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Relationship between Informal Employment and Socio-Economic Development in Russian Regions

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Abstract. The relevance of the study is due to the prevalence and long-lasting nature of informal employment practices among the Russian population, as well as the ambiguity of their social and economic implications. The article presents the results of a multidimensional statistical analysis of socio-economic processes in the regions of Russia for 2018 and 2020. The empirical base includes a system of indicators we formed according to Rosstat data. More than 100 variables characterizing the state of the regions have been tested: macroeconomic conditions, labor market, standard of living and quality of life, human capital, and demographic development. According to the calculated factor models for 2018 and 2020, two key components are identified, which we interpret as integral indicators characterizing the intensity of various manifestations of unemployment and informal employment in Russian regions. Further, on the basis of correlation analysis, we show the nature of the interrelationships of the integral indicator (factor) "informal employment" with key macro indicators of regional development. There is a close relationship between informal employment and indicators of economic growth, investment, consumption and income levels, and the lack of connection with indicators of the social sphere. We also classify regions according to indicators of informal employment and analyze the (non)stability of the composition of groups over time and their relationship with the dynamics of regions' socio-economic development. The novelty of the study consists in an attempt to find hidden patterns and features of manifestation of informal employment in regions and assess their stability over time. The value of the results obtained lies in clarifying the nature of the interrelationships between the specifics of socio-economic development of territories and informal employment models; and also, in designing the approaches to assessing its social and economic effects and identifying regional specifics.

Key words: informal employment, economic development, social development, factor model, region.

Introduction

Informal employment covers a significant part of the country's working population.

According to the research center of the company Zarplata.ru, in 2022, 21% of respondents received part of their salary in an envelope, and 6% of respondents received their full salary in an envelope[1]. Rosstat data show that the fund of hidden labor remuneration in 2022 amounted to more than 19% of the total wages of hired workers[2]. This is still a high rate, despite being down from previous periods (25.9% in 2019)[3]. Data from the Russian State University for Social Sciences (Toshchenko, 2018) confirm that almost half (49.6%) of the working population is constantly or occasionally looking for sources of additional income, with income from

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[1] Who in Russia most often receives an envelope wage? *Vesti Podmoskov'ya*. Available at: https://vmo24.ru/news/opros_6_rossiyan_poluchayut_zarplatu_v_konverte (accessed: November 12, 2023).

The survey was conducted by the research center of the company Zarplata.ru from April 21 to 27, 2022. The number of Russians polled was 1,780.

[2] Expert assesses the amount of envelope wages paid in Russia. *Rossiiskaya gazeta*. Available at: https://rg.ru/2023/04/28/ekspert-ocenil-masshtaby-vyplaty-zarplat-v-konvertah-v-rossii.html (accessed: November 12, 2023).

[3] Economists estimate the number of Russians who receive money under the able. *RBK*. Available at: https://www.rbc.ru/economics/10/12/2019/5dee50109a79474ae5293e3d?from=copyhttps://www.rbc.ru/economics/10/12/2019/5dee50109a79474ae5293e3d (accessed: November 12, 2023).

secondary employment most often being unofficial. These findings suggest a deficiency in regulating the labor market and social and labor relations.

However, workers may perceive informal employment as a positive option (From precarious employment..., 2022). For example, two studies in Russia 10 years apart reveal the same results: employees registered under the Russian Labor Code are more likely to experience job instability and uncertainty compared to those who are not registered; conversely, workers with experience in informal and unstable employment have adapted to uncertainty and developed a certain level of immunity to the fear of job loss (Sinyavskaya, 2005; Avdeev et al., 2021). Moreover, informal employment can provide the worker with some valuable subjectively significant advantages that are difficult to obtain in formal employment (Baimurzina, Turakaev, 2021; Burkhanova et al., 2018). Thus, there is a contradiction between benefits (and opportunities) for some subjects of labor relations and risks (and foregone benefits) for others. Along with this, experts unanimously believe that in the long term, informal employment has adverse consequences, including alienation of people from the state and society, decreased trust in institutions, dehumanization and de-intellectualization of the population, etc.

The relationship between informal employment and the level of development of territories is also ambiguous. First, it exists to a greater or lesser extent in all countries and regions. While in less developed societies it occurs predominantly in traditional forms of small-scale domestic and rural employment and handicrafts, in developed societies it occurs in more advanced activities, including those that use modern digital technologies (Kubishin, 2022). Informal employment can serve as a transitional state for new types of employment, professions, a field for testing new modes of work, which, being institutionalized in social practices, gradually move into the category of legal norms

(e.g., remote employment, flexible work modes, platform work). Second, there is no "sufficient reason to believe that formalization definitely improves or worsens the socio-economic situation of the country [region]" (Barsukova, 2017). As demonstrated later, informal employment can either promote or hinder development depending on the context. Regional labor markets are known to be significantly differentiated (Oshchepkov, Kapelyushnikov, 2015) due to various factors such as socio-economic, natural-climatic, and socio-cultural. This, in turn, cannot but affect the specifics of informal employment.

Informal employment is a widespread social phenomenon characterized by long-lasting nature; it has given rise to new forms and types of work due to the digitalization of the economy and labor relations. At the same time, there is a lack of relevant data on this topic. In this regard, the study of the diversity and structure of informal employment (professional and qualification, socio-demographic, sectoral, etc.), as well as the factors contributing to its development (objective and subjective; general and specific) in the regions of Russia become important areas of research. Additionally, a system of indicators should be created to monitor changes in the informal labor market, to identify regional specifics and improve employment management. No less important is the development of approaches to the assessment of social and economic effects.

The article presents the results of the factor analysis of socio-economic processes in Russian regions for 2018 and 2020; the integral indicator of population involvement in informal employment is identified as one of the main components, the interrelations of the selected factor with key macro-indicators of regional development are characterized.

The scientific problem solved in this paper is an attempt to find hidden regularities and features of the manifestation of informal employment in the

regions and to assess their sustainability over time. The significance of the obtained results lies in the clarification of the nature of interrelations between the specifics of socio-economic development of territories and models of informal employment; development of approaches to assessing its social and economic effects, identification of regional specifics.

Current state of research

The problem of studying informal economic relations began to take shape in the middle of the twentieth century. J. Boeke in the early 1950s noted the phenomenon of "dual economy" (Boeke, 1953). Then K. Geertz proposed a division into "bazaar-economy" and "firm-centered economy" (Geertz, 1963). He characterized the first as labor-intensive, low-productivity, small-scale and low-margin, while the second conversely was more efficient, capital-intensive, with higher labor productivity. The problem of "informality" gradually matured in the scientific community, acquiring increasingly clear contours.

The classic authors of modern approaches to the study of informal employment are C. Hart, who introduced the term "informal sector" (structural approach) (Hart, 1973), and D. North, the author of the institutional approach, who distinguished formal and informal institutions-regulators of economic relations (Douglas, 1997). Among the fundamental works are also the works of the Peruvian scientist and politician H. de Soto (Soto, 1989), who explained the reasons for the growth of the shadow sector by excessive bureaucratic organization of the legal sector, therefore, some researchers call his approach legalistic.

Gradually, the informal economy, initially associated with underdevelopment, expanded its conceptual framework and transformed into a "basic component" of both developing and developed economies of the world, differing across countries "not only in scale, but also in form, causality, and social composition of those involved" (Barsukova, 2012). In modern Russian literature on informal employment, the most well-known studies are those of V.E. Gimpelson and R.I. Kapelyushnikov (Non-standard employment..., 2006), S.Y. Barsukova (Barsukova, 2017), V.V. Radaev (Barsukova, Radaev, 2012), D.O. Strebkov, A.V. Shevchuk et al.

Study of mutual influence of informal employment indicators and socio-economic development of territories

The analysis of studies examining the relationship between the indicators of informal employment and socio-economic development of territories indicates that the results depend on many reasons: socio-economic context, level of development, institutional and socio-cultural characteristics of the society (country, region) under consideration. For instance, a study using panel data for 20 developing countries for 2011−2019 shows that employment in the informal sector has a positive effect on economic growth (Sultana et al., 2022). However, in terms of labor productivity, informally employed workers are 22–25% inferior to the corporate sector (Uzyakova, 2022).

China's significant economic growth is also largely attributed to labor market deregulation and the increase in informal employment, such as self-employment, odd and short-time work, hourly wages, etc. (Meng, 2012). However, the impact of informal labor relations on workers does not lead to such positive consequences. Studies show that in China, for example, it penalizes 44% of wages for urban residents and 33% for rural residents (Wang et al., 2016).

Studies reveal the positive impact of informal employment on socio-economic inequality: its ability to reduce the values of the Gini coefficient and, consequently, income inequality is confirmed (Bhattacharya, 2011; Costas et al., 2015). Numerous studies demonstrate a negative correlation between inflation and informal employment; specifically, an increase in informal employment leads to a decrease in inflation and vice versa (Zubaidullina, Akchurina,2023; Çelik et al., 2021).

However, the negative impact of informal employment on the subjective well-being and health of workers has been noted (Aronsson et al., 2023; Batool et al., 2015; Hurtado et al., 2017), which in many cases is due to the absence of social guarantees. There is a statistically significant relationship between involvement in the informal labor market and poverty risks (Biryukova et al., 2022).

The impact of informal employment on labor market indicators in Russia was studied using data on 83 regions for 2006–2020 (Karpushkina et al., 2021). It is revealed that the instability of the labor market is due to a higher level of employment in the informal sector. The study of the impact of this parameter on public finances has shown that in the regions with a high share of informal employment (over 50%) the budgets of the constituent entities of the Russian Federation receive almost 25 times less taxes, fees and other payments (Salin, Narbut, 2017).

The probability that a worker will be employed informally is found to be lower in regions with better public administration efficiency and higher average education level of the population (Jonasson, 2012).

Research methodology

In general, the assessment of informal employment is a rather difficult task. First of all, this is due to the difficulties in fixing the processes of informal employment, which are poorly amenable to state, statistical accounting. Nevertheless, a large amount of data has now been accumulated on the basis of statistical measurements that characterize informal employment in one way or another. Among them we can distinguish directly statistical indicators (unemployment rate, coefficient of tension in the labor market, etc.), as well as data obtained through sample observations, reflecting the qualitative characteristics of this type of employment (form, conditions of employment and other indicators). However, these indicators characterize separate aspects of informal employment and do not allow assessing it comprehensively.

As part of the research task implementation, we formed a database of statistical data and social indicators of Rosstat for all constituent entities of the Russian Federation in the statistical package for data analysis IBM SPSS Statistics. The aim was to identify the impact of socio-economic indicators on the prevalence and severity of informal employment in the regions of Russia. The indicators included various economic and demographic processes, as well as indicators of the development of social infrastructure and the labor market.

The database comprises macroeconomic indicators that characterize the level of socio-economic development of the regions (38 indicators), labor market indicators (54), including characteristics of informal employment, and indicators of human capital and demographic development of the regions (18) for 2018 and 2020. The labor market indicator system includes data from Rosstat's official statistics, the sample labor force survey (LFS) results, and the comprehensive monitoring of living conditions (KOUZH), which we consider as subjective assessments of the quality of employment in the regions. The system of indicators on the labor market contains data from official statistics of Rosstat, the results of the sample labor force survey (LFS), as well as the results of the comprehensive monitoring of the living conditions (KOUZH), which we consider as subjective assessments of the quality of employment in the regions. The indicators were selected by expert judgment, taking into account their direct or indirect impact and perceived importance for a comprehensive analysis of informal employment.

The study attempts to develop an integral estimate of such employment using data from the most recent most stable statistical period – 2018. The choice of the year is conditioned by the completeness of the system of indicators – statistical (macroeconomic) and sociological (subjective). Rosstat implements the KOUZH every two years.

Despite the availability of KOUZH data for 2022, a number of regional statistical indicators were not available at the time of data collection and analysis. Therefore, the factor model was calculated for 2018 and 2020 (to check its stability over time and in pandemic conditions).

Factor analysis allows reducing the dimensionality of data and obtaining variables that are more convenient for interpretation and further analysis. In addition, we tested the hypothesis of identifying factors that would be structural components of informal employment. To build the model, we selected the indicators characterizing the labor market and employment in Russian regions from the formed statistical database. The final model contains a list of 18 variables, based on which we identified three factors including:

1) sociological indicators based on sample observations: satisfaction with various aspects of work;

2) statistical indicators characterizing the informal labor market and unemployment;

3) characteristics of the labor market as a whole.

We obtained the following model characteristics: KMO and Bartlett's test = 0.701, significant at the p < 0.000 level, explained cumulative variance = 56%.

We find that the indicators of unemployment and informal employment stand out in a separate group and are characterized by some hidden factor, and with a rather high factor load (21%).

For further work, we selected the indicators forming this factor and supplemented with statistical indicators characterizing employment and informal labor market in order to identify hidden structural factors contributing to *informal employment* separately from the data related to unemployment.

Findings

Factor model analysis. Thus, we built models based on the data for 2018 and 2020. In each model there are two factors *(Tab. 1, 2)*, the totality of indicators in which can be conditionally interpreted as the expression of "informal employment" (IE) and "unemployment" (U).

Table 1. Factor model based on statistical data for 2018, factor loading coefficients

Statistical indicator	Unemployment (U)	Informal employment (IE)
Tension coefficient in the labor market, according to LFS data	0.803	
Employed in the informal sector, % of the total employed population	0.788	
Unemployed aged 15–72 in rural areas, thousand people	0.692	
Unemployment rate, according to LFS data, %	0.659	
Share of unemployed with secondary vocational education under worker training programs, according to the LFS data, % of the total	-0.773	
Share of respondents working full-time (shift) or full working week, %		-0.511
Share of the unemployed looking for a job for 12 months or more, according to the LFS data, %		0.968
Average time of job search by the unemployed, according to the LFS data, months		0.954
Share of respondents working on the basis of verbal agreement, without formalization, %		0.633
Share of respondents working on the basis of employment contract (civil contract) for an indefinite period of time, %		-0.679

Note:
KMO and Bartlett's test = 0.712, significant at the p < 0.000 level, total variance explained = 67%, factor correlation = 0.238, rotation method – direct oblimin.
Source: own compilation based on Regions of Russia. Socio-economic indicators. 2022: Stat. coll. Moscow: *Rosstat*. 2022; 2018 KOUZH database.

Table 2. Factor model based on statistical data for 2020, factor loading coefficients

Statistical indicator	Unemployment (U)	Informal employment (IE)
Employed in the informal sector, % of the total employed population	0.819	
Tension coefficient in the labor market, according to LFS data	0.800	
Unemployed aged 15–72 in rural areas, thousand people	0.776	
Unemployment rate, according to LFS data, %	0.674	
Share of respondents working full-time (shift) or full working week, %	-0.644	
Share of unemployed with secondary vocational education under worker training programs, according to the LFS data, % of the total	-0.600	
Share of the unemployed looking for a job for 12 months or more, according to the LFS data, %		0.956
Average time of job search by the unemployed, according to the LFS data, months		0.940
Share of respondents working on the basis of verbal agreement, without formalization, %		0.659
Share of respondents working on the basis of employment contract (civil contract) for an indefinite period of time, %		-0.574
Note:		
KMO and Bartlett's test = 0,749, , significant at the p < 0,000 level, total variance explained = 67%, factor correlation = 0,330, rotation method – direct oblimin. Source: own compilation based on Regions of Russia. Socio-economic indicators. 2022: Stat. coll. Moscow: *Rosstat*. 2022; 2020 KOUZH database.		

In general, the quality indicators of the obtained models are quite high, the variability of the structure of factors for the period under study is insignificant, which indicates the reproducibility of the results for these periods.

In the XOY coordinate system a pair of factors represents two perpendicular straight lines. Based on the intersection of the factors, four groups of regions were identified, in each of which the factors behave differently *(Tab. 3)*.

1. Both factors are strongly pronounced (values are positive).

2. The factor "unemployment" (U) has a strong expression (positive values), the factor "informal employment" (IE) is weakly expressed (negative values).

3. The factor "informal employment" has a strong expression (positive values), the factor "unemployment" is weakly expressed (negative values).

4. Both factors are weakly expressed (values are negative).

Quite logical changes in the distribution of groups are noticeable: the group of regions for which the indicators of informal employment and unemployment are quite intensive has significantly decreased: from 30.5% in 2018 to 16.9% in 2020. The group of regions for which the intensity of these processes is quite low has significantly increased from 18.3% in 2018, to 37.7% in 2020. These results, in our view, are due to the simultaneous growth (although not strong) of unemployment and

Table 3. Distribution of groups of regions according to the results of factor
analysis based on statistical data for 2018 and 2020, %

Group of regions	2018	2020
U and IE values are positive	30.5	16.9
U values are positive, IE values are negative	19.5	20.8
U values are negative, IE values are positive	31.7	24.7
U and IE values are negative	18.3	37.7
Total	100.0	100.0
Source: own compilation.		

the reduction of unsustainable and non-guaranteed jobs in the informal sector of the economy due to the pandemic crisis.

The constancy coefficient of the composition for group I is 61%, group II – 58%, group III – 65%, group IV – 73%. We should keep in mind that that these indicators may have changed due to the pandemic, crisis and instability of the year 2020. It depends on a combination of factors, including managerial capabilities, economic

structure, and volume of state revenues. The transition of regions from one group to another cannot always be explained by changes in certain socio-economic indicators alone. In some cases, changes in statistical indicators can easily explain seemingly positive developments, which may actually reflect negative phenomena. Therefore, it is important to consider the specifics of both the period under study and the object itself when interpreting the results.

Figure 1. Classification of the RF regions based on the main components of the factor model: "unemployment" and "informal employment"
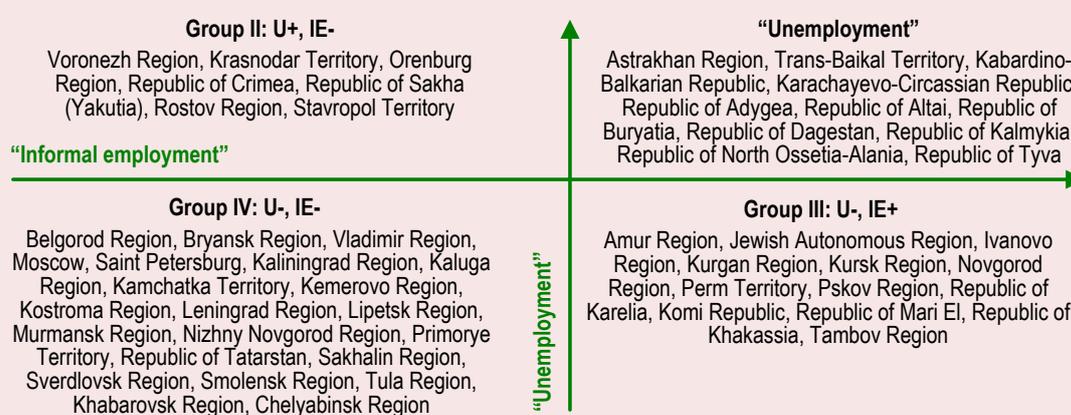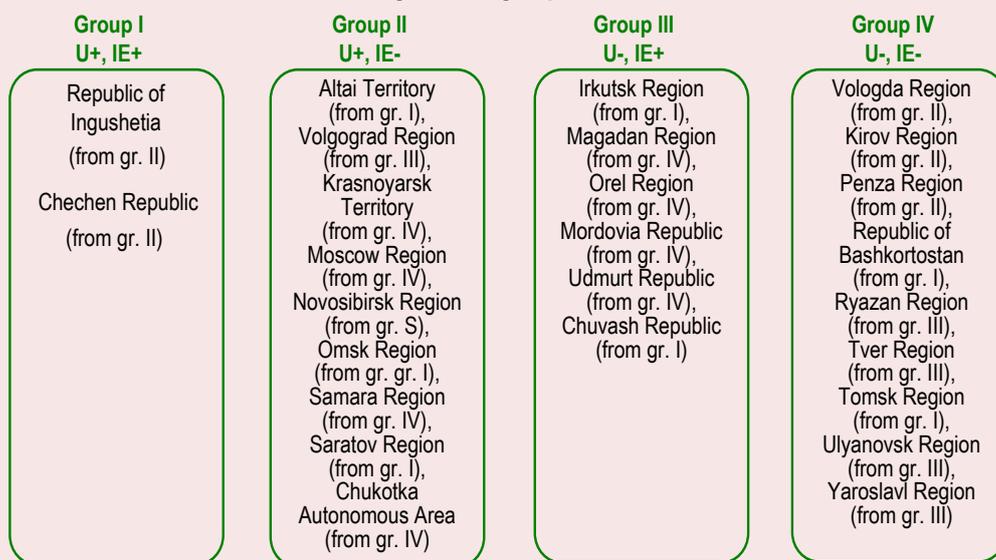
Note: the upper part of the figure (four segments separated by axes) shows the permanent representatives of the groups; below, the regions are classified according to the group into which they moved in 2020 (their position in 2018 is shown in brackets).

Source: own compilation.

Over the period 2018–2020, the position of 14 Russian regions within the model obtained improved (Ryazan Region, Tver Region, Yaroslavl Region, Vologda Region, Volgograd Region, Kirov Region, Penza Region, Saratov Region, Ulyanovsk Region, Irkutsk Region, Novosibirsk Region, Tomsk Region, Republic of Bashkortostan, Chuvash Republic); 10 – deteriorated (Moscow Region, Orel Region, Republic of Ingushetia, Chechen Republic, Republic of Mordovia, Republic of Udmurtia, Samara Region, Krasnoyarsk Territory, Magadan Region, Chukotka Autonomous Area). The composition of the middle groups (groups II, III) has remained largely unchanged. However, it is evident that these regions face negative scenarios related to unemployment or informal employment *(Fig. 1)*.

Regarding the Republic of Bashkortostan and the Vologda Region *(Tab. 4)*, it is evident that the transition of the region from the groups with less favorable characteristics to the group with the most favorable ones had the strongest impact on the trends of changes in the component structure. The significant decrease in rural unemployment had a notable impact on informal employment in the Republic of Bashkortostan. In both cases, the regions' positions improved due to a reduction in the average job search time for the unemployed and a decrease in the percentage of unemployed individuals searching for work for 12 months or more. This improvement is attributed to the registration of a large number of new unemployed individuals, which led to these statistical effects. It is important to note that these effects are not positive. At the same time, the model is interpretable, and the change in the positions of regions between the highlighted groups can be explained.

Correlation analysis. To study the nature of the relationship between informal employment and features of socio-economic development of Russian regions, we conducted a correlation analysis of the component of the factor model interpreted as "informal employment" and indicators characterizing the socio-economic development of territories *(Tab. 5)*. The study's methodological novelty lies in the attempt to use an integral, complex indicator as one of the analysis variables.

Table 4. Dynamics of indicators characterizing the unemployment rate and informal employment in the Republic of Bashkortostan and the Vologda Region, 2018 and 2020.

Indicator	Republic of Bashkortostan		Vologda Region	
	2018	2020	2018	2020
Group of regions according to the factor model	I	IV	III	IV
Tension coefficient in the labor market	2.1	2.6	2.1	2.6
Employed in the informal sector, % of total employed population	23.9	24.2	24.0	24.6
Share of the unemployed with secondary vocational education under worker training programs, according to the LFS data, % of the total	29.6	27.3	30.7	24.6
Unemployed aged 15-72 in rural areas, thousand people	53	40	13	12
Unemployment rate, %	4.9	5.9	5.1	6.1
Share of the unemployed looking for a job for 12 months and more, according to the LFS data, %	31.9	19.9	37.3	19.2
Average time of job search by the unemployed, according to LFS data, months	7.5	6.6	8.3	6.5
Share of respondents working on the basis of labor contracts for an indefinite period, %	82.1	84.5	90.2	86.6 ↓
Share of respondents working on the basis of verbal agreement, without employment contract, %	7.4	5.3	4.9	5.8 ↑
Share of respondents working full-time (shift) or full working week, %	89.6	88.5	90.4	87.5
Source: own compilation based on Regions of Russia. Socio-economic indicators. 2022: Stat. coll. Moscow: *Rosstat*. 2022; 2018 and 2020 KOUZH database.				

Table 5. Correlation analysis results of the dependence of the component "informal employment" on the indicators of socio-economic development of the regions

№	Indicator	Pearson correlation / significance	
		2018	2020
1	Consolidated budget revenues per capita, total, million rubles (RF – billion rubles) per 1,000 people	-0.429** 0.000	-0.073 0.527
2	Gross regional product per capita; gross value added, data from the archives for the current year, since 2008, in current basic prices, rubles	-0.466** 0.000	-0.261* 0.022
3	Fixed capital investment per capita, data from the archives for the current year (in actual prices), rubles	-0.395** 0.000	-0.209 0.069
4	Value of fixed assets per capita (at the end of the year; at full accounting value), million rubles	-0.375** 0.001	-0.181 0.116
5	Retail trade turnover per capita (archive for the relevant year), in actual prices, rubles	-0.504** 0.000	-0.497** 0.000
6	Paid services per capita (archive for the relevant year), rubles	-0.582** 0.000	-0.393** 0.000
7	Real money income of the population, % to the previous year	-0.259* 0.020	0.121 0.293
8	Median average per capita money income of the population, rubles per month	-0.561** 0.000	-0.313** 0.006
9	Labor remuneration in the structure of households' money income, %	-0.354** 0.001	-0.279* 0.014
10	Value of the subsistence minimum established in the constituent entities of the Russian Federation for the fourth quarter of the year (average per capita), rubles per month	-0.352** 0.001	-0.077 0.507
11	The total space of accommodations per inhabitant on average (data from the current archive, at the end of the year), square meters	-0.237* 0.034	-0.366** 0.001
12	Morbidity rate per 1000 population (registered patients with a diagnosis established for the first time in life), persons	-0.103 0.362	-0.165 0.152
13	Number of students enrolled in bachelor's, specialist and master's degree programs per 10,000 population, per 10,000 people	-0.128 0.257	0.034 0.767

* The correlation is significant at the 0.01 level (2-sided).
** The correlation is significant at the 0.05 level (2-sided).
Source: own compilation based on Regions of Russia. Socio-economic indicators. 2022: Stat. coll. Moscow: *Rosstat*. 2022; 2018 and 2020 KOUZH database.

The results of correlation analysis confirm the existence of a relationship between the integral indicator of informal employment and indicators of socio-economic development of Russian regions – the level of income and consumption of the population, economic growth indicators and budget transfers, and it is important to note the inverse nature of this relationship.

Thus, the consequences of informal employment and unemployment are reflected differently in different socio-economic conditions and socio-cultural environments. For example, conditionally homogeneous less urbanized regions with a strong ethnic component (group I), regions with weak socio-economic dynamics (groups II-III) were united into one group. Regions with developed economies, financial, scientific and industrial centers formed the basis of group IV.

Conclusion

The empirical basis of the study was formed by the authors using statistical data of Rosstat. We tested more than 100 variables characterizing the state of the regions: macroeconomic conditions, labor market, standard of living and quality of life of the population, human capital, demographic development. Based on multivariate statistical analysis, we calculated a factor model for 2018 and 2020, consisting of two key components. We interpret the factors as integral indicators characterizing the intensity of various

manifestations of unemployment and informal employment in Russian regions. Further, we carried out a correlation analysis of the factor "informal employment" and macro indicators of economic and social development of Russian regions, which revealed a close relationship between informal employment and indicators of economic growth, investment, level of consumption and income of the population, and no relationship with indicators characterizing the social sphere.

Thus, an important practical result is to identify as a certain significant factor contributing socio-economic development of the region, which is characterized by the indicators of informal employment and unemployment. The study suggests that the degree of expression of this hidden factor and indicators of socio-economic development of the region are interrelated, and the relationship is of an inverse nature. The attempt to group regions by the degree of unemployment and informal employment led to satisfactory results. However, for affirmative conclusions it is necessary to carry out similar tests both in the long run and in retrospect.

The main methodological results of the work are the use of microdata along with macroeconomic indicators to build a multidimensional analysis of informal employment in the constituent entities of the Russian Federation (regions) and Russia as a whole; calculation and allocation of the integral indicator of informal employment for Russian regions; typologization of regions by indicators of informal employment; analysis of (non)stability of the composition of groups over time and their relationship with the dynamics of socio-economic development of territories.

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