The System of Calculation of Macroeconomic Indicators of the Republic of Uzbekistan

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Abstract: In the article, it is envisaged to improve the implementation of the econometric evaluation system for the research of the structural structures in the system of calculating macroeconomic indicators of the Republic of Uzbekistan and to ensure the consistency of the reforms being implemented based on the preliminary results of the development strategy of New Uzbekistan for 2022-2026 by introducing automated information systems for their comparative evaluation. In addition, in order to increase the inclusiveness of economic growth, to define clear ways for the country to enter the ranks of middle-high income countries in the next decade, the forecast of the main macroeconomic target indicators set in the Concept of socio-economic complex development of the Republic of Uzbekistan until 2026 has been determined, and the reforms to be carried out in the country to achieve it, as well as the expected future suggestions on the results are presented.

Keywords: инвестиция, инновация, стратегия, макроиқтисодий кўрсаткичлар, корреляция, эконометрик модель, регрессия, прогноз.

Introduction

In the 21st century, the increase in social orientation in the economic development of the world's leading countries has led to an increase in the importance of the small business sector, which can not only meet the economic needs of society, but also contribute to the solution of social problems. Accordingly, in the experience of developed countries, it is evident that the small business sector has a significant and positive impact on solving issues such as increasing the competitiveness of the economy, introducing the achievements of scientific and technical development into production, creating new jobs and continuously increasing the income of the population.

It is noted in the studies that if the 80s of the 20th century in the USA, 1.5 mln. if small enterprises were operating, their number reached 7 million by 2010. During the implementation of structural changes related to the globalization of economic processes in the United States, the development of small business has become the main factor in the restructuring of the economy. Small businesses accounted for more than 55% of all innovation in the country, and productivity per employee was twice that of large businesses. The expansion of the scale of small business activities and the increase in efficiency is showing itself as an important and very relevant direction in carrying out modern structural changes in all countries of the world.

In Uzbekistan, in the conditions of modernization, liberalization and globalization of the economy, the need to accelerate the integration of national economy branches and sectors into the world economy, and to fully satisfy the growing needs of the population, the need to form small business entities that can quickly launch the production of marketable products and services based on modern technologies is an important direction that cannot be delayed. is recognized as In this regard, the 26th goal of the development strategy of New Uzbekistan for 2022-2026: to further improve the investment environment in the country and increase its attractiveness, to take measures to attract 120 billion US dollars, including 70 billion dollars of foreign investments in the next five years. .. » important tasks are defined. For their full implementation, the question of attracting foreign investments, including foreign direct investments, is becoming extremely important, based on the possibilities of the current level of technological and financial development in our country. Also, there is a need to carry out scientific research on the inter-sectoral directions, conditions and effectiveness of foreign investments in selected regions of our country.

Literature Review

Theoretical and practical aspects of calculating macroeconomic indicators in the economy, construction and forecasting of econometric models, including the determination of the country's economy in the input-output method in the national accounting system R.Stone [1], the general theory of employment in economic growth, the influence of money and interest on the increase of population about J. Keync[2], inter-sectoral balance model V. Leontev[3] and many others J. Marshall[4], E. Hansen[5], J. Hicks[6], M. Friedman[7], K. R. McConnell[8] has been deeply researched in the scientific works of many other scientists.

The issues of formation and development of foreign investments in the field of small business in developing countries were discussed by Russian scientists A.A. Agafonov [9], V.K. Bugaev [10], F.S. Tumusov [11], L.V. Davydova, S.V. Ilminskaya[12], E. Kocherin[13], Z. Vdovenko[14], M.S. Ilyasov[15], O.V. Fadeeva[16], V.K. Spilnichenko and L.A. Sarkisyans[17] is based on scientific works.

Attracting foreign investments to the economy of Uzbekistan and its regions, theoretical and practical aspects of its effective use A.V. Vakhabov and others[18], Sh.G'.Yuldashev[19], N.G.Karimov[20], B.T. Baykhanov[21], O.Abdullaev[22], R.Z.Yuldashev[23], D.D.Rustamova[24], E.A.Makhmudov[25] and others are expressed in scientific research works.

Methodology

In the research work, we first perform economic, comparative and logical analyzes within the scope of the topic. After that, in order to perform an econometric analysis on the selected factors, first of all, the direction of the correlation of x and y and the linear coefficient of the pair correlation are as follows:

$$r_{xy} = b\frac{\sigma_x}{\sigma_y} \quad (1)$$

is calculated using the formula, and through this it is determined whether the factors are correctly selected and how and to what extent they are connected. Then the coefficient of determination of how the factors affect the resulting factor:

$$R^2 = r_{xy}^2 \quad (2)$$

It is determined by performing calculations using formula (2). After that, the parameters of the regression equation (model reflecting the process) of the selected factors (arbitrary variables) and the resulting factors are as follows:

$$b = \frac{\overline{y\cdot x} - \bar{y}\cdot\bar{x}}{\sigma_x^2}; \qquad a = \bar{y} - b\cdot\bar{x} \quad (3)$$

determined by formulas. It should be noted that the selected factors can be linear or non-linear depending on the measurement units. The model to be obtained in our study is non-linear, we logarithm all the factors to form the regression equation and the resulting

$$lny = lna + b\cdot lnx \quad (4)$$

A process of exponentiation is carried out by logarithmizing both sides of this level model equation:

$$Y = C + b\cdot x \quad (5)$$

here $Y = lny,\ \ X = lnx,\ \ \ C = lna.$

x_i Using the actual values of , the resulting value of the regression equation is determined. Average approximation error – we find the value of Ā and check the equation with the first quality criterion.

$$\bar{A} = \frac{1}{n}\sum_{i=1}^{n} A_i = \frac{1}{n}\sum_{i=1}^{n}\left|\frac{y_i - \hat{y}_i}{y_i}\right|\cdot 100\% \quad (6)$$

The mean error of approximation of the regression equation determined by this method was checked, and in our study this error was reliably selected up to 8.0%. After that, the significance of the parameters of the equation is compared by t-Student's test for each parameter in the case of df=n-k-1

when ∝=0.01 or ∝=0.05 according to the temp>ttabl condition. It can also be determined on a computer using STYuDRASPOBR(0.05;df). Empirical value of t-Student's test with the following formulas:

$t_{emp} = |X - Y \cdot Sd|$ бу ерда $Sd = \sqrt{S_x^2 + S_y^2}$ (7)

can be calculated. In addition, the significance of the determined equation is checked by the following formula using Fisher's F-criterion R2 coefficient of determination:

$F_{emp} = \frac{R^2}{1-r^2}(n-2)$ (7)

The true value of this Fisher's F-criterion is checked with the critical values given in the table under the condition Femp>Ftabl, and the obtained value, the random character of the determined relationship and the statistical insignificance of the parameters of the equation indicate the need to accept the hypothesis H0 about the density of the relationship. The F-statistic value can also be analyzed using computer technology using these built-in functions as part of regression calculations. An equation that meets all quality criteria can be put into practice, finding it adequate. Using this adequate model, the next process is continued.

Results

The development of science and technology ensures the development of the country's economy and its integration into the world community. Economic development is carried out on the basis of investment in its technical and technological renewal, reconstruction. This, in turn, causes the need for foreign investments, regardless of how high the level of development of today's economy is. Because the dynamics of growth of foreign investments exceeds the dynamics of development of the domestic economy of most countries of the world.

At present, it is necessary to anticipate problems such as unprofitable investments made in the world economy or limiting the production process at full capacity due to the failure to identify the risk and risk levels that arise in the effective use of investments, and to develop scientifically based measures, to ensure the stable growth of the enterprise, global ensuring competitiveness - requires a deep and comprehensive analysis of the factors affecting investment efficiency, and the determination of quantitative links between them.

It should be noted that the disproportion of investments in regions is characterized by an increasing deviation in regions with a large volume of investments compared to the opposite regions. Such a situation destroys the possibility of uniting the country's single economic space and creates a serious difference in the investment level of "rich" and "poor" regions. It should be noted that this is a problem not only for the national economy, but also for many countries and regions of the world.

The authorities of the subjects of the territories often face great difficulties in creating conditions for the promotion of investment activities at the regional level. In our opinion, in this regard, it is necessary to take into account the potential of the regions, natural identity, cultural heritage or historical features, the influence of certain economic traditions, and the availability of resources. Thus, regional investment policy is the "art of the possible" and is characterized by significant differences. In general, the institutional factors of investment attractiveness of regions are decisive in ensuring their economic growth by attracting investments (Table 1).

Table 1Descriptive analysis of the main economic indicators of the regions

Indicators	Gross regional product volume, bln. soum		Gross regional product per capita, thousand soums		Investments in fixed capital per capita, thousand soums	
	2010	2021	2010	2019	2010	2021
Average	4378,8	31220	2247,2	14211,7	601,4	6419
Median	4247,5	29796,1	1871,8	10873,9	305,55	4936,4
Excess	-0,6	2,9	2,2	3,9	1,8	2,6
Interval	7129,1	64049,9	3592,7	28765,9	1745,8	15520,6
Minimum	1549,4	10477,7	1214,7	8353,6	206,8	2465,1

Maximum	8678,5	74527,6	4807,4	37119,5	1952,6	17985,7
Total	61303,1	437080,2	31461	198964,2	8419,8	89866

Source: author's development based on the information of the State Statistics Committee of the Republic of Uzbekistan

Based on the data in the table, if we pay attention to the average values of the gross regional products of the Republic of Uzbekistan in 2010, during this period the above-average indicators were in 6 regions (Bukhara - 4437.1 billion soums, Kashkadarya - 6602.0 billion soums, Samarkand - 6219, 7 billion soums, Tashkent - 7203.9 billion soums, Fergana regions - 5113.4 billion soums and Tashkent city - 8678.5 billion soums). In 2019, 31,220.0 bln. The number of regions where the number of soums is higher than the average indicator is 7 regions (Andijan - 32897.2 billion soums, Kashkadarya - 36470.1 billion soums, Navoi - 36685.2 billion soums, Samarkand - 37593.9 billion soums, Tashkent - 50117 .8 billion soums, in the regions of Fergana - 32943.3 billion soums and in the city of Tashkent - 74527.6 billion soums).

According to the difference of excess coefficients (2.3), the growth of the gross regional product in 2021 compared to 2010 formed a sharp corner, and it can be seen that the gross regional product increased on the basis of a higher value (by 26841.2 billion soums compared to 2010).

If we pay attention to the difference between the minimum and maximum values of the gross regional product in the selected period, from 2010 to 2021, 8928.3 bln. increased to 10,477.7 billion soums. If the lowest gross regional product was recorded (in Syrdarya region) equal to soums, the highest employment rate in 2021 compared to 2010 is 65849.1 billion. increased to 74527.6 billion soums. registered to soum (Tashkent city). In 2010, investments in fixed capital per capita in the regions of the Republic of Uzbekistan, according to total indicator values, amounted to 8419.8 billion. soums and in 2021 89866.0 bln. was equal to soum.

Танлаб олинган даврда ялпи ҳудудий маҳсулот ҳажмининг минимум ва максимум қийматлари ўртасидаги фарқлага эътибор қаратадиган бўлсак, 2010 йилдан 2021 йилга нисбатан 8928,3 млрд. сўмга ошиб, 10477,7 млрд. сўмга тенг бўлган (Сирдарё вилоятида) энг кам ялпи ҳудудий маҳсулот ҳажми қайд этилган бўлса, энг юқори бандлик кўрсаткичи 2010 йилга нисбатан 2021 йилда 65849,1 млрд. сўмга ошиб, 74527,6 млрд. сўмга (Тошкент шаҳри) қайд этилган. Жами кўрсаткич қийматлари бўйича Ўзбекистон Республикаси ҳудудларидаги аҳоли жон бошига асосий капиталга инвестициялар 2010 йилда 8419,8 млрд. сўм ва 2021 йилда эса 89866,0 млрд. сўмга тенг бўлди.

If we conclude from the results of the analysis, it is possible to cite Navoi and Tashkent regions and Tashkent city in reality, as well as the Republic of Karakalpakstan, Navoi region and Tashkent city with positive changes compared to recent years. Such a positive situation can be explained by the capital city of Tashkent and the high living conditions, the small number of people in the Navoi region compared to other regions, the existence of the "Free Economic Zone" and the recent construction of new production enterprises in the Republic of Karakalpakstan.

In general, in the article, the volume of investments in fixed capital in the economy of the Republic of Uzbekistan - AKIX, depending on other features, including the conditions of innovation and digitalization of the economy, the number of developed scientific and technical developments in the country - IChIIS, the number of data transmission networks - MUTS, and the volume of communication and information services provided in the country - We will perform an econometric analysis of changes under the influence of AAXX. For this purpose, it is determined with the help of computer technology, based on the data of the State Statistics Committee of the Republic of Uzbekistan on selected factors for the years 2007-2021, whether the factors are correctly selected in relation to the resulting factor and how and to what extent the correlation coefficient between them is connected (Table 2).

Table 2Correlation coefficient of selected factors on the absorption of capital investments in the economy of the Republic of Uzbekistan

	AKIX	*IChIIS*	*MUTS*	*AAXX*

AKIX	1			
IChIIS	0,968281434	1		
MUTS	0,908135087	0,6438111	1	
AAXX	-0,74686676	-0,41047726	-0,7569807	1

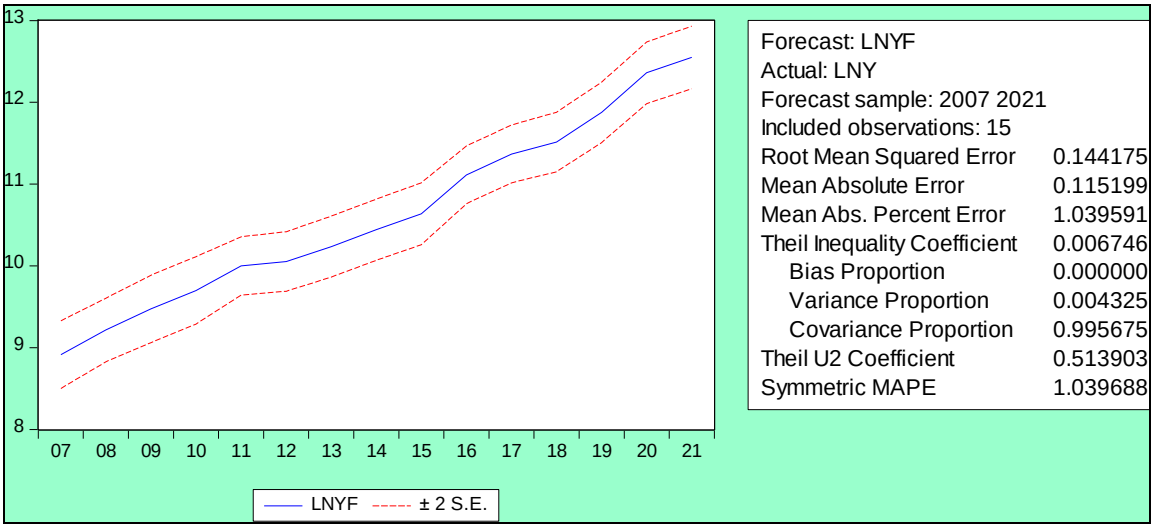
If we focus on the values of the table, relative to the resulting-AKIX factor the number of developed scientific and technical developments in the country - IChIIS ($r_{Y,IChIIS}$=0.96828) and the number of information transmission network -MUTS ($r_{Y,MUTS}$=0.90814) are closely related to the resulting AKIX-factor. In the economy of the Republic of Uzbekistan, the volume of investments in fixed capital is strongly inversely connected with the volume of communication and information services provided in the country - AAXX ($r_{Y,AXX}$=-0.7468), and the relationship between the factors is observed due to the absence of multicollinearity under the condition rx1,x2<0.8 the determination of the regression equation can be continued through the EViews software (Table 3).

Table 3The result of the multifactor regression equation and quality criteria of the absorption of investments in fixed capital in the economy of the Republic of Uzbekistan

Dependent Variable: LNY
Method: Least Squares
Date: 08/30/22 Time: 10:21
Sample: 2007 2021
Included observations: 15

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNIChIIS	2.195173	0.496928	4.417488	0.0010
LNMUTS	1.987062	0.340530	5.835204	0.0001
LNAAXX	0.020903	0.058555	0.356981	0.0037
C	-21.50069	1.408629	-15.2636	0.0000
			t=2,200985	
R-squared	0.982847	Mean dependent var		10.62972
Adjusted R-squared	0.978169	S.D. dependent var		1.139462
S.E. of regression	0.168360	Akaike info criterion		-0.502249
Sum squared resid	0.311795	Schwarz criterion		-0.313436
Log likelihood	7.766867	Hannan-Quinn criter.		-0.504260
F-statistic	210.0950	Durbin-Watson stat		1.957433
Prob(F-statistic)	0.000000	F=0,278751		

Based on the values of the coefficients given in the table, the following equation is created:
LnAKIX =2,2LnIChIIS -1,9871LnMUTS+0,02LnAAXX-21,50069 (1)
If we pay attention to the significance of the parameters of regression equation 1 according to the t-Statistic criteria, with α=0.05 and df=11, the volume of communication and information services indicated only AAXX (t_{AAXX}=0.356981<t_{tabl}=2,200985) is equal to t_{tabl}=2.200985 is significant, and it is necessary to check the significance of this parameter with retrospective quality criteria MAPE (Mean Absolute Percentage Error) and TIC (Tayl inequality coefficient) (Fig. 4).



4-расм. 1-регрессия параметрларини ретроспектив сифат мезонлари натижаси

Based on the data presented in Figure 4, it can be noted that MAPE=1.04, which in turn satisfies the condition MAPE=1.04<10%, and TIC=0.0068<1, from the accuracy of the forecast, from the coefficient approaching zero, the significance of all the parameters of regression equation 1 originates. In order to simplify the mathematical rules and calculation processes and to achieve the accuracy of the results, the regression equation 1 created above is potentiated and the following equation is created according to it:

$$\text{AKIX} = \frac{\text{IChIIS}^{2.2} + \text{MUTS}^{1.9871} + \text{AAXX}^{0.02}}{e^{21.50069}} \qquad (1^*)$$

The created 1*-regression equation is statistically significant at a=0.05 and k1=11; Taking into account that Ftabl=0.278751 when k2=3, Fisher's value F_{emp}=210.1, the significance of the regression equation 1* under the condition $F_{tabl}<F_{emp}$, and DW=1.957, the absence of autocorrelation, and the reliability and adequacy of the equation result.

If we give an economic explanation to the identified regression equation 1*, if the number of developed scientific and technical developments in the country and the number of data transmission networks are increased to one, the volume of investments in fixed capital in the economy of the Republic of Uzbekistan will be 1387.5 billion. soums and 19.3 billion it was determined that it will increase to soums. If the volume of communication and information services provided in the country is 1.0 bln. if increased to soums, the volume of investments in fixed capital will be additional 0.4 bln. is expected to increase to soums. This, in turn, requires paying attention to scientific research and further improvement of communication services in the economy of the Republic of Uzbekistan.

Now, using the 1*-regression equation defined above, the remaining factors over time according to the following equations:

the number of developed scientific and technical developments in the country – $ICHIIS = 195.3 + 16.9 * t$;

number of data transmission network –$MUTS = 9070.7 + 1335.9 * t$;

volume of communication and information services provided in the country – $AAXX = 1624.5 + 940.6 * t$;

using the system of equations, the multi-factor forecast indicator of the volume of investments in the fixed capital in the economy of the Republic of Uzbekistan is determined from the case of t=15 (Table 5).

Table 5Multifactor forecast of the volume of investments in fixed capital in the economy of the Republic of Uzbekistan

Years	The volume of investments in fixed capital, bln. soum	Number of scientific and technical developments, unit	Number of data transmission network, unit	Volume of communication and information services, billion soum
2022	282681,1	448,8	29109,2	15734,5
2023	335614,7	465,7	30445,1	16674,1
2024	395763,5	482,6	31781,0	17614,7
2025	463774,7	499,5	33116,9	18555,3
2026	540326,6	516,4	34452,8	19495,9

It can be seen from the table that in 2022, the volume of investments in fixed capital will be 282,681.1 billion. the number of scientific developments created in the country is 448.8 soums and the information network is 29109.2 soums, and the volume of communication and information services is 15734.5 billion soums. it is expected to be achieved by delivering soum.
According to these indicators, by 2026, compared to 2022, the volume of communication and information services will increase by 19.3% to 19495.9 billion. to soums, the volume of investments in fixed capital increased by 47.7% to 540326.6 billion due to the data transmission network -15.5% and the number of scientific and technical developments increased by 13.1% to 34452.8 and 516.4, respectively. it is observed that it reaches soum. In order to achieve the mentioned positive result, economic reforms are being carried out by our government, and it is appropriate to consider that the decrees and decisions are being adopted as a result of attention to the sector.

Discussion

It should be noted that attracting investment to the country is an important aspect to focus on in the implementation of reforms aimed at increasing the attractiveness of the investment environment, which shows that it is in its effectiveness, that is, in the reforms being implemented and an important approach to ensuring the attractiveness of the investment environment at that time.
The attractiveness of the investment environment is evaluated by the high volume of directly attracted investment. The research work, observations and conducted analysis showed that the effectiveness of the measures implemented in ensuring the attractiveness of the investment environment requires a comprehensive assessment of the influencing factors in this process and systematically taking into account all aspects. In particular, in the conditions of innovation and digital economy, the introduction of new technologies alone is not enough, in turn, the necessary personnel, favorable environment, necessary infrastructures, as well as the necessary regulatory legal framework are required.

Conclusions and suggestions

It is impossible to carry out structural changes and modernize the economy, re-equip enterprises with modern equipment and launch competitive production without attracting investments, especially without expanding the participation of investments in leading industries. Attracting investments to the economy of the country accelerates the expansion of its economic opportunities, and ensures the economic power of the republic by using internal capabilities and reserves in all areas, assimilating new equipment and technology, exportable products, and starting their production.
Today, the Republic of Uzbekistan has an investment environment that has all the economic, political and legal foundations to become one of the countries that receive large foreign investments, but this does not mean that Uzbekistan has created all the conditions for attracting foreign investors. Therefore, it is now necessary to develop measures for the improvement of investment attraction mechanisms, its effective use, and proper organization of directions and distribution based on the above-mentioned principles..

Investment decisions are one of the most complex tasks in the selection process. They are based on multi-dimensional multi-criteria evaluation of a number of factors and trends operating in different directions. There is no doubt that the territorial aspects of direct investments are specific to a particular country, region, or territory. Therefore, assessing the investment attractiveness of the area is an important aspect of making any investment decision. The consequences for the investor and the economy of the region and the country as a whole depend on its accuracy. The more complicated the situation, the more the investor's experience and intuition should be based on the results of an expert assessment of the investment environment in the country and region.

According to the calculations made on the use of the indicator of investment attractiveness of the regions, it is known that the city of Tashkent, Samarkand and Andijan regions are using their investment potential and investment attractiveness very effectively. It should be noted that the investment potential in the remaining regions of the republic is not fully utilized and their utilization is lower than the national average. As for Jizzakh, Syrdarya and Surkhandarya regions, the investment potential and investment attractiveness of the region are being used ineffectively. Therefore, it is necessary for the regional authorities to organize effective investment activity management taking into account the available opportunities for attracting investors and, first of all, to create a favorable investment environment for attracting investments to the region.

It is necessary to form the image of each region and strengthen the recognition of national regions. Because it helps to focus on the region, more effectively express or protect interests, improve the investment environment, get additional resources for the development of the regional economy, and become a reserve of state personnel. In addition, improving the image of regions is a promising way to overcome difficulties in shaping the image of Uzbekistan in general.

References

[1] Bulturbayevich, M. B., & Jurayevich, M. B. (2020). The impact of the digital economy on economic growth. International Journal of Business, Law, and Education, 1(1), 4-7.

[2] Jurayevich, M. B., & Bulturbayevich, M. B. (2020). Attracting Foreign Investment In The Agricultural Economy. International Journal of Business, Law, and Education, 1(1), 1-3.

[3] Jo'rayevich, M. B., Baxritdinovich, I. R., & Bulturbayevich, M. (2020). The Role Of Regional Governance In The Development Of Small Business And Private Entrepreneurship. European Journal of Molecular & Clinical Medicine, 7(7), 705-711.

[4] Jurayevich, M. B., & Bulturbayevich, M. B. (2020). The Impact of The Digital Economy on Economic Growth. International Journal on Integrated Education, 3(6), 16-18.

[5] Batirovich, A. B., Yusufxonovich, K. P., & Bulturbayevich, M. B. (2021). Improving the Efficiency of Management of Vertically Integrated Industrial Enterprises in the Management of Innovative Activities of Enterprises. *Design Engineering*, 10605-10618.

[6] Ismatullayevich, S. I., & Bulturbayevich, M. B. (2021). DEVELOPMENT OF SMALL BUSINESS AND PRIVATE ENTREPRENEURSHIP IN THE ECONOMY OF THE REPUBLIC OF UZBEKISTAN. *Academicia Globe: Inderscience Research*, *2*(6), 419-425.

[7] Bulturbayevich, M. B. (2021). CHALLENGES IN DEVELOPING A DIGITAL EDUCATIONAL ENVIRONMENT. *Academic Journal of Digital Economics and Stability*, *2*, 1-9.

[8] Jurabaevich, S. N., & Bulturbayevich, M. B. (2021). POSSIBILITIES OF USING FOREIGN EXPERIENCE TO INCREASE THE QUALITY OF EDUCATION IN REFORMING THE EDUCATION SYSTEM OF THE REPUBLIC OF UZBEKISTAN. *Web of Scientist: International Scientific Research Journal*, *1*(01), 11-21.

[9] Bulturbayevich, M. B., Rahmat, A., & Murodullayevich, M. N. (2021). Improving Teacher-Student Collaboration And Educational Effectiveness By Overcoming Learning Challenges. *Aksara: Jurnal Ilmu Pendidikan Nonformal*, *7*(1), 153-160.

[10] Mullabaev B.B. Improving the strategy of vertical integration in manufacturing enterprises // Business Expert Scientific and Practical Monthly Economic Journal. - T., 2015. No. 8. Pp. 46-49. (08.00.00. No. 3).

[11] Mullabaev B.B. Analysis of scientific aspects of managing innovation activity of enterprises in the context of structural changes in the economy // Electronic scientific journal of economics and innovative technologies. - T., 2015. No. 6. Pages 1-8 (08.00.00 №10)
[12] Mullabaev B.B. Analysis of innovative activities in the context of structural changes in the economy of the Republic of Uzbekistan // Business Expert Scientific and Practical Monthly Economic Journal. - T., 2016. No. 5. Pp. 30-32. (08.00.00. No. 3).
[13] Mullabaev B.B. Introduction of vertical integration processes in the development of innovative activities in the production sectors // Electronic scientific journal of economics and innovative technologies. - T., 2016. No. 5. Pages 1-6 (08.00.00 No. 10).
[14] Mullabaev B.B. Development of light industry branches in uzbekistan basedon vertical integration // Бюллетень науки и практики Научный журнал. №10 (23) 2017. http://www.bulletennauki.com. 178-184 стр. (GIF 0,454; DIIF 1,08; Infobase index 1,4;)
[15] Rasulov N.M., Mullabaev B.B., Advantages of Vertical Integrated Enterprises (Under Light Industry Enterprises) // The journal Test Engineering And Management has been located in the database Scopus. November December 2019 ISSN(S) 0193-4120 for the location. http://www.testmagzine.biz/index.php/testmagzine/article/view/222/194
[16] Mullabaev B. B. Econometric analysis of the vertical integration of light industry enterprises in the Namangan region (case study of the Republic of Uzbekistan) // Scientific Review: Theory and Practice - 8/2018.22-36 p. Economics (08.00.00) Impact factor RSCI (five-year) - 1,230
[17] Soliyev Ibodulloxon Ismatullayevich, Mullabayev Baxtiyarjon Bulturbayevich, & Bokhodirova Zulfizar Bokhodir qizi. (2021). DEVELOPMENT OF SMALL BUSINESS AND PRIVATE ENTREPRENEURSHIP IN THE ECONOMY OF THE REPUBLIC OF UZBEKISTAN. *Academicia Globe: Inderscience Research*, *2*(6), 419–425. https://doi.org/10.17605/OSF.IO/A3NCG
[18] Bulturbayevich, M. B. (2021). Challenges of Digital Educational Environment. *Academic Journal of Digital Economics and Stability*, *4*, 54-60.
[19] Bulturbayevich, M. B. (2021). Development Of Innovative Activities Of Enterprises On The Basis Of Vertical Integration Processes. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, *12*(10), 5020-5031.
[20] Bulturbayevich, M. B. (2021). CHALLENGES IN DEVELOPING A DIGITAL EDUCATIONAL ENVIRONMENT. *Academic Journal of Digital Economics and Stability*, *2*, 1-9.
[21] Tursunalievich, A. Z., Bulturbayevich, M. B., Ismatullayevich, S. I., Urayimovich, B. O., & Yokubovna, Y. H. (2021). Use of Gravitation Models in the Development of Tourism and Recreation. *Annals of the Romanian Society for Cell Biology*, 3124-3143.
[22] Bulturbayevich, M. B., & Qobuljon, T. (2021, February). THE STATUS OF DEVELOPMENT OF SMALL BUSINESS AND PRIVATE ENTREPRENEURSHIP DURING THE CORONAVIRUS PANDEMY. In *Archive of Conferences* (Vol. 15, No. 1, pp. 124-129).
[23] Bulturbayevich, M. B. (2021, February). IMPROVING THE MECHANISMS OF STRATEGIC MANAGEMENT OF INNOVATION PROCESSES IN ENTERPRISES. In *Archive of Conferences* (Vol. 15, No. 1, pp. 130-136).
[24] Bulturbayevich, M. B. (2021). FORMATION AND MANAGEMENT OF THE INVESTMENT PORTFOLIO OF A COMMERCIAL BANK. *International Engineering Journal For Research & Development*, *6*(ICDSIIL), 5-5.
[25] Bulturbayevich, M. B., & Ibrohim, E. (2021). EXPANDING EXPORT OPPORTUNITIES FOR SMALL BUSINESSES AND PRIVATE ENTREPRENEURSHIP. *International Engineering Journal For Research & Development*, *6*(ICDSIIL), 6-6.
[26] Bulturbayevich, M. B., & Diyora, J. R. (2021). PROSPECTS FOR THE DEVELOPMENT OF INNOVATIVE ACTIVITIES OF INDUSTRIAL ENTERPRISES. *International Engineering Journal For Research & Development*, *6*(ICDSIIL), 5-5.
[27] Bulturbayevich, M. B., & Nurbek, N. (2021). OPPORTUNITIES TO INCREASE THE COMPETITIVENESS OF SECTORS OF THE ECONOMY, INVESTMENT AND EXPORT POTENTIAL. *International Engineering Journal For Research & Development*, *6*(ICDSIIL), 6-6.

[28] Bulturbayevich, M. B., & Sardor, O. L. (2021). IMPORTANT ASPECTS OF THE METHODS USED IN THE RISK ANALYSIS OF INVESTMENT PROJECTS. *International Engineering Journal For Research & Development*, *6*(ICDSIIL), 6-6.

[29] Bulturbayevich, M. B., & Bekzod, N. (2021). CREATING AN EFFECTIVE ENVIRONMENT FOR ATTRACTING FOREIGN DIRECT INVESTMENT IN THE TEXTILE INDUSTRY IN THE REGIONS. *International Engineering Journal For Research & Development*, *6*(ICDSIIL), 5-5.

[30] Jurabaevich, S. N., & Bulturbayevich, M. B. (2021). POSSIBILITIES OF USING FOREIGN EXPERIENCE TO INCREASE THE QUALITY OF EDUCATION IN REFORMING THE EDUCATION SYSTEM OF THE REPUBLIC OF UZBEKISTAN. *Web of Scientist: International Scientific Research Journal*, *1*(01), 11-21.

[31] Jurabaevich, S. N., & Bulturbayevich, M. B. (2021). DIRECTIONS FOR IMPROVING THE FOOD MARKET IN THE FERGANA REGION. *Innovative Technologica: Methodical Research Journal*, *2*(01), 1-8.

[32] Jurabaevich, S. N., & Bulturbayevich, M. B. (2021). Management Of Higher Education Institution-As An Object Of Economic Diagnostics. *Emergent: Journal of Educational Discoveries and Lifelong Learning (EJEDL)*, *1*(01), 11-20.

[33] Tursunbaevich, B. B., Bulturbayevich, M. B., & Rahmat, A. (2021). The Impact of The Pandemic on The Economy of The Republic of Uzbekistan. *Aksara: Jurnal Ilmu Pendidikan Nonformal*, *7*(1), 161-168.

[34] Bulturbayevich, M. B., Rahmat, A., & Murodullayevich, M. N. (2021). Improving Teacher-Student Collaboration And Educational Effectiveness By Overcoming Learning Challenges. *Aksara: Jurnal Ilmu Pendidikan Nonformal*, *7*(1), 153-160.

[35] Jurabaevich, S. N., & Bulturbayevich, M. B. (2021). DIRECTIONS FOR FOOD SECURITY IN THE CONTEXT OF GLOBALIZATION. *Innovative Technologica: Methodical Research Journal*, *2*(01), 9-16.

[36] Jurabaevich, S. N., & Bulturbayevich, M. B. (2020). THE ROLE OF DIAGNOSTIC MODELS IN THE STUDY OF THE ACTIVITIES OF HIGHER EDUCATION INSTITUTIONS. *ResearchJet Journal of Analysis and Inventions*, *1*(01), 54-65.

[37] Jurabaevich, S. N., & Bulturbayevich, M. B. (2020). The Concept of Food Safety and Its Scientific-Theoretical Concept. *ResearchJet Journal of Analysis and Inventions*, *1*(01), 9-22.

[38] Jurabaevich, S. N., & Bulturbayevich, M. B. (2020). THE SYSTEM OF HIGHER EDUCATION IN THE DEVELOPMENT OF THE NATIONAL ECONOMY. *ResearchJet Journal of Analysis and Inventions*, *1*(01), 23-32.

[39] Bulturbayevich, M. B., Tursunalievich, A. Z., Ahmadjanovna, M. T., & Bozorovich, U. C. (2020). Development Of Public-Private Partnership In The Organization Of Regional Tourist And Recreational Complexes. *European Journal of Molecular & Clinical Medicine*, *7*(7), 778-788.

[40] Bulturbayevich, M. B., Rahmat, A., & Murodullayevich, M. N. (2021). Improving Teacher-Student Collaboration And Educational Effectiveness By Overcoming Learning Challenges. *Aksara: Jurnal Ilmu Pendidikan Nonformal*, *7*(1), 153-160.

[41] Bulturbayevich, M. B., Saodat, S., Umida, J., Shakhnoza, N., & Feruza, S. Theoretical and Practical Bases of Investments and Processes of Their Distribution in the Conditions of Modernization of Economy. *International Journal on Integrated Education*, *3*(9), 132-137.

[42] Муллабаев, Б. Б. DEVELOPMENT OF LIGHT INDUSTRY BRANCHES IN UZBEKISTAN BASED ON VERTICAL INTEGRATION РАЗВИТИЕ ФИЛИАЛОВ ЛЕГКОЙ ПРОМЫШЛЕННОСТИ В УЗБЕКИСТАНЕ НА ОСНОВЕ ВЕРТИКАЛЬНОЙ ИНТЕГРАЦИИ.

[43] Муллабаев, Б. Б. (2018). ЭКОНОМЕТРИЧЕСКИЙ АНАЛИЗ ВЕРТИКАЛЬНОЙ ИНТЕГРАЦИИ ПРЕДПРИЯТИЙ ЛЕГКОЙ ПРОМЫШЛЕННОСТИ НАМАНГАНСКОЙ ОБЛАСТИ (НА ПРИМЕРЕ РЕСПУБЛИКИ УЗБЕКИСТАН). *Научное обозрение: теория и практика*, (8), 22-36.

[44] Muhiddinovna, I. M., Bulturbayevich, M. B., Sharipdjanovna, S. G., Urinboevich, A. A., & Gulnora, M. The Role of Structural Changes in Small Business in the Development of the Economy of the Republic of Uzbekistan. *JournalNX*, 107-116.