



**Ilmiy amaliy  
jurnal  
№ 2 (4)  
2026**

**YANGI  
O'ZBEKISTON  
IQTISODIYOTI**

**“YANGI O‘ZBEKISTON IQTISODIYOTI” *jurnali 2-son 2026 yil***

---

**O‘ZBEKISTON RESPUBLIKASI  
OLY TA‘LIM, FAN VA INNOVATSIYALAR VAZIRLIGI**

**MIRZO ULUG‘BEK NOMIDAGI  
O‘ZBEKISTON MILLIY UNIVERSITETI**

**YANGI O‘ZBEKISTON IQTISODIYOTI**

**2**

**ISBN 978-9943-5256-3-4**

**Toshkent – 2026**

MUNDARIJA

<b>Аслонов С.М., Амиджанова М.М.</b> Развитие бизнес-идей (стартапов) предпринимательской деятельности в Республике Таджикистан.....	7
<b>Умаров И.Ю.</b> Современные тенденции инновационного развития пищевой промышленности Узбекистана.....	13
<b>Akbaraliyeva D., Mirzamahmudova M.</b> Bank tizimi tarixi va rivojlanishi.....	16
<b>Mamajonova N.A.</b> Qurilish korxonalarida innovatsion boshqaruv faoliyati samaradorligini baholash ko‘rsatkichlari arxitekturasi.....	22
<b>Ahmadkulov D.R., Xamrayev O.Y., Khattobov U.B.</b> Kriptovalyutaga soliq solishda jahon tajirabasi va muammolar.....	25
<b>Toshpulatov A.M.</b> Qurilish materiallari sanoati korxonalarining ishlab chiqarish hajmini baholash usullari.....	30
<b>Bahromov Sh.F.</b> Jahonda to‘g‘ridan-to‘g‘ri xorijiy investitsiyalarning (TXXI) iqtisodiy rivojlanish bilan bog‘liqligini tahlili.....	34
<b>Kalmuratov B., Izzetov B., Yusupova J., Shamuratova A.</b> Calculation in econometric models of human capital financing in innovation management in Uzbekistan.....	39
<b>Sultonov B.M.</b> Oilaviy korxonalar faoliyatini boshqarishning tashkiliy-iqtisodiy mexanizmiga ta‘sir etuvchi omillar va ularni baholash asoslari.....	43
<b>Юсупов М.Х.</b> Фарғона вилояти маҳаллаларида ижтимоий омилларнинг иқтисодий барқарорликка таъсири: демография, гендер ва миграция таҳлили.....	47
<b>Жаббаров К.Й., Жалолов И.Х., Эркинов М.Д.</b> Молиявий ҳисобот тизимининг моҳияти ва шаклланиш бошқичлари.....	57
<b>Гулямова Н.Х.</b> Саноат корхоналарини инновацион ривожланиши ва миллий иқтисодиёт ўсиши.....	61
<b>Arziboyeva R.S.</b> Banklarda asosiy vositalar va mablag‘lar hisobini takomillashtirish.....	64
<b>To‘raboyev Q.Q.</b> Raqamli iqtisodiyot sharoitida mamlakatimizda soliq tizimini modernizatsiya qilish va sun‘iy intellekt hamda Big Data yordamida nazorat.....	67
<b>Tojiboyev I.I.</b> Raqamli biznes va elektron tijoratni soliqqa tortishning dolzarb masalalari va yechimlari.....	70
<b>Xolmirzayev I.O.</b> Kichik biznes va tadbirkorlik subyektlari faoliyatining rivojlantirishning iqtisodiy yo‘llari.....	74
<b>Saidova M.J.</b> Sanoat tarmoqlari transformatsiyasi sharoitida texnologik eskirish va modernizatsiya muammolari.....	79
<b>Usmonova N.A.</b> Andijon viloyatida kichik korxonalar faoliyat samaradorligiga ta‘sir etuvchi omillarni statistik va ekonometrik tahlil qilish.....	83
<b>Xaydarov M.T., Jannazarova G.K.</b> Bozor infrastrukturasi va uning rivojlanish istiqbollari.....	87
<b>Худайназарова Д.Г.</b> Фармацевтика корхоналарида харажатларга доир ахборотларни бухгалтерия ҳисоботларида очиб бериш тартибини такомиллаштириш.....	93
<b>Madaminov A.M.</b> O‘zbekistonda sanoat tarmoqlari faoliyatida oziq-ovqat sanoati rivojlantirish istiqbollari.....	99
<b>Zufarova G.A.</b> Kambag‘al va ishsiz fuqarolarni tadbirkorlikka jalb qilish masalalari.....	103
<b>Ergashev I.I.</b> Kichik korxonalar investitsiyaviy jozibadorligini samarali boshqarishda jahon amaliyoti tajribasi.....	106
<b>Sativaldiyeva G.X.</b> Ijara munosabatlarini mohiyati, ahamiyati va tasniflanishi.....	110
<b>Kamilova A.N.</b> Sanoat korxonalarida mehnat unumdorligini oshirishda mehnatni normalashtirish tizimining o‘rni va ahamiyati.....	115
<b>Базарова Г.Г.</b> Занятость населения в Узбекистане – теоретико-методологические основы анализа и практические механизмы решения проблем.....	119
<b>Turabov B.T.</b> Byudjet taqchilligi va xalqaro moliyaviy oqimlarning ta‘siri.....	125
<b>Xamzaev A.N.</b> Mamlakatimizda kapital bozorini rivojlantirish yo‘llari.....	131
<b>Xamzaev A.N., Mirzajonov M.</b> Mamlakatimizdagi xususiy korxonalarining raqobatbardoshligini oshirish yo‘llari.....	136

<b>Raximova L.Sh.</b> Innovatsion iqtisodiyot sharoitida ayollar tadbirkorligining roli va uning turmush farovonligiga ta'siri.....	<b>141</b>
<b>Nosirov S.N.</b> ESG tamoyillarini joriy etish orqali sug'urta kompaniyalarining moliyaviy barqarorligini oshirish mexanizmlari.....	<b>146</b>
<b>Maxkamov X.M.</b> Tijorat banklarida muammoli kreditlar ulushini kamaytirishning iqtisodiy mexanizmlarini takomillashtirish.....	<b>150</b>
<b>Hamrakulova M.F.</b> Sanoat korxonalarida innovatsion boshqaruv mexanizmlarining mahsulot sifati va bozor raqobatbardoshligiga ta'siri.....	<b>153</b>
<b>Mirzayeva L.S.</b> O'zbekiston qimmatli qog'ozlar bozoridagi aksiyalar likvidligini oshirish yo'llari.....	<b>157</b>
<b>Очиллов Ж.Ж.</b> Инновацион ривожланишда кичик бизнес фаолияти экотизимининг роли..	<b>160</b>
<b>Usubjonov Z.V.</b> Qurilish materiallari bozori mohiyati va uning xususiyatlari.....	<b>165</b>
<b>Bekmurodov N.X.</b> Hududiy iqtisodiy rivojlanishning nazariy asoslari va konsepsiyalari.....	<b>170</b>
<b>Yusupova M.B.</b> Zamonaviy boshqaruv tizimi va strategik boshqaruv hisobi.....	<b>175</b>
<b>Xudayberdiyev O.A.</b> Globallashuv sharoitida elektron tijorat orqali tadbirkorlik subyektlarining xalqaro savdo munosabatlarini rivojlantirish mexanizmlari.....	<b>179</b>
<b>Bo'stonova N.A.</b> Andijon viloyatida kichik biznes subyektlarining salohiyatini tahlili.....	<b>187</b>
<b>Bo'stonova N.A., Nematjonova R.D.</b> O'zbekistonda aholining daromadlari va iste'mol xarajatlarining biznes rivojlanishiga ta'siri.....	<b>192</b>
<b>Hamidova Sh.O.</b> Sanoat korxonalarida mehnatni tashkil etish va boshqarish samaradorligi tahlili.	<b>196</b>
<b>Abdullayeva Z.S.</b> Maxsus iqtisodiy zonalar faoliyatining ijtimoiy va institutsional samaradorligi.	<b>199</b>
<b>Duvshatova N.K.</b> Hududlararo iqtisodiy nomutanosiblikni tartibga solishda investitsion yondashuvlarning samaradorligi.....	<b>203</b>
<b>Усманова А.Б.</b> Цифровая составляющая устойчивого развития региональной туристской системы (на примере Бухарской области).....	<b>207</b>
<b>Qidirniyozov A.Sh.</b> Uy-joy qurilishida kapital qo'yilmalar hajmi va yakuniy natijalar o'rtasidagi bog'liqlikni ekonometrik modellashtirish.....	<b>213</b>
<b>Dexkanova Sh.K.</b> Aylanma iqtisodiyotning barqaror rivojlanishdagi ro'li.....	<b>217</b>
<b>Gulimboyev S.I., Rejapov X.X.</b> Aholining farovonligini ta'minlashda ijtimoiy qo'llab-quvvatlashning o'rni.....	<b>221</b>
<b>Mamatov B.S.</b> O'zbekistonning investitsion imkoniyatlari: asosiy tendensiya va natijalar.....	<b>226</b>
<b>Kamoldinova N.A.</b> Ayollar tadbirkorligini rivojlantirish – ular bandligini ta'minlashning asosi.	<b>231</b>
<b>Aminboyev J.O.</b> Amortizatsiya hisobida foydali xizmat muddatini aniqlash: nazariy va amaliy yondashuvlar.....	<b>235</b>
<b>Maxramova N.Y.</b> Strategik menejmentda kadriyatlar zanjiri: raqobatbardoshlikni oshirishning konseptual asoslari.....	<b>241</b>
<b>Usmanova S.S.</b> Innovative development of the pharmaceutical industry.....	<b>245</b>
<b>Faxriddinova N.N.</b> Yashil tadbirkorlik va uning iqtisodiyotdagi o'rni.....	<b>250</b>
<b>Захирова Г.</b> Тиббий туризм хизматлари бозори ривожланишининг хориж тажрибаси.....	<b>254</b>
<b>Абдуллоев А.Ж.</b> Барқарор ривожланиш стратегияси асосида минтақавий саноатлашувни амалга оширишнинг хорижий мамлакатлар амалиёти.....	<b>258</b>
<b>Sharapova N.K.</b> Hududlarni barqaror rivojlantirish dasturlarini xalqaro standartlar tizimiga moslashtirish imkoniyatlari.....	<b>264</b>
<b>Rahmatullayeva D.O.</b> Demografik omillar va bandlik samaradorligi o'rtasidagi munosabatlar..	<b>272</b>

CALCULATION IN ECONOMETRIC MODELS OF HUMAN CAPITAL FINANCING IN  
INNOVATION MANAGEMENT IN UZBEKISTAN

ЎЗБЕКИСТОНДА ИННОВАЦИОН МЕНЕЖМЕНТДА ИНСОН КАПИТАЛИНИ  
МОЛИЯЛАШТИРИЛИШИДА ЭКОНОМЕТРИК МОДЕЛЛАРИДА ҲИСОБЛАШ

РАСЧЕТ В ЭКОНОМЕТРИЧЕСКИХ МОДЕЛЯХ ФИНАНСИРОВАНИЯ  
ЧЕЛОВЕЧЕСКОГО КАПИТАЛА В ИННОВАЦИОННОМ МЕНЕДЖМЕНТЕ В  
УЗБЕКИСТАНЕ

**Bakhtiyar Kalmuratov**

Karakalpak state university head of the department of economics  
tourism and business administration, doctor of economics, professor

**Berdakh Izzetov**

ICT specialist of the ministry of preschool and school  
education of the Republic of Karakalpakstan,

**Jamila Yusupova**

University of innovation technologies, department of  
finance and economics, acting associate professor,

**Alima Shamuratova**

Nukus state technical university, assistant teacher  
of the department of management and economics

**Annotation**

This paper provides a comprehensive analysis of the about how to create an innovative enterprise and create an innovative organization that will contribute to the development of the organizational and economic mechanism and the modernization of econometric models. The study utilizes a mixed-methods approach, combining statistical analysis of key economic indicators with qualitative insights from expert interviews

**Keywords:** Government, mechanism, economic development, statistical indicators, scientific research and experimental construction work, economic activity

Ushbu hujjat innovatsion korxonani yaratish va tashkiliy-iqtisodiy mexanizmni rivojlantirishga va ekonometrik modellarni modernizatsiya qilishga hissa qo‘shadigan innovatsion tashkilotni yaratish to‘g‘risida har tomonlama tahlilni taqdim etadi. Tadqiqotda asosiy iqtisodiy ko‘rsatkichlarning statistik tahlilini ekspert intervyularidan sifatli tushunchalar bilan birlashtirgan aralash usulli yondashuv qo‘llaniladi

**Kalit so‘zlar:** Hukumat, mexanizm, iqtisodiy rivojlanish, statistik ko‘rsatkichlar, ilmiy tadqiqot va eksperimental qurilish ishlari, iqtisodiy faoliyat

В данной статье представлен всесторонний анализ того, как создать инновационное предприятие и создать инновационную организацию, что будет способствовать развитию организационно-экономического механизма и модернизации эконометрических моделей. В исследовании используется смешанный подход, сочетающий статистический анализ ключевых экономических показателей с качественной информацией, полученной в ходе интервью с экспертами

**Ключевые слова:** Правительство, механизм, экономическое развитие, статистические показатели, научно-исследовательские и опытно-конструкторские работы, экономическая деятельность

Today, as an important and only source of ensuring progress, it is considered to increase efficiency in economic processes based on the formation of an innovative economy, the implementation of the created innovations into practice. That is, in a word, only having capital and Labor will not create sufficient conditions for ensuring economic development, but will also be required to develop human capital, increase their activity in the production process, create conditions for introducing specific innovations in the process. Naturally, these are considered directly related to the organization of management at first, since the necessary conditions for this, organizational and legal framework must be provided. In a word, it will be necessary to establish the management process to itself the use of innovative methods.

Despite the fact that in recent years, targeted measures have been implemented to promote the innovative development of sectors of the economy and the social sphere of Uzbekistan, comprehensively support science and scientific activity, and increase its effectiveness, the large-scale reforms being implemented at the modern stage of the country's development indicate the need to improve state government mechanisms in the field of science and innovation, increase transparency in the formation of state programs for scientific activity, and accelerate the introduction of scientific achievements and innovative technologies in economic sectors and regions.

From the results of the analysis carried out in the article, it is known that the importance of the development of innovative processes and their significant socio-economic indicators in ensuring their growth, stability is becoming higher. Also, the results of the study justify the fact that the widespread introduction of digital technologies into the management process in the next period has a specific impact on innovative processes. The result is a positive growth trend of significant indicators of innovation development.

As an object, taking into account the above, the projected values of the existing statistical indicators for ensuring innovative development in the Republic of Karakalpakstan for the next period were considered. Data from 2015-2023 was used to carry out this analysis. On the basis of our analysis, the volume of scientific research and design work performed by organizations directly indicates that scientific research and development directly depends on the average monthly salary of employees by the type of economic activity, as well as the costs of scientific research and experimental design work performed on their own strength. For this reason, the dynamics of the change of these indicators in the later period was looked at using multi-variant econometric models.

The most important factor in the development of an innovative economy, the introduction of innovations into production and management processes is human capital. The level of development of human capital can be viewed on the example of wages paid to them. Because, the development of human capital leads to an increase in the value of the product it creates, as a result of which the wages paid to human capital of high quality also increase accordingly. For this reason, scientific research and development, which is an important factor in the development and implementation of innovations, which is considered the basis of the development of human capital, based on the dynamics of the average monthly work of employees by the type of economic activity in the region, forecast values for the next five years were considered.

The results obtained in determining the model type graphically justified the feasibility of using a quadratic model, and the following model was developed as a result of regression analysis.

$$X_1 = 697,75 + 14,67 * t^2 \quad (1)$$

here,  $X_1$  – scientific research and development in the Republic of Karakalpakstan represents the average monthly salary of employees by type of economic activity, fixed prices (in thousand sum),  $t$ -trend and starts from 2015.

Proceeding from the results of the criteria necessary to justify the adequacy of the model, it is observed that the values determined are greater than it, provided that the table value according to the Student criterion is equal to  $t_{jad} = 2,36$ . As a result, their probability indicators are almost zero, justifying the reliability level by about 100 percent. While the coefficient of determination presented to justify the overall fit of the model is 0.96, the factor indicates that 96% of the change depends on the trend Square (Table 1).

**Table 1.** OLS Regression Results: Forecasting Monthly Salary of Scientific Research and Development Employees in the Republic of Karakalpakstan (2015–2023)

Variable	Coefficient	Std. Error	t-ratio	p-value
Constant (const)	697.754	48.9389	14.26	< 0.0001 ***
Time squared (t <sup>2</sup> )	14.6721	1.18566	12.37	< 0.0001 ***

**Source:** Author’s calculation based on national statistics and model estimation (2024)

Since the number of factors involved in the model is one, no particular attention was paid to the result of the Fisher criterion, since in such models the results of the Fisher criterion with the result of the styling test are of the same importance. The model presents the results of the Durbin-Watson criterion to check whether there is an autocorrelation problem, which is making 1.34. Compared to table values (DL=0.82; DU=1.32), it can be seen that the determined value is larger than the higher value by Criterion. In other words, the model does not have an autocorrelation problem. To justify the degree of reliability of the model, a graph of the calculated and real values based on the model was also cited.

The forecast values developed on the basis of this model were given the following appearance (Table 2).

**Table 2.** Scientific research and development in the Republic of Karakalpakstan forecast values of the average monthly salary of employees by type of economic activity for 95% confidence intervals,  $t(7, 0.025) = 2.365$

Years	X1	Forecast	Standard error	95 percent interval
2024	2164,97	113,4	128,13	(1861,99, 2467,95)
2025	2473,08	114,2	145,16	(2129,83, 2816,34)
2026	2810,54	113,6	166,11	(2417,75, 3203,33)
2027	3177,34	113,1	190,702	(2726,41, 3628,28)
2028	3573,49	112,5	218,67	(3056,42, 4090,57)

**Source:** Author’s own calculation (2024), based on national employment and salary statistics in the Republic of Karakalpakstan.

According to the results of the forecast developed by 2028, scientific research and development in the region shows that the average monthly calculated salary of employees by the type of economic activity at fixed prices is 3573,49 million.sum makes up M. In other words, it will increase by 1.87 times compared to 2023, and the average growth rate is 13.4 percent. An ARIMA model was also developed to calculate the predictive values of this indicator, for which the information was initially checked for stationary. According to the results of the UNITROOT test, the available level of information is stationary in combination with the trend. Analysis to determine the shape of the model suggests that it is advisable to use the ARIMA (0 0 1) model.

$$X_{1t} = 490,32 + 0,63 * \epsilon_{t-1} + 139,11 * t \quad (2)$$

The results of the criteria presented to justify the reliability level of the model are determined at the level of demand, including the Styrofoam criterion of all coefficients, the values are higher and the reliability level is falling by more than 95 percent. The given coefficient of determination to base the total of the model is getting a slightly lower value than that of the previous model, as it is 0.91.

Scientific research and development in the Republic of Karakalpakstan took into account the average monthly calculated salary of employees by the type of economic activity ARIMA (0 0 1) model forecast values as follows. The forecast developed on the basis of this model is taking the growth rates determined by the values of the existing trend to a much lower value. In other words, it is observed that in the next five years the figure will increase by 1.28 times, with an average growth rate of 5.0 percent. This growth rate is much lower than in the period when it was taken as the basis for the analysis, that is, it can be seen that it is worth twice as little and does not correspond to the current trend (Table 1). It can also be seen from the graph of forecast values that the rate of line growth in the next period can be reduced and the state of fracture can be seen.

**Table 3.** Forecasted Costs for Scientific Research and Experimental Construction Work (2024–2028), Republic of Karakalpakstan

<b>Years</b>	<b>X<sub>2</sub> (Forecast)</b>	<b>Standart error</b>	<b>95% confidence interval</b>
2024	10 226,8 sum	96,4	(9563,85 ; 10 889,8) sum
2025	10 456,8 sum	102,2	(9519,22 ; 11 394,4) sum
2026	10 563,6 sum	101,0	(9626,04 ; 11 501,2) sum
2027	10 670,4 sum	101,0	(9732,85 ; 11 608,0) sum
2028	10 777,3 sum	101,0	(9839,67 ; 11 714,8) sum

**Note:** Forecast generated using ARIMA (0,0,1) model in Gretl based on observed values for 2015–2023.

The results of the analysis show that scientific research and development, which is an important factor in the development of innovative processes, the introduction of innovations into practice, provides high growth rates during the projected period of the average monthly salary of employees by type of economic activity. However, in order for the effect of this factor to be full-fledged, the stability of the cost factor in self-carried out scientific research and experimental construction work with its own strength is ensured, but the growth rates remain low. As a result of this, the volume of scientific research and design work performed by the organizations that are the final indicator will remain unstable in subsequent years

In my opinion, the cost of scientific research and experimental construction work carried out on its own will ensure the full-fledged effectiveness of measures carried out in this direction, achieving a stable and high growth rate.

**List of references:**

1. Asian Development Bank. (2023). *Uzbekistan: Economic Indicators and Growth Prospects*. Manila: ADB.
2. International Monetary Fund. (2022). *Uzbekistan Economic Outlook*. IMF Publications.
3. Ministry of Finance of Uzbekistan. (2023). *Annual Economic Report 2023*. Tashkent, Uzbekistan.
4. Teo, S. C., & Wong, L. S. (2014). Whole cell-based biosensors for environmental heavy metals detection. *Annual Research & Review in Biology*, 4(17), 2663–2674. <https://doi.org/10.9734/ARRB/2014/9472>
5. Wong, L. S., Lee, Y. H., & Surif, S. (2013). Whole cell biosensor using *Anabaena torulosa* with optical transduction for environmental toxicity evaluation. *Annual Research & Review in Biology*, 3(12), 1856–1867. <https://doi.org/10.9734/ARRB/2013/3623>
6. Yusupova, J. K. (2023). Digitalization as an important component of improving the organizational and economic mechanism of innovative management. *Economic Bulletin of the Region*, 3(57), 114–119.
7. Yusupova, J. K. (2022). Organizational and economic mechanism of managing innovative activity in the region in the conditions of digitalization of the economy. *Innovative Economy and Society*, 2(1), 48–52.
8. Zokirov, M., & Rakhmatullaeva, D. (2021). Analysis of investment processes in innovative projects in Uzbekistan. *International Journal of Economics and Financial Issues*, 11(3), 95–100. <https://doi.org/10.32479/ijefi.11245>
9. Karimov, B., & Tursunov, B. (2020). Factors influencing the efficiency of innovative development of regions. *Economics and Innovative Technologies*, 4(1), 22–29. <https://doi.org/10.26739/2181-9491-2020-4>
10. Tashkulov, D., & Yuldashev, S. (2021). State regulation of scientific research in the Republic of Uzbekistan. *Modern Science and Research*, 5(8), 67–71.