

## EVALUATION OF HUMAN CAPITAL IN THE ENTREPRENEURIAL ECOSYSTEM OF THE REPUBLIC OF MOLDOVA: THE URBAN-RURAL PERSPECTIVE

Alexandra NOVAC

National Institute for Economic Research, Academy of Economic Studies of Moldova, 45, Ion Creanga Street, MD2064, Chisinau, Republic of Moldova, E-mail: alecsandra\_novac@yahoo.com

*Corresponding author:* alecsandra\_novac@yahoo.com

### *Abstract*

*Human capital is a vital element of the entrepreneurial ecosystem, playing a significant role in promoting economic growth and innovation. This study aims to investigate the distinctive features of human capital as a component of the entrepreneurial ecosystem, with a focus on urban and rural locations in the Republic of Moldova. Additionally, it aims to identify the challenges entrepreneurs encounter when accessing human capital. The assessment of human capital within the business ecosystem was based on primary data collected from surveys of 204 entrepreneurs in the Republic of Moldova between June and October 2022. The analysis was supplemented with secondary data sourced from the National Bureau of Statistics. The study's results indicate major obstacles in terms of human capital. These include a declining workforce, outward migration and a scarcity of highly-skilled employees, particularly in rural areas. Entrepreneurs in urban and rural regions of the Republic of Moldova expressed concerns about the availability of highly qualified specialists, the competence of graduates from educational institutions and the influence of migration on both the labor market and the business landscape. Disparities exist in the assessment of the competence of graduates from educational institutions, with urban entrepreneurs tending to be more pessimistic. On the other side, rural entrepreneurs place a greater emphasis on the impact of migration and emigration.*

**Key words:** human capital, entrepreneurial ecosystem, competence of graduates, entrepreneurship, workforce

### INTRODUCTION

Entrepreneurial ecosystems have received a lot of attention in recent years as one of the most interesting issues for practitioners, government policy makers and academics [16, 17].

At present, there is no agreed definition of an entrepreneurial ecosystem, no consistent technique for identifying its main components, and no standardized way of assessing them. Although there are multiple versions of the concept of an 'entrepreneurial ecosystem', most versions tend to emphasise the importance of the closeness and interconnectedness of the various participants and essential elements within an entrepreneurial ecosystem [5].

Furthermore, there is a lack of clarity regarding the appropriate scope for analysing an entrepreneurial ecosystem [10]. In terms of geography, it can encompass an urban settlement, a region or extend to a national scale. It may also encompass other, less spatially bounded systems, such as industries

or technologies that create opportunities for business creation and expansion.

Human capital is an important component of the entrepreneurial ecosystem. For years, researchers and specialists have sought to comprehend, study and analyse human capital as one of the primary determinants of economic development and competitiveness. The notion of "human capital" refers to the set of knowledge, experience and characteristics that demonstrate an individual's ability to generate economic value [11]. In the context of entrepreneurship, the significance of human capital becomes particularly pronounced, as it encompasses not only formal education and technical skills but also the mindset, creativity, and adaptability essential for driving innovation and business success. Over time, numerous policy proposals have emerged that aim to cultivate and enhance human capital. In particular, Heckman (2000) highlights the benefits of early intervention programmes, mentoring initiatives and motivational programmes targeted at youth [7]. Unger JM et

al. (2011) define human capital as the knowledge and skills acquired through schooling, on-the-job training and other types of experience [21]. Hitt M.A. et al. (2001) assert that human capital, comprising education, experience, skills, and the effect of leadership, is a key driver of competitive advantage and firm performance [8].

Lately, Isenberg (2011) proposes the entrepreneurial ecosystem as a framework for examining human capital, which is viewed as crucial for fostering a practical, innovative, and entrepreneurial economy [9]. Isenberg (2011) further discussed entrepreneurial ecosystems and defined 'entrepreneurial ecosystems' as an organic system that includes a group of tangible and intangible elements such as customers, capital market, leadership and culture that are organised in complex ways to interact with venture creation and entrepreneurship development. Isenberg (2011) identified 13 essential elements of an entrepreneurial ecosystem: leaders, governments, culture, success stories, knowledge, capital, non-profit and industry associations, educational institutions, infrastructure, geographic location, networks, venture-oriented professionals and potential customers [9]. In his approach to the entrepreneurial ecosystem, the human capital component consists of 2 elements: labour and educational institutions. Labour examines: skilled and unskilled, serial entrepreneurs, later generation family. Educational institutions examines: general degrees (vocational and academic), specific entrepreneurship training. The World Economic Forum (2013) found that local and international markets, human capital and financing, mentoring and support systems, robust regulatory frameworks and leading universities are the key pillars of an ecosystem. Management talent, technical talent, entrepreneurial business experience and access to immigrant labour are the elements of human capital. Similarly, the education and training component is based on the available workforce with pre-university education, available workforce with university education, entrepreneur-specific training [22].

The Global Entrepreneurship and Development Index, developed by George

Mason University, analyses entrepreneurial ecosystems at the level of entrepreneurial attitudes, abilities and aspirations. Entrepreneurial attitudes, abilities and aspirations are built on a foundation of 14 pillars. Each pillar includes both individual and institutional variables, reflecting the micro and macro dimensions of entrepreneurship. Within the Global Entrepreneurship and Development Index, the "human capital" pillar is illustrated by the variable of educational level, which emphasises the quality of entrepreneurs. The consensus is that individuals with higher levels of education are more likely and motivated to start and run high-growth businesses.

At the institutional level, the variable that addresses human capital is the labour market. This aspect has two key components: labour freedom, which measures labour freedom from a regulatory perspective, and human capital development, which measures a country's investment in business training and employee development. Specifically, significant investment in employees is expected to yield favourable returns, while training initiatives increase the competence of employees, thereby improving business development, innovation and growth prospects [2].

Entrepreneurial activity plays an important role in shaping regional economic development as it impacts economic growth, fosters employment opportunities, and encourages innovation. As a result, there is significant scholarly and governmental attention directed towards comprehending entrepreneurial endeavours holistically. This places, as well, specific emphasis on the local elements that facilitate the establishment and evolution of entrepreneurial ecosystems [1, 6, 16].

Existing research analyses the link between entrepreneurial activity and regional development. Nevertheless, it is important to stress that entrepreneurial activity is not uniformly concentrated in different countries or regions, as many studies have shown [3, 20]. Studies of entrepreneurial ecosystems typically concentrate on the national level [18], metropolitan regions or well-known business hubs [14].

The analysis of entrepreneurship research shows that entrepreneurship tends to flourish

more in urban areas than in rural areas [4]. In contrast to urban areas, rural areas face specific challenges in promoting entrepreneurial activity. These obstacles include geographical, institutional, social and financial barriers, inadequate infrastructure, technical support issues, difficulties in sourcing raw materials and securing human resources [13].

The aim of this study is to explore the specificity of human capital as a component of the entrepreneurial ecosystem, with focus on urban and rural locations in the Republic of Moldova, as well as to identify the difficulties entrepreneurs encounter in accessing human capital.

The main research questions in this paper are:  
(1) What are the main challenges faced by entrepreneurs in terms of human capital?  
(2) How do rural areas differ from urban areas in terms of human capital for entrepreneurial activities?

## MATERIALS AND METHODS

The primary data for the assessment of human capital as a component of the entrepreneurial ecosystem were obtained using the survey method. A total of 204 entrepreneurs from the Republic of Moldova were interviewed. The questionnaire was filled in by the owners or managers of the enterprises, who know the situation in the respective enterprise well. The survey was conducted in June-October 2022.

To measure the impact of entrepreneurial ecosystem components, such as human capital, on business development in Moldova, a five-point Likert scale with five possible scores was used: the scale ranged from 1 (minimum) to 5 (maximum), minimal ratings of 1 and 2 were considered to represent the human capital barriers faced by entrepreneurs.

The questionnaire for entrepreneurs included 9 indicators for the human capital component. They were divided into three categories: 1) indicators characterising the level of availability of different categories of personnel; 2) indicators characterising the level of competence of personnel and the organisation of training in the workplace; 3) indicators characterising the level of influence

of population migration and emigration on the business.

The required number of completed questionnaires was calculated on the basis of the total number of 60.3 thousand units (the number of enterprises in the Republic of Moldova according to the data of the National Statistical Office in 2021), with a confidence level of 95%. The sample structure was designed to match the overall structure in terms of the main characteristics of the selection. The results were then aggregated and analysed using the SPSS statistical analysis programme. Additionally, the study examined secondary data from the National Bureau of Statistics, with a focus on the active and inactive populations by place of residence. The research also analysed the educational attainment levels of the workforce in both urban and rural environments.

## RESULTS AND DISCUSSIONS

### *Characteristics of the workforce in the Republic of Moldova*

The table below presents the main aggregated quantitative indicators characterising human capital in Moldova.

The active population provides the necessary labour force for society and especially for entrepreneurial activity (its share is 41.8% in 2022). It includes the employed population (40.5% of the population aged 15 and over) and the unemployed (1.3%), defined according to the criteria of the International Labour Organisation. The inactive population (all persons, regardless of age, who did not work at least one hour during the reference period and were not unemployed) had a share of 58.2% in 2022 by republic, significantly exceeding the active population by 16.4 p.p. The same situation was recorded for individual groups - in urban areas (the inactive population exceeds the active population by 1.1 p.p.), in rural areas by 25.8 p.p., for men by 7.3 p.p. and for women by 24.4 p.p.

The inactive population in rural areas significantly exceeds that in urban areas and the active population. One of the main reasons for the large number of economically inactive individuals in rural regions could be attributed

to the scarcity of employment opportunities in the country, particularly in rural settings, along with the unattractiveness of the available jobs. Consequently, the working population tends to engage in informal work activities that offer higher income and satisfaction, rather than accepting poorly compensated, often insecure

jobs with limited prospects for career advancement. Such a substantial number of inactive population inevitably compromises the development of human potential in rural areas and considerably diminishes the prospects for establishing and developing viable, competitive businesses.

Table 1. Population aged 15 and over by economic status, sex and place of residence, 2022

	Whole country	Urban	Rural	Men	Women
<b>Total, thous.pers.</b>	<b>2,130.1</b>	<b>831.5</b>	<b>1,298.6</b>	<b>993.2</b>	<b>1,137.0</b>
Active, <i>thous.pers.</i>	890.0	408.2	481.8	460.1	430.0
Share, %	41.8	49.1	37.1	46.3	37.8
Employed, <i>thous.pers.</i>	862.3	393.6	468.8	443.7	418.6
Share, %	40.5	47.3	36.1	44.7	36.8
Unemployed, <i>thous.pers.</i>	27.7	14.6	13.1	16.3	11.4
Share, %	1.3	1.8	1.0	1.6	1.0
Inactive, <i>thous.pers.</i>	1,240.1	423.3	816.8	533.1	707.0
Share, %	58.2	50.9	62.9	53.7	62.2

Source: National Bureau of Statistics data, Labour Force Survey - Employment and Unemployment, 2019-2023.

The prevalence of highly educated individuals is a characteristic of the presence of talented human capital [16]. It can be measured as the percentage of highly educated individuals in the labour force. The National Bureau of Statistics' data show that the favourable trend in the educational structure of the workforce over the past decade has persisted, with an increase in the segment with higher education. In 2022, the percentage of the population with higher education was 28.3% of the working population, an increase of 2 percentage points compared to 2014, including in this period it increased by 2 percentage points in rural areas. International comparisons show that Moldova still has a very low share of people with tertiary education in the labour force. For comparison, the share of employed persons aged 25-64 with tertiary education in EU countries is about 2.5 times higher than in Moldova (85% in France, 85.2% in Estonia, 85.6% in the Czech Republic, 86.8% in Latvia, 89.9% in Lithuania) [12]. There is a significant discrepancy in the distribution of the tertiary-educated employed population by place of residence (73.2% in urban areas compared with only 26.8% of tertiary-educated employed in rural areas) (year 2022) (Figure 1). The rural

population is characterised by a lower level of education than the economically active population in urban areas. In rural environments, approximately 64% of the economically active population has attained secondary vocational and secondary school education, while 76.1% have completed gymnasium. The difference in educational attainment levels within the economically active population, with a smaller percentage having higher education and a larger proportion having lower educational qualifications, may be the reason for the lower economic activity in villages.

As in other countries, young people in the Republic of Moldova face challenges in getting stable jobs that pay a living wage. Employment possibilities for young people are mainly concentrated in urban areas. The lack of job prospects in rural regions and that young people migrate massively either to cities or abroad to find work explains the reasons for the lower inflow of young people from rural areas into the labour market.

According to statistics, women and young people from villages are the most discouraged in the labour market. Thus, there is gender inequality in the labour market among young

people in rural areas: the employment rate for young men in rural areas (15-24 years and 25-34 years) is about 17.4% and 48.8% respectively (in 2022), and for young women in the same age groups it is 9.5% and 36.7%. The employment rate of young women in rural areas is 7.3 p.p. (15-24 years) and 15 p.p. (25-34 years) lower than that of young women in urban areas. Reasons for the lower labour market participation of young women include longer periods of education, marriage at a younger age, childbirth and childcare. At the same time, despite having higher levels of education than men, young women are paid less than men, even under similar conditions and in similar occupations.

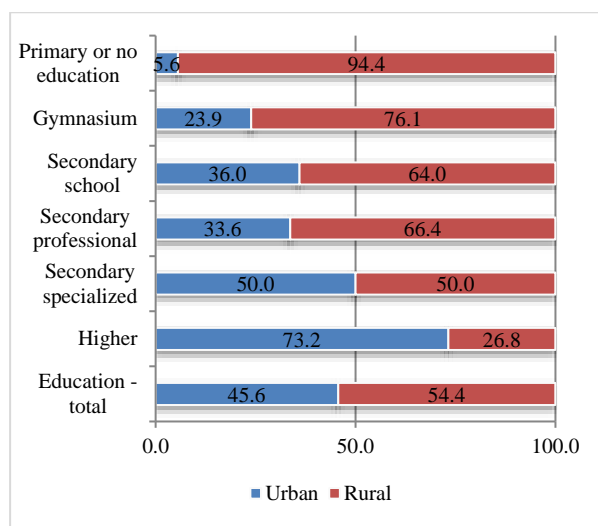


Fig. 1. Structure of the employed population by educational level and residence area in 2022, %  
 Source: based on National Bureau of Statistics Labour Force Survey data.

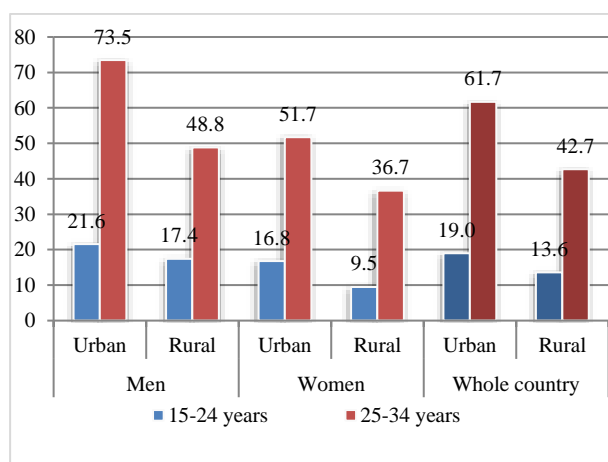


Fig. 2. Youth employment rate by residence areas, 2022, %  
 Source: National Bureau of Statistics data, Labour Force Survey, 2022.

### *Human capital: entrepreneurs' perception*

The survey covered 204 entrepreneurs. The sample was dominated by micro enterprises (66.7%) and small enterprises (25%), but medium-sized enterprises (5.9%) and large enterprises (2.5%) also participated in the survey. More women (59.8%) than men (40.2%) participated in the survey. The largest age group of entrepreneurs is the middle-aged respondents aged 35-54 years, representing about 51% of the respondents. The category of young entrepreneurs, aged 25-34, represented around 25% of the survey, which is still a significant proportion of the sample. The largest age group of entrepreneurs is in the urban area (73%) and 27% in the rural area.

Table 2 shows the heat map of challenges faced by entrepreneurs (most negatively rated indicators with 1 = 'minimum'; 2 = 'relatively low') in the Republic of Moldova, across urban and rural areas. The most pressing problems are migration and emigration of the population, availability of highly qualified specialists, availability of personnel with certain specialisations, competence of graduates of educational institutions (it should be noted that the competence of graduates is more of an obstacle for urban entrepreneurs, according to the entrepreneurs' assessments).

The higher the percentage of respondents experiencing a challenge in the measured area, the redder the heatmap.

The lower the percentage of respondents experiencing a challenge, the greener the heatmap.

For both urban and rural entrepreneurs, the most positively rated factors were the digital skills of staff.

The professional level of staff, formal on-the-job training of staff and the availability of unskilled labour were mostly rated as neutral, with some positive ratings.

In the following, we analyse in more detail the main indicators of human capital characteristics assessed by entrepreneurs in urban and rural environments ( Fig. 3).

Table 2. Heat map of challenges perceived by entrepreneurs to the entrepreneurship ecosystem component „human capital” (respondents that evaluated the indicators with 1 = "minimum level"; 2 = "relatively low")

Indicators	Urban	Rural	National
<b>Level of availability of different categories of staff on the labour market</b>	50.2%	49.1%	49.9%
Availability of highly qualified specialists	66.2%	58.2%	64.0%
Availability of unskilled personnel	34.0%	38.2%	35.1%
Availability of staff with certain specialities	50.7%	50.9%	50.7%
<b>Level of competence of staff and organisation of training</b>	37.2%	31.3%	35.6%
Competence of graduates of educational institutions	60.7%	38.0%	54.7%
Professional level of staff	34.9%	35.3%	35.0%
Digital competence of staff	21.1%	21.8%	21.3%
Formal on-the-job training of employees	33.1%	30.9%	32.5%
<b>Level of influence of labour migration and emigration of the population on business</b>	74.1%	90.9%	78.8%
Labour migration	73.6%	92.7%	78.9%
Population emigration	74.6%	89.1%	78.7%

Source: prepared by the authors on the basis of survey of entrepreneurs, 2022.

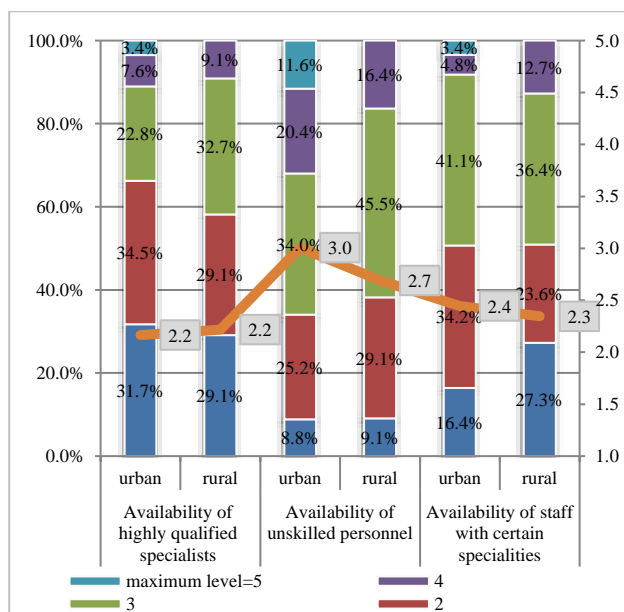


Fig. 3. Evaluation of indicators characterising the level of availability of different categories of personnel on the labour market, %

Source: prepared by the authors on the basis of survey of entrepreneurs, 2022.

Characterising the *level of availability of different categories of personnel on the labour market* in the Republic of Moldova, around 50% of entrepreneurs indicated that they faced challenges in this respect. Entrepreneurs rated the availability of highly qualified specialists more negatively, with

64% of respondents giving a minimum score of 1 or 2 and an average score of 2.18. The availability of staff with certain specialisations was also rated poorly by 50.7% of the entrepreneurs surveyed, with a minimum score of 1 or 2 and an average of 2.42.

The assessment of the indicator availability of unskilled labour is rather ambiguous. For just over a third of respondents, the availability of unskilled labour was an obstacle, while around a third of entrepreneurs rated access to unskilled labour as neutral (average=2.92). Depending on the residential environment of the entrepreneurs, the following situation can be observed regarding the availability of different categories of personnel on the labour market.

-Availability of highly qualified specialists:

In urban areas, 66.2% of entrepreneurs rated the availability of highly qualified specialists with a minimum score of 1 and 2, indicating an important barrier to access to highly qualified specialists. Only 11.0% of urban respondents gave the maximum score (4 and 5), indicating a favourable situation in this area.

In rural areas, 58.2% of entrepreneurs face a problem with the availability of highly qualified specialists (8 percentage points lower than in urban areas). Approximately one-third of the surveyed entrepreneurs from rural locations ranked the accessibility to qualified professionals as neutral.

Therefore, access to highly qualified employees is more challenging in urban locations than in rural ones, and the favorable evaluation of this indicator is low in both settings.

-Availability of unqualified workforce:

Enterprises in urban locations assessed the availability of unskilled labour higher (average = 3.0) than those in rural locations (average = 2.7). In urban areas, 34.0 % of entrepreneurs gave a score between 1 and 2 and 32.0 % gave a maximum score, indicating a balanced situation between negative and positive assessments.

In rural areas, access to unskilled labour is a challenge for a relatively higher proportion of entrepreneurs, with 38.2% rating it as such. In addition, 16.4% gave it the maximum score

(15.4 percentage points less compared to urban locations).

The rating indicates that availability of low-skilled labour is more challenging in rural locations, as the positive evaluation is lower in these places.

-Availability of employees with certain specialities:

In both urban and rural areas, the availability of staff with certain specialities is a challenge for about half of the respondents, but the positive rating is slightly lower in urban areas. Overall, we see that entrepreneurs in both environments perceive access to highly qualified and specialised staff as a significant barrier. Positive ratings for these categories of staff are relatively low. On the other hand, access to unskilled labour is more balanced, with similar numbers of positive and negative ratings, especially in urban areas. However, fewer entrepreneurs in rural areas rated access to unskilled labour positively than in urban areas.

Regarding *the level of competence and organisation of on-the-job training of employees* in the Republic of Moldova, some 35.6% of entrepreneurs indicated that they faced challenges in this respect.

Entrepreneurs were more negative in their assessment of the competence of graduates from educational institutions (54.7% of respondents indicated the minimum score of 1 or 2; average = 2.35).

Enterprises in rural areas rated this indicator more neutrally (average = 2.6) than enterprises in urban areas (average = 2.3), which rated the competence of graduates of educational institutions at a minimum level. Possible causes for discrepancies in the assessment of the level of competence of graduates in relation to their place of residence could be related to: differences in job requirements, cultural differences, and higher expectations. For example, job requirements may vary according to region and sector. In rural areas, enterprises may specialise in different areas than in urban areas and therefore require different skills and competences from graduates, i.e. entrepreneurs in urban areas may have higher expectations of graduates' skills. At the same time, cultural differences between urban and rural areas may

affect the way entrepreneurs perceive graduate skills. For example, entrepreneurs in urban areas may have higher expectations of graduates and these higher expectations may lead to lower ratings.

The entrepreneurs surveyed gave a mostly negative and neutral assessment of the professional level of staff with an average score of 2.75 (35% of respondents gave a minimum score of 1 or 2 and 44.7% gave a neutral score of 3). No significant differences were found in the assessment of this indicator according to location in urban or rural areas. However, entrepreneurs in rural areas rated this indicator slightly more positively (positive ratings 25.5%; average=2.8) than those in urban areas (positive ratings 18.5%; average=2.7).

The digital skills of employees were rated quite highly by entrepreneurs: 40.6% of respondents gave a maximum score of 4 and 5, 38.1% - neutral with 3; average = 3.2). There were no significant differences in the rating of this indicator according to the location in urban or rural areas.

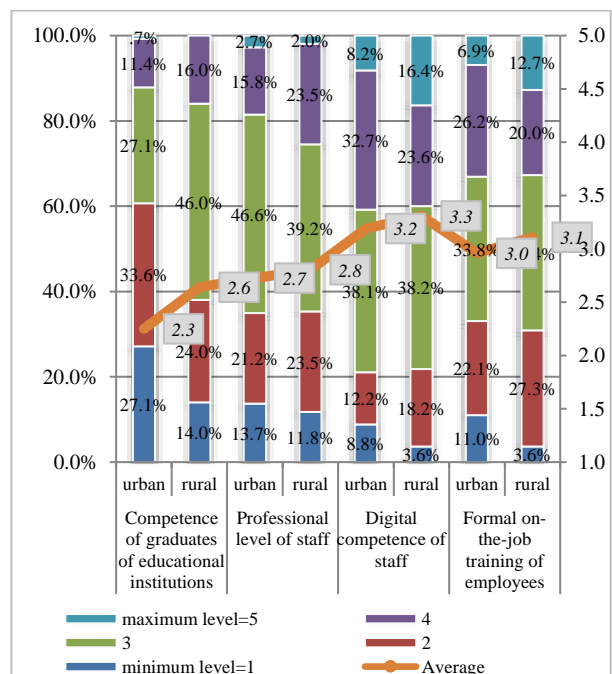


Fig. 4. Evaluation of indicators characterising the level of competence of staff and the organisation of training  
 Source: prepared by the authors on the basis of the survey of entrepreneurs, 2022.

The level of formal on-the-job training of employees in the workplace was rated closer to the average: 67.5% of respondents rated the

formal training of employees with a score of 3 or more, indicating a neutral or positive assessment of this indicator (average =3.0). There are no significant differences in the rating of this indicator according to location in urban or rural areas, but a higher proportion of entrepreneurs in urban areas rated this indicator negatively (with a score of 1 and 2), with 33.1% negative ratings (average= 3.0), compared with those in rural areas, with 30.9% negative ratings (average= 3.1). This may indicate that although there is a greater variety of formal training opportunities for employees in urban areas, there are also higher expectations from employees (Fig. 4).

We find that enterprises in rural areas tend to be slightly more positive in their assessment of graduate skills and employee skills, while those in urban areas are more critical in their assessment. On the other hand, no significant differences were found in the assessment of digital skills of employees and the level of formal training of employees according to urban or rural location, with entrepreneurs in both locations giving neutral to positive assessments.

The *level of impact of population migration and emigration on business* was rated most negatively by entrepreneurs, indicating a major challenge in terms of access to human capital (about 79% of entrepreneurs rated these indicators negatively with a minimum score of 1 and 2, average =1.84 and 1.83 respectively). It is worth noting that there are significant discrepancies in the assessment of these indicators by place of residence, with the proportion of rural entrepreneurs for whom labour migration is an obstacle being assessed negatively by 92.7% of respondents, which is 19.1 p.p. higher than the proportion of urban respondents (73.6%). A similar discrepancy is observed in the assessment of the impact of emigration on business, with a significantly higher proportion of rural entrepreneurs rating the impact of population emigration on business development as negative (89% of rural entrepreneurs compared to 74.6% of urban entrepreneurs).

The main factors influencing labour migration are primarily economic: low wages, limited employment opportunities in rural areas

(except in agriculture), and living conditions in rural communities. The lack of job opportunities and the unattractiveness of the jobs available often lead to the 'depopulation' of rural areas through internal and international migration. The majority of internal migration is strongly oriented towards urban areas, especially from the central region of the country towards Chisinau, contributing to the process of urbanisation, but also to asymmetric regional development [19].

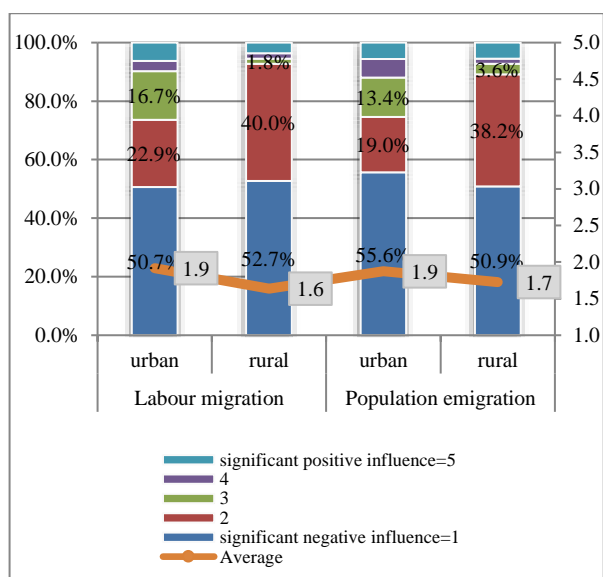


Fig. 5. Evaluation of indicators characterising the degree of impact of population migration and emigration on the business

Source: authors' elaboration based on entrepreneurs' survey, 2022.

International migration for work is mostly a result of the lack of employment opportunities and low wage levels in the domestic market. By 2019, about 17.6% of Moldova's total population was living abroad, of which more than half (56.5%) were aged between 20 and 64 [15].

## CONCLUSIONS

The main challenges in the area of human capital are mainly related to the following aspects:

- The decline in the labour force poses a serious threat to business development, which is exacerbated by the fact that the number of inactive people significantly exceeds the number of active people. This can also affect



economic development, innovation capacity and consequently business development.

-Adding to the complexity of human resource issues is the brain drain. Current data suggest that emigration is indeed a significant phenomenon. While migration has a major impact on employment, including in urban areas, entrepreneurs believe that the impact is particularly strong in rural areas. In particular, young people from rural areas are less likely to find employment, leading them to migrate massively to cities or abroad. The disproportionate migration of young talent from rural to urban settings or abroad not only limits the pool of skilled workers available to enterprises but also diminishes the innovation potential and competitiveness of rural-based businesses.

-The prevalence of people with a high level of education is a crucial aspect of human capital. However, the share of people with higher education in the labour force is much lower in Moldova than in the Member States of the European Union, and discrepancies in the distribution of the labour force by level of education and place of residence can threaten the development and competitiveness of businesses, especially in rural areas.

-The results of the questionnaire addressed to entrepreneurs in Moldova suggest that there are three main concerns related to human resources: the level of availability of different categories of human resources, the level of competence of human resources, and the degree of impact of migration and emigration on enterprises.

-The perception of highly skilled professionals' availability and accessibility is generally negative in both urban and rural areas. While opinions on the availability of unskilled labor vary, it can pose a significant barrier, especially in rural regions where access to such labor is perceived as challenging by a slightly higher proportion of entrepreneurs.

-The competence of graduates from educational institutions is generally assessed negatively, indicating concerns about adequate preparation for current needs. Significant contrasts exist between urban and rural settings. Urban entrepreneurs are more pessimistic on this topic. The difference in job

requirements could explain why entrepreneurs in urban and rural locations in the Republic of Moldova assessed the competence of graduates differently. Enterprises in urban areas may have different specialisations than those in rural areas, which could lead to a need for different skills and competences among graduates.

-Migration and emigration of the population remains a major concern for most entrepreneurs, with a negative impact on the labour market and the business environment. The differences between urban and rural areas are significant, with entrepreneurs in rural areas feeling the impact of this phenomenon on their businesses more acutely.

Addressing these human capital challenges is vital to improve entrepreneurs' access to the human resources and for enhancing the competitiveness of Moldovan enterprises. Implementing targeted solutions, such as training and education programs, employment incentives, and rural infrastructure development, can help bridge the gaps in human resources availability and stimulate economic development, thereby bolstering the competitiveness of businesses in both urban and rural environments.

## ACKNOWLEDGEMENTS

The research was performed within the framework of Subprogram 030101 „Strengthening the resilience, competitiveness, and sustainability of the economy of the Republic of Moldova in the context of the accession process to the European Union” and the research project "Multidimensional assessment and development of the entrepreneurial ecosystem at national and regional level to boost the SME sector in the Republic of Moldova" (20.80009.0807.38), institutional funding.

## REFERENCES

[1]Ács, Z. J., Szerb, L., 2007, Entrepreneurship, Economic Growth and Public Policy, *Small Business Economics*, 28(2–3):109–122. <https://doi.org/10.1007/s11187-006-9012-3>, Accessed on December 10, 2023.

- [2]Acs, Z.J., Szerb, L., Lafuente E., Gabor M., 2019, Global Entrepreneurship Index 2019. Washington D.C.: The Global Entrepreneurship and Development Institute. [https://thegedi.org/wp-content/uploads/2020/01/GEI\\_2019\\_Final-1.pdf](https://thegedi.org/wp-content/uploads/2020/01/GEI_2019_Final-1.pdf), Accessed on December 10, 2023.
- [3]Armington, C., Acs, Z. J., 2002, The determinants of regional variation in new firm formation, *Regional Studies*, 2002, 36(1):33-45.
- [4]Bosma, N., Sternberg, R., 2014, Entrepreneurship as an Urban Event? Empirical Evidence from European Cities, *Regional Studies*, 2014, 48(6):1016-1033. <https://doi.org/10.1080/00343404.2014.904041>
- [5]Brown, R., Mason, C., 2017, Looking inside the spiky bits: A critical review and conceptualisation of entrepreneurial ecosystems, *Small Business Economics*, 2017, 49(1):11-30.
- [6]Fornahl, D., 2003, Entrepreneurial activities in a regional context, *Cooperation, Networks and Institutions in Regional Innovation Systems*, Edward Elgar, 2003, 38-57.
- [7]Heckman, J.J., 2000, Policies to foster human capital, *Research in Economics*, Vol. 54 (1):3-56.
- [8]Hitt, M. A., Bierman, L., Shimizu, K., Kochhar, R., 2001, Direct and Moderating Effects of Human Capital on Strategy and Performance in Professional Service Firms: A Resource-Based Perspective, *The Academy of Management Journal*, 44(1):13-28, <https://doi.org/10.2307/3069334>.
- [9]Isenberg, D., 2011, The entrepreneurship ecosystem strategy as a new paradigm for economy policy: Principles for cultivating entrepreneurship. The Babson Entrepreneurship Ecosystem Project. <http://www.innovationamerica.us/images/stories/2011/The-entrepreneurship-ecosystem-strategy-for-economic-growth-policy-20110620183915.pdf>, Accessed on October 10, 2021.
- [10]Malecki, E. J., 2018, Entrepreneurship and entrepreneurial ecosystems, *Geography Compass*, 12(3), e12359, <https://doi.org/10.1111/gec3.12359>, Accessed on December 10, 2023.
- [11]OECD, 1998, Human capital investment: An international comparison, Paris, France: Organization for Economic Cooperation & Development.
- [12]OECD, 2023, Employment by education level (indicator), doi: 10.1787/26f676c7-en, Accessed on March 03, 2023.
- [13]Pato, L., Teixeira, A. A. C., 2018, Rural entrepreneurship: The tale of a rare event, *Journal of Place Management and Development*, 11(1):46-59, <https://doi.org/10.1108/jpmd-08-2017-0085>.
- [14]Pique, J. M., Berbegal-Mirabent, J., Etzkowitz, H., 2018, Triple Helix and the evolution of ecosystems of innovation: The case of Silicon Valley. *Triple Helix*, 5(1):40604-40018, <https://doi.org/10.1186/s40604-018-0060-x>.
- [15]Programul național pentru ocuparea forței de muncă pe anii 2022-2026 (The national employment program for the years 2022-2026). <https://social.gov.md/wp-content/uploads/2023/04/Programul-national-de-ocupare-a-forței-de-munca-2022-2026.pdf>, Accessed on October 03, 2023.
- [16]Stam, E., 2018, Measuring Entrepreneurial Ecosystems. In: O'Connor, A., Stam, E., Sussan, F., Audretsch, D.B. (eds) *Entrepreneurial Ecosystems. Place-Based Transformations and Transitions*. New York: Springer, 2018, 173-196.
- [17]Spigel, B., 2017, The Relational Organization of Entrepreneurial Ecosystems, *Entrepreneurship Theory and Practice*, 2017, 41(1):49-72.
- [18]Sternberg, R., Litzenberger, T., 2004, Regional clusters in Germany--their geography and their relevance for entrepreneurial activities, *European Planning Studies*, 12(6):767-791, <https://doi.org/10.1080/0965431042000251855>.
- [19]Strategia națională privind ocuparea forței de muncă pentru anii 2017-2021 (The national employment strategy for the years 2017-2021). In: *Monitorul Oficial al Republicii Moldova*, 07.04.2017, nr. 109-118, art.272. [https://www.legis.md/cautare/getResults?doc\\_id=98639&lang=ro](https://www.legis.md/cautare/getResults?doc_id=98639&lang=ro), Accessed on October 03, 2023.
- [20]Stuetzer, M., Obschonka, M., Brixey, U., Sternberg, R., Cantner, U., 2014, Regional characteristics, opportunity perception and entrepreneurial activities, *Small Business Economics*, 42(2): 221-244, <https://doi.org/10.1007/s11187-013-9488-6>.
- [21]Unger, JM., Rauch, A., Frese, M., et al., 2011, Human capital and entrepreneurial success: a meta-analytical review, *J Bus Venturing* 2011, 26: 341-358.
- [22]World Economic Forum, 2013, *Entrepreneurial Ecosystems Around the Globe and Company Growth Dynamics*. [https://www3.weforum.org/docs/WEF\\_Entrepreneurial Ecosystems\\_Report\\_2013.pdf](https://www3.weforum.org/docs/WEF_Entrepreneurial_Ecosystems_Report_2013.pdf), Accessed on December 10, 2023.