

THE IMPACT OF YOUTH ON THE SUSTAINABLE DEVELOPMENT OF THE MOLDOVAN ECONOMY

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Abstract: *This study assesses the conditions affecting the formation of attitudes and system of values in young people under the influence of culture and traditions of the nation, standard of living, business climate, economic structure, etc. The formed image is characterized by the presence of the following characteristics of young people: a high level of education, possession of modern means of communication and an active social position. Despite the moderate level of youth employment (every fifth young person is working), this category of persons plays an important role in the long-term development of the Moldovan economy. On the basis of the performed correlation analysis it was demonstrated that the change of the national production volume by 99.4% is conditioned by the educational level of the employed youth. Accordingly, the obtained results are important for the development of the state.*

Keywords: *the level of education of young people, social activity.*

Jel Classification: *E24, J21, O15.*

1. Introduction

The increase in the standard of living of the population is a consequence of the economic development of the state. Due to the introduction of innovations in all areas of labor activity positive qualitative changes in the economy of any state are achieved.

This process is a complex mechanism involving various aspects of the functioning of society, such as economic, political, legal, technological and others. An important place among them is occupied by the socio-cultural aspects of the development of society.

The degree to which a nation's current system of values (culture, morality, education) contributes to the development of economic processes in the country will ultimately determine the competitiveness and technological order of the economy.

Obviously, the low quality of the individual human capital of the country's younger generation will have a negative impact on its evolution in the future.

Thus, this article attempts to study the influence of the level of education and social activity of young people on the development of the state economy. The purpose of the study is to assess the current potential and qualitative characteristics of youth in terms of a positive impact on the development potential of the state.

2. Literature review

Many studies analyze the role of youth in the development of the country (Turulja, Agic and Veselinovic, 2020; Savastina and Osipova, 2015; Trotsuk and Sokhadze, 2014).

Young people are part of society, who annually replenish the economically active population of the country.

In international practice, there is no universally recognized age group for this category of persons. However, according to the UN definition (Organizatsiya Obedinennykh Natsii, 2022), "youth" includes persons between the ages of 15 and 24.

Exactly this category of persons is characterized by the greatest susceptibility to changes, absence of fear to make mistakes in the process of creative search (Rossiiskii investitsionnyi forum: SIRIUS 22, 2022). The thirst for self-expression, readiness to learn

new experiences is a great potential that needs competent management and transformation for the benefit of society.

Thus, there is a need for state intervention in the process of raising young people through the implementation of systematic work in relation to them: education, access to labor markets, the creation of prerequisites for self-realization (Savastina and Osipova, 2015; Organizatsiya Obedinennykh Natsii, 2022; Institut razvitiya: ROSKONGRESS Prostranstvo doveriya, 2022).

It should be noted that this process has the following important aspects.

On the one hand, the level of economic development of the state has a direct impact on the living conditions and level of education of young people (CIS STAT, 2021).

On the other hand, young people, who have the opportunity to receive a modern education and have the ability to take an unconventional approach to solving various issues, act as a powerful innovative force (Savastina and Osipova, 2015) for the development of the country's economy and improving living standards.

Thus, in accordance with the topic under discussion, the following hypothesis is proposed:

Hypothesis 1. "Quality" young people contribute to the development of the economy.

3. Research methods

Practical implementation of a versatile description of social phenomena was carried out using the fundamental techniques of economic and statistical method of cognition, in particular (Moskaleva and Kuzmenkova, 2016): economic grouping, economic comparison, analysis of the relationship between processes and phenomena through correlation analysis, etc.

The method of economic grouping (simple and combined) was used to break down the population by age groups in order to study the patterns of youth development in Moldova.

In the process of grouping a large volume of data, we used absolute, average and relative values. To study the dynamics of GDP over time, we used momentary dynamic series.

To study the relationships between the qualitative characteristics of young people in Moldova and a number of other countries, the method of economic comparison was used, which involves reducing the data to a comparable form.

The identification of a linear correlation between the volume of production of the national economy and the share of young people with higher and vocational education in the total population of Moldova of the corresponding age was carried out on the basis of the correlation analysis technique.

Thus, this study selected the most appropriate research methods to organize effective work.

4. Results and discussion

Data for the period 2015-2020 were analyzed to assess aspects of education and social activity of young people.

The study examined a wide range of indicators, including those characterizing various aspects of social development of society, including youth: the number of young people, average and total life expectancy, the average age of mothers, the level of education, employment and unemployment of young people, sources of income of young people, crime rate, etc.

The dynamics of GDP was considered as the most generalized indicator characterizing the level of economic development of the country.

During the period 2015-2020 there is a decrease in the population of Moldova, which in percentage terms is 7.6% (Biroul Național de Statistică, 2020).

Despite the increase of the average age of Moldova's population by almost 2 years during the period under consideration, the level of the indicator in 2020 was 39.3 years, which is 10.1% lower than the average age of the population in the European Union countries. The total life expectancy of Moldova's population remained practically unchanged and amounted to 69.8 years (Biroul Național de Statistică, 2020).

The share of the population in the 16-25 age group in the entire population decreased from 14.3% in 2015 to 10.6% in 2020. The number of young people was 278077 (Biroul Național de Statistică, 2020; Vsemirnyi Bank, 2021).

Negative population growth in the corresponding age category, the availability of alternative education abroad, and the rising cost of education are among the few factors contributing to the decline in the number of students and graduates of higher and vocational technical institutions.

The share of graduates of higher and vocational technical institutions decreased from 45.8% to 38.7% of the total number of students in 2020 compared to 2015 (Biroul Național de Statistică, 2021b).

The most representative is the information about graduates per 10 thousand inhabitants. In particular, for the period 2015-2020 in the context of higher education there is a systematic reduction of the indicator from 84 to 54 graduates or by 33.3%. At the vocational level of education there is a more moderate rate of reduction of graduates, respectively, from 55 to 46 or 16.4% (Biroul Național de Statistică, 2021b).

One of the measures taken by the state to ensure the educational level of young people is the financing of education by providing students with budgetary places. The share of budget-funded places in higher education institutions for the period under consideration increased by 5.6 percentage points and amounted to 43.5% of the total number of training places in higher education institutions in 2020 (Biroul Național de Statistică, 2021b). In the system of vocational education there is a predominance of budgetary places.

The share of young people (in the age group 20-24 years) with higher and vocational education was 82.4% of the total population of the corresponding age in 2020 (Biroul Național de Statistică, 2021c).

Thus, there is a high educational level of young people in Moldova.

The labor activity of young people is characterized by a set of factors. The level of youth employment, which in 2020 amounted to 16.3% of the total employed population (Biroul Național de Statistică, 2021a), is influenced by gender aspects, the dynamics of the number of young people who do not work and do not study (CIS STAT, 2021).

Women's position in the labor market depends on the birth of children, which causes them to stop working and focus on unpaid family care work.

Over the analyzed period, the average maternal age practically did not change (an increase of 2.2%) and was 27.9 years in 2020 (Biroul Național de Statistică, 2020), which is outside the age category under study.

There is a positive dynamics of reducing the share of the unemployed aged 16-24 years from 18.2% to 9.2% (Biroul Național de Statistică, 2021a) in the total number of unemployed registered with employment agencies during the period under review.

It should be noted that young people with higher and vocational education (60.1% in 2020) account for a significant proportion of the unemployed young people in the International Labor Office. This situation negatively affects the efficiency of money spent by the state or parents on education due to the obsolescence of the obtained knowledge (CIS STAT, 2021).

The share of the population aged 15-29 years, who do not study or work, was 26.0% of the population of the corresponding age in Moldova in 2020, which is noticeably higher than the similar indicator in the European Union countries - 13.7% for the same period (Biroul Național de Statistică, 2021c). At the same time, the share of women in this category of the population exceeds that of men (CIS STAT, 2021).

The share of employed youth in 2020 was 16.3% (Biroul Național de Statistică, 2021a) of the population in the age group 15-24 years. The main part of the employed youth is employed (78.9% in 2020) (Biroul Național de Statistică, 2020), respectively, the main source of income is a salary. Approximately one-third of employed young people prefer to work in trade, accommodation and catering - 29.6 % in 2020. Next comes industry - 18.4%, agriculture, forestry and fishing - 17.5% (Biroul Național de Statistică, 2020).

Business demographics can also characterize the socio-economic processes taking place in society. The creation of new and viability of existing enterprises is a prerequisite for the sustainable development of the economy and the creation of new jobs of better quality (Mezhdunarodnaya organizatsiya truda, 2022). Young people involved in small business make a special contribution to improving the demography of businesses.

The level of creation of new enterprises in 2020 was 13.8% (Biroul Național de Statistică, 2020), which represents the number of newly created enterprises compared to the number of operating enterprises during the same period. At the same time, the level of liquidation of enterprises was 28.7% (Biroul Național de Statistică, 2020), which represents the number of liquidated enterprises in relation to the number of operating enterprises in 2020.

It is obvious that in Moldova there are certain difficulties related to keeping newly created enterprises afloat. The bottlenecks of young entrepreneurship are the lack of financial resources for business development, as well as the insufficient level of financial literacy (Kozlov and Tkachev, 2020).

In 2019-2020, the share of innovative Moldovan enterprises was 12.6% (Biroul Național de Statistică, 2020) of the total number of enterprises, while in the European Union countries the same indicator reached over 50% already in 2015 (Biroul Național de Statistică, 2021c).

One of the directions of increasing the socialization of young people is Internet communication. Through the Internet, along with the development of skills to use modern information technology, there is an expansion of social experience, the formation of norms and rules of society, a new worldview (Tarkhanova, 2017).

During the period under review, Moldova saw improvements in the geographic coverage of Internet services (Digital report, 2017) against the backdrop of a continuous decrease in their cost.

Internet penetration via fixed-line channels at the household level was 64.6% in 2020 (Biroul Național de Statistică, 2020).

According to a study (Digital report, 2017), the Internet penetration rate for the age group 20-25 years was almost 100%. This situation can be explained by the availability of 4G technology throughout the country, depending on the choice of mobile operator.

Unlike other Eastern European countries, Internet users in Moldova pay the least for comfortable use of the Internet (100 Mbps): Moldova - 8.74 € per month (2019) (Locals, 2019).

A comparative analysis of the CIS countries for the year 2020 regarding the number of personal computers with Internet access used for educational purposes in higher and vocational educational institutions per 1000 students (CIS STAT, 2021), also allowed us to conclude that there are no serious barriers to accessing the network in Moldova.

The social activity of young people can also be assessed on the basis of data on participation in the political life of the country.

Almost half of young people under 25 participated in the 2020 presidential election in the first round. Young people in the diaspora, who are abroad, send money and support the national economy, were among the most active (Point, 2020).

Moldova is among the top remittance-receiving countries in Europe and Central Asia (Vsemirnyi Bank, 2021). Remittances from abroad remain an important source of household income, including those with a head of household under 25 years old. On average, remittances accounted for 12.9% of total household income in 2020, compared to 18.6% in 2015 (Biroul Național de Statistică, 2020).

Another important aspect that determines the social activity of young people is satisfaction with the material situation, when the conditions of existence meet the needs of the individual. As a rule, the degree of expression of social activity is observed among young people belonging to the wealthy strata of the population (Zubok and Berezutskiy, 2020).

In their bulk - 69.4% of persons under 30 years of age estimated their financial situation at the beginning of 2020 as satisfactory, at that, 80.4% of young people do not observe any changes in comparison with previous years. Young people assessing the level of their financial situation as very good or good amounted to 28.0% for the same period, at that, 14.3% noted improvement of their financial situation in comparison with the previous years (CIS STAT, 2021).

The dynamics of the Gini coefficient, which determines the degree of income stratification of society, can provide additional information about the population's income distribution. In particular, the income concentration coefficient remained practically unchanged (0.322 in 2020) for the period under consideration for 2015-2020, which does not contradict the data on young people's assessment of their financial situation (Biroul Național de Statistică, 2021a; SVSPB.NET, 2022).

The risk of dissatisfaction, more often in combination with other causes, is associated with a predisposition to commit delinquency.

Despite the reduction in the proportion of young people aged 18-24 years who committed crimes in 2020 of the total number of persons of all ages who committed crimes (20.5%) compared to 2015 (23.1%) (Biroul Național de Statistică, 2020), the comparative analysis of the number of persons who committed crimes by age group 18-24 years in Moldova is the highest among the CIS countries (CIS STAT, 2021).

Obviously, the characteristics of youth discussed above (employment, level and sources of income of young people, crime rate, adequate use of the Internet for self-development, etc.) are a consequence of the level of education of young people.

To determine the degree of relationship (interdependence) between the share of employed youth with higher and vocational education in the total population of Moldova of the corresponding age (factor) and the volume of production of the national economy (resultant indicator) can be determined by means of correlation analysis.

Initial data for the correlation analysis is presented in Table 1.

Table no. 1. Input data for correlation analysis

Number of observations	Production volume, billion lei (Y)	Share of employed youth with higher and vocational education in the total population of the	Time, years (X2)
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		relevant age (15 -24 years), % (X1)	
1	166,7	48,4	1 (2011)
2	174,2	43,9	2 (2012)
3	195,0	48,3	3 (2013)
4	219,7	48,0	4 (2014)
5	238,2	45,9	5 (2015)
6	261,3	49,0	6 (2016)
7	286,2	54,8	7 (2017)
8	307,0	46,2	8 (2018)
9	336,4	51,8	9 (2019)

Source: Biroul Național de Statistica al RM, 2020.

As a result of the analysis it was determined that the relationship between the performance indicator and the selected factors is linear-correlated.

The multiple correlation equation is as follows:

$$Y_x = 97.5953 + 0.8051 x_1 + 21.2237 t.$$

The economic significance of the regression coefficients can be interpreted as follows:

- $b_1 = 0.8051$, the regression coefficient with factor x_1 means that, a 1% increase in the proportion of employed youth with higher and vocational education will increase national output by 0.8051 billion lei;

- $t = 21.2237$, the regression coefficient at factor t means that national production increases annually on average by 21.2 billion lei.

The test of regression coefficients according to Student's test showed that their value is considered significant, because all the calculated t_{calc} is greater than the tabulated SEB (Table 2).

Table no. 2. Regression coefficients according to Student's test

Parameter	Coefficient	SEB	t_{calc}
Intercept	97,5953	31,7583	3,0731
b 1	0,8051	0,6908	1,1655
b 2	21,2237	0,8190	25,9150

Source: Calculated by the author.

The multiple correlation coefficient $R = 0.9967$ indicates the presence of a close correlation relationship between the volume of national production and the studied factors.

The value of multiple correlation can be estimated by Fisher's criterion: $F^* = 459,116$. Using Fisher's table depending on the number of degrees of freedom $f_1 = 9$, $f_2 = 9 - 2 - 1 = 6$ and significance level $q = 0.05$, $F_{tabel} = 4.1$ is determined (Novyi semestr, 2019).

Based on the fact that $F^* > F_{\text{tabel}}$, the value of the multiple correlation coefficient is considered significant.

The coefficient of determination $R^2 = 0.9935$ means that the change in the volume of national production by 99.4% is due to the influence of selected factors.

5. Concluding remarks

Against the background of the lack of increase in life expectancy, there is a tendency of decline in the share of young people in the entire population of Moldova. So, in particular, in 2020 only every tenth person represents young people aged 16-24 years old. Such situation against the background of the increase in the share of elderly people can have a negative impact on the socio-economic aspects for the country.

Young people in Moldova are characterized by a high level of education. As a rule, young people receive a higher or vocational education, as well as a stable job before marriage registration.

Conditions for receiving quality education in the country are favorable: national legislation guarantees equal rights for men and women to access to education, the state stimulates the opportunity to study through the financing of expenses (budgetary places), provides appropriate material base of educational institutions, etc.

The involvement of young people in labor activity is about 20% of the total number of young people. For women, to a greater extent, employment and withdrawal from the labor market are determined by birth and the need to care for a child. At the same time, the state allows to combine maternity with participation in paid employment, as well as the availability of nursery groups and after-school groups in schools allow to partially solve this problem.

A positive development is the reduction in youth unemployment over the period under review, which was 9.2% in 2020, as well as a decrease in the proportion of unemployed and out-of-school youth in the total number of young people.

In addition to wages as the main source of income for young families, remittances from family members who are working abroad have a tangible impact on household income. The creation of favorable conditions for sending remittances plays a special role in supporting the national economy by alleviating the strained financial situation of households.

In order to reduce the crime rate among young people, it is necessary to teach children from an early age to comply with family values and norms accepted by society. In particular, the inclusion of young people in the sphere of civil relations is influenced by the means of Internet communications, which are accessible to the population of Moldova.

Thus, the level of education of young people and social activity is one of the factors that determine not only the employment and social protection of this category of the population, but also the development of the national economy, for which, as the study showed, there are all the prerequisites.

In future studies, it seems interesting to conduct a correlation analysis to determine the degree of correlation between the output of the national economy and other factors characterizing young people in terms of the quality of human capital.

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