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COMPARATIVE ANALYSIS OF STRUCTURAL SHIFTS IN EMPLOYMENT IN THE REGION FERGANA

Abstract: *The paper analyzes structural shifts in employment in Baikal region. The analysis is based on the method of shift components, which allows carrying out a quantitative estimation of changes in the regional economy. The author studies the dynamics of employment in the region, compares it with the average Russian indices, finds out key causes of changes in the branch structure of employment, and determines branches of the regional specialization. Basing on the analysis the author plans some possible scenarios of the regional economic policy for branches of various levels of competitiveness.*

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Introduction

President of the Republic of Uzbekistan Shavkat Mirziyoyev in his address to the Oliy Majlis of the Republic of Uzbekistan on January 24, 2020 said: "To achieve progress we must and must acquire modern knowledge and digital technologies. This will allow us to follow the shortest path of advancement. Because today, information technology is being penetrated in all areas of the world. "[1] They declared 2020 the Year of Development of Science and Digital Economy. World practice shows that science and technology-intensive industries that require high science are today a rapidly growing sector of the economy that determines the global economic development. In developed countries the share of services in the economy is much higher. In the United States 79.5%, in the UK 78%, in Sweden 76.6%. 80-

87% of them are in the field of information technology services [2].

The modern economic system is at the stage of development of the innovative economy - in the updated forms of the traditional market economy with fundamentally different indicators. Innovative economy is an international economic system based on dynamically developing innovation and telecommunication technologies and network management processes. The information economy is characterized by dynamic development, provides a high level of mobility of business entities, creates new forms of employment, determines the emergence of new forms of labor organization, stimulates the development of individualism, creativity, innovation and creative search. As a result, there is a change in employment, which is reflected in the changes in its

forms and types, content and characteristics, and increased effectiveness.

Certainly, these processes should not be left out of the country. In this regard, the President of the country has the opinion that the governors of the district should also be accountable to the people regarding the implementation of the Address's objectives. The purpose of this article is to study the structural changes in employment in the region, to identify its compliance with the general directions of reforms in the country, and to develop recommendations to address existing problems. At the same time, structural shifts in employment of people in the Ferghana Valley region have been identified as the objects for our research.

In his address, the President identified agricultural development as one of the most important areas for the development of our economy, employment and income growth, as a strategic priority for reforms.

Literature review

Kondratyv N.D. provided the doctrine of large cycles of conjuncture about half a century to the development of the theory of employment in accordance with the innovative development of the economy, justifying the legitimacy of cyclical "ascending and descending" waves with technical discoveries and their practical use. [4]. The well-known British scientist J. Bernal's fundamental work, "Science in the History of Society," states: "The periods of advancement of science are often associated with periods of economic activity and technical development as a consequence of the use of innovation."

S. Kuznets studied first-hand the impact of periodic news on the composition of employment based on the transition from one historical period to another. Secondly, the rapid rate of economic growth in the industrialized period, according to S. Kuznets, is a new source of economic growth, given the rapid development of science due to the rapid development of science.

At the present stage, German scientist G. Mansh has played a special role in studying the impact of innovation on employment. U. J. Baumol, K. Freeman, L. Soete, A.B. Jaffe, J. Lerner, E. Helpman, D.G. Victor, R.R. Nelson, p. In their research on economic prosperity, scholars such as Stern studied the impact of a special education system on developing the labor force in developing countries, highlighting its role in supporting technical development, and arguing that large companies' research and development costs can be a valuable addition to employment. He highlighted the presence of highly educated professionals as a key factor in improving employment. Arora and Gambardel are proponents of this theory.

Features of organization of production at light industry enterprises and improving logistics in Uzbekistan were studied by several scientific works of Tursunov B. [13;14;15;16;17;18;19;20;22]. Innovative ways of development of Uzbekistan agroindustrial complex were researched by Russian and Uzbek scintists as well as Nuritdin Yuldashev, Vladimir Nabokov, Konstantin Nekrasov, Bobir Tursunov [21].

Indeed, advances in technology and technology play a key role in changes in employment, leading to changes in organizational, managerial, managerial, staffing, and productivity. However, due to these technical changes, it is not possible to determine the regularities of structural changes in employment with a unilateral approach. In the context of market economy, it is necessary to combine both technical and socio-economic changes in understanding the employment patterns, and to study the interrelationships and the laws that result from this dialectic relationship and influence.

Various interpretations of the factors of employment in the literature have been interpreted by different authors. LSbitova [11], TA Yugay believe that the employment structure is formed by the combination of the material composition of production and the demographic composition of the population [13]. For example, Kotlyar argues that it is possible to summarize and summarize the views expressed in the literature on the conditions of employment ratios: the dynamics of the number and composition of jobs; Dynamics of workforce needs in the social production sector [5]. ER Sarukhanov defines the composition of employment as the ratio of quantity and quality of the able-bodied population between different sectors and branches of national economy, and within the sector, by types of work, etc. [12]. According to YG Odegov, "the composition of employment is the elements that make up the complex of the employment system, and the constant relationship between them and the proportion of different groups and categories of employees to their total number." In our opinion, the composition of employment is a system of employment indicators, which reflects the involvement of the economically active part of the working population in full social production, its compliance with the socio-economic requirements at work and the balanced development of the national economy.

Research methodology

The study used induction and deduction, analysis and synthesis, a systematic approach to economic phenomena and processes, and sliding-organizers.

Analysis and Results

Effective employment policy is one of the main problems in the socio-economic development of the Ferghana Valley. Further development and support of

employment can be achieved by identifying key sectors of the economy, which provides an analysis of the dynamics of changes in the employment structure of the region and the factors that determine them. The informational basis of the analysis of structural shifts in terms of employment in the Ferghana Valley region is the statistical data on annual employment issues, collected by the State Statistics Committee of the Republic of Uzbekistan. The timeframe is set from 2009 to 2018.

It is known that the Fergana Valley region comprises three regions - Andijan, Ferghana and Namangan. At the present stage of socio-economic development, the Ferghana Valley is a region with a well-defined networking specificity. The weight of employment in one or another sector of the regional economy is expressed at different rates. In general, during the analyzed period, positive changes were observed in the dynamics of the number of employed. However, the growth is small. The highest growth rate is in Fergana region. This is explained by the slowdown in the number of points. In all three oblasts, the outflow of employment was observed in the agricultural and mining sectors, the worst - in Andijan region. The low growth in employment, as in the sectors in the Namangan region, was driven primarily by increased labor productivity in such sectors as processing, electricity, gas and water production and distribution.

It is known that the region's investment opportunities are limited and do not allow simultaneous investment in all sectors. Resources should be concentrated on economic activities that have a certain potential and can serve as a starting point for economic growth [3]. A structural analysis of the economy from the point of view of employment was conducted to identify sectors with the highest potential for employment growth. The main method of research was the shift-organizers method used to analyze the causes of changes in employment [6]. Its use allows for a new assessment of quantitative shifts in employment. Also, the slight increase in the number of employed in the regional economy can only be explained by ineffective economic policies of the region. The use of the shift-organizer method allows you to limit the total growth by three times and determine the impact of state, regional and sectoral factors.

Thus, the following factors may affect the number of employees in each sector of the region's economy:

1. National elements reflecting trends in economic development at the state level are identified as follows:

$$NS = Qi \cdot T / 100,$$

Qi — Number of employees in the regional networks in 2009; T — Growth rate of employment in the economy of the Republic of Uzbekistan for the whole period from 2009 to 2018.

2. A network element (IM) that reflects the tendency of development of a particular sector of the economy. It is calculated by the following formula::

$$IM = Qi \cdot (Tj / 100 - T / 100),$$

Tj —Growth rate of employment in the economy of the Republic of Uzbekistan for the entire period from 2009 to 2018.

3. Regional element (LF), which represents the influence of regional factors. It is calculated by the following formula::

$$LF = Qi \cdot (Ti / 100 - Tj / 100),$$

Ti — Growth rate of employment in the economy of the region from 2009 to 2018.

The sum of these constituents gives the total change in the number of employees (R) in a particular sector of the region's economy. The number of founders for the Ferghana Valley regions is shown in Table 1.

Thus, the increase in the number of employed was mainly determined by national factors and contributed to an increase in their number in all regions. This factor was particularly positive for the Fergana region and the regional policy factor had a negative impact, while the Andijan and Namangan regions had a negative impact on national growth rates, which was determined by state-of-the-art trends in the economy. brought. In other words, the number of employed in Fergana region increased by 1343 thousand people, and in Andijan and Namangan regions increased by 1104.9 and 802.2 thousand respectively. The economic policy of the region was of great importance in Andijan region due to the increase in the number of employed by 1108.4 thousand people (Table 1).

The shift-organizer method is also applied to the coefficient of localization, which allows it to limit networking and separation of progressive networks by the degree of competitiveness. Comprehensive assessment is determined by the concentration of a particular sector towards the local economy and its dynamics. The following formula is used to calculate the coefficient of localization of each sector of the economy:

$$Li = (ci / c) / (Ei / E),$$

ci — Number of employed in the economy sector of the region's economy;
c — total employment in the regional economy; Ei — Number of employed in i-the first sector of the national economy; E — total employment in the national economy.

Sectors with localization coefficients greater than 1,251 belong to the underlying networks. It is assumed that they are exporting goods and services

outside the region. Networks with localization coefficients ranging from 0.751 to 1.25 are local networks. They serve the needs of the regional market. These networks constitute the current specialization of the republic and are potentially designed to preserve the region. In non-regional networks, the localization factor is less than 0.75.

Table- 1. Changes in the structure of regional employment by sectors of economy for 2008-2018

Sectors of the economy	Ferghana				Andijan				Namangan			
	NS	IM	LF	R	NS	IM	LF	R	NS	IM	LF	R
Industry	196,1	194,7	194,9	585,7	150,2	149,2	151,2	450,6	105,8	105,1	104,9	315,8
Agriculture and forestry	333,1	337,3	339,6	1010	333,7	337,9	328,8	1000,4	195,5	197,9	135,7	529,1
Construction	90,0	91,1	92,0	273,1	75,2	76,0	76,6	227,8	64,6	65,4	66,0	196
Transport and communication	61,7	62,4	63,8	187,9	46,4	46,9	47,6	140,9	29,1	29,4	29,3	87,8
Trade, catering, preparation and supply	127,6	129,3	132,2	389,1	123,7	125,4	128,8	377,9	91,2	92,5	92,1	275,8
Housing and communal services, household services	48,3	49,0	51,0	148,3	33,2	33,7	33,9	100,8	24,9	25,3	25,2	75,4
Health, physical training, sports	106,1	104,7	105,0	315,8	83,9	82,9	84,0	250,8	67,9	67,0	66,7	201,6
Education, Culture and Art, Science and Scientific Services	170,6	167,8	167,8	506,2	144,8	142,4	143,7	430,9	110,7	108,8	108,0	327,5
Finance, credit and insurance	5,3	5,2	5,4	15,9	4,4	4,3	4,0	12,7	3,2	3,1	2,4	8,7
Other	204,2	198,8	184,6	587,6	109,4	106,5	109,8	325,7	109,3	111,7	120,7	341,7
Total	1343	1340,3	1336,3	4019,6	1104,9	1105,2	1108,4	3318,5	802,2	806,2	751	2359,4

Source: Calculated based on the data from the State Statistics Committee of the Republic of Uzbekistan. Almanax Uzbekistan 2011. Labor and Employment in Uzbekistan. –T .: 2016. –B.35; Labor and Employment in Uzbekistan. –T .: 2018. 17, -B.35-36; Report January-December 2018.

In the Fergana region, the coefficient of localization by all sectors of the economy exceeds 0.75. Only in the housing and utilities sector was 1,351. The availability of decentralized networks in Namangan and Andijan regions is determined by the localization coefficient of these networks being below 0.75 and below the national average.

During the years of independence Uzbekistan has formed a multifaceted economy. This is accompanied by new progressive trends in the development of the employment structure of the republic, the growth of labor mobility. For example, in a relatively short period of time (1995–2018) there was a significant redistribution of jobs across sectors of the economy. From 1990 to 2018, the number of employed in the industry increased by 565,400 people. However, the share of industry in the structure of employment decreased by 1.6% (from 15.1% in 1990

to 13.5% in 2018). During this period there was a significant reduction in agricultural employment. From 1990 to 2018, the number of employed in this sector of the economy of Uzbekistan increased by almost 563.5 thousand people, and its share in employment decreased by 12% (from 39.3% to 27.3%).

The share of employment in such industries as industry, agriculture, trade, catering, procurement and supply, housing and communal services and public services, health care, physical education, sports and social security is comparable to the general trends in the economy. Higher education, culture and arts, science and scientific services are also lower in the Fergana region. In Namangan region, the share of employment in all sectors, except for trade, public catering and consumer services, is lower than the national average. In Andijan region the share of employment in such sectors as industry, trade, catering, procurement and supply, healthcare, physical education, sports and social security is higher than the national average, in agriculture and forestry, construction, transport and communication, housing and utilities. In non-productive sectors such as consumer services, it is lower than the national average.

In all three regions of the Ferghana Valley, the share of agricultural employment remains high, consistent with the general trend in the country. This is determined by the reforms in the agricultural sector in recent years. In his address to the Parliament, the President of the Republic also emphasized the role of this sector in the employment of population and pointed out that "one of the most important sectors for the development of our economy, employment and income growth is the need to develop agriculture on the basis of strategic approaches." This year, it is planned to direct over 3 trillion soums to the development of fruit and vegetable, viticulture, seed production, livestock, agro-logistics, widespread introduction of water-saving technologies, research and training. Particular attention will be paid to breeding in the areas of cattle breeding, karakul sheep breeding, poultry farming and poultry farming, and new mechanisms of state support will be introduced.

The relatively stable employment in the industrial sector of the national economy was also reflected in the change in the share of its separate sectors. The production of competing products, finding new international markets for them and increasing exports, and utilizing transit potential are not only the most important factors for sustainable economic growth, but also the growth of income and the creation of jobs. The open market is forcing the quality of products, lowering the prime cost, bringing new technologies, accelerating market reforms.

Table -2. Consolidation of economic sectors of the Ferghana region

Branches		Ferghana	Andijan	Namangan
Regional specialized branches	С	-		Other branches
	О	Housing and communal services, household services		
	ОР	-		
	Д	-		
Local value branches	С	Industry; Transport and Communication; Trade, catering, preparation and supply; Health, physical training, sports	Trade, catering, preparation and supply; Industry; Health, physical training and sports; other industries.	Trade, catering, preparation and supply; Health, physical training, sports.
	О	Construction; Education, Culture and Art, Science and Science; Finance, Credit and Insurance; Agriculture and forestry; Other industries.	Agriculture and forestry; Construction; Transport and Communication; Housing and communal services, household services; Education, Culture and Art, Science and Scientific Services.	Industry; Agriculture and forestry; construction; Education, Culture and Art, Science and Scientific Services.
	ОР	-		
	Д	-		

Non-regional branches	C	-		
	O	-	Finance, credit and insurance.	Finance, Credit and Insurance; Transport and communication
	OP	-		
	Д	-		

Source: The classification was based on author's research.

In this regard, it is of great interest to classify networks by the level of competitiveness. This is done in the following sequence:

1. Strong networks develop more rapidly at the regional level than the national average (C).

2. Leaving networks grow at a slower rate at the regional level than at the national level (O).

3. In developing emerging markets, there is a decline but slower than the national average (OR).

4. At the regional level, the areas in which the reduction of states exceeds the national benchmark are depressive networks (D).

The classification of networks by the level of competitiveness is presented in Table 2.

The table shows that in each of the three regions analyzed, there is no developmental and depressive network, which is relatively competitive and falls into the first and second categories. Thus, it is necessary to formulate economic policy for the identified sectoral groups based on the following areas of the regional economic system (Table 3).

Table 3. Main directions of regional economic policy for sectors with different levels of competitiveness

Types of branches		The main directions of economic policy
Networks with regional specialization	C	Further research will be needed to establish the factors that will have a positive impact on the development of these industries, as well as the development of measures to enhance their impact.
	O	Identify the causes of inadequate growth of these networks. It is advisable to develop a set of operational measures to maintain the specified networks.
	OR	The regional authorities are less likely to influence these sectors, so their growth prospects are largely determined by national factors.
	D	The industries that lose jobs and compete nationally in the region have virtually no prospects for growth, and therefore have no chance of emergence.
Non-regional networks	C	These networks may include developmental networks that need to be evaluated for the value of these growth networks and identify what local factors may lead to their development.
	O	The growth of non-professional sectors on absolute indicators rather than relative indicators is determined by the tendencies of national economy development, regardless of local factors. The prospects of these industries are limited.
	OR	
	D	This group consists of industries that lose employment on both absolute and relative benchmarks. There is no need to support them.

For the Ferghana Valley region, it is advisable to develop a regional economic policy based on a selective approach based on the specifics of each region, its natural resources and labor potential.

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