FOREIGN EXPERIENCE IN CREATING EMPLOYMENT STRUCTURE AND WAYS TO APPLY IT IN UZBEKISTAN

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Abstract. This article is devoted to the research of foreign experience in creating the structure of employment. In addition, the article analyzes statistics about working-age population in terms of available job positions by economic activities. Basing on the research results, the authors have developed scientific proposals and practical recommendations aimed at improving the structure of the employment in the Republic of Uzbekistan.

Key words: distant employment, part-time employment, full employment, household employment, self-employment, non-official employment.

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Introduction. In order to carry out fundamental structural reforms in the economy currently it is necessary to pay a particular attention to technical re-equipment and modernization of companies, introduction of advanced technologies and training and qualification upgrading of skilled personnel. This fact sets top targets on the training system of the personnel. The issues of training, retraining and qualification upgrading of employees in conditions of market relations are of particular relevance. The solution to this problem is important at the company level, which position has changed drastically in the market economy. Becoming an object of commodity-money relations, possessing economic independence and fully responsible for the results of its activities, the company should also develop the system of training, retraining and qualification upgrading of employees which would ensure high performance, competitive ability and stability in the market. All this can be achieved through the integration of education and production into the educational process and pedagogical activity. Thus, the situation with the personnel training in the republic justifies existence of significant contradictions between the individual, society, state, science, production and education system and creates social problems related to the youth employment.

Therefore, education and research fields have been determined as one of the priorities of the strategy for socio-economic development of Uzbekistan for 2017-2021[1]. Within this framework, the Strategy is aimed at continuing the process of further improving the system of continuous education, raising the availability of high-quality educational services, training highly qualified personnel in accordance with the modern needs of the labor market, enhancing the quality and efficiency of higher educational institutions through the introduction of international standards of teaching and teaching quality assessment, a gradual increase in the quota of admission to higher educational institutions, stimulation of research and innovation activities, creation of effective mechanisms for the implementation of scientific and innovation achievements in practice, creation of scientific and experimental specialized laboratories, high technology centers, technology parks at higher educational institutions and research centres.

Moreover, the President of the Republic of Uzbekistan Sh.M. Mirziyoyev has emphasized the topicality of issues related to the population employment. He particular he said: “One of the top targets nowadays is to solve the problem related to the employment and in this regard it is
requires to raise a personal responsibility of heads of complexes, khonims (local authorities) and
their first deputies in implementing radical changes with the employment”[2]. Comprehensive
activities carried out in our country for the further development of production and social
infrastructure is an important factor in modernizing the country and increasing the level of
employment which results in creation of new job places, determines a new structure of the
employment and develops new types of labor organization, as well as encourages innovation
development. As a result, the employment situation improves which directly results in enhancing
living standards of the population.

Literature review
Many scientists devoted their researches to the issues of improving the employment structure in
the data-driven society. Fundamentals of the newly emerging data-driven (informatics-based)
economy have been studied by various scientists such as American scientists M.Porat, M.Rubin
and Russian scientists R.I.Tsvelev, I.A.Lazarev and I.S. Melukhin. The analysis of the literature
illustrates that the concept of “Innovative Economy” (“new economy”) is interpreted in a dual
way. Firstly, it is applied to highly industrially developed countries and introduces radically new
innovative elements into traditional sectors of the economy, thus improving their quality.
Secondly, it implies a description that illustrates new developments in the modern economy. The
formation of an innovative economy is crucial for the study of employment relationships in terms
of its essence, content, professional qualifications and peculiarities of labor. Employment in the
developed and developing countries indicates that the changes in it are not similar and this
proves their contradictory nature.

Research methodology
Such research methods as induction and deduction, analysis and synthesis, structural approach to
economic phenomena and processes and clustering have been widely used in this scientific
paper.

Analysis and results
Currently different trends of occupational and sectoral elements of employment structure are
being witnessed. From the point of view of “three sectors” theory of Dell, the structural
correlation justifies that in the developed countries the employment rate in the third sector is much higher than in other sectors: in the USA this indicator constitutes 79.5%, in Great Britain – 78%, and in Sweden – 76.6%. (Table 1).

Table 1

Structure of the people employed in Uzbekistan and some foreign countries by sectors, in % in relation to the total number¹

<table>
<thead>
<tr>
<th>Countries</th>
<th>Sectors of economy</th>
<th>Number of people employed, total</th>
<th>In particular:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>I sector</td>
</tr>
<tr>
<td>Great Britain</td>
<td></td>
<td>100</td>
<td>1,9</td>
</tr>
<tr>
<td>Germany</td>
<td></td>
<td>100</td>
<td>2,5</td>
</tr>
<tr>
<td>USA</td>
<td></td>
<td>100</td>
<td>2,1</td>
</tr>
<tr>
<td>France</td>
<td></td>
<td>100</td>
<td>3,2</td>
</tr>
<tr>
<td>Sweden</td>
<td></td>
<td>100</td>
<td>2,4</td>
</tr>
<tr>
<td>Russia</td>
<td></td>
<td>100</td>
<td>10,5</td>
</tr>
<tr>
<td>Uzbekistan (2017)</td>
<td></td>
<td>100</td>
<td>27,3</td>
</tr>
</tbody>
</table>

In the developed countries the majority of the economically active population is engaged in industry and construction, the share of the population engaged in farming is gradually decreasing (up to 5-10%). In the second half of the XXth century, the qualitative changes not only in the manufacturing sector, but also in the structure of the population have been accelerated: the number of workers engaged in the production of material goods has sharply decreased and the proportion employees in science, education, health and service sectors has increased significantly. For example, in the United States over 80% of all workers and 87% of senior staff

are involved in performance requiring mental activity. It should be noted that about 80% of the GDP of the USA is produced in this sector\(^2\).

Sharp fluctuations in employment rates are typical for the primary sector of the economy. In developed countries (USA, Germany) at least 2%-7% of the population is employed in this sector while in developing countries this indicator accounts for up to 80%. Labor potential of the country is determined by the physical and mental health of the population, its professional, educational and cultural training and production experience. The quality and utilization of labor resources differs significantly across countries. Nowadays large numbers of labor resources are located in major countries such as China, India, Brazil, and Indonesia. Labor resources in developed countries are concentrated in the United States and Japan.

In the economically developing and developed countries the main structural changes in the employment of the population are determined by the advancement of innovative technologies - information and telecommunication technologies, as well as directions of medicine and healthcare and environmental protection technologies. As part of the global economic system, Uzbekistan maintains its main trends and regularities in its development because the economy of the leading countries of the world has been on the path of innovative development since long time, thus this experience will be useful for determining the basic directions of changes in the employment structure of Uzbekistan. Meanwhile, it is necessary to take into account the following peculiarities of the economy of the republic: it is far behind the developed countries according to the level of labor force use; unequal demand for labor force and its labor market supply is characterized by the redistribution of skilled workers in favor of an innovative economy.

In other words, there is a significant discrepancy between the labor market and the current distribution of labor resources. They reduce the competitiveness of the entire economic system, which in turn increases the employment problems associated with the unemployment of the workforce. In this framework Uzbekistan challenges a more complicated task - to create

\(^2\) USA: economy, policy, ideology. 1996. №7. - p.35.
employment structure which will lead to innovative shifts in the economy. Moreover, it is compliance with the processes ongoing in the economies throughout the world.

In this respect in Uzbekistan maintains a positive tendency compared to other countries. During the years of independence, a number of completely new industries have been created in the country, such as automobile industry, oil and gas industry, oil and gas engineering, modern construction materials industry, railways road engineering, home appliances, pharmaceuticals, modern food industry and light industry. For example, changes in the “primary” sectors of the republic are in compliance with global trends. The changes in “secondary” and “tertiary” sectors are consequently related to this, and in our country they are developing dynamically.

According to the current estimates, informatization industry of Uzbekistan produces about 3% of the GDP. Herewith in economically advanced countries this figure is about 30-40%, and according to optimal estimates it should be over 50%\(^3\). In the medium-term perspective, it is necessary to develop high-tech industries as a priority direction in Uzbekistan and to achieve their share in total industrial output by 10-15%. The main focus should be on the formation of the national innovation system.

Nowadays many researchers are looking for ways to apply foreign approaches and models in the national labor market to manage employment and unemployment with the opportunity to exchange experiences with their foreign colleagues. It should be noted that recently there has been a shift from the Index of “Employment by Types of Economic Activities” to the Index “Employment by types of economic activity per 1000 working age population”. According to the relevant methodology, people aged 14 and over are considered to be able to work\(^4\).

However, age limits can be regulated by national legislation and differ from the age of majority population.

In many countries, the minimum age for working or being employed constitutes 14-16 years (16 years in Uzbekistan), the upper limit is determined by the average life expectancy - 60-65 years for most countries of the world. In some African and Asian countries, the retirement age is 50 years, while in developed countries the life expectancy rates ranges from 67 to 70 years (Denmark, Sweden, and Norway). The lowest retirement age in Uzbekistan is 55 for women and 60 for men.

Assessment of many different “economic” profiles in each country will facilitate analysis of the employment structure of the population by sectors. For example, Singapore is characterized by a lack of agriculture and recycling industry. However, it should be noted, that the role of transport (10,5%), hotel business (28,9%), banking and other business services (10,9%) is considered to be significant. In addition, the population growth goes far beyond the growth of jobs throughout the world. The global problem of human employment and reducing unemployment is indivisibly linked with this factor. The problem solution arisen from this situation can be achieved by the creation of new industries, especially in the third sector of the economy, re-orientation of the economy and working time reduction. Another problem is the uneven distribution of labor force. The share of the labor force in developing countries accounts for nearly 90% of the total indicator of labor resources. Moreover, one more problem is that the proportion of working age population is gradually decreasing, as the aging process of the population is progressing. This leads to an increase in the number of dependents and the growth of the economic “burden” on each person employed.

When analyzing current trends, period ranges from 2010 to 2017 are summarized by country and type of activity. Cluster analysis on the sustainable sample grouping of the people employed in the economy by sectors has been carried out (Table 2).

Thus, 69 countries of the world can be grouped into 3 categories of clusters when using cluster analysis methods. Many countries in the European Union can be included in the second cluster, thus it is considered to be numerous. Russia is also included in this cluster as well. In terms of the number of objects, the third cluster has been composed of 20 countries and included

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Uzbekistan. The first cluster is the smallest one and it includes only 16 countries of the world economy.

Table 2

Average grouping of the countries of the world economy on the population employment by sectors in 2000-2017

<table>
<thead>
<tr>
<th>№</th>
<th>Countries of the world economy</th>
<th>Number of clusters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster 1</td>
<td>Australia, Argentina, Brazil, Venezuela, Hong Kong, Cayman Islands, Qatar, Cyprus, Kyrgyzstan, Luxemburg, Malaysia, Panama, Paraguay, Peru, Singapore, Suriname</td>
<td>16</td>
</tr>
<tr>
<td>Cluster 2</td>
<td>Austria, Belgium, Bulgaria, Buyukbritaniya, Hungary, Germany, Denmark, Israel, Ireland, Iceland, Spain, Italy, Korea, Cuba, Latvia, Lithuania, Malta, the Netherlands, Norway, Poland, Portugal, Russia, Slovakia, Slovenia, Croatia, Czech Republic, Sweden, Switzerland, Uruguay, Finland, France, Estonia, Japan</td>
<td>33</td>
</tr>
<tr>
<td>Cluster 3</td>
<td>Bangladesh, Bhutan, Vietnam, Ghana, Guatemala, Greece, Zimbabwe, Cambodia, Costa Rica, Macedonia, Mexico, Mongolia, Romania, Salvador, Serbia, Thailand, Turkey, Ecuador, Ethiopia, Uzbekistan</td>
<td>20</td>
</tr>
</tbody>
</table>

Cluster centers are focused on the analysis of employment in the groups of the countries given. They combine the average amount of employment per 1000 working-age population in each cluster. The center of separate clusters indicates a large gap in the population employment by sectors (Figure 1).

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*developed by the author on the basis of the data from the web-site http://www.ilo.org/ilostat/faces/oracle/webcenter/*
Figure 1. Average clusters distributed by types of economic activities of the employed population in 2000-2017

Indicators of employment in wholesale and retail trade, construction, agriculture and industry are relatively high in the first cluster. Here are the indicators constitute 123, 83, 77 and 70 people respectively per 1000 people of the adult employed population. Meanwhile employment in the first cluster is characterized by the following sectors: financial activity (over 58,1%), wholesale and retail trade (over 20%), transport and communication (19,4%).

In the second cluster employment in the wholesale and retail trade and industry is far superior to other sectors of the economy. Herewith, the indicators of working-age population account for 114 and 97 jobs respectively per 1000 of the employed population. Compared to other clusters, employment indicators in the second group of countries have averaged 65,8%, 24,6%, and 32,3% correspondingly in the healthcare, industry and education sectors. In this group average indicators of Great Britain and Cuba cluster are significantly different. The remaining types of economic activities are fluctuating within the limits of the set of clusters.

Cluster has been developed by authors.
Agriculture prevails in the third group of countries. Almost every single one-fourth person employed is engaged in this sector. High indicators of the cluster are also observed in trade and industry (102 and 90 people per 1000 working-age population respectively).

Further we consider the average number of economically active population clusters in the global economy (Table 3).

**Table 3**

**Number of the working-age people employed per 1000 people by types of economic activities in the countries of the same category in 2000-2017**

<table>
<thead>
<tr>
<th>Types of economic activity</th>
<th>Cluster 1</th>
<th>Cluster 2</th>
<th>Cluster 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>70,0</td>
<td>36,3</td>
<td>234,1</td>
</tr>
<tr>
<td>Transport and communication</td>
<td>40,5</td>
<td>38,3</td>
<td>27,0</td>
</tr>
<tr>
<td>Construction</td>
<td>76,9</td>
<td>49,3</td>
<td>34,5</td>
</tr>
<tr>
<td>Public administration</td>
<td>51,9</td>
<td>44,8</td>
<td>26,7</td>
</tr>
<tr>
<td>Financial activity</td>
<td>30,8</td>
<td>19,2</td>
<td>7,3</td>
</tr>
<tr>
<td>Healthcare and offering social services</td>
<td>30,7</td>
<td>70,1</td>
<td>17,2</td>
</tr>
<tr>
<td>Education</td>
<td>46,3</td>
<td>55,6</td>
<td>28,9</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>123,3</td>
<td>96,5</td>
<td>102,1</td>
</tr>
<tr>
<td>Industry</td>
<td>82,5</td>
<td>90,0</td>
<td>89,5</td>
</tr>
<tr>
<td>Public utilities and other services</td>
<td>15,3</td>
<td>17,1</td>
<td>17,4</td>
</tr>
</tbody>
</table>

Uzbekistan entered the third group of countries with a high share of agriculture. The comparative share of employment by the sectors of economy between Uzbekistan and the third cluster can be summarized as the employment structure complies with that cluster (Figure 2).

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Figure 2. Comparative analysis of the share of the economically-active population by types of economic activities of Uzbekistan and the third cluster. Despite the similarities in the structure of employment across different sectors of the economy, Uzbekistan is also experiencing slight deviation from the third cluster (Figure 3).

\(^{9}\) developed by the author
Figure 3. Deviation of the third cluster indicators of the number of people employed by the types of economic activities in Uzbekistan\textsuperscript{10}

In our republic employment in agriculture is 20.9\% lower than in the third cluster. This is inherent for the second group of countries. In practice the employment structure entirely complies with the second group of countries. This is because the second cluster has a large deviation that recalls the characteristics of employment in countries. This illustrates that people in Uzbekistan are employed in many well-developed sectors of the economy. For example, the number of jobs per 1000 working population in construction accounts for 84.3\%, healthcare - 191.3\% and education - 209.3\% that is relatively higher than in the countries of the third cluster. The employment status in these sectors is more peculiar for the second cluster\textsuperscript{11}.

Nowadays it is required to develop complex models for urgent monitoring of the labor force structure to regulate the labor market\textsuperscript{12}. Meanwhile it is desirable to develop models for managing the structure of employment and unemployment taking into account specific peculiarities of the economy of the Republic. In the developing countries unofficial employment has become widespread. Unofficial employment occurs primarily in many developing countries, in particular, in South East Asia. The increase of unofficial employment in Asia happens mainly due to the rapid urbanization and population growth. The relative superiority of the labor market is provided by ensuring the competitiveness of Asian goods through the cheap and illegal labor of the rural population.

In developed countries most of the unofficial sectors of the economy are represented by immigrants from developing countries. In developed countries, the share of “unofficial” sectors accounts for 5-10\% of the GDP and in developing countries this indicator constitutes 35\%. In the republic this figure amounts to 33\%. Unofficial employment has also been widespread in many countries, and emerging countries more apply short-term contracts and unregulated working hours (Table 4).

\textit{Table 4}

\textsuperscript{10}Developed by the author.
\textsuperscript{11}http://www.ilo.org/ilostat/faces/oracle/webcenter.
The share of unprotected employment in the world\textsuperscript{13}, %

<table>
<thead>
<tr>
<th>Countries</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed countries</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Developing countries</td>
<td>79</td>
<td>79</td>
<td>79</td>
</tr>
<tr>
<td>Emerging countries</td>
<td>47</td>
<td>47</td>
<td>46</td>
</tr>
<tr>
<td>Throughout the world</td>
<td>43</td>
<td>43</td>
<td>43</td>
</tr>
</tbody>
</table>

Some improvements related to the unprotected employed people are expected to happen in future: the share of unprotected employment declined by 0.5 percentage points between 2000 and 2010, and during the next two years its reduced by 0.5 percentage points per year. In 2017, the proportion of unprotected employment in total numbers accounted for over 42% from the total employed population. This indicator constituted 1.4 billion USD all over the world.

In fact, in countries with transitiveeconomies, almost every second worker is employed in unprotected jobs, and in developing countries each fourth person out of five is employed. As a result, the number of unemployed people is expected to increase up to 11 million people per year. South Asian and African countries have a much higher growth rate. The use of the Internet and modern communication technologies in all spheres has created a material basis for distanceemployment.

Currently distance employment (separate employment) is a modern form of employment and is included in the global trends of labor. The International Labor Organization in cooperation with the European Foundation for the Advancement of Living and Employment estimates that in the developed countries the share of such employees in the labor market accounts for 17%, while in some countries, in particular, in Japan and in the United States, this indicator accounts for 40% of all workers.

In the majority of cases distantly employed personnel occupy the positions of managers or specialists and this complies with the self-employment principle. In addition, in the EU countries approximately 10% of the personnel works on the distant basis in 2015-2017. 5% of the

\textsuperscript{13}http://www.ilo.org/ilostat/faces/oracle/webcenter.
personnel perform their functional duties are not connected with their job places and 3% perform their work directly from their homes (Table 5).

Table 5
Share of the distantly working personnel in the total employment in 2015-2017, %

<table>
<thead>
<tr>
<th>Countries</th>
<th>Working from home</th>
<th>Working outside the office</th>
<th>Distantly working employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>9</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>Sweden</td>
<td>5</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>Netherlands</td>
<td>6</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Average by the EU</td>
<td>3</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

A large proportion of such personnel has been witnessed in Denmark, Sweden and the Netherlands, and the smallest indicator is in the Czech Republic. The highest indicators of distantly working employees in Europe are demonstrated by the United States and Japan (37% and 32% respectively). On average over 60% of the personnel are working from home and away from the office, while 16% are at workplaces provided by customers and 11% when traveling by car. Women tend to work more at home than men.

According to the recommendations developed by the International Labor Organization, to maintain the employment growth rates in developing countries, as well as ensuring creation of 1 billion new work places in the next decade, the governments should solve three fundamental issues:

First of all, in terms of structural transformations in the economy, to provide unemployed people and increasing number of economically active people with job places, growth rates of production should be very high. In this regard, it is necessary to encourage attracting investments in the macroeconomic sectors. Measures to encourage job creation in the private sector of the economy should be accompanied by the development of public sector infrastructure.

Secondly, external impacts are rather strong in relation to developing and poor countries, so they can cause the growth of unemployment and poverty. Therefore, governments need to pay a particular attention to the implementation of anti-corruption macroeconomic policies aimed at slowing growth or mitigating the negative impact of economic downturn. Implementation of these objectives are aimed at providing diversification of production which will enable to mitigate and smoothen the risks of instability, reduce customs barriers, restrict the negative effects of the economy on the demand for raw materials.

Thirdly, the existence of poverty prevents the growth of employment, as poor people lack training and skills to maintain a worthy job and health. Under such conditions, governments should undertake relevant measures to help the poor to find worthy, well-paid jobs. Spain, Italy and France are more actively struggling with unemployment. In addition, the Western countries provide social guarantees which ensure their confidence for future perspective.

**Conclusion.** Taking into account experience of foreign countries, it would be efficient to carry out public employment policy in the following main areas:

- further improvement of the legal framework regulating issues of social protection and employment of the unemployed population. In this regard it is required to adopt the Law of the Republic of Uzbekistan “On social protection”;

- further improvement of conditions created by the government to ensure self-employment of the population. To achieve this aim it is necessary to further strengthen the selective support of small business and private entrepreneurship in compliance with the policy of stimulating the development of family business, changes in the world market and domestic economy;

- personnel training, retraining and qualification upgrading. Personnel retraining should not be temporary, but should be systematically implemented in compliance with the market conjuncture. In addition, it is necessary to organize training, retraining, and qualification upgrading centers and training courses for large industrial enterprises;
- encouraging regional mobility of labor force. The state should provide financial support and assistance to citizens and families who decide to move to the regions with actively employed population. In addition, developing a reasonable policy implemented by the government to provide employment should be of a prior importance. Relevant measures should be undertaken to encourage and provide housing to engineer-technical staff, graduates of higher education institutions and vocational colleges in order to keep them staying in the regions of the republic. It is necessary to set quotas on regions for enrollment of applicants to higher education institutions and develop a mechanism for distribution of graduates by regions;

- it is recommended to establish regulation of international flows of labor force. International agreements that regulate the flow of labor force among states should be signed in order to achieve this aim. In addition, it is necessary to develop domestic legislation, based on the economic situation, to encourage or limit the flow of immigrants to the country. It is necessary to encourage highly qualified personnel, scientists and specialists in the country and for this purpose it is recommended to work out and adopt the Law of the Republic of Uzbekistan “On labor migration”;

- it is advisable to develop demographic process regulation. The state should monitor birth and death processes and undertake relevant measures to regulate the situations with possible negative trends. To achieve this aim it is desirable to establish a research center in Uzbekistan with the participation of major demographers to improve the mechanism of the state regulation of demographic processes in Uzbekistan.

Reference:

1. USA: economy, policy, ideology. 1996. №7. - p.35.
