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Statistical Accounting Of Services Provided In The Territories And Statistical Assessment Of Their Impact On The Income Of The Population

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Annotation. This article statistically examines the specific features of the services provided and the impact of the volume of services provided in order to increase real per capita income in the regions.

Keywords: Production, services, region, real income, statistical evaluation, average.

Statistical accounting of services provided in statistics, including services provided in the regions Further improvement of statistical accounting in the field of services and the state of the market in the service sector, taking into account their new types, including services in urban and rural areas helps to determine the order of formation of statistical data on.

Resolution of the President of the Republic of Uzbekistan No. PP-5113 of May 11, 2021 "On measures to accelerate the development of the services sector" aims to improve the statistical accounting of services provided in the regions.

To this end, the modernization and diversification of the services sector, the optimal implementation of its composition in line with modern requirements will be an important factor in increasing the value added in GDP. At present, the share of services in the economy of the republic is growing significantly. This growth in the service sector can be explained by a number of factors, including: the emergence of dozens of new types of services in the market, namely, payments by credit cards, e-commerce, new shopping malls, catering establishments, opening hotels, expanding educational services, leisure arts, tourism and so on.

The volume of services provided in the literature is defined as the value of market services provided by all service providers (legal entities and individuals) that specialize in the production of services and the provision of services is not the main activity.

We will consider the impact of the volume of services provided in the regions of the country in order to increase real per capita income. To do this, we use data from 2020 (Table 1).

Table 1

Information on the volume of services provided by regions and real gross per capita income (2020)

Regions	The volume of services provided by the regions billion soums.	Real income per capita thousand soums.
The Republic of Karakalpakstan	6 520,3	8367,2
Andijon	11 413,0	9559,3
Bukhara	9 843,1	12924,4
Jizzax	5 024,7	9703,6
Qashqadaryo	10 349,5	8999,8
Navoi	5 840,5	17980,6
Namangan	8 928,6	8258,3
Samarkand	14 086,1	9447,4

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Surxondaryo	8 013,9	8729,7
Sirdaryo	3 303,0	9663,6
Tashkent region	16 438,3	11633,9
Fergana	13 694,4	7850,2
Khorezm	6 461,2	10919,5
Tashkent city	79 879,3	22080,8

Statistical assessment of the impact of changes in the volume of services provided by regions on real per capita income.

General characteristics of indicators

```
  obs:            14
 vars:             2                          24 Feb 2022 22:15
-------------------------------------------------------------------------------
              storage   display    value
variable name   type    format     label      variable label
-------------------------------------------------------------------------------
HBKXHmlrdsomx   double  %10.0g                HBKXH-mlrd.so‘m (x)
AJBRUDmingsomy  double  %10.0g                 AJBRUD ming.so‘m (y)
-------------------------------------------------------------------------------
```

Visual statistics of indicators

Variable	Obs	Mean	Std. Dev.	Min	Max
HBKXHmlrds~x	14	14271.14	19251.95	3303	79879.3
AJBRUDming~y	14	11151.31	4083.58	7850.181	22080.84

These data provide information on the volume of services provided in 14 regions of the country and the real total per capita income.

The average volume of services provided in the regions of the Republic of Uzbekistan in 2020 $\overline{X} = 14271.14$ billion soums. The difference between the set and the average $\sigma = 19251.95$ billion soums. In particular, the volume of services provided in 14 regions amounted to $3303.0 \leq \overline{X} \leq 79879.3$ billion soums.

The average real per capita income in these 14 regions is $\overline{X} = 11151.31$ thousand soums. The difference from the average of the package was $\sigma = 4083.58$ thousand soums. In particular, in 14 regions the real total per capita income amounted to $7850.18 \leq \overline{X} \leq 22080.84$ thousand soums.

We use a point chart to determine the relationship between the volume of services provided in the regions and the real total per capita income.

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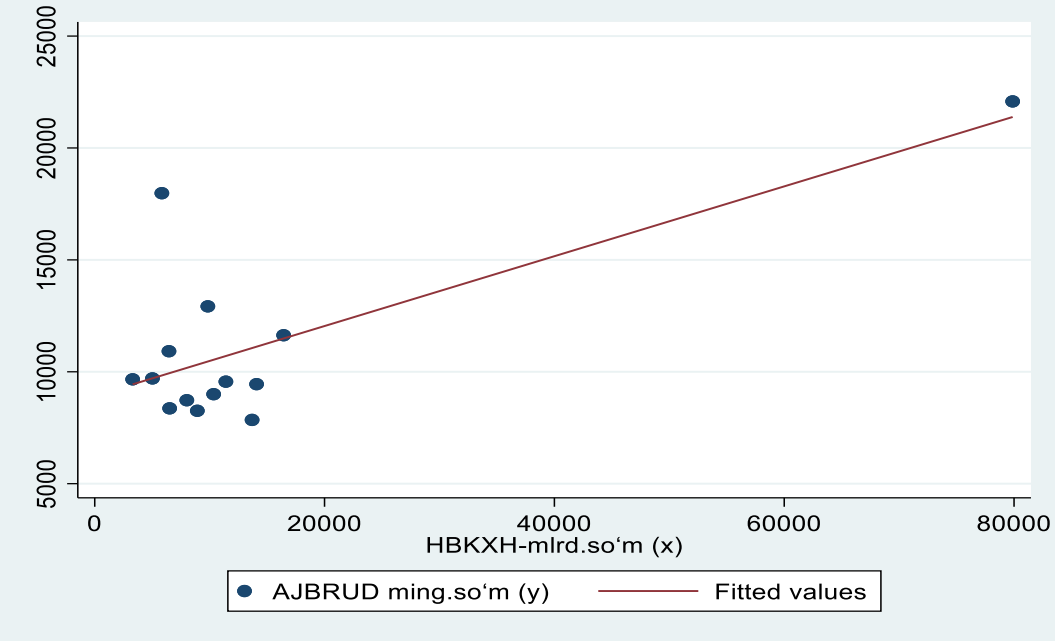
Point diagram



As we can see from this graph, there is a linear relationship between the services provided and the real gross per capita income.

We found that the relationship between the volume of services provided and real gross per capita income is linear. Now we need to determine the strength of the connection.

This figure was first proposed by British scientists Golton and Pearson. The correlation coefficient ranges from -1 to +1. If the correlation coefficient is negative, the correlation is inverse, and if it is positive, the presence of a linear correlation is recognized. It is with this feature that this indicator differs from other indicators, and this is its advantage over others. As the correlation coefficient approaches, the strength of the coupling increases, and vice versa. Cheddock scales are used in statistics to qualitatively assess the characteristics that characterize the bond density.

Cheddock scales

Bond density	0,1-0,3	0,3-0,5	0,5-0,7	0,7-0,9	0,9-0,99
Connectivity	empty	average	noticeable	high	too high

We determine the strength of the relationship between the volume of services provided and real gross per capita income by the correlation coefficient

$$r = \frac{\overline{xy} - \bar{x} \cdot \bar{y}}{\sigma_x \sigma_y};$$

	HBKXHm~x	AJBRUD~y
HBKXHmlrds~x	1.0000	
AJBRUDming~y	0.7354	1.0000

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Hence, when we determine the correlation between the volume of services provided in the regions and real gross per capita income by the correlation coefficient, the correlation is strong $r = 0.7354$, which corresponds to a high straight-line correlation. The more we increase the volume of services provided in the regions, the more real total per capita income will increase.

It is known that the density of the bond between the factor character and the resulting character cannot be equal together. If they are equal together, there is a functional connection between them, not a correlation. If it is zero, there is no correlation between them at all.

The following regression equation is used to estimate the linear relationship between the volume of services provided and real gross per capita income:

$$\bar{y}_x = a_0 + a_1 x$$

where: a_0 -free limit, a_1- coefficient of the regression equation. and the parameters of the regression equation are also called. These parameters are found using the small squares method. That is $\sum(y - \bar{y}_x)^2 \to min$ or $\sum(y - a_0 - a_1 x)^2 \to min$. If the expression at any value of the parameters tends to zero, the parameters are found by the following system of normal equations

$$\begin{cases} na_0 + a_1 \sum x = \sum y \\ a_0 \sum x + a_1 \sum x^2 = \sum xy \end{cases}$$

Source	SS	df	MS	Number of obs	=	14
				F(1, 12)	=	14.13
Model	117239602	1	117239602	Prob > F	=	0.0027
Residual	99543581.4	12	8295298.45	R-squared	=	0.5408
				Adj R-squared	=	0.5025
Total	216783184	13	16675629.5	Root MSE	=	2880.2

AJBRUDmings~y	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
HBKXHmlrdsomx	.1559878	.0414925	3.76	0.003	.0655835	.2463922
_cons	8925.184	971.1628	9.19	0.000	6809.202	11041.17

$$\bar{y}_x = 0.155x + 8925.2$$

In conclusion, it is necessary to take the following measures to develop the service sector in the country, especially to expand the range and improve the quality of services provided in the regions:

- To increase the role and share of services in the formation of GDP, as indicated in the Development Strategy of the Republic of Uzbekistan for 2022-2026, to achieve a radical change in the structure of services at the expense of modern high-tech types;
- development of service enterprises in rural settlements, first of all, utilities, repair and construction of housing, production of agricultural products;
- based on the specifics of each region, we consider it appropriate to create conditions for achieving an increase in the share of small business and private entrepreneurship in the service sector.

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List of used literature

1. Resolution of the President of the Republic of Uzbekistan dated August 3, 2020 No PP-4796 "On measures to further improve and develop the national statistical system of the Republic of Uzbekistan."
2. Resolution of the President of the Republic of Uzbekistan No. PP-5113 of May 11, 2021 "On measures to accelerate the development of the services sector."
3. Karaboev A.R, Goyibnazarov B.K, Rashitova N.H. Textbook "System of National Accounts". Tashkent "ECONOMY-FINANCE" 2015. 129b
4. Prof. Shodiyev X.A., Habibullayev I.H. Statistics. Textbook.-T .: ECONOMY-FINANCE, 2018. -176 p.
5. Prof. Shodiyev X.A., Habibullayev I.H. Practicum on Statistics.-T .: ECONOMY-FINANCE, 2020. -80 p.
6. David P. The dynamo and the computer: anhistorical perspective on the modern productivity paradox. The American Economic Review. 1990. Vol. 88. № 2. P. 355—361;
7. Howkins J. The Creative Economy: How People Make Money fromIdeas. London: Penguin, 2001, 263 p;
8. Benkler Y. The Wealth of Networks: How Social Production Transforms Markets and Freedom. New Haven, Conn: Yale University Press,2006, 515 p;
9. Tapscott D. The digital economy: promise and peril in the age of networked intelligence. New York; Montreal: McGraw-Hill, 1996, 342 p;
10. Damodar N. Gujarati (2004), “Basic Econometrics”, The fourth edition, The MacGraw-Hill Companies, 848 p;
11. James D. Hamilton. Time Series Analysis. Library of Congress-In- Publication Data. Princeton University Press, New Jersey, 1994, 154 p;
12. Hanke J.E., and Reitsch A.G. (1995) Business forecasting, 5th ed., Prentice-Hall: Englewood Cliffs, NJ. 120 p;
13. Stoffer, D.S. and R.H. Dhumway, 2010. Time Series Analysis and its Application. 3rd Edn., Springer, New York, ISBN-10: 1441978658, pp: 596;
14. www.stat.uz