: In the semi-peripheral European Union member states, there is a significant differentiation in the socioeconomic status between entrepreneurs and employees, characterized by disparities in the gender distribution, educational attainment, age demographics, working hours, international experience, and income levels. Specifically, it is hypothesized that:

- H1.1: Male entrepreneurs account for a higher proportion of entrepreneurs compared to employee demographics.
- H1.2: Entrepreneurs exhibit a broader age range, with the tendency towards younger age groups when compared to the employees who are characterized by a more uniform age distribution.
- H1.3: Entrepreneurs are on average characterized by a different educational background than employees, potentially exhibiting either a higher or lower educational attainment.
- H1.4: Entrepreneurs have fewer work years than employees.
- H1.5: Entrepreneurs are more likely to have substantial foreign experience when compared to employees, indicating a possible global perspective in their business approach.
- H1.6: Entrepreneurs demonstrate a significantly higher income variance compared to employees, which is indicative of the varied financial outcomes associated with entrepreneurial ventures.

H2: In semi-peripheral European Union member states, the level of trust in local economic dynamics and social institutions diverges significantly between entrepreneurs and employees. This divergence is hypothesized to manifest in the following ways:

- H2.1: Entrepreneurs exhibit a heightened sense of optimism regarding the local economy compared to employees, potentially driven by entrepreneurial resilience or differing economic incentives and opportunities.
- H2.2: Entrepreneurs are more receptive to foreign social institutions compared to the local, which is a trend hypothesized to be less prominent among employees, which may reflect a more global or outward-looking perspective nurtured through international business interactions or aspirations.

H3: In semi-peripheral European Union member states, entrepreneurs and employees exhibit discernible disparities in self-perceptions across various dimensions of their personal and professional life. This hypothesis postulates that:

- H3.1: Entrepreneurs consistently rate their leadership skills more highly compared to employees.
- H3.2: Entrepreneurs perceive themselves as more successful at the local level in comparison to employees.
- H3.3: Entrepreneurs report a more favorable work–life balance compared to employees, indicating a potentially more flexible and adaptive working style that caters to individual preferences and lifestyle choices.
- H3.4: However, entrepreneurs demonstrate a lesser inclination towards adherence to government initiatives, which is possibly indicative of a more independent, critical, or skeptical outlook on governmental policies and interventions compared to employees.

H4: In semi-peripheral European Union member states, the differentiation between entrepreneurs and employees is more profoundly influenced by socioeconomic determinants than individual perceptions and attitudes.

The foregoing hypotheses seek to identify similarities and differences between employees and entrepreneurs. This combined exploration highlights the increasingly blurred boundaries between these two primary types of employment in flexible capitalism (Sarason *et al*, 2006; Hurst & Pugsley, 2011;

Piketty, 2014; Kenney & Zysman, 2016). This approach provides valuable insights into the evolving nature of work and economic structures, underscoring the dynamic interplay between different labor forms.

DATA AND METHODOLOGY

In this paper, the data were obtained from a structured questionnaire administered to a representative sample of entrepreneurs and employees in Hungary, a semi-peripheral European Union member state, in 2022. This dataset, representative across the age, gender, settlement type, education, and income, comprised 1,297 respondents and 35 pertinent variables. While the variables had significant missing data (59.63%), no variable exceeded the critical 5% threshold (Little & Su, 1987), permitting data imputation and subsequent dimensionality reduction. The Classification and Regression Trees (CART) method for data imputation, a machine learning algorithm that fills missing values by leveraging patterns in the existing data (Wray & Byers, 2020), was used in this research, during which process, 1000 substitution models were being employed in order to optimize the imputation and reduce variance, capitalizing on CART's recursive partitioning capabilities. The chosen methodology enhanced the accuracy and reliability of the data analysis by systematically addressing data gaps.

In this analysis, exploratory factor analysis (EFA) was carried out as the dimensionality reduction method intended to discern latent constructs within the extensive variable set of this research study, effectively identifying the underlying factors that accounted for observed correlations (Pruzek, 2005). The EFA was applied to delineate the trust and self-perception categories into two of the four analytical models. For both, the Kaiser-Meyer-Olkin (KMO) index confirmed satisfactory sampling adequacy ranging between 0.80 and 0.90. Bartlett's test of sphericity, complemented by Chi-square (χ^2) analysis, yielded small p-values, thus suggesting meaningful correlations between the variables and supporting further factor analysis (Braeken & Van Assen, 2017). Factor determination in this study was guided by the minimal residual method and the varimax rotation, with a significance threshold 0.3 for the variable loadings. Although some items indicated their multifactorial characteristics, both models captured about 70% of the total variance (Peterson, 2000). The model's appropriateness was validated by the RMSR values and the Tucker-Lewis Index (TLI), suggesting a robust model fit (Peterson, 2000). The factor scores demonstrated reliable consistency, underscoring the validity of the EFA models.

In the refined EFA models, the trust dimension is divided into two factors: the attitudes towards local institutions (Trust Local Institutions) and the attitudes towards foreign companies (Trust Foreign Companies). Meanwhile, the self-perception dimension includes five distinct factors: openness and proactivity, life satisfaction and stability, regional aspiration and entrepreneurial spirit, leadership preference, and engagement with government initiatives. These factors collectively cover a broad spectrum of self-perceptions, ranging from openness and creativity to leadership aspirations and perspectives on government initiatives, providing a comprehensive view of the various psychological traits influencing behavior in this study.

After the data cleaning and imputation, and dimensionality reduction, the mini-max algorithm was used to normalize the data (Cai & Zhou, 2012). The primary variable of interest, namely "The entrepreneur or the employee", is binary by nature. As many as 21 variables with their respective descriptive statistics detailed in the Appendix, Table A1, were subjected to analysis. This structured approach ensured that the data were optimally prepared for the subsequent analytical phases of the research itself.

Regularized regression techniques, namely ridge, LASSO, and elastic net regressions, alongside polynomial regression, were used in order to manage the complexities associated with the high-dimensional data. Those computations were executed in the R environment (the version 4.2.2), utilizing the RStudio (the version 2023.06.1 +524). For the model development and validation, the *glmnet* and *caTools* packages (R Core Team, 2022) were used. This

approach facilitated robust analysis and enhanced the predictive accuracy of the models.

The used regression methods are noted for mitigating multicollinearity and overfitting, enhancing the prediction accuracy (Zou & Hastie, 2005; Friedman, Hastie & Tibshirani, 2010; James, Witten, Hastie & Tibshirani, 2013). The ridge regression introduced by A. E. Hoerl and R. W. Kennard (1970) is an L2-regularized approach, reducing the model complexity and addressing multicollinearity. The corresponding equation is delineated below, and reads as follows:

$$\hat{\beta}^{\text{ridge}} = \arg\min_{\beta}\left\{\sum_{i=1}^{n}(y_i - x_i'\beta)^2 + \lambda\sum_{j=1}^{p}\beta_j^2\right\} \quad (1)$$

The LASSO regression proposed by R. Tibshirani (1996) uses L1 regularization, promoting coefficient sparsity and aiding feature selection with the equation as follows:

$$\hat{\beta}^{\text{lasso}} = \arg\min_{\beta}\left\{\sum_{i=1}^{n}(y_i - x_i'\beta)^2 + \lambda\sum_{j=1}^{p}\left|\beta_j\right|\right\} \quad (2)$$

The elastic net conceived by H. Zou and T. Hastie (2005) combines ridge and LASSO penalties, drawing from the strengths of both. The equation is formulated as follows:

$$\hat{\beta}^{\text{elastic}} = \arg\min_{\beta}\left\{\sum_{i=1}^{n}(y_i - x_i'\beta)^2 + \lambda\left(\alpha\sum_{j=1}^{p}\left|\beta_j\right| + (1-\alpha)\sum_{j=1}^{p}\beta_j^2\right)\right\} \quad (3)$$

Additionally, polynomial regression extends multiple linear regression, incorporating variable powers as distinct variables (Montgomery, Peck & Vining, 2012; James *et al*, 2013), and reads as follows:

$$Y = \beta_0 + \beta_1 X + \beta_2 X^2 + \cdots + \beta_p X^p + \varepsilon \quad (4)$$

Polynomial regression enhances the general linear model by incorporating polynomial terms, allowing it to capture nonlinear relationships and the model complex, curvilinear relationships in real-world data (Montgomery *et al*, 2012; James *et al*, 2013). While providing stability and improved generalization particularly in the presence of the Gaussian noise, on the one hand, on the other ridge regression does not offer complete feature selection (Hoerl & Kennard, 1970). Differently from the former regression, the LASSO regression is highly effective in feature selection, yielding sparse models and often achieving a superior predictive accuracy in certain high-dimensional scenarios (Tibshirani, 1996). However, it may sometimes be inconsistent in its selection of variables. The elastic net combines the advantages of both ridge and LASSO regressions, particularly beneficial for dealing with correlated predictors (Zou & Hastie, 2005). While it addresses the issue of excluding correlated variables which is found to be common with LASSO, its computational demands and the risk of overfitting if parameters are not properly adjusted remain significant challenges (Friedman *et al*, 2010).

In this study, using regularized and polynomial regressions was crucial for reducing the risk of overfitting. The robustness of the models was enhanced through their cross-validation, which ensured the reliable evaluation of prediction performance. To determine the most effective regression model, the hyperparameters were meticulously tuned and the performance metrics such as the Root Mean Squared Error (RMSE), Adjusted R-squared, the Akaike Information Criterion (AIC), and the Bayesian Information Criterion (BIC) were evaluated (Cavanaugh & Neath, 2019). This rigorous approach ensured the optimal model fit and interpretability. In the final evaluation of the model, the coefficient analysis was focused on. In the context of regularized regression, this analysis emphasizes the significance of the coefficient magnitudes over the traditional p-values, aligning with the contemporary analytical practices (Emmert-Streib & Dehmer, 2019). This methodological approach underscores the authors' commitment to precision and accuracy in interpreting complex data relationships.

RESULTS

Prior to delving into the models, understanding "The entrepreneur or the employee" variable is crucial (Table 1). The descriptive statistics reveal that both

Table 1 The past and current statuses: The employee or the entrepreneur (N=1297)

Value	Frequency	Percentage
The respondent was an entrepreneur and is an entrepreneur now.	434	33.46%
The respondent was an employee and is an employee now.	196	15.11%
The respondent was an employee and is an entrepreneur now.	655	50.50%
The respondent was an entrepreneur and is an employee now.	12	0.93%

Source: Author

categories exhibit fluidity. While consistency can be observed between the respondents' last workplace(s) and their current status as being either an entrepreneur or an employee, the transitions between the categories are also prevalent.

The sample included in this research study, 48.57% of the respondents maintained their previous either "the entrepreneur" or "the employee" status, with a higher retention rate among the entrepreneurs (33.46%) compared to the employees (15.11%). Notably, there is a pronounced trend on the employees' part to transition to entrepreneurship (50.50%), with the mere 0.93% moving in the opposite direction. These findings underscore the fluidity between the categories, cautioning against viewing "the entrepreneur" and "the employee" as fixed classifications, but rather as the dynamic roles influenced by inter-category mobility.

Identifying the optimal models

Three models were constructed to investigate "The entrepreneur or the employee" variable, culminating in the fourth model assessing system-level correlations. These models encompassed 1) the socioeconomic context, 2) the economic climate and trust perceptions, 3) self-perception, and 4) the holistic system evaluation, the primary task being to identify which of the regressions (ridge, LASSO, elastic net, or polynomial) best suited the data belonging to each category.

The data for each model were partitioned into the training (80%) and testing (20%) subsets. Fluctuating lambda values were analyzed, cross-validating to pinpoint the optimal lambda that minimized the average cross-validation error. Employing these lambda values, the final models were established, and the set predictions were tested.

The model efficacy was evaluated based on the RMSE calculated from the square root of the mean squared deviations between the predicted and actual values, and the R-squared values, which indicate the proportion of the variance in the dependent variable explained by the model. Additionally, the AIC and the BIC were used to assess the model fit. The optimal regression model was subsequently identified, as is detailed in Table 2.

For the model focusing on the socioeconomic status variables, all the four regression techniques (ridge, LASSO, elastic net, and polynomial) produced similar RMSE values (0.3653 and - 0.3695), with the LASSO model having slightly outperformed the others in terms of the predictive accuracy. Notably, while the R-square values were modest across all the models, the LASSO model demonstrated superior performance with the lowest AIC (227.727) and BIC (256.212) scores. Despite the less favorable performance of the polynomial model, LASSO was selected for its optimal results with this set of variables.

In the second model that examined the economic climate and trust perceptions, ridge regression proved to be the most effective, having achieved the lowest RMSE (0.3647), the highest R-squared (0.0176), and the most favorable AIC (223.429) and BIC (241.232) scores.

The third model continued the trend of the former, with LASSO regression having outperformed its counterparts again by finding the optimal balance between the model fit and complexity.

Table 2 The evaluation metrics for the various regression models

	Model	RMSE	R-squared	AIC	BIC
The socioeconomic context	Ridge	0.3653	0.0145	230.262	258.748
	LASSO	0.3635	0.0240	227.727	256.212
	Elastic Net	0.3636	0.0238	227.772	256.257
	Polynomial	0.3695	-0.0081	788.781	843.166
The economic climate and trust perceptions	Ridge	0.3647	0.0176	223.429	241.232
	LASSO	0.3649	0.0164	223.748	241.552
	Elastic Net	0.3649	0.0167	223.663	241.466
	Polynomial	0.3651	0.0153	854.791	889.399
Self-perception	Ridge	0.3430	0.1311	191.509	209.312
	LASSO	0.3425	0.1335	190.777	208.580
	Elastic Net	0.3426	0.1331	190.937	208.741
	Polynomial	0.3432	0.1301	663.224	697.832
The holistic system evaluation	Ridge	0.3339	0.1768	203.469	267.561
	LASSO	0.3321	0.1852	200.775	264.867
	Elastic Net	0.3325	0.1835	201.339	265.431
	Polynomial	0.3342	0.1753	619.234	718.116

Source: Author

The comprehensive fourth model also preferred LASSO regression, which showed the lowest RMSE (0.3321), the highest R-squared (0.1852), and the best AIC (200.775) and BIC (264.867) values.

To sum up, while the four regression models showed comparable performances, the polynomial model consistently lagged behind its regularized counterparts. Each model set revealed the subtle distinctions that helped pinpoint the most suitable regression technique for the respective datasets.

Distinguishing dynamics: "the employee vs the entrepreneur" analysis

The subsequent research phase delved more deeply into the foregoing four models, building upon the previously determined optimal ones. Figure 1 depicts the coefficient trajectory across the various regularization parameters for each model, illustrating the anticipated enhancements in prediction reliability via the interaction of the variables. Evidently, the

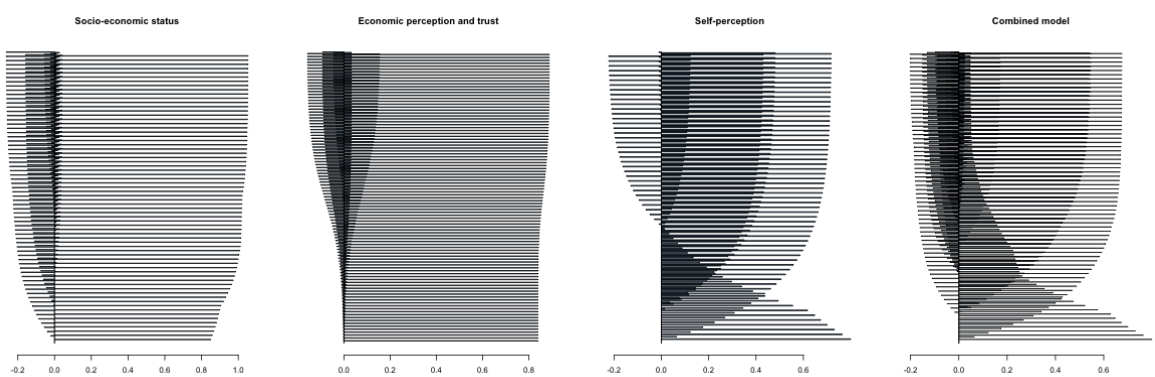

Figure 1 The coefficient variation of the regularization parameters across the entrepreneurs and the employees[2]

Source: Author

regression coefficient matrices for the distinct λ-values present discernible patterns across the models.

In the socioeconomic status model, the LASSO technique identified eight predictors: the gender, education, work experience (years), income-subjective, income-objective, the settlement type, foreign experience, and the XYZ generation affiliation. The gender coefficient starts at a zero and rises to the optimal 0.040 (Figure 1 and Table 3), denoting the correlation between the gender and entrepreneurial tendencies. Contrarily, the education coefficient steadily drops to -0.157, suggesting that entrepreneurs are generally at lower educational levels than their employees, which aligns with the generational affiliation coefficient, where the negative correlation (-0.2635) reflects the fact that the younger generations (the Y and Z generations) prevail among entrepreneurs, possibly explaining the lower education level. Concurrently, the work experience (years) coefficient, i.e. predictor shows to be negative (-0.0546). The settlement type coefficient 0.0170 points to urban predominance among the entrepreneurs. As far as the foreign experience predictor indicating overseas work/study or daily foreign language usage is concerned, its positive value (0.0274) denotes a stronger presence among the entrepreneurs. Pertinently, while the income-subjective predictor holds a positive value (0.0087) suggesting that the entrepreneurs feel they earn more, the income-objective predictor is negative (-0.0212), implying their actual earnings are lesser compared to those earned by their employees.

In brief, this research study indicates a predominantly male representation among the entrepreneurs, although the effect size is relatively small. The entrepreneurs generally exhibit lower education levels, they are younger, and they have fewer years of work experience compared to the employees. Having foreign experience slightly increases the likelihood of entrepreneurial activity. Urban environments appear to be more conducive to entrepreneurship than to traditional employment. Interestingly, while the entrepreneurs tend to perceive their income more positively, the actual income levels suggest that the employees typically earn more, which discrepancy highlights a significant contrast in their income-subjective versus income-objective assessments between the two groups.

Table 3 The optimal coefficient values for the LASSO regression model analyzing the socioeconomic model across the entrepreneurs and the employees

Model variables	Coefficient (optimal λ)
Sex	0.0408
Education	-0.1572
The XYZ generation	-0.2635
Work experience (years)	-0.0546
The settlement type	0.0170
Foreign experience	0.0274
Income-subjective	0.0087
Income-objective	-0.0212

Source: Author

In the second research model herein, which was most effectively captured by ridge regression, the economic perceptions and institutional trust among the entrepreneurs and the employees was examined, the analysis incorporating the key seven variables: the first variable measures satisfaction with the local economic situation (economic situation – satisfied); the second and third variables assess the entrepreneurs' perceptions; the fourth variable reflects the positive views (the good perception of the entrepreneurs); the fifth contrasts with the belief that successful entrepreneurs engage themselves in corrupt practices (corrupt if successful – the entrepreneurs), and the sixth and seventh evaluate trust in local institutions (trust local institutions) and in international institutions (trust foreign institutions), respectively. This model was so designed as to clarify how those factors varied between the entrepreneurs and the employees, and how such differences might influence their respective career trajectories and achievements.

According to Figure 1, it can be noted that increasing regularization leads to satisfaction with the local economy emerging as a stronger predictor, simultaneously indicating the fact that the entrepreneurs tend to be more satisfied than

the employees (-0.0452), as is detailed in Table 4. Additionally, the entrepreneurs generally have a more positive view of their peers compared to the employees (0.0322), and a smaller proportion of the entrepreneurs believe that successful entrepreneurship requires their being engaged in corrupt practices (-0.0924). Regarding the trust indicators, there is a noticeable entrepreneurial lean in confidence towards local institutions (0.1543), whereas trust in international entities shows a negative correlation with entrepreneurial tendencies (-0.1580). These results indicate the fact that trust in local institutions may foster entrepreneurial activity, whereas trust in foreign institutions might act as a deterrent to it.

Table 4 The optimal coefficient values for the ridge regression model analyzing the predictions of the local economy and the trust perceptions across the entrepreneurs and the employees

Model variables	Coefficient (optimal λ)
Economic situation – satisfied	-0.0452
The good perception of the entrepreneurs	0.0322
Corrupt if successful – the entrepreneurs	-0.0924
Trust local institutions	0.1543
Trust foreign institutions	-0.1580

Source: Author

The research study's findings provide compelling insights. The entrepreneurs demonstrate stronger trust in local institutions compared to those foreign, a sentiment that is reversed among the employees. Consistent with the expectations, the entrepreneurs are less likely to view their successful peers as corrupt and hold a more favorable opinion about entrepreneurship than the employees do. However, entrepreneurs tend to be more pessimistic about the economic situation compared to their salaried counterparts, thus revealing a nuanced understanding of the economic conditions.

The third research model in this paper examines the self-perception of the employees and the entrepreneurs. Figure 1 and Table 5 reveal the fact that the entrepreneur rate proves to be higher in openness, productivity (0.1223), and satisfaction with the work-life balance (0.4296) than that pertaining to the employees. The entrepreneurs demonstrate a markedly stronger tendency towards entrepreneurship (0.7177), and a higher aspiration to take the leadership role (0.4806). Conversely, the employees show a more pronounced alignment with government initiatives (-0.0107), simultaneously indicating the differing priorities and motivations between the two groups.

Table 5 The optimal coefficient values for the LASSO regression model analyzing the predictions of self-perception across the entrepreneurs and the employees

Model variables	Coefficient (optimal λ)
Openness and proactivity	0.1223
Life satisfaction and stability	0.4296
Regional aspiration	0.7177
Leadership preference	0.4806
Engagement with the government	-0.0107

Source: Author

To briefly conclude, the entrepreneurs predominantly resonate with regional aspirations and self-identify strongly as entrepreneurs, also tending to report higher levels of life satisfaction and stability and show preference for leadership roles. Conversely, alignment with government initiatives is slightly more typical of the employees, highlighting the distinct motivational and value frameworks between the two groups.

The fourth research model integrates the prior three models into one comprehensive framework and employs LASSO regression for the analysis. Figure 1 and Table 6 account for the results obtained. Notably, Table 6 gives a unique matrix representation, highlighting the absence of negligible values in

the LASSO analysis. This clarity underscores how the integrated variables elucidate the distinctions between the entrepreneurs and the employees within the nuanced relational system.

Table 6 The optimal coefficient values for the LASSO regression model analyzing the complex model across the entrepreneurs and the employees

Model variables	Coefficient (optimal λ)
Sex	...
Education	-0.0572
Work experience (years)	...
Income-subjective	-0.1162
Income-objective	-0.0227
The settlement type	...
Foreign experience	...
The XYZ generation	-0.1673
Openness and proactivity	0.0860
Life satisfaction and stability	0.4484
Regional aspiration	0.6467
Leadership preference	0.4480
Engagement with government initiatives	...
Trust local institutions	...
Trust foreign institutions	-0.0880
Economic situation – satisfied	...
The good perception of the entrepreneurs	-0.0208
Corrupt if successful – the entrepreneurs	-0.0133

Source: Author

In the complex research model herein, Figure 1 proves to be more significant than the Table 5 that merely lists the optimal lambda values. Figure 1 provides a detailed illustration of the hierarchy of the variable importance as determined by LASSO regression, beginning with the exclusion of the variables with the minor coefficients, such as the gender, work experience, the settlement type, and foreign experience. Then, the model progressively eliminates a significant number of the socioeconomic status variables, only to be followed by the variables related to the economic perception and trust, the additional socioeconomic variables such as the education and income variables, the generational affiliation variable and, ultimately, the self-perception variable.

The results obtained in this study highlight a nuanced distinction between the entrepreneurs and the employees. Initially, the social determinants are prominent. As the analysis progresses, however, the economic perceptions and especially the individual self-perceptions are becoming the crucial differentiators. Although these variables are interconnected and constitute a complex system, there is a noticeable transition from the impact of the social determinants to the influences of the economic and individual perceptions in distinguishing between the two groups. This evolution underscores the multifaceted nature of the factors that differentiate the entrepreneurs from the employees.

DISCUSSION

This study aims to explore the distinctions and overlaps between entrepreneurship and traditional employment in Hungary as a semi-peripheral European Union country. Utilizing advanced regression techniques on the set of data from the year 2022, the hypotheses were evaluated through rigorous analytical methods, yielding nuanced insights into the distinctions and overlaps between these employment roles. This approach integrates insights from socio-economic environments (Sarasvathy, 2001; Baker & Nelson, 2005) with individual perceptions (Sarason *et al*, 2006), examining how broader economic and social frameworks interact with personal perceptions and behaviors.

The first hypothesis (H_1) and its sub-hypotheses ($H_{1.1}$-$H_{1.6}$) focused on the socioeconomic status. $H_{1.1}$ predicted a higher proportion of the male entrepreneurs compared to the employees, which was confirmed by analysis carried out in this study, aligning with the existing literature on the gender disparities in entrepreneurship (Audretsch *et al*, 2006). The findings underscore the persistent gender

gap in entrepreneurial participation, possibly due to the sociocultural norms and structural barriers that favor male entrepreneurship. $H_{1.2}$ anticipated that the entrepreneurs would be younger than the employees, which the study's findings also confirmed, and which is supportive of the notion that younger individuals are more inclined towards risk-taking and innovation, probably being driven by a greater propensity to embrace uncertainty and a longer time horizon to recover from potential failures (Light & Dana, 2013). $H_{1.3}$ suggested that the entrepreneurs would have lower educational attainments than the employees, the hypothesis that was supported by the data used in the study. This result implies that formal education may be less critical for entrepreneurial success compared to traditional employment, possibly because entrepreneurial skills and success are often derived from practical experience and specific, nonacademic competencies (Zahra *et al*, 2008). $H_{1.4}$ proposed that the entrepreneurs had fewer years of work experience than the employees, which was confirmed by the findings of this research study, and which is supportive of the idea that entrepreneurship often attracts individuals seeking new opportunities early in their careers, leveraging their fresh perspectives and innovative ideas unencumbered by a prolonged exposure to traditional employment environments (Hyytinen & Ruuskanen, 2007). According to $H_{1.5}$, the entrepreneurs were expected to have more substantial foreign experience, which was supported by the analysis made in this study, which suggests that international exposure contributes to entrepreneurial aspirations and activities, potentially by broadening the individual's perspectives, increasing their awareness of diverse markets, and enhancing their ability to identify and exploit cross-border opportunities. $H_{1.6}$ posited that the entrepreneurs would have higher income than the employees. This hypothesis, however, was rejected. Despite the fact that the entrepreneurs perceived their income more positively, the actual income levels were higher for the employees. This discrepancy highlights the critical contrast between the income-subjective and income-objective assessments, suggesting that the entrepreneurs might derive their positive income perceptions from the nonmonetary benefits such as autonomy, satisfaction, and the potential for future growth.

The second hypothesis (H_2) and its sub-hypotheses ($H_{2.1}$-$H_{2.2}$) addressed economic perceptions and trust in institutions. $H_{2.1}$ hypothesized that the entrepreneurs would have a more optimistic view of the local economy compared to the employees, contrary to which hypothesis the study's results revealed that the employees had shown greater satisfaction with the local economic situation. This unexpected outcome suggests that the entrepreneurs might have adopted a more critical perspective due to their direct engagement with the market dynamics and a potential exposure to higher risks and uncertainties (Nahapiet & Ghoshal, 1998; McEvily *et al*, 2003). $H_{2.2}$ suggested that the entrepreneurs would trust foreign institutions more than the local ones, but the findings of the research study rejected that, indicating that entrepreneurs had demonstrated greater trust in local institutions. This result underscores the importance of local institutional support for entrepreneurial activities, reflecting the entrepreneurs' reliance on the local socioeconomic infrastructure for their ventures. Conversely, the employees exhibited greater trust in foreign institutions, perhaps due to the perceived stability and predictability associated with established international entities.

The third hypothesis (H_3) and its sub-hypotheses ($H_{3.1}$-$H_{3.4}$) focused on self-perception. $H_{3.1}$ proposed that the entrepreneurs would rate their leadership skills higher than the employees, which was confirmed by the analysis performed herein. The entrepreneurs consistently rated their leadership abilities more highly, simultaneously highlighting their views of themselves as being proactive and capable leaders. $H_{3.2}$ hypothesized that the entrepreneurs would perceive themselves as more successful at the local level in comparison with the employees. This hypothesis was supported, with the entrepreneurs expressing stronger perceptions of their local success. This finding may be attributed to the entrepreneurs' direct involvement in creating and sustaining their ventures, which fosters a strong sense of accomplishment and a local impact. $H_{3.3}$ predicted that the entrepreneurs would report a more favorable work-life balance than the employees. The research data supported this hypothesis, suggesting that the entrepreneurs may enjoy greater flexibility and adaptability in their work styles, which allows

them to better balance their respective professional and personal commitments. $H_{3.4}$ proposed that the entrepreneurs would show less alignment with government initiatives compared to the employees. This hypothesis was confirmed, reflecting a more independent or critical stance towards governmental policies among the entrepreneurs. This result aligns with the entrepreneurial ethos of autonomy and skepticism towards the regulatory constraints that might impede their innovative efforts.

The fourth hypothesis (H_4) posited that the socioeconomic factors would be more influential than the individual perceptions in differentiating the entrepreneurs from the employees. This hypothesis was rejected after the analysis had been made, simultaneously demonstrating that self-perceptions played a more significant role. This finding emphasizes the importance of the personal identity and mindset in shaping employment choices, suggesting that individual attitudes and self-concepts are crucial in distinguishing entrepreneurial paths.

In summary, this research study reveals a complex interplay between the socioeconomic factors and the individual perceptions in shaping employment choices. The results indicate that, while the socioeconomic factors such as the gender, age, education, and foreign experience distinguish entrepreneurs from employees, their respective self-perceptions related to leadership, success, and the work-life balance are more critical determinants. These findings underscore the significance of the personal identity and mindset in employment choices, highlighting the need to incorporate psychological factors in the economic models of employment behavior (Sarason *et al*, 2006).

This research study contributes to both the theoretical and practical understanding of employment dynamics. The fluidity of the employment categories and the significant role of self-perception in differentiating the employment types extend the current theoretical frameworks. The study's findings align with the established literature (Hurst & Pugsley, 2011; Piketty, 2014; Kenney & Zysman, 2016), suggesting that the "employees" and "entrepreneurs" categories are not fixed but fluid. Practically, these insights can inform policymakers and program developers in a way to allow them to aim their efforts towards providing support to both entrepreneurs and traditional employees. Recognizing the importance of local institutional trust for entrepreneurs, policymakers can enhance support systems to foster entrepreneurial activities. Additionally, addressing the discrepancy between income-subjective and income-objective perceptions can help tailor financial support and advisory services for entrepreneurs.

The approach utilized in this research study that shifts the focus from the macro- to the individual micro-context elements allows for a nuanced examination of how broader socioeconomic frameworks interact with personal perceptions and behaviors, enhancing the understanding of their influence on entrepreneurial and employment dynamics (Sarasvathy, 2001; Baker & Nelson, 2005; Sarason *et al*, 2006). By comparing entrepreneurs and employees across various socioeconomic dimensions, valuable insights into the evolving nature of the work and economic structures are provided, underscoring the dynamic interplay between different labor forms in flexible capitalism (Hurst & Pugsley, 2011; Piketty, 2014; Kenney & Zysman, 2016).

CONCLUSION

This research provides the intricate examination of the distinctions between entrepreneurs and traditional employees in the semi-peripheral context of the European Union. The findings substantially contribute to both theoretical and practical discourses on employment dynamics, yielding several pivotal insights.

In theoretical terms, the study underscores the fluidity and permeability of the employment categories, thereby challenging the traditional dichotomy between entrepreneurship and conventional employment. The results obtained in this study suggest that these categories are not rigid but rather exist on a continuum, with a significant overlap influenced by the socioeconomic and psychological factors, which fact underscores the need for contemporary economic models to incorporate the

psychological dimensions such as self-perception and the individual identity in understanding employment behaviors.

From a practical point of view, the insights gained in this research study hold profound implications for policymaking and program development. The nuanced understanding of how local institutional trust supports entrepreneurial activities can inform the design of targeted support systems to foster entrepreneurial ecosystems. Furthermore, addressing the observed discrepancy between the income-subjective perceptions and the actual income levels among the entrepreneurs can lead to more tailored financial advisory services, enhancing both entrepreneurs' satisfaction and their financial stability.

The findings which the study came to provide robust empirical support for the study's hypotheses. While the socioeconomic factors such as the gender, age, education, and foreign experience serve as the significant differentiators between the entrepreneurs and the employees, their self-perceptions regarding leadership, success, and the work-life balance emerge as more critical determinants, which highlights the paramount importance of the individual's mindset and identity in shaping employment choices, suggesting that the interventions aimed at fostering entrepreneurship should also address these psychological dimensions.

In spite of the significant contributions of this research study, it is not without limitations, either. The focus on a semi-peripheral EU country inherently limits the generalizability of the findings. To enhance external validity, future research should encompass a broader spectrum of countries, including both the core and peripheral nations as well. Additionally, the cross-sectional design of the study constrains the ability to infer causality. Longitudinal studies would provide a more robust framework for understanding the temporal dynamics and causal relationships in employment transitions.

Future research directions should explore the longitudinal impacts of the identified factors on employment transitions. Investigating the influence of government policies on these dynamics across diverse economic contexts would also yield valuable insights. Expanding the analytical framework to include the core and peripheral EU countries would offer a more comprehensive understanding of employment dynamics across different economic landscapes.

In conclusion, this research study elucidates the complex interplay between the socioeconomic factors and individual perceptions in shaping employment choices. These findings have significant implications for enhancing support for both entrepreneurs and traditional employees, ultimately contributing to a more adaptive and resilient economic landscape. The applied comparative system analysis of the two primary pillars of flexible capitalism – entrepreneurs and traditional employees – highlights both their distinctions and convergences. Recognizing the interplay of socioeconomic dynamics and perceptual processes is essential for promoting the agility and adaptability necessary in today's rapidly evolving economic environment. These insights are crucial for policymakers, educators, and business leaders, helping them in the development of more effective training programs, entrepreneurial initiatives, and the employment policies attuned to the complex realities of the modern workforce.

ENDNOTES

1 A semi-peripheral economy within the European Union represents an intermediate economic status between the core and peripheral countries, blending the characteristics of both developed and developing nations. These economies exhibit moderate technological and industrial development and mixed income levels and engage themselves in the complex economic relations that involve both exploiting and being exploited. Wallerstein's world-systems theory provides a framework for understanding these dynamics, categorizing countries not only economically but also politically and socially (Wallerstein, 2011). The research conducted by C. Chase-Dunn and P. Grimes (1995) specifically highlights the manifestation of these relationships in the integrated context of the EU.

2 Unlike the traditional horizontal representation, the figure uses vertical representation.

REFERENCES

Acs, Z. J., & Audretsch, D. B. (2003). *Handbook of Entrepreneurship Research: An Interdisciplinary Survey and Introduction*. New York, NY: Springer Science & Business Media. https://doi.org/10.1007/b105789

Aleksić-Mirić, A., Aničić, Z., & Petrović, M. (2023). Networking effects on social enterprises' innovativeness. *Economic Horizons*, *25*(1), 71-84. https://doi.org/10.5937/ekonhor2301071a

Alshibani, S. M., Kristoffersen, I., & Volery, T. (2024). Hidden costs of entering self-employment: The spouse's psychological well-being. *Small Business Economics*, *23*(4). https://doi.org/10.1007/s11187-024-00906-2

Anderson, R., Dunkelberg, J., & Condon, C. (1990). A comparison of entrepreneurs, small business owners, corporate executives, and public sector managers. *Journal of Business and Entrepreneurship*, *2*(2), 41-50.

Asensio, M., & Ferreira, C. (2024). Labor-market reforms in Southern Europe: From protection to flexibility. In P. C. Kostis (Ed.), *Economic recessions: Navigating economies in a volatile world and the path for economic resilience and development* (pp. 1-29). Berlin, DE: IntechOpen. https://doi.org/10.5772/intechopen.1004623

Audretsch, D. B., Keilbach, M., & Lehmann, E. E. (2006). *Entrepreneurship and Economic Growth*. Oxford, UK: Oxford University Press.

Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, *50*(3), 329-366. https://doi.org/10.2189/asqu.2005.50.3.329

Birch, D. L. (1990). Sources of job growth – and some implications. In J. D. Kasarda (Ed.), *Jobs, earnings, and employment growth policies in the United States* (pp. 71-76). Dordrecht, NL: Springer. https://doi.org/10.1007/978-94-009-2201-3_4

Blanchflower, D. G., & Oswald, A. J. (1998). What makes an entrepreneur? *Journal of Labor Economics, 16*(1), 26-60. https://doi.org/10.1086/209881

Blau, P. M. (1986). *Exchange and Power in Social Life*. New York, NY: Routledge.

Bošković, A. (2021). Employee autonomy and engagement in the digital age: The moderating role of remote working. *Economic Horizons*, *23*(3), 231-246. https://doi.org/10.5937/ekonhor2103241b

Braeken, J., & van Assen, M. A. (2017). An empirical Kaiser criterion. *Psychological methods*, *22*(3), 450-466. https://doi.org/10.1037/met0000074

Cai, T. T., & Zhou, H. H. (2012). Minimax estimation of large covariance matrices under ℓ 1-norm. *Statistica Sinica*, *33*(2), 1319-1349. https://doi.org/10.5705/ss.2010.253

Cavanaugh, J. E., & Neath, A. A. (2019). The Akaike information criterion: Background, derivation, properties, application, interpretation, and refinements. *Wiley Interdisciplinary Reviews: Computational Statistics*, *11*(3), e1460. https://doi.org/10.1002/wics.1460

Çekmecelioğlu, H. G., & Günsel, A. (2011). Promoting creativity among employees of mature industries: The effects of autonomy and role stress on creative behaviors and job performance. *Procedia-Social and Behavioral Sciences*, *24*, 889-895. https://doi.org/10.1016/j.sbspro.2011.09.020

Chandna, V. (2022). Where do we belong: An exploration of individuals' identity issues within temporary organizations. *Economic Horizons*, *24*(1), 3-17. https://doi.org/10.5937/ekonhor2201003c

Chase-Dunn, C., & Grimes, P. (1995). World-systems analysis. *Annual Review of Sociology*, *21*(1), 387-417. https://doi.org/10.1146/annurev.so.21.080195.002131

Coase, R. H. (1937). The Nature of the Firm. *Economica*, *4*(16), 386-405. https://doi.org/10.1111/j.1468-0335.1937.tb00002.x

Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology*, *87*(4), 611-628. https://doi.org/10.1037//0021-9010.87.4.611

Đorđević, B., Milanović, S., & Stanković, J. (2021). The influence of communication satisfaction on job satisfaction -The case of employees in the Republic of Serbia. *Economic Horizons*, *23*(2), 173-187. https://doi.org/10.5937/ekonhor2102173d

Dyer, J. H., Gregersen, H. B., & Christensen, C. (2008). Entrepreneur behaviors, opportunity recognition, and the origins of innovative ventures. *Strategic Entrepreneurship Journal*, *2*(4), 317-338. https://doi.org/10.1002/sej.59

Emmert-Streib, F., & Dehmer, M. (2019). High-dimensional LASSO-based computational regression models: Regularization, shrinkage, and selection. *Machine Learning and Knowledge Extraction*, *1*(1), 359-383. https://doi.org/10.3390/make1010021

Friedman, J., Hastie, T., & Tibshirani, R. (2010). Regularization paths for generalized linear models via coordinate descent. *Journal of Statistical Software*, *33*(1), 1-22. https://doi.org/10.18637/jss.v033.i01

Gibson, J. J. (1986). *The Ecological Approach to Visual Perception*. New York, NY: Psychology Press.

Gregory, R. L. (1980). Perceptions as hypotheses. *Philosophical Transactions of the Royal Society B, Biological Sciences*, *290*(1038), 181-197. https://doi.org/10.1098/rstb.1980.0090

Hoerl, A. E., & Kennard, R. W. (1970). Ridge regression: Biased estimation for nonorthogonal problems. *Technometrics*, *12*(1), 55-67. https://doi.org/10.1080/00401706.1970.10488634

Hurst, E., & Pugsley, B. W. (2011). What do small businesses do? *Brookings Papers on Economic Activity*, *2011*(2), 73-118. https://doi.org/10.1353/eca.2011.0017

Hyytinen, A., & Ruuskanen, O. P. (2007). Time use of the self-employed. *Kyklos, 60*(1), 105-122. https://doi.org/10.1111/j.1467-6435.2007.00361.x

James, G., Witten, D., Hastie, T., & Tibshirani, R. (2013). *An Introduction to Statistical Learning with Applications in R*. New York, NY: Springer.

Kenney, M., & Zysman, J. (2016). The rise of the platform economy. *Issues in Science and Technology, 32*(3), 61-69.

Kenny, D. A., & West, T. V. (2010). Similarity and agreement in self-and other perception: A meta-analysis. *Personality and Social Psychology Review*, *14*(2), 196-213. https://doi.org/10.1177/1088868309353414

Light, I., & Dana, L. P. (2013). Boundaries of social capital in entrepreneurship. *Entrepreneurship Theory and Practice, 37*(3), 603-624. https://doi.org/10.1111/etap.12016

Little, R. J., & Su, H. L. (1987). Missing data adjustments for partially scaled variables. In R. J. Little, & H. L. Su (Eds.), *Proceedings of the Section on Survey Research Methods* (pp. 644-649). New York, NY: Springer.

Mahieu, J., Melillo, F., & Thompson, P. (2022). The long-term consequences of entrepreneurship: Earnings trajectories of former entrepreneurs. *Strategic Management Journal*, *43*(2), 213-236. https://doi.org/10.1002/smj.3337

Mayer, S. B., & Antoine Habersetzer, H. (2015). Entrepreneurship in Peripheral Regions: A Relational Perspective. *CRED Research Paper No. 6*. Bern, CH: Center for Regional Economic Development.

McEvily, B., Perrone, V., & Zaheer, A. (2003). Trust as an organizing principle. *Organization Science, 14*(1), 91-103. https://doi.org/10.1287/orsc.14.1.91.12814

Montgomery, D. C., Peck, E. A., & Vining, G. G. (2012). *Introduction to Linear Regression Analysis, 5th Edition*. New Jersey, NY: John Wiley & Sons.

Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *The Academy of Management Review, 23*(2), 242-266. https://doi.org/10.5465/amr.1998.533225

Narotzky, S. (2015). Flexible capitalism: Exchange and ambiguity at work. In J. Kjaerulff (Ed.), *The payoff of love and the traffic of favours*: *Reciprocity, social capital and the blurring of value realms in flexible capitalism* (pp. 173-206). New York, NY: Routledge.

Nicolis G. (2012). *Introduction to Nonlinear Science*. Cambridge, MA: Cambridge University Press.

Park, J., Feng, Y., & Jeong, S. P. (2024). Developing an advanced prediction model for new employee turnover intention utilizing machine learning techniques. *Scientific Reports*, *14*(1), 1221. https://doi.org/10.1038/s41598-023-50593-4

Peterson, R. A. (2000). A meta-analysis of variance accounted for and factor loadings in exploratory factor analysis. *Marketing Letters*, *11*, 261-275. https://doi.org/10.1023/a:1008191211004

Piketty, T. (2014). *Capital in the Twenty-First Century*. Harvard, MA: Harvard University Press.

Proudfoot, D., & Kay, A. C. (2018). How perceptions of one's organization can affect perceptions of the self: Membership in a stable organization can sustain individuals' sense of control. *Journal of Experimental Social Psychology*, *76*, 104-115. https://doi.org/10.1016/j.jesp.2018.01.004

Pruzek, R. (2005). Factor Analysis: Exploratory. *Encyclopedia of Statistics in Behavioral Science*, *13*(4), 229-243. https://doi.org/10.1002/0470013192.bsa211

R Core Team (2022). R: *A language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing.

Rousseau, D. M. (1995). *Psychological Contracts in Organizations: Understanding Written and Unwritten Agreements*. Berlin, DE: Sage Publications.

Sarason, Y., Dean, T., & Dillard, J. F. (2006). Entrepreneurship as the nexus of individual and opportunity: A structuration view. *Journal of Business Venturing*, *21*(3), 286-305. https://doi.org/10.1016/j.jbusvent.2005.02.007

Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *The Academy of Management Review, 26*(2), 243-263. https://doi.org/10.5465/amr.2001.4378020

Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review, 25*(1), 217-226. https://doi.org/10.5465/amr.2000.2791611

Tibshirani, R. (1996). Regression shrinkage and selection via the Lasso. *Journal of the Royal Statistical Society: Series B, 58*(1), 267-288. https://doi.org/10.1111/j.2517-6161.1996.tb02080.x

Wallerstein, I. (2011). *The Modern World-System I: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century* (Vol. 1). San Francisco, CA: University of California Press. https://doi.org/10.1525/9780520948570

Wray, C. M., & Byers, A. L. (2020). Methodological progress note: Classification and regression tree analysis. *Journal of Hospital Medicine*, *15*(9), 549-551. https://doi.org/10.12788/jhm.336610.12788/

Xu, H. (2023). Career decision-making in an uncertain world: A dual-process framework. *Current Psychology*, *42*(5), 3978-3990. https://doi.org/10.1007/s12144-021-01746-z

Zahra, S. A., Rawhouser, H. N., Bhawe, N., Neubaum, D. O., & Hayton, J. C. (2008). Globalization of social entrepreneurship opportunities. *Strategic Entrepreneurship Journal*, *2*(2), 117-131. https://doi.org/10.1002/sej.43

Zou, H., & Hastie, T. (2005). Regularization and variable selection via the elastic net. *Journal of the Royal Statistical Society Series B: Statistical Methodology*, *67*(2), 301-320. https://doi.org/10.1111/j.1467-9868.2005.00503.x

Received on 11th October 2023,
after two revisions,
accepted for publication on 10th July 2024.
Published online on 29th August 2024.

Márton Gosztonyi, Ph.D., is a Senior Lecturer at the University of Malaya with over 15 years of experience in Cultural Computation, educational pedagogy, and entrepreneurship research. His expertise includes network analysis, data visualization, and machine learning.

APPENDIX

Table A1 The descriptive statistics of the variables

Models	Variable	Missing	Compl. Rate	Mean	SD	Histogram
The entrepreneur or the employee	The entrepreneur or the employee	0	1	0.8396	0.3670	
	The entrepreneur or the employee – the last paid job	0	1	0.6561	0.4751	
The socio-economic status	Age	0	1	0.2958	0.1534	
	Sex	0	1	0.5242	0.4996	
	Education	0	1	0.7702	0.2621	
	Work experience (years)	0	1	0.2722	0.2040	
	Income-subjective	0	1	0.7954	0.2213	
	Income-objective	0	1	0.5477	0.2423	
	The settlement type	0	1	0.6931	0.3771	
	Foreign experience	0	1	0.7956	0.4033	
	The XYZ generation	0	1	0.4884	0.3267	
Local economic perception and trust	Trust local institutions	0	1	0.5577	0.1843	
	Trust foreign institutions	0	1	0.5416	0.2030	
	Corrupt if successful – the entrepreneurs	0	1	0.4962	0.2892	
	The good perception of the entrepreneurs	0	1	0.5003	0.1821	
	The economic situation – satisfied	0	1	0.4471	0.2900	
Self-perception	Openness and proactivity	0	1	0.7766	0.1082	
	Life satisfaction and stability	0	1	0.5490	0.1525	
	Regional aspiration	0	1	0.6222	0.1704	
	The leadership preference	0	1	0.6054	0.1300	
	Engagement with government initiatives	0	1	0.5770	0.1573	

Source: Author