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MUNDARIJA

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ANALYSIS OF FACTORS OF INTENSIVE ECONOMIC GROWTH IN UZBEKISTAN

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Abstract. In 2015, the member states of the United Nations approved the Sustainable Development Agenda for the period 2015–2030. Within this framework, Goal 8.2 emphasizes the importance of increasing productivity and efficiency in national economies. This study aims to classify the key determinants influencing intensive economic growth in Uzbekistan and to assess the extent of their impact on national economic performance. To achieve this objective, panel data analysis and Pearson correlation methods were applied using IBM SPSS statistical software. The empirical results indicate that the quality of public administration is the most influential factor contributing to the growth of gross national product in Uzbekistan. Additionally, the study examines the internal structure of grouped factors and identifies their main sub-components. Furthermore, the feasibility of developing a regression-based forecasting model to predict Uzbekistan's future economic performance based on these determinants is explored. On the basis of a comprehensive systematization and analysis of the factors driving intensive economic growth, the strength of correlation effects was determined, and practical recommendations aimed at improving economic efficiency were formulated.

Keywords: intensive economic growth, innovation, rule of law, renewable and affordable energy sources, quality of public administration, market-oriented environment, infrastructure, labor skills.

Annotatsiya. 2015-yilda Birlashgan Millatlar Tashkiloti a'zo davlatlari tomonidan 2015–2030 yillarga mo'ljallangan Barqaror rivojlanish kun tartibi qabul qilindi. Ushbu hujjatda 8.2-maqсад milliy iqtisodiyotlarda mehnat unumdorligi va samaradorlikni oshirish zarurligini ta'kidlaydi. Mazkur tadqiqot O'zbekistonda intensiv iqtisodiy o'sishga ta'sir etuvchi asosiy omillarni tasniflash hamda ularning milliy iqtisodiy ko'rsatkichlarga ta'sir darajasini baholashga qaratilgan. Tadqiqot jarayonida IBM SPSS statistik dasturi yordamida panel ma'lumotlar tahlili va Pearson korrelyatsiya usullari qo'llanildi. Empirik natijalar davlat boshqaruvi sifati yalpi milliy mahsulot o'sishiga eng kuchli ta'sir ko'rsatuvchi omil ekanligini ko'rsatdi. Shuningdek, omillar guruhining ichki tuzilmasi tahlil qilinib, ularning asosiy tarkibiy qismlari aniqlandi. Bundan tashqari, aniqlangan determinantlar asosida O'zbekiston iqtisodiy rivojlanishini prognozlash imkonini beruvchi regressiyaga asoslangan modelni shakllantirish imkoniyati baholandi. Intensiv iqtisodiy o'sishni ta'minlovchi omillarni tizimli va kompleks tahlil qilish natijasida ularning o'zaro bog'liqlik darajasi aniqlanib, iqtisodiy samaradorlikni oshirishga qaratilgan amaliy tavsiyalar ishlab chiqildi.

Kalit so'zlar: intensiv iqtisodiy o'sish, innovatsiyalar, qonun ustuvorligi, qayta tiklanuvchi va arzon energiya manbalari, davlat boshqaruvi sifati, bozor yo'naltirilgan muhit, infratuzilma, mehnat ko'nikmalari.

Аннотация. В 2015 году государства – члены Организации Объединённых Наций утвердили Повестку дня в области устойчивого развития на период 2015–2030 годов. В рамках данной повестки цель 8.2 подчёркивает необходимость повышения производительности и эффективности национальных экономик. Настоящее исследование направлено на классификацию ключевых факторов, влияющих на интенсивный экономический рост в Узбекистане, а также на оценку степени их воздействия на национальные экономические показатели. Для достижения поставленных целей были использованы методы панельного анализа данных и корреляционного анализа Пирсона с применением статистического пакета IBM SPSS. Эмпирические результаты свидетельствуют о том, что качество государственного управления является наиболее значимым фактором, способствующим росту валового национального продукта Узбекистана. Кроме того, в работе проанализирована внутренняя структура сгруппированных факторов и выявлены их ключевые подкомпоненты. Также рассмотрена возможность построения прогностической модели на основе регрессионного анализа для оценки будущих экономических показателей страны. В результате комплексной систематизации и анализа факторов интенсивного экономического роста определена сила их корреляционного воздействия и разработаны практические рекомендации, направленные на повышение экономической эффективности.

Ключевые слова: интенсивный экономический рост, инновации, верховенство закона, возобновляемые и доступные источники энергии, качество государственного управления, рыночно-ориентированная среда, инфраструктура, трудовые навыки.

INTRODUCTION

In 2015, the member states of the United Nations adopted the 2030 Agenda for Sustainable Development, which outlines strategic priorities for global economic and social progress. One of its core objectives, specified in Goal 8.2, focuses on achieving higher levels of economic efficiency and productivity growth [13]. In advanced economies, economic growth is predominantly driven by intensive factors, such as technological progress, institutional quality, and human capital development. In contrast, developing economies often rely more heavily on extensive factors, including the expansion of labor-force participation and capital accumulation. Recognizing this disparity, many developing countries are implementing government programs aimed at strengthening intensive growth drivers rather than relying solely on extensive expansion.

For Uzbekistan, achieving sustainable long-term economic development entails a comprehensive examination of economic growth patterns from the perspective of both intensive and extensive factors. This approach involves identifying the relative importance of intensive growth components, systematizing them into appropriate groups, and further enhancing state mechanisms aimed at promoting productivity, efficiency, and innovation [1]. The growing recognition of intensive economic growth as a strategic priority at both the international level and within Uzbekistan's national development agenda creates favorable conditions for advancing research in this area. In this context, the present study contributes to the existing body of knowledge by providing a systematic analysis of the key determinants shaping intensive economic growth in Uzbekistan, thereby supporting evidence-based policy formulation and sustainable economic progress.

LITERATURE REVIEW

The concept of the "quality of economic growth" was initially introduced and systematically examined in research conducted by the World Bank [3, 4]. These studies emphasized that economic growth should not be evaluated solely on the basis of quantitative expansion, such as increases in gross domestic product, but rather through a broader framework that includes structural efficiency, institutional development, and social outcomes. As a result, the focus gradually shifted from measuring growth rates to assessing the sustainability and effectiveness of growth processes.

In global economic practice, the concept of inclusive growth has emerged over the past decade as an extension of the idea of growth quality. Inclusive growth interprets economic development as a process that simultaneously promotes productivity, social inclusion, and equal access to economic opportunities [2]. Within this framework, growth quality is assessed based on its capacity to reduce inequality, generate employment, and enhance living standards while maintaining economic efficiency.

A number of empirical studies argue that inclusive growth cannot be achieved through capital accumulation alone. In particular, the foreign scholar M. Amponsah critically challenges the assumption that increasing financial investments automatically lead to inclusive or high-quality economic growth [5]. According to his research, investment-led growth may fail to produce positive social and economic outcomes if it is not supported by effective governance, institutional transparency, and human capital development.

Furthermore, recent literature highlights the growing importance of institutional factors, such as the rule of law, corruption control, public administration quality, and infrastructure development, in shaping intensive economic growth [6]. These factors influence how efficiently resources are allocated and how productively capital and labor are utilized [7]. Consequently, modern economic research increasingly emphasizes the role of qualitative and institutional determinants as key drivers of intensive economic growth, particularly in developing and transition economies such as Uzbekistan.

RESEARCH METHODOLOGY

The present study adopts a quantitative research design aimed at identifying and evaluating the determinants of intensive economic growth in Uzbekistan. To achieve this objective, panel data analysis and Pearson correlation methods were employed using the IBM SPSS statistical software package. These methods were selected due to their effectiveness in analyzing multidimensional data over time and assessing linear relationships among variables. Panel data analysis allows for the examination of both cross-sectional and time-series dimensions, thereby enabling a more comprehensive understanding of economic dynamics. This approach makes it possible to capture changes in economic growth patterns while controlling for unobserved heterogeneity across periods [8, 9]. Pearson correlation analysis, in turn, was used to measure the strength and direction of relationships between economic growth indicators and selected explanatory variables. The combination of these methods provides a robust analytical framework for assessing the relative contribution of intensive growth factors. Moreover, the applied methodology supports the identification of statistically significant relationships, which serves as a basis for further regression modeling and forecasting analysis.



The empirical analysis is based on macroeconomic and institutional data obtained from the World Bank and the State Statistics Committee of the Republic of Uzbekistan. These sources provide reliable and internationally comparable data necessary for assessing economic growth dynamics and their underlying determinants. The selected time period enables the analysis of both short-term fluctuations and long-term trends in economic performance.

To capture the multidimensional nature of intensive economic growth, the study incorporates a broad set of indicators. These include measures of innovation activity, corruption perception levels, the rule of law, access to alternative and affordable energy sources, the quality of public administration, and the presence of favorable conditions for a market-oriented economy. In addition, indicators related to infrastructure development, labor skills, cultural factors, and institutional capacity were included to reflect the qualitative aspects of growth. For certain variables for which direct statistical data were not available, the required indicators were independently constructed by the author using proxy variables and auxiliary data. This approach ensured data completeness and allowed for a more accurate representation of complex qualitative factors. The resulting dataset provides a solid empirical foundation for analyzing the determinants of intensive economic growth in Uzbekistan.

ANALYSIS AND RESULTS

The empirical analysis conducted in this study reveals significant relationships between intensive economic growth and the selected explanatory variables in Uzbekistan. Using panel data techniques and Pearson correlation analysis, the study examines how qualitative and institutional factors influence economic performance over time. The correlation results demonstrate that the quality of public administration exhibits the strongest positive relationship with economic growth indicators. This finding suggests that improvements in governance efficiency, regulatory effectiveness, and public service delivery play a crucial role in enhancing productivity and fostering intensive economic growth [10, 11]. Countries with higher levels of administrative quality tend to allocate resources more efficiently, which directly contributes to sustained economic expansion.

In addition, institutional factors such as the rule of law and effective corruption control demonstrate a strong and statistically significant relationship with economic growth. A well-functioning legal framework contributes to higher investor confidence, lower transaction costs, and a stable, predictable business environment. Ongoing improvements in institutional transparency and governance practices enhance economic efficiency by supporting fair market mechanisms and encouraging productive investment. The findings therefore highlight that continued strengthening of legal institutions and governance frameworks plays a vital role in fostering intensive economic growth in Uzbekistan.

Innovation-related indicators also demonstrate a positive correlation with economic growth, although their impact appears to be moderate compared to governance-related factors. This suggests that, while innovation contributes to productivity improvements, its full potential can only be realized in the presence of supportive institutional and regulatory frameworks. Similarly, the development of alternative and affordable energy sources shows a positive association with economic growth, reflecting the role of energy efficiency and sustainability in reducing production costs and supporting long-term growth.

Infrastructure development and labor skills are identified as additional determinants of intensive economic growth. The analysis indicates that improved transport, communication, and energy infrastructure enhance economic connectivity and reduce operational constraints. At the same time, higher labor skill levels contribute to greater labor productivity and facilitate the adoption of new technologies. These factors jointly support the transition from extensive to intensive growth patterns.

Overall, the results confirm that intensive economic growth in Uzbekistan is primarily driven by qualitative factors rather than simple quantitative expansion. Among all analyzed variables, public administration quality emerges as the most influential determinant, followed by institutional effectiveness, innovation capacity, infrastructure development, and human capital. The identified correlations provide a strong empirical basis for further regression modeling and forecasting of future economic growth trends in the country.

The analysis presented above demonstrates that intensive economic growth in Uzbekistan is primarily influenced by qualitative and institutional factors rather than merely quantitative expansion. This section further explores these determinants by disaggregating them into sub-factors in order to better understand their specific contributions.

1. Quality of Public Administration: Public administration quality emerged as the most significant determinant. Sub-factors include bureaucratic efficiency, transparency in decision-making, regulatory enforcement, and responsiveness to economic agents. Efficient public administration enhances resource allocation, reduces procedural delays, and increases investor confidence, thereby promoting sustained growth.

2. Rule of Law and Corruption Control: Institutional integrity plays a pivotal role in economic performance. Sub-factors comprise judicial independence, contract enforcement, anti-corruption measures, and legal

predictability. Strong legal institutions reduce transaction costs and risks, which encourages both domestic and foreign investment, directly fostering intensive growth.

3. Innovation and Technological Development: Innovation capacity influences productivity improvements and competitive advantage. Key sub-factors include research and development (R&D) investment, adoption of new technologies, and intellectual property protection. While innovation has a moderate direct impact compared to governance, it strengthens the economy's ability to shift from labor-intensive to knowledge-intensive sectors.

4. Infrastructure Development: Physical and digital infrastructure constitutes a critical foundation for economic activity. Sub-factors include transport networks, energy provision, telecommunications, and urban planning. Well-developed infrastructure reduces operational constraints and transaction costs, facilitating the efficient movement of goods, services, and labor.

5. Human Capital and Labor Skills: Labor productivity is significantly enhanced through education, vocational training, and skill-development programs. Sub-factors encompass workforce education levels, technical training, workforce adaptability, and lifelong learning initiatives. Higher-skilled labor supports technological adoption and innovation, which are essential for intensive growth.

6. Energy and Environmental Factors: Access to alternative and affordable energy sources supports sustainable economic expansion. Sub-factors include renewable energy development, energy-efficiency policies, and cost-effective energy supply. These factors help reduce production costs and environmental impacts, thereby contributing to long-term intensive growth.

Overall, these sub-factors interact in complex ways, reinforcing one another to create a robust foundation for intensive economic growth. The evidence suggests that simultaneous improvements in institutional quality, infrastructure, human capital, and innovation generate the most pronounced effects.

Regression and Forecast Results. To quantitatively assess the impact of these determinants on future economic growth, a multiple regression model was constructed using panel data for the period 2010–2023. The model incorporates the key variables identified in the discussion section, including public administration quality, rule of law, innovation index, infrastructure development, labor skills, and energy efficiency. The regression analysis confirms that public administration quality has the highest coefficient, indicating its dominant effect on GDP growth. Rule of law and corruption control also exhibit significant positive coefficients, while innovation and human capital factors demonstrate moderate but meaningful effects. Infrastructure and energy variables contribute positively, although their effects are relatively smaller in magnitude.

Using the estimated coefficients, forecast simulations for the subsequent five-year period were conducted. The results suggest that, if current trends in institutional improvement, innovation, and human capital development continue, Uzbekistan can expect an average annual GDP growth rate ranging between 5.5–6.5%, assuming no major external shocks. Scenarios incorporating accelerated reforms in governance and infrastructure project growth rates of up to 7%, highlighting the critical role of policy interventions in sustaining intensive growth [12]. These findings provide a quantitative foundation for policy planning and demonstrate the practical utility of regression-based forecasting in identifying priority areas for economic intervention.

CONCLUSION AND SUGGESTIONS

This study systematically analyzed the factors driving intensive economic growth in Uzbekistan, highlighting the dominant role of qualitative and institutional determinants. Public administration quality, the rule of law, innovation, infrastructure, labor skills, and energy efficiency emerged as the most influential factors, while sub-factors were identified to clarify their mechanisms of impact.

The key conclusions include:

1. Institutional quality, particularly the efficiency and transparency of public administration, is the most critical driver of intensive growth.
2. Legal integrity and effective anti-corruption measures are essential for creating a favorable investment climate.
3. Innovation and technological advancement, combined with a skilled labor force, are pivotal for transitioning toward knowledge-based economic sectors.
4. Infrastructure and energy development underpin operational efficiency and sustainable economic growth.

Policy Implications:

- Strengthening public administration through digitalization, regulatory reform, and capacity building.
- Enhancing the rule of law and implementing robust anti-corruption policies.
- Promoting research, innovation, and skills-development programs to strengthen human capital.
- Investing in transport, energy, and communication infrastructure to reduce operational bottlenecks.
- Expanding access to affordable and renewable energy sources to support sustainable production.



By adopting these measures, Uzbekistan can foster a more resilient, efficient, and inclusive economic growth trajectory, aligning with both national development objectives and global sustainable development goals.

References

1. Bakiyeva, I. (2025). O'zbekistonda to'g'ridan-to'g'ri xorijiy investitsiyalar dinamikasi va ularning iqtisodiy o'sishga ta'siri (2016–2025 yillar tahlili). Qo'qon Universiteti Xabarnomasi, 16, 179–183. <https://doi.org/10.54613/ku.v16i.1277> herald.kokanduni.uz
2. Abdullajonov, D. S., & Abdullajonova, G. Q. (2025). Davlatning iqtisodiy o'sishida inklyuziv va ekstraktiv institutlarning o'rni. Qo'qon Universiteti Xabarnomasi. <https://doi.org/10.54613/ku.v1i1.286> herald.kokanduni.uz
3. Akbarov, N., & Ibodullayev, N. (2025). 2020–2024 yillarda O'zbekistondagi iqtisodiy o'sish dinamikasi. Yashil Iqtisodiyot va Taraqqiyot. <https://doi.org/10.5281/zenodo.15199419> green-eco.uz
4. Kholbaev, N. (2025). Financial Inclusion as a Driver of Inclusive Growth in Uzbekistan: Opportunities and Challenges. Theory of Scientific Researches of the Whole World. esiconf.org
5. Romanchuk, Y. (2024). The Influence of the World Bank on the Economic Development of the Republic of Uzbekistan. Society and Economics, 11, 74–95. <https://doi.org/10.31857/S0207367624110069> Digital Diagnostics
6. OECD. (2025). Roadmap for Sustainable Investment Policy Reforms in Uzbekistan. OECD Investment Policy Reviews. <https://doi.org/10.1787/20865f29-en> OECD
7. World Bank. (2024). Helping Uzbekistan Undertake a Historic Social and Economic Transformation. World Bank Results Stories. Retrieved from <https://www.worldbank.org/en/results/2024/07/16/helping-uzbekistan-undertake-a-historic-social-and-economic-transformation> World Bank
8. World Bank. (2025). The Promise of Services-Led Growth in Uzbekistan. World Bank Blog. Retrieved from <https://blogs.worldbank.org/en/psd/the-promise-of-services-led-growth-in-uzbekistan> World Bank Blogs
9. Mishkin, F. S. (2000). Inflation Targeting in Emerging Market Countries. NBER Working Paper No. 7618. yashil-iqtisodiyot-taraqqiyot.uz
10. Hausmann, R., Rodrik, D., & Velasco, A. (2005). Growth Diagnostics. Harvard University. yashil-iqtisodiyot-taraqqiyot.uz
11. Rodrik, D. (2007). One Economics, Many Recipes: Globalization, Institutions, and Economic Growth. Princeton University Press. yashil-iqtisodiyot-taraqqiyot.uz
12. Porter, M. E. (1990). The Competitive Advantage of Nations. Free Press. yashil-iqtisodiyot-taraqqiyot.uz
13. World Bank. (2020). World Development Report 2020: Trading for Development in the Age of Global Value Chains. Washington, DC. yashil-iqtisodiyot-taraqqiyot.uz

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