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SOCIAL FACTORS IN THE MANAGEMENT OF YOUTH PARTICIPATION IN THE LABOR MARKET IN ASIA: JUSTIFICATION OF CAUSAL DEPENDENCIES

Abstract

The study aims to determine social factors in the management of youth participation in the labor market in Asia based on causal analysis. The information base involves youth employment and youth working-age population by education levels, rural/urban areas, marital and disability status, time arrangement, and job contract. The sample covers 14 countries the ILO assigned to the Asia group for 2012–2021. Correlation analysis identifies dependencies between social factors and youth employment and determines their nature and strength, considering time lags when this influence becomes maximally significant. Granger causality analysis contributes to the establishment of causal dependencies within identified relationships. The greatest causal effect on youth employment is identified for educational level (basic educational level is a cause of positive changes in youth employment level in four countries, and youth employment level is a cause of growth of basic educational level in eight countries, including three countries with bidirectional causality, mostly with strong/very strong strength without lag). Quantitative indicator of youth working-age population by gender influences youth employment in Azerbaijan, Israel, the Philippines, and Thailand (from moderate to strong strength with lag from 0 to 2 years), by marital status – in Cyprus, Georgia, Korea, and Thailand (mostly very strong, time lag – from 0 to 2 years), by social factor of disability – in Sri-Lanka and Mongolia (very strong with 1-year time lag). The results can be used to form directions for managing youth participation in the labor market to improve social, educational, and youth policy.

Keywords

disability, education, employment, gender, labor force,
labor market, marital status, rural, urban, youth

JEL Classification

J21, M54, N30

INTRODUCTION

Nowadays, youth participation in the labor market is a crucial issue, especially in the context of sustainable and inclusive development. The main targets for achieving the sustainable development goals include increasing youth employment and the number of youths with relevant knowledge and skills for decent jobs and entrepreneurship and reducing the share of youth not in employment (or education and training) (ILO, 2018). Young people's access to decent, productive work is the key to a prosperous future (UN, n.d.b; Nwafor & Eguruze, 2022). At the same time, unemployment among youth is still quite high; young people do not study or work, or they are involved in the informal economy. In particular, the average unemployment rate for youth worldwide is 14.1 % (ILO, n.d.d).

During the COVID-19 pandemic, which led to several challenges and crisis phenomena in the global economy, youth employment suffered a significant drop, especially in Asian countries (mostly in East Asia and Southeast Asia); in 2020, the number of young people in the labor



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market decreased by approx. 10%, and in 2022, it was still 3% below the 2019 level. Employment loss was higher among youth (down 8.9% in 2020 and 3.4% below 2019 in 2022) than among adults (down 2.3% in 2020 and up in 2022). Youth not in employment, education, or training is 23.8% of the youth population, increasing by 1.6% from 2019 to 2022 (ILO, 2022a).

The International Labour Organization and the United Nations prioritize youth employment and inclusion as a component of people-centered recovery that can increase productivity and improve future economic and social prospects in Asia (ILO, 2022b). The above proclaims the necessity of forming and developing a global strategy for youth employment and its implementation on national, regional, and local levels. So, the role of management is strengthening in relation to youth participation in the labor market in general and social factors in the management of youth participation in the labor market in particular.

1. LITERATURE REVIEW

The modern economy faces radical changes in its organization's system, which significantly transform the relations between all stakeholders (Vasilyeva et al., 2019). Lyeonov et al. (2021a) and Zubović et al. (2015) described demographic, social, and behavioral determinants of transformation on the row with economic ones. Economic and social behavior for sustainable and inclusive growth was a research subject for Saher et al. (2022). The most common behavioral prejudices among young people were characterized by Isik (2022) and Oe and Yamaoka (2023).

Dotsenko et al. (2023) focused on socially relevant factors in the context of employment and corporate sustainability. Lyeonov et al. (2021b) investigated the issue of convergence between countries in the context of the institutional quality of the social sector and social development. Lopushniak et al. (2021) analyzed the possibilities of introducing social dialogue and social responsibility into the social interaction processes of employers, employees, state authorities, youth, and other organizations. Smiiyanov et al. (2020) assessed socio-economic trends in the functioning of the labor market, particularly under the influence of the COVID-19 pandemic.

Kalu et al. (2020) studied the relationship between economic growth and unemployment in Nigeria, taking into account age classification, and found that youth unemployment significantly negatively impacts the country's gross domestic product. Didenko et al. (2020, 2021) considered the problem of population migration, which affects its representation in the labor market and the security of the country in general. Tiutiunyk et al. (2022) emphasized employment in the informal economy

and described the negative influence of economic shadowing on social development and the labor market. Guedjali (2023) emphasized gender problems, women's careers in the labor market, and youth participation.

To improve the situation, Grmanová and Ivanová (2021) researched EU trends in flexible working time, including part-time working, which is widely used during youth employment in the labor market. Mujtaba and Kaifi (2023) focused on a healthy workplace for youth. The value of information in the context of the position and employment was described by Beyi (2022). Jongh (2018), Watson (2020), Alçın et al. (2021), and Bekenova (2022) studied other employment conditions, economic, demographic, and educational factors of employment and unemployment, including the issue of youth employment.

Kuzior et al. (2022) and Zhuchenko et al. (2023) analyzed the tendencies and positive impact of providing social or affordable housing and housing spending within social protection, including for youth. Gentle (2023) studied an aspect of social security, too. In the digital era, Madej-Kurzawa et al. (2021) studied the influence of digital skills on young people's professional activities. They found that mastering digital competencies provides youth with more chances for professional activity. Khushk et al. (2022) and Bhandari (2023) investigated the contribution of youth social learning, Vidic (2022) – of knowledge and education, and Didenko et al. (2023) – of financial literacy.

At the same time, the causality between social factors in the management of youth participation in the labor market and youth employment is not investigated enough.

This study aims to determine social factors in managing youth participation in the Asian labor market based on causal analysis. So, it has been hypothesized that there are relationships and causality between some social factors in the management of youth participation in the labor market and youth employment in the case of countries of Asia group:

- H1: *The education of the working-age population relates to youth employment in a direct (positive) way.*
- H2: *There is a relationship between the gender of the youth working-age population and youth employment: in the case of male – direct, and female – indirect.*
- H3: *The dependency of the youth working-age population of rural and urban areas and youth employment is direct.*
- H4: *Youth working-age population with disability and youth employment are connected indirectly.*
- H5: *The marital status of youth (single/widowed/divorced or married/union/cohabiting) has a similar relationship with youth employment.*
- H6: *The possibilities of both part-time and full-time working arrangements for the youth working-age population have a positive impact on youth employment.*
- H7: *The working-age population with temporary and permanent job contracts is directly interconnected with youth employment.*

2. METHODS

As there is no single methodology to define the youth age group, the approach of the United Nations was applied, and youth is considered as those persons between the ages of 15 and 24 years (UN, n.d.a). The information base involves the annual statistic indicators of the International Labour Organization for the research sample of 14 countries assigned to the Asia group (ILOSTAT, n.d.b; ILO, 2023b). The following indicators are maximum published over the investigated period for the

last available ten years (2012–2021): youth employment, taking into account aspects of youth working-age population by education levels, rural/urban areas, marital and disability status, time arrangement, and job contract (ILO, 2023a, 2023b, 2023c, 2023d, 2023e, 2023f, 2023g, 2023h).

Correlation analysis allows proving dependencies between some social factors and youth participation in the labor market and also identifies the nature and strength of the influence, taking into account time lags when it becomes significant (Pearson, 1896; Rovine & van Eye, 1997; Stata, n.d.a). Granger causality analysis establishes cause-and-effect dependencies within substantiated relationships (Granger, 1969, 1988; Baum et al., 2022; Stata, n.d.b). STATA 18.0 instruments are used for research calculations.

Time lags also determine when the strength becomes the most significant (Pearson, 1896; Rovine & von Eye, 1997; Stata, n.d.a). The study adopted the following approach to the interpretation of the criteria for evaluating the correlation coefficients: positive value means direct relationship and negative value – indirect relationship; value by modulus from 0 to 0.2 means very weak or no correlation, from 0.2 (including) to 0.4 – weak, from 0.4 (including) to 0.6 – moderate, from 0.6 (including) to 0.8 – strong, and from 0.8 (including) to 1 – very strong correlation (LaMorte, 2021).

Cause-and-effect dependencies are investigated between the youth labor force, in particular, youth employment (E, thousands) (ILO, 2023b) and the following indicators:

- 1) youth working-age population by education (aggregate levels of education) (ILO, 2023f):
 - less than basic (no schooling, early childhood education or pre-primary education) (E_L, thousands);
 - basic (primary education or first stage of basic education, lower secondary or second stage of basic education) (E_B, thousands);
 - intermediate (upper secondary education, post-secondary non-tertiary education) (E_I, thousands);

- advanced (short-cycle tertiary education – first stage of tertiary education (not leading directly to an advanced research qualification); bachelor’s or equivalent level, master’s or equivalent level, doctoral or equivalent level – second stage of tertiary education (leading to an advanced research qualification) (E_A, thousands) (ILOSTAT, n.d.c);
- 2) youth working-age population by gender: male (G_M, thousands) and female (G_F, thousands) (ILO, 2023d);
- 3) youth working-age population by area: rural (A_R, thousands) and urban (A_U, thousands) (ILO, 2023h);
- 4) youth working-age population by disability status: persons with disability (D, thousands) (ILO, 2023e; ILOSTAT, n.d.a);
- 5) youth working-age population by marital status (aggregate status): single/widowed/divorced (M_S, thousands) and married/union/cohabiting (M_M, thousands) (ILO, 2023g);
- 6) youth working-age population by working time arrangement: part-time (T_P, thousands) and full-time (T_F, thousands) (ILO, 2023c);
- 7) youth working-age population by job contract: temporary (C_T, thousands) or permanent (C_P, thousands) contract (ILO, 2023a).

3. RESULTS AND DISCUSSION

The results of correlation analysis are presented in Tables 1-2. Table 1 describes the assessment of dependency between youth employment and youth working-age population differed by four aggregate education levels (less than basic; basic; intermediate and advanced as explained above in the description of the input data), gender, and area-based on Pearson’s correlation coefficients.

Table 2 contains the evaluations of dependency between youth employment and youth working-age population differed by disability, marital status, working time arrangement, and job contract.

Table 1. Assessment of dependency between youth employment and youth working-age population differed by four aggregate education levels, gender, and area

Country	Dependency between E and the following indicators			
	E_L	E_B	E_I	E_A
Azerbaijan	-0.46/0/↓/m	-0.60/0/↓/s	0.40/3/↑/m	0.50/3/↑/m
Cyprus	0.65/0/↑/s	-0.91/3/↓/vs	-0.75/1/↓/s	-0.90/2/↓/vs
Georgia	0.37/1/↑/w	0.85/1/↑/vs	0.63/1/↑/s	0.72/1/↑/s
Indonesia	-0.63/2/↓/s	-0.50/2/↓/m	0.51/3/↑/m	0.57/2/↑/m
Israel	-0.64/2/↓/s	0.72/0/↑/s	0.47/0/↑/m	0.49/0/↑/m
Cambodia	0.87/0/↑/vs	-0.54/0/↓/m	-0.46/0/↓/m	-0.33/2/↓/w
Korea	0.79/2/↑/s	0.86/2/↑/vs	0.82/0/↑/vs	0.94/2/↑/vs
Sri Lanka	0.85/0/↑/vs	0.92/0/↑/vs	-0.86/0/↓/vs	0.75/0/↑/s
Mongolia	0.77/0/↑/s	0.81/3/↑/vs	0.61/2/↑/s	0.51/2/↑/m
Malaysia	0.54/0/↑/m	0.36/3/↑/w	-0.34/0/↓/w	0.59/0/↑/m
Pakistan	0.34/0/↑/w	0.81/0/↑/vs	0.84/0/↑/vs	0.76/0/↑/s
The Philippines	0.40/3/↑/m	0.85/0/↑/vs	-0.85/0/↑/vs	-0.61/3/↓/s
Thailand	0.48/0/↑/m	0.99/0/↑/vs	-0.83/0/↑/vs	-0.96/0/↓/vs
Vietnam	0.94/0/↑/vs	0.87/1/↑/vs	0.84/3/↑/vs	0.34/2/↑/w

Country	G_M	G_F	A_U	A_R
Azerbaijan	-0.47/0/↓/m	-0.54/0/↓/m	0.64/3/↑/s	0.64/3/↑/s
Cyprus	-0.87/2/↓/vs	-0.92/3/↓/vs	-0.25/3/↓/w	-0.91/2/↓/vs
Georgia	0.75/0/↑/s	0.73/0/↑/s	0.72/0/↑/s	0.77/0/↑/s
Indonesia	0.84/2/↑/vs	0.40/0/↑/m	0.62/2/↑/s	-0.66/2/↓/s
Israel	0.60/0/↑/s	0.52/0/↑/m	0.49/0/↑/m	-0.54/3/↓/m
Cambodia	0.57/0/↑/m	0.49/0/↑/m	-0.61/2/↓/s	0.82/0/↑/vs
Korea	0.90/1/↑/vs	0.90/2/↑/vs	0.91/2/↑/vs	0.83/1/↑/vs
Sri Lanka	-0.69/2/↓/s	-0.51/2/↓/m	-0.80/3/↓/vs	-0.72/2/↓/s

Table 1 (cont.). Assessment of dependency between youth employment and youth working-age population differed by four aggregate education levels, gender, and area

Country	Dependency between E and the following indicators			
	G_M	G_F	A_U	A_R
Mongolia	0.69/2/↑/s	0.76/2/↑/s	-0.67/3/↓/s	0.75/2/↑/s
Malaysia	0.41/2/↑/m	0.38/1/↑/w	0.61/3/↑/s	0.85/1/↑/vs
Pakistan	0.86/0/↑/vs	0.89/0/↑/vs	0.82/0/↑/vs	0.80/0/↑/vs
The Philippines	-0.92/2/↓/vs	-0.74/0/↓/s	0.72/0/↑/s	-0.85/3/↓/vs
Thailand	0.98/0/↑/vs	0.98/0/↑/vs	-0.80/0/↓/vs	-0.78/3/↓/s
Vietnam	0.90/2/↑/vs	0.89/1/↑/vs	-0.76/3/↓/s	0.96/2/↑/vs

Note: E – youth employment; E_L – youth working-age population by education (level less than basic); E_B – youth working-age population by education (basic level); E_I – youth working-age population by education (intermediate level); E_A – youth working-age population by education (advanced level); G_M – youth working-age population by gender (male); G_F – youth working-age population by gender (female); A_R – youth working-age population by area (rural); A_U – youth working-age population by area (urban). Correlation coefficient/time lag/nature: ↑ – direct; ↓ – indirect; strength of relationship: * – very weak or no correlation, w – weak, m – moderate, s – strong, vs – very strong.

Table 2. Assessment of dependency between youth employment and youth working-age population differed by disability, marital status, working time arrangement, and job contract

Country	Dependency between E and the following indicators		
	D	M_S	M_M
Azerbaijan	n/a	n/a	n/a
Cyprus	-0.68/3/↓/s	-0.94/2/↓/vs	-0.63/3/↓/s
Georgia	n/a	0.71/0/↑/s	0.73/0/↑/s
Indonesia	-0.86/2/↓/vs	0.46/1/↑/m	-0.54/2/↓/m
Israel	-0.49/0/↓/m	0.53/0/↑/m	-0.23/2/↓/w
Cambodia	0.53/0/↑/m	0.82/0/↑/vs	0.67/0/↑/s
Korea	n/a	0.90/2/↑/vs	0.92/1/↑/vs
Sri Lanka	0.73/1/↑/s	-0.82/3/↓/vs	0.76/0/↑/s
Mongolia	0.82/2/↑/vs	-0.79/0/↓/s	0.85/0/↑/vs
Malaysia	n/a	n/a	n/a
Pakistan	n/a	0.88/0/↑/vs	0.83/0/↑/vs
The Philippines	n/a	-0.88/0/↓/vs	0.64/0/↑/s
Thailand	-0.88/2/↓/vs	-0.57/0/↓/m	0.95/2/↑/vs
Vietnam	n/a	0.89/2/↑/vs	0.94/0/↑/vs

Country	T_P	T_F	C_T	C_P
	Azerbaijan	0.41/0/↑/m	-0.65/0/↓/s	n/a
Cyprus	0.44/3/↑/m	0.98/0/↑/vs	0.69/3/↑/s	0.95/0/↑/vs
Georgia	0.77/2/↑/s	-0.77/2/↓/s	0.75/1/↑/s	-0.63/2/↓/s
Indonesia	-0.78/2/↓/s	0.85/1/↑/vs	0.63/0/↑/s	-0.55/2/↓/m
Israel	0.82/2/↑/vs	0.85/0/↑/vs	-0.30/1/↓/w	-0.28/1/↓/w
Cambodia	0.62/3/↑/s	-0.57/3/↓/m	-0.58/1/↓/m	0.58/0/↑/m
Korea	-0.84/3/↓/vs	0.95/0/↑/vs	0.77/3/↑/s	0.38/0/↑/w
Sri Lanka	0.68/0/↑/s	0.89/0/↑/vs	0.70/0/↑/s	0.65/0/↑/s
Mongolia	0.90/0/↑/vs	0.69/0/↑/s	0.55/2/↑/m	-0.55/2/↓/m
Malaysia	n/a	n/a	n/a	n/a
Pakistan	0.43/1/↑/m	-0.70/2/↓/s	0.55/1/↑/m	-0.58/1/↓/m
The Philippines	0.86/3/↑/vs	0.91/0/↑/vs	0.92/0/↑/vs	0.74/0/↑/s
Thailand	0.61/1/↑/s	0.96/2/↑/vs	n/a	n/a
Vietnam	0.83/3/↑/vs	0.65/1/↑/s	-0.87/3/↓/vs	0.18/0/↑/*

Note: n/a – the data were not available for certain indicators, E – youth employment; D – youth working-age population by disability status (persons with disability); M_S – youth working-age population by marital status (single/widowed/divorced); M_M – youth working-age population by marital status (married/union/cohabiting); T_P – youth working-age population by working time arrangement (part-time); T_F – youth working-age population by working time arrangement (full-time); C_T – youth working-age population by job contract (temporary); C_P – youth working-age population by job contract (permanent). Correlation coefficient/time lag/nature: ↑ – direct; ↓ – indirect; strength of relationship: * – very weak or no correlation, w – weak, m – moderate, s – strong, vs – very strong.

The obtained results contribute to the following conclusions:

- 1) the education of youth working-age population relates to youth employment in a direct (positive) way, mostly without time lag: less than basic level (11 of 14 countries from the research sample, including ten from 11 countries with strengthening of relationship from moderate to very strong mostly without a time lag); basic (10 of 14 countries, 9 of which are characterized by strong and very strong dependency mostly without lag), intermediate (8 of 14 countries with moderate, strong and very strong dependency and mostly 0 or 3-year lag), advanced level (10 of 14 countries, 9 of which are characterized by moderate and strong dependency and mostly 0 or 2-year lag);
- 2) the relationship between male youth working-age population and youth employment is direct, mostly strong, and very strong, with a time lag from 0 to 2 years in 10 of 14 countries; in the case of female, it is also direct, mostly moderate, or very strong without time lag in 10 of 14 countries;
- 3) the dependency of youth working-age population of rural areas and youth employment is direct in 8 of 14 countries, and its strength is mostly strong, time lag varies from 0 to 3 years; in the case of urban areas, the relationship is similar (8 of 14 countries, positive, strong, or very strong, lag is mostly from 0 to 2 years);
- 4) youth working-age population with disability and youth employment are connected indirectly in 4 of 7 countries with available data for this indicator (the strength differs from moderate to very strong, time lag – from 0 to 3 years);
- 5) the interconnection of the marital status of youth (single/widowed/divorced) and youth employment is positive in 7 of 12 countries with available data for this indicator (the strength is mostly very strong, time lag – from 0 to 2 years). And in the case of married/union/cohabiting youth, it is positive with very

strong link too – in 9 of 12 countries (mostly without a time lag);

- 6) part-time working arrangement of the working-age youth population and youth employment is in a direct relationship in 11 of 13 countries (the strength of the link is moderate, strong, and very strong with a lag in time of 0-3 years). Full-time working arrangement of youth has a positive relation with youth employment in 11 of 13 countries (the strength of the link is strong, and very strong with lag in time mostly of 0-1 years);
- 7) youth working-age population with temporary job contracts and youth employment are interconnected by direct nature and moderate and strong strength, which takes place with 0-3-year lag in 8 of 11 countries. In the case of permanent job contracts, the relationship with youth employment is positive in 5 of 10 countries and negative in 5 of 10 countries, with different connection strengths and time lag in both groups, which makes it impossible to draw unambiguous conclusions.

Then, Granger causality analysis is applied to establish cause-and-effect dependencies within substantiated relationships based on the results of building a vector autoregression (Granger, 1969, 1988; Baum et al., 2022; Stata, n.d.b). The detailed results of the Granger test on the example of the first sample's country (Azerbaijan) are formed in Table 3.

The results mean that the lag values of the E_L indicator do not cause the value of E indicator, as $\text{Prob} > \chi^2 = 0.522$, which is more than 0.05. Similarly, the lag values of the E_I and E_A indicators do not cause the value of E indicator because $\text{Prob} > \chi^2$ is also more than 0.05. In turn, the lag values of E_B indicator cause the values of E indicator, given the value of $\text{Prob} > \chi^2 = 0.041$, which does not exceed 0.05. Besides, E is a cause of E_B considering the value of $\text{Prob} > \chi^2 = 0.026$, and there is a bidirectional causality of E_B and E indicators. Guided by this algorithm, it was also established the unidirectional causality of G_M and E (G_M is a cause of E), and between G_F and E (G_F is a cause of E), and E and A_U (E is a cause of A_U).

Table 3. The estimation of Granger causality in the case of the first sample's country (Azerbaijan)

Equation	Excluded	chi2	df	Prob > chi2
Causality between E and E_L, E_B, E_I and E_A				
E	E_L	.41026	1	0.522
E	E_B	4.1852	1	0.041
E	E_I	.79209	1	0.373
E	E_A	.20302	1	0.652
E_L	E	.33191	1	0.565
E_B	E	4.9777	1	0.026
E_I	E	3.6923	1	0.055
E_A	E	1.0454	1	0.307
Causality between E and G_M and G_F				
E	G_M	22.822	1	0.000
E	G_F	22.023	1	0.000
G_M	E	6.2775	1	0.012
G_F	E	3.7494	1	0.053
Causality between E and A_U and A_R				
E	A_U	.00213	1	0.963
E	A_R	.05426	1	0.816
A_U	E	9.4969	1	0.002
A_U	A_R	.41035	1	0.522
Causality between E and D				
n/a				
Causality between E and M_S and M_M				
n/a				
Causality between E and T_P and T_F				
E	T_P	.98288	1	0.321
E	T_F	.98766	1	0.320
T_P	E	.45431	1	0.500
T_F	E	.45459	1	0.500
Causality between E and C_T and C_P				
n/a				

Note: E – youth employment; E_L – youth working-age population by education (level less than basic); E_B – youth working-age population by education (basic level); E_I – youth working-age population by education (intermediate level); E_A – youth working-age population by education (advanced level); G_M – youth working-age population by gender (male); G_F – youth working-age population by gender (female); A_R – youth working-age population by area (rural); A_U – youth working-age population by area (urban); D – youth working-age population by disability status (persons with disability); M_S – youth working-age population by marital status (single / widowed / divorced); M_M – youth working-age population by marital status (married / union / cohabiting); T_P – youth working-age population by working time arrangement (part-time); T_F – youth working-age population by working time arrangement (full-time); C_T – youth working-age population by job contract (temporary); C_P – youth working-age population by job contract (permanent).

The Granger causality test and its interpretation were made for all countries from the research sample. The generalized results are formed in Table 4.

The greatest causal effect of the studied factors occurs according to the indicator of the youth working-age population depending on educational levels. Basic educational level is a cause of positive changes in youth employment in 4 countries. At the same time, youth employment is a cause of positive changes in the youth

working-age population with basic education in 8 countries, including three countries with bidirectional causality. Similar tendencies take place in cases of other educational levels.

Gender composition influences youth employment in 4 countries (Azerbaijan, Israel, the Philippines, and Thailand). The working-age population with disability positively impacts youth employment only in Shri-Lanka and Mongolia. However, there was no data available for analysis of the working-age population with

Table 4. The cross-country generalized results of the Granger causality test

Country	Causality between E and the following indicators:						
	E_L, E_B, E_I and E_A	G_M and G_F	A_U and A_R	D	M_S and M_M	T_P and T_F	C_T and C_P
Azerbaijan	E_B↔E	G_M→E G_F→E	E→A_U	n/a	n/a	–	n/a
Cyprus	E_B↔E E_I→E E_A↔E	–	A_R→E	–	M_S↔E	E→T_P	C_T↔E C_P→E
Georgia	E→E_B E→E_A	–	–	n/a	M_S→E M_M→E	T_P↔E T_F↔E	C_T→E
Indonesia	E_A→E	–	–	–	–	T_F↔E T_P↔E	C_P→E
Israel	E_L↔E E_B↔E E_I↔E E→E_A	G_M→E G_F→E	A_U↔E A_R→E	–	E→M_S	E→T_P	C_T→E C_P→E
Cambodia	E→E_L E→E_A	–	–	–	–	E→T_P E→T_F	E→C_T E→C_P
Korea	E_L→E E_A↔E E→E_I	–	A_U↔E	n/a	M_M↔E E→M_S	E→T_P	C_T→E C_P→E
Sri Lanka	E_L→E E_B→E E_I→E E→E_A	–	–	D→E	–	T_P→E	C_T→E C_P→E
Mongolia	E→E_I	–	E→A_U	D→E	–	–	C_P→E
Malaysia	E→E_B E→E_I E→E_A	–	–	n/a	n/a	n/a	n/a
Pakistan	E→E_L E→E_B E→E_I	–	E→A_U	n/a	–	–	–
The Philippines	–	G_M→E G_F→E	E→A_U	n/a	E→M_S E→M_M	T_P→E T_F↔E	E→C_T
Thailand	E→E_B E→E_A	G_M→E G_F→E	E→A_R	–	M_S→E M_M→E	T_F→E	n/a
Vietnam	E→E_B E→E_I	–	–	n/a	–	T_P→E	n/a

Note: n/a – the data were not available for certain indicator; – – the causality was not confirmed; E – youth employment; E_L – youth working-age population by education (level less than basic); E_B - youth working-age population by education (basic level); E_I – youth working-age population by education (intermediate level); E_A – youth working-age population by education (advanced level); G_M – youth working-age population by gender (male); G_F – youth working-age population by gender (female); A_R – youth working-age population by area (rural); A_U – youth working-age population by area (urban); D – youth working-age population by disability status (persons with disability); M_S – youth working-age population by marital status (single / widowed / divorced); M_M – youth working-age population by marital status (married / union / cohabiting); T_P – youth working-age population by working time arrangement (part-time); T_F – youth working-age population by working time arrangement (full-time); C_T – youth working-age population by job contract (temporary); C_P – youth working-age population by job contract (permanent). The arrow indicates the causal direction of influence.

disability for most countries from the research sample.

Youth employment is a cause of the youth working-age population in urban areas (in 6 countries) more than in rural areas. Youth working-age population in rural areas causes youth employment in Cyprus and Israel, and in urban areas – in Israel and Korea.

The marital status of youth (single/widowed/divorced) is a cause of youth employment in Cyprus, Georgia, and Thailand. In turn, married/union/cohabiting youth contribute to youth employment in Georgia, Korea, and Thailand. At the same time, employment is a reason of single marital status in Israel and the Philippines.

Part-time working arrangements influence youth employment more than full-time working ar-

rangements. However, the reverse causality also occurs in many countries, and youth employment contributes to both working arrangements. Moreover, permanent job contracts are the courses of youth employment in more countries than temporary job contracts.

The study confirmed hypotheses in the following way. It was proved that the education of the working-age population (all aggregate levels) relates to youth employment in a direct (positive) way based on correlation analysis. However, Granger causality shows that it is a cause of youth employment not in all countries, and bidirectional causality takes place in some countries.

The hypothesis about the relationship between the gender of youth working-age population and youth employment (in the case of male – direct, and female – indirect) was partly confirmed. It was determined that in the case of female youth within the working-age population, there is a direct correlation, too. At the same time, according to causal analysis, gender is a cause of youth employment only in 4 countries.

The study proved the direct dependency of the youth working-age population in rural and urban areas and youth employment. However, the working-age population in rural areas causes youth employment only in 2 countries, as well as in urban areas. Youth employment is a cause of the youth working-age population in urban areas (in 6 countries) more than in rural areas.

The paper showed that the working-age population with disability and youth employment are connected indirectly. At the same time, the causality of the working-age population with disability was grounded only in Shri-Lanka and Mongolia.

It was also confirmed that the marital status of youth (single/widowed/divorced or married/union/cohabiting) has a similar relationship with youth employment. Moreover, in many countries, the impact is bidirectional.

The possibilities of both part-time and full-time working arrangements of the youth working-age population in the context of youth employment were proved, too, with the emphasis on the re-

verse causality in many countries due to which youth employment contributes to both working arrangements.

The hypothesis about the youth working-age population with temporary and permanent job contracts interconnected with youth employment by direct nature was partly confirmed (an equal number of direct and indirect correlation relationships makes it impossible to draw unambiguous conclusions). Moreover, it was proved that permanent job contracts are the courses of youth employment in more countries than temporary job contracts.

Nevertheless, the study contains some limitations. Firstly, the period was taken over the last ten years, and in further studies, it can be expanded to increase the validity of the obtained results. Secondly, the sample of countries was also limited based on the lack of published data on the studied indicators for the entire group of Asian countries. At the same time, it is appropriate to investigate other countries by geo-political groups and income level.

Despite this, the results of the study are based on the analysis of 16 indicators for 14 countries over the last ten years. For example, Bekenova (2022) paid attention to youth unemployment in Kazakhstan and analyzed economic and demographic factors, but in the case of only one country. However, this study relates to the group of Asia countries. The study was aimed at a wide selection of factors with an emphasis on social issues. In return, Zubović et al. (2015) described factors related to the overall unemployment rate, demographic factors, and the employee income tax rate in the context of regulation of youth unemployment in EU countries and pay the most attention to income tax. Jongh (2018) also investigated some factors affecting youth employment, but other ones on another base, in particular, the Emfuleni and Metsimaholo local municipal areas, using the method of a self-administered questionnaire. In turn, this paper is based on cross-country analysis, so the results are enough representative.

This study described temporary job contracts and part-time employment but within the proposed seven hypotheses and a wider list of influencing factors. Watson (2020) studied employment and

employment conditions, including underemployment and casual employment. Alçın et al. (2021) considered education a critical factor in improving youth employment and reducing youth unemployment by examining the relationship between youth unemployment and education in Turkey and Spain using Johansen cointegration tests. Their results indicate no unidirectional causal re-

lationship between enrolment in higher education and youth unemployment and that increasing the higher education level does not reduce youth unemployment. In return, this paper is based on other methods, particularly the Granger test, and examines the relationship between different education levels within youth and employment. The research sample also consists of only 14 countries.

CONCLUSION

The research aim was to determine social factors in the management of youth participation in the labor market in Asia based on causal analysis. As a result of the investigation, it was proved that the greatest causal effect on youth employment for the studied countries' group was identified for the factor of educational level. Urbanization plays a significant role in Cyprus, Israel, and Korea. The social factor of disability is a cause of youth employment in Shri-Lanka and Mongolia.

The relationship between the number of men and women in the youth working-age population and youth employment is direct for males and females; therefore, the traditional hypothesis in Asian countries regarding the inverse relationship between the number of young women and the level of employment was rejected. This factor influences youth employment in Azerbaijan, Israel, the Philippines, and Thailand. The social factor of marital status of youth was identified as a cause of youth employment in Cyprus, Georgia, Korea, and Thailand.

It was also concluded that part-time working arrangements influence youth employment in more countries with more strength than full-time working arrangements. Moreover, permanent job contracts cause youth employment in more countries than temporary ones.

The results obtained should be used to form directions for managing youth participation in the labor market in the context of improving the state's social, educational, and youth policies. For future research, some limitations should be considered, so the studied period should be expanded, as the sample of countries should include other geo-political and income-level groups.

AUTHOR CONTRIBUTIONS

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REFERENCES

1. Alçın, S., Şahin, B. E., & Hamzaoglu, M. (2021). Analysis of the relationship between education and youth unemployment: Evidences from Turkey and Spain. *Journal of Life Economics*, 8(2), 185-192. <http://doi.org/10.15637/jlecon.8.2.04>
2. Baum, C. F., Hurn, S., & Otero, J. (2022). Testing for time-varying Granger causality. *Stata Journal*, 22(2), 355-378. <https://doi.org/10.1177/1536867X221106403>
3. Bekenova, A. (2022). Factors influencing youth unemployment in Kazakhstan. *International Journal of Civil Service Reform and Practice*, 7(1). Retrieved from <https://www.astanahubjournal.org/index.php/ijcsr/article/view/161>
4. Beyi, W. A. (2022). Visibility profession: Managing the position, communication or the public? *SocioEconomic Challenges*, 6(4), 116-128. [https://doi.org/10.21272/sec.6\(4\).116-128.2022](https://doi.org/10.21272/sec.6(4).116-128.2022)
5. Bhandari, M. P. (2023). The fundamental principles of social sciences. *Business Ethics and Leadership*, 7(2), 73-86. [https://doi.org/10.21272/bel.7\(2\).73-86.2023](https://doi.org/10.21272/bel.7(2).73-86.2023)
6. Didenko, I., Petrenko, K., & Pudlo, T. (2023). The role of financial literacy in ensuring financial inclusion of the population. *Financial Markets, Institutions and Risks*, 7(2), 72-79. [https://doi.org/10.21272/fmir.7\(2\).72-79.2023](https://doi.org/10.21272/fmir.7(2).72-79.2023)
7. Didenko, I., Volik, K., Vasylieva, T., Lyeonov, S., & Antoniuk, N. (2021). Environmental migration and country security: Theoretical analysis and empirical research. *E3S Web of Conferences*, 234. <https://doi.org/10.1051/e3s-conf/202123400010>
8. Didenko, I., Volik, K., Vasylieva, T., Lyeonov, S., & Antoniuk, N. (2020). Migration, environment, and country safety: Analysis of touchpoints. *E3S Web of Conferences*, 234. <https://doi.org/10.1051/e3sconf/202020203028>
9. Dotsenko, T., Dvořák, M., Lyeonov, S., & Kovács, A. (2023). Socially relevant factors of organizational mortality of enterprises: Context of corporate sustainability in European countries. *Economics & Sociology*, 16(1), 284-299. <https://doi.org/10.14254/2071-789X.2023/16-1/18>
10. Gentle, P. F. (2023). Issues concerning social security, medicare and the national debt. *Health Economics and Management Review*, 4(2), 24-30. <https://doi.org/10.21272/hem.2023.2-02>
11. Granger C. W. J. (1988). Some recent development in a concept of causality. *Journal of Econometrics*, 39(1-2), 199-211. [https://doi.org/10.1016/0304-4076\(88\)90045-0](https://doi.org/10.1016/0304-4076(88)90045-0)
12. Granger, C. W. J. (1969). Investigating causal relations by econometric models and cross-spectral methods. *Econometrica: Journal of the Econometric Society*, 37(3), 424-438. <https://doi.org/10.2307/1912791>
13. Grmanová, E., & Ivanová, E. (2021). Working time flexibility in the EU countries. *Problems and Perspectives in Management*, 19(4), 338-351. [https://doi.org/10.21511/ppm.19\(4\).2021.27](https://doi.org/10.21511/ppm.19(4).2021.27)
14. Guedjali, A. (2023). Careers of Algerian women managers: The psychological drivers of discrimination in professional careers. *Business Ethics and Leadership*, 7(2), 1-8. [https://doi.org/10.21272/bel.7\(2\).1-8.2023](https://doi.org/10.21272/bel.7(2).1-8.2023)
15. ILOSTAT. (n.d.a). *The ILOSTAT database Disability Labour Market Indicators (DLMI)*. Retrieved from <https://ilostat.ilo.org/resources/concepts-and-definitions/description-disability-labour-market-indicators/>
16. ILOSTAT. (n.d.b). *Country groupings used for ILO modelled estimates*. Retrieved from <https://ilostat.ilo.org/resources/concepts-and-definitions/classification-country-groupings/>
17. ILOSTAT. (n.d.c). *The Education and Mismatch Indicators (EMI) database*. Retrieved from <https://ilostat.ilo.org/resources/concepts-and-definitions/description-education-and-mismatch-indicators/>
18. International Labour Organization (ILO). (2018). *Decent work and the sustainable development goals: A guidebook on SDG labour market indicators*. Geneva: ILO. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_647109.pdf
19. International Labour Organization (ILO). (2022a). *Asia – Pacific Employment and Social Outlook 2022: Rethinking sectoral strategies for a human-centred future of work*. Geneva: ILO. <https://doi.org/10.54394/EQNI6264>
20. International Labour Organization (ILO). (2022b). *Youth not in employment, education or training in Asia and the Pacific: Trends and policy considerations*. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_860568.pdf
21. International Labour Organization (ILO). (2023a). *Employees by sex, age and temporary or permanent contract (thousands) – Annual*. Retrieved from https://www.ilo.org/shinyapps/bulk-explorer12/?lang=en&id=EES_TEES_SEX_AGE_JOB_NB_A
22. International Labour Organization (ILO). (2023b). *Employment by sex and age (thousands) – Annual*. Retrieved from https://www.ilo.org/shinyapps/-&id=EMP_TEMP_SEX_AGE_NB_A
23. International Labour Organization (ILO). (2023c). *Employment by sex, age and working time arrangement (thousands) – Annual*. Retrieved from https://www.ilo.org/shinyapps/en&id=EMP_TEMP_SEX_AGE_JOB_NB_A
24. International Labour Organization (ILO). (2023d). *Working-age population by sex and age (thousands) – Annual*. Retrieved from https://www.ilo.org/shinyapps/bulk-explorer31/?lang=en&id=POP_XWAP_SEX_AGE_NB_A
25. International Labour Organization (ILO). (2023e). *Working-*

- age population by sex, age and disability status (thousands) – Annual. Retrieved from https://www.ilo.org/shinyapps/bulkexplorer58/?lang=en&id=POP_XWAP_SEX_AGE_DSB_NB_A
26. International Labour Organization (ILO). (2023f). *Working-age population by sex, age and education (thousands) – Annual*. Retrieved from https://www.ilo.org/shinyapps/bulkexplorer9/?lang=en&id=POP_XWAP_SEX_AGE_EDU_NB_A
 27. International Labour Organization (ILO). (2023g). *Working-age population by sex, age and marital status (thousands) – Annual*. Retrieved from https://www.ilo.org/shinyapps/bulkexplorer17/?lang=en&id=POP_XWAP_SEX_AGE_MTS_NB_A
 28. International Labour Organization (ILO). (2023h). *Working-age population by sex, age and rural / urban areas (thousands) – Annual*. Retrieved from https://www.ilo.org/shinyapps/bulkexplorer18/?lang=en&id=POP_XWAP_SEX_AGE_GEO_NB_A
 29. Isik, A. (2022). The most common behavioural biases among young adults in Bristol, UK and Istanbul. *Financial Markets, Institutions and Risks*, 6(1), 27-39. [https://doi.org/10.21272/fmir.6\(1\).27-39.2022](https://doi.org/10.21272/fmir.6(1).27-39.2022)
 30. Jongh, J. D. (2018). Factors affecting youth employment: An analysis of the Emfuleni and Metsimaholo local municipal areas. *Proceedings of the 2nd International Conference Contemporary Issues in Theory and Practice of Management CITPM-2018* (pp. 78-85). Czestochowa, Poland. Retrieved from https://www.researchgate.net/publication/325416128_Factors_affecting_youth_employment_An_analysis_of_the_Emfuleni_and_Metsimaholo_local_municipal_areas#fullTextFileContent
 31. Kalu, E.U., Achike, C., Ogbo, A., & Ukpere, W. (2020). Economic growth and unemployment linkage in a developing economy: A gender and age classification perspective. *Problems and Perspectives in Management*, 18(4), 527-538. [https://doi.org/10.21511/ppm.18\(4\).2020.42](https://doi.org/10.21511/ppm.18(4).2020.42)
 32. Khushk, A., Ihsan Dacholfany, M., Abdurohim, D., & Aman, N. (2022). Social learning theory in clinical setting: Connectivism, constructivism, and role modeling approach. *Health Economics and Management Review*, 3(3), 40-50. <https://doi.org/10.21272/hem.2022.3-04>
 33. Kuzior, A., Zhuchenko, S., Samoilikova, A., Vasylieva, T., & Brożek, P. (2022). Changes in the system of country's population health care depending on the level of providing affordable housing. *Problems and Perspectives in Management*, 20(3), 215-232. [https://doi.org/10.21511/ppm.20\(3\).2022.18](https://doi.org/10.21511/ppm.20(3).2022.18)
 34. LaMorte, W. W. (2021, April 21). *Correlation and regression. Evaluating association between two continuous variables*. Boston University School of Public Health. Retrieved from <https://sphweb.bumc.bu.edu/otlt/MPH-Modules/PH717-QuantCore/PH717-Module9-Correlation-Regression/PH717-Module9-Correlation-Regression4.html>
 35. Lopushniak, H., Marshavin, Y., Kytsak, T., Iastremska, O., & Nikitin, Y. (2021). Modernization of social dialogue as an imperative for developing social responsibility by business organizations in Ukraine. *Problems and Perspectives in Management*, 19(1), 487-498. [https://doi.org/10.21511/ppm.19\(1\).2021.41](https://doi.org/10.21511/ppm.19(1).2021.41)
 36. Lyeonov, S., Bilan, S., Yarovenko, H., Ostasz, G., & Kolotilina, O. (2021a). Country's health profile: Social, economic, behavioral and healthcare determinants. *Economics & Sociology*, 14(3), 322-340. <https://doi.org/10.14254/2071-789X.2021/14-3/17>
 37. Lyeonov, S., Vasilyeva, T., Bilan, Y., & Bagmet, K. (2021b). Convergence of the institutional quality of the social sector: The path to inclusive growth. *International Journal of Trade and Global Markets*, 14(3), 272-291. <https://doi.org/10.1504/IJTGM.2021.115712>
 38. Madej-Kurzawa, I., Pieczarka, K., & Węgrzyn, G. (2021). Professional and educational activity of youth in the digital economy. *Problems and Perspectives in Management*, 19(3), 175-184. [https://doi.org/10.21511/ppm.19\(3\).2021.15](https://doi.org/10.21511/ppm.19(3).2021.15)
 39. Mujtaba, B. G., & Kaifi, B. (2023). Safety audit considerations for a healthy workplace that puts “people before profit” and OSHA compliance. *Health Economics and Management Review*, 4(1), 11-25. <https://doi.org/10.21272/hem.2023.1-02>
 40. Nwafor, B. C., & Eguruze, E. S. (2022). Entrepreneurial intention without a supportive and enabling leadership environment exacerbates global poverty: A perspective from young people and community organisations. *Business Ethics and Leadership*, 6(3), 92-104. [https://doi.org/10.21272/bel.6\(3\).92-104.2022](https://doi.org/10.21272/bel.6(3).92-104.2022)
 41. Oe, H., & Yamaoka, Ya. (2023). Gender-neutral perceptions and toy purchasing behaviour: A socio-cultural transition in UK Millennials' attitudes. *SocioEconomic Challenges*, 7(1), 15-30. [https://doi.org/10.21272/sec.7\(1\).15-30.2023](https://doi.org/10.21272/sec.7(1).15-30.2023)
 42. Pearson, K. (1896). Mathematical contributions to the theory of evolution – III. Regression, heredity, and panmixia. *Philosophical Transactions of the Royal Society of London, Series A*, 187, 253-318. <https://doi.org/10.1098/rsta.1896.0007>
 43. Rovine, M. J., & von Eye, A. (1997). A 14th way to look at the correlation coefficient: Correlation as the proportion of matches. *The American Statistician*, 51(1), 42-46. <https://doi.org/10.1080/00031305.1997.10473586>
 44. Saher, L., Vakulenko, I., Shevchenko, K., Bondarenko, Y., & Lyulyov, O. (2022). Bibliometric and retrospective analysis on economic behavior for inclusive growth. *Financial Markets, Institutions and Risks*, 6(2), 102-111. [https://doi.org/10.21272/fmir.6\(2\).102-111.2022](https://doi.org/10.21272/fmir.6(2).102-111.2022)
 45. Smiiianov, V. A., Vasilyeva, T. A., Chygryn, O. Y., Rubanov, P. M., & Mayboroda, T. M. (2020). Socio-economic patterns of labor market functioning in the public health: Challenges connected with

- Covid-19. *Wiadomosci Lekarskie*, 73(10), 2181-2187. <https://doi.org/10.36740/WLek202010114>
46. Stata (n.d.a). *Correlations of variables. Manuals*. Retrieved from <https://www.stata.com/manuals/rcorrelate.pdf>
47. Stata (n.d.b). *Pairwise Granger causality tests after var or svar. Manuals*. Retrieved from <https://www.stata.com/manuals/tsvar-granger.pdf>
48. Tiutiunyk, I. V., Zolkover, A. O., Lyeonov, S. V., & Ryabushka, L. B. (2022). The impact of economic shadowing on social development: challenges for macroeconomic stability. *Naukovyi Visnyk Natsionalnoho Hirnychoho Universytetu*, 2022(1), 183-191. <https://doi.org/10.33271/nvngu/2022-1/183>
49. United Nations (UN). (n.d.a). *Youth. Global issues*. Retrieved from <https://www.un.org/en/global-issues/youth#:~:text=There%20is%20no%20universally%20agreed,of%2015%20and%2024%20years>
50. United Nations (UN). (n.d.b). *Decent jobs for youth: The global initiative to scale up action and impact on youth employment*. Retrieved from <https://sdgs.un.org/partnerships/action-networks/decent-jobs-for-youth>
51. Vasilyeva, T., Kuzmenko, O., Bozhenko, V., & Kolotilina, O. (2019). Assessment of the dynamics of bifurcation transformations in the economy. *SHS Web of Conferences*, 65. <https://doi.org/10.1051/shsconf/20196504006>
52. Vidic, F. (2022). Knowledge asset as competitive resource. *SocioEconomic Challenges*, 6(4), 8-20. [https://doi.org/10.21272/sec.6\(4\).8-20.2022](https://doi.org/10.21272/sec.6(4).8-20.2022)
53. Watson, I. (2020). The youth labour market: From education to work before and after the global financial crisis. *Journal of Industrial Relations*, 62(1), 33-57. <https://doi.org/10.1177/0022185619843959>
54. Zhuchenko, S., Kubaščíkova, Z., Samoilkova, A., Vasylieva, T., & D'yakonova, I. (2023). Economic growth and housing spending within social protection: Correlation and causal study. *Public and Municipal Finance*, 12(1), 73-85. [https://doi.org/10.21511/pmf.12\(1\).2023.07](https://doi.org/10.21511/pmf.12(1).2023.07)
55. Zubović, J., Zdravković, A., & Pavlović, D. (2015). Effects of regulation on youth unemployment: Evidence from European countries. *Industrija*, 43(2), 129-143. <http://doi.org/10.5937/industrija43-8483>