Econometric Modeling of Public Service Development

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When we understand services as the actions of one person in relation to another (people) for the good, we see that when such actions are performed, some types of services are performed without sale on the free market. The model of a market economy "Flowchart" (N. Mankyu, P. Samuelson) presented in the study was improved by introducing supply and demand, consumers and manufacturers, introducing paid services in the market of goods and services and direct transfer of free services from the market . ,

R.J. Kurbanova developed a methodology for determining the technical and economic level of equipment, a methodology for determining the technical and economic level of service to enterprises, using methods for calculating the effectiveness of introducing new equipment

In determining the economic efficiency of the material and technical base of the enterprise, using the method of calculating the costs of each product proposed by V. I. Shalun, an innovative measure that costs the least labor was considered effective.

With regard to reducing the cost of transport services, it should be noted that "... studies show that the cost of road transport in developing countries is 1.5 times higher than in developed countries. Due to the decrease in speed due to road conditions, the cost of transportation will increase by 1.5-1.6 times, operating costs of cars will increase by 1.6-2 times.

In developed countries, including France, there are 3 doctors with higher education per thousand people.

One of the important issues facing the economy of the republic is the further deepening of economic reforms, modernization of the country, econometric modeling of priorities for the comprehensive development of the service sector in each region, the development of scientifically based recommendations and proposals using forecasting.

The development of public services primarily depends on the results of reforms in all its regions and territories.

This article discusses in detail the problems associated with modeling the development of public service networks.

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According to the experience of the countries of the world, the service sector is one of the key factors in the development of the country's economy. Most of the world's population is engaged in services, including 80 percent in the United States and more than 70 percent in Japan.

Based on the foregoing, new methodological approaches have been proposed in assessing the scope of services at work.

We use the following formula to determine the level of access to services in the region.

Level of service:

$$Ax_d = \frac{\sum_{i=1}^{n}(Y_i)}{\sum_{j=1}^{m} A_j} = \frac{Y_1 + Y_2 + \cdots + Y_n}{A_1 + A_2 + \cdots + A_m}$$

Here: the extent to which the population of Aksda is provided with all types of services; Population in AJ; Service area type Yi-i.

Currently, the number of services in the world, especially in our country, has exceeded one thousand. It is time to study them and to a certain extent classify them.

This means that a person is a member of society, actively influences nature, creates material conditions and organizes production. At the same time, he is under the influence of material conditions and the production activity created by him. Therefore, we selected 12 most important indicators of the service sector of Kashkadarya region. Communication and information services, financial services, transportation services, accommodation and catering services, commercial services, real estate services, educational services, medical services, rental services, repair services for household goods and computers, individual services, technical tests and architecture. services and other services.

The development of public services requires the search and implementation of new approaches, economic and mathematical models and methods. We express these indicators in the functional form of an econometric model of each service network, taking into account the main influencing factors.

The function of the communication network and information services to the population of the region will be as follows.

$$A_{aax} = \varphi_1(I_{ba}, A_s, A_d, U_i, SH_i, I_i) + \varepsilon_1 \qquad (2)$$

Here: Aaax- Providing communication and information services to the population of the province, the employed part of the population of Iba, the total population of the province of As, the total income of the province of Hell, the total consumption of the province of Wu, the personal consumption of the province of Shi, the social consumption of the population of the region.

Function of a network of financial services to the population of the region.

$$M_x = \varphi_2(I_{ba}, K_m, A_d, S_x) + \varepsilon_2 \qquad (3)$$

Here: Mx- Providing financial services to the population of the province, Iba - Employment of the population of the province, Km-capital of the population of the province, Gross income of the population of the province of Hell, Trading services to the population of the province of Sx.

Function of a network of trade services to the population of the region

$$S_x = \varphi_3(A_d, U_i, Qx_m, T_a, K_m, C_m) + \varepsilon_3 \qquad (4)$$

Here: Trading services to the people of the province of Sks, gross income of the province of Hell, total consumption of the province of Uy, agricultural production in the province of Hks, the trade turnover of Ta province, the capital of the province of Km, province See the number of industrial products.

The function of the network of transport services to the population of the region

$$T_{tx} = \varphi_4(A_s, I_{ba}, A_d, K_m, Y_t, C_m, Qx_m, T_a) + \varepsilon_4 \qquad (5)$$

Where: Ttx- Providing transport services to the population of the province, Total population of the province of As, employed part of the population of Iba, Total income of the population of Hell, Km-capital of the population of Hell, Total income of the population of Hell, It- Passenger traffic in the region, industrial Sm-Region products, Qxm-Region agricultural output, Ta-Region turnover.

Function of a network of housing and communal services enterprises for the population of the region

$$YjO_x = \varphi_5(A_s, I_{ba}, A_d, K_m, TFO_{bx}, Uyk_{xx}) + \varepsilon_5 \qquad (6)$$

Here: YjOx- Providing housing and catering services to the provincial population, the total population of the province of As, the employed part of the population of Iba province, the gross income of the province of Hell, the capital of the province of Km, the welfare of the province TFObx. General expenses associated with the increase in housing costs for the population of Uykxx-province.

Function of a network of services related to real estate for the population of the region.

$$Km_x = \varphi_6(A_d, SH_i, K_m, TFO_{bx}, Uyk_{xx}, M_x) + \varepsilon_6 \qquad (7)$$

Where: Kmx- Providing real estate services to the provincial population, Total income of the population of the province of Hell, Personal consumption of the population of Shea province, Capital expenditures of the population of the province of Km, Total expenses TFObx related to improving the well-being of the population of the province, Uyks Province, Housing expenses for the population, Mx- Provision of housing financial services to the population of the region.

The function of the network of educational services to the population of the region.

$$T_{o'x} = \varphi_7(A_s, A_d, I_{ba}, O'_s, TFO_{bx}, MK_x) + \varepsilon_7 \qquad (8)$$

Here: Educational services for the population of the province of Toh, the total population of the province of As, the total income of the population of the province of Hell, the employed part of the population of Iba, the number of teachers per thousand students in the province of As, TFObx. general expenses associated with improving the welfare of the population, the provision of household goods and computer repair services to the population of the MKH-Region.

The function of the healthcare network for the population of the region

$$SS_x = \varphi_8(S_{sx}, A_s, K_{o's}, V_s, H_s, I_{ba}) + \varepsilon_8 \qquad (9)$$

Here: SSh- Providing medical services to the provincial population, health care costs in the province of Ax, Total population of the province of As, employed part of the population of Iba, Number of hospital beds per 10 thousand inhabitants of the province of Kos, All-province

number of doctors per 10,000 inhabitants, Hs - the number of nurses per 10,000 inhabitants of the province.

Function of a network of rental points for the population of the region.

$$I_x = \varphi_9(A_s, I_{ba}, Km_x, K_m) + \varepsilon_9 \qquad (10)$$

Here: Ix- Provision of rental services to the population of the province, The total population of the province of As, the employed part of the population of Iba-province, Kmx- Provision of real estate services to the population of the province, Km-Capital of the population of the province.

The function of the network of individual services to the population of the region.

$$Yt_x = \varphi_{10}(A_s, I_{ba}, A_d, K_m) + \varepsilon_{10} \qquad (11)$$

Here: Ytx- The provision of individual services to the population of the province, the total population of the province of As, the employed part of the population of Iba, the total income of the population of Hell, the capital of the population of the province of Km.

The function of the network of services for the repair of household goods and computers for the population of the region.

$$MK_x = \varphi_{11}(I_{ba}, A_d, SS_x, T_{o'x}) + \varepsilon_{11} \qquad (12)$$

Here: MKx-The provision of household goods and computer repair services to the population of the region, Iba-Employment, Gross income of the population of the Ad-region, SSH-The provision of medical services to the population of the Toh region, Educational services to the population of the Toh region.

The function of the network of technical tests and architectural services to the population of the region.

$$TsM_x = \varphi_{12}(A_s, A_d, I_{ba}, TFO_{bx}, Uyk_{xx}) + \varepsilon_{12} \qquad (13)$$

Here: TsMx-Providing technical tests and architectural services to the population of the region, the employed part of the population of Iba-Region, the total income of the population of Ad-Region, TFObx - the total costs of improving the welfare of the population of the region, housing for the population of the Uyks-Region expenses.

In the Kashkadarya Regional Department of Statistics, the services sector is analyzed in 13 types. We also analyzed public services based on this information.

In Kashkadarya region, the volume of services by sectors amounted to billions of soums					
Indicators	**2014 year**	**2015 year**	**2016 year**	**2017 year**	**2018 year**
Total Services	**3066,4**	**3645,6**	**4556,2**	**5859,3**	**6975,9**
Including basic types:					
Communication and information services	241,2	274,8	328,7	370,6	426,1
Financial services	254,2	312,9	412,8	566,9	787,4
Transport Services	652,2	792,8	910,1	1491,5	1608,9
Accommodation and catering services	20,9	25,4	146,9	185,1	220,8
Sales services	1133,8	1290,6	1646,3	1935,8	2337,0

Real Estate Services	108,3	136,9	170,2	191,3	226,9
Education Services	89,8	106,5	131,1	163,9	227,8
Medical Services	28,2	39,5	45,8	54,4	75,0
Rental services	88,1	109,1	135,9	158,0	197,7
Repair of household and computer equipment	135,4	185,3	216,4	226,5	256,5
Customized services	150,8	158,3	209,2	234,5	262,9
Technical testing and architectural services	21,2	33,3	30,0	50,3	76,7
Other Services	142,3	180,2	172,8	212,2	272,2

We see a 5-year growth trend in the services sector for the population of Kashkadarya region, analyzing the share of services, we see the share of each sector in the total volume of services in 2018.
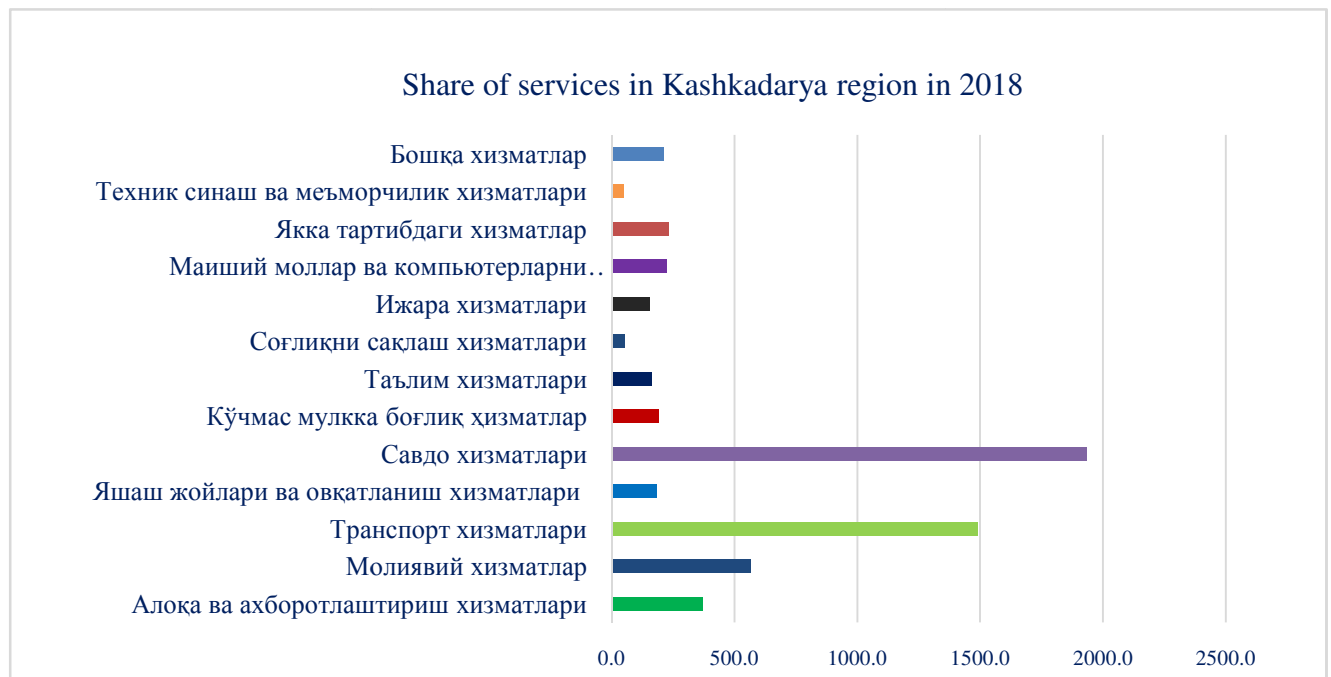

Figure 3 Share of services in Kashkadarya region in 2018

As can be seen from Figure 3, the share of trade and transportation services for the population of the region is much higher than other services.

Thus, the development of the country is to increase and enhance the role of service sectors in improving the living conditions of the population.

In conclusion, we can say that it is necessary to create a database of legal norms for reforming the civil service and improve its models based on the requirements of the stages of transition to market relations. Issues related to existing problems include, first, the regulation of population growth, the increase in employment at the expense of labor resources, the creation of new jobs in the manufacturing sector, as well as in the field of employment services for unemployed or laid-off workers.

Secondly, this requires the mechanization of production processes, the use of new technologies, the effective use of new, modern methods in organizing production and labor, as well as improving models of public services on a large scale.

Thirdly, it is necessary to develop models for educating the population, teaching them new specialties, creating conditions for retraining in order to serve the population, improving living conditions on the ground, and effectively using the experience and skills of staff.

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