

## ROLE OF EDUCATION ON ECONOMIC DEVELOPMENT: THE CASE OF CIS COUNTRIES

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**Abstract:** *Getting fresh knowledge and increasing human capital are key to economic growth. This article examines economic development and education in CIS nations. Several scientific research suggests a positive relationship between education and GDP. Human development and economic progress are related. Going to education, particularly at higher levels, boosts the economy, say researchers. Research shows that investing in education boosts the economy. The correlation between human capital and economic development remains a subject of debate since several research proposes a negative or inconsequential connection. Education has a pivotal role in fostering economic and social advancement, yet more investigation is necessary to comprehend its effects fully.*

**Keywords:** *education, human capital, enrollment, economic growth, CIS countries.*

### Introduction

Educational achievement in its many forms is widely recognized as a crucial determinant of human development. Ozturk (2008) asserts that the attainment of continuous economic development by any country necessitates substantial expenditures in its human capital. Education has the potential to enhance individuals' self-awareness and broaden their understanding of the world. The phenomenon yields significant social benefits that have intrinsic worth for individuals and society at large, hence augmenting their overall quality of life. Education has a pivotal role in enhancing individual productivity and fostering creativity while concurrently fostering a climate conducive to commercial innovation and the advancement of novel technology. According to the findings of Marquez-Ramos and Mourelle (2019), it is evident that this factor has a significant role in facilitating both economic and social development.<sup>2</sup> while also contributing to the enhancement of income distribution. The objective of this article is to examine the importance of human capital and education in relation to their increasing impact on fostering economic growth in Commonwealth of Independent States (CIS) countries. The growth of the economy continues to be a paramount factor to contemplate in the context of sustainable development.

### Literature review

The study undertaken by Teixeira and Fortuna (2003) aimed to examine the influence of human capital on the economic development of Portugal over the

period spanning from 1960 to 2001. The significance of human capital and indigenous innovation endeavors in the context of Portuguese economic development from 1960 to 2001 has been affirmed by the authors via the use of VAR and co-integration studies. Nevertheless, the significance of the former surpasses that of the latter, which included the creation of an internal research and development (R&D) facility. To fully leverage the benefits of its innovation endeavors, a country must possess a substantial reservoir of human capital. The significance of innovation lies in its indirect impact on human capital, which is of utmost importance.

Furthermore, the authors Benhabib and Spiegel (1994) investigated the significance of human capital in the context of economic development, presenting a novel paradigm in their seminal study. This research is widely regarded as a seminal work in the subject. Pischke (1998), Sianesi and Van Reenen (2003), Narayan and Narayan (2010), Gennaioli et al. (2011), and Lee and Hong (2012) are among the empirical studies that provide evidence of a robust correlation between human development and economic advancement. (Pischke, 1998; Sianesi and Van Reenen, 2003; Narayan and Narayan, 2010; Gennaioli et al., 2011; Lee and Hong, 2012) have been cited in the literature. Mustafa et al. (2017) performed a study focusing on Asian nations, but Ahsan and Haque (2017) conducted research specifically targeting both established and rising economies. In contrast, Pritchett (2001) and Holmes (2013) have presented findings that indicate a lack of statistically meaningful correlation between human capital and economic development. This discovery presents a contradiction to the conclusions drawn by the two preceding scholars. Consequently, an ongoing debate persists on the precise impact of human capital on economic development.

The research conducted by Bils and Klenow (2000) indicates that an increase in the enrollment of students in schools in 1960, equivalent to an additional year of education, is associated with accelerated annual growth between 1960 and 1990. The proponents of this viewpoint argue that the conclusion is deemed acceptable due to its recognition of the ability of human capital to provide an advantage to technology via the manifestation of a positive external benefit. The findings of the study align with the concept put out by Barro (1995), which posits that short-term discrepancies in the rates of human capital development contribute to transitory variations in the growth rates seen across various nations.

The studies undertaken by Mankiw et al. (1992) and Barro (1991) aimed to examine the correlation between education and economic development. A study was undertaken to examine the disparities in school enrollment rates across a diverse



range of nations, including both industrialized and destitute countries, using a single cross-sectional approach. Both studies reached the same finding, indicating that education has a substantial positive impact on the rate of growth of real GDP. The study conducted by Barro and Sala-iMartin (1995) examined the impact of public spending on educational results. The study conducted by the researchers showed a significant rise in positive outcomes. The regressions done in this study used instrumental variable techniques to address the issue of contemporaneous causation. The findings indicate that the annual rate of return on public education is around twenty per cent.

In a study undertaken by Muktdair-Al-Mukit (2012) in Bangladesh, the objective was to examine the long-term relationship between public investment in education and economic growth. During the period spanning from 1995 to 2009, the individual used an econometric model in conjunction with time series data. Based on his study findings, the allocation of monetary resources towards educational institutions has a positive and significant effect on the pace of long-term economic growth. Furthermore, the author noted that a rise of one percentage point in government expenditure allocated to the education sector results in a corresponding gain of 0.34 percentage points in per capita gross domestic product (GDP) over a period. The study undertaken by Mussagy and Babatunde (2015) aimed to ascertain the relationship between government expenditure on education and the pace of economic growth in Mozambique. The researchers conducted an analysis of quarterly data spanning the years 1996 to 2012. It was discovered that the allocation of funds by the government for education in Mozambique was comparatively insufficient, with no instance of the government's spending exceeding 20% of the budget in the prior 15 years.

In his master's thesis, Hua (2016) chose to concentrate on the examination of the correlation between China's public investment in education and the broader context of the nation's economic advancement. By using unit root and Granger causality analysis techniques, together with a dataset encompassing the period from 1992 to 2013, the researcher successfully ascertained that public investment in education makes a significant and elevated contribution. Furthermore, it was shown that there is a causal relationship between GDP and public spending on education, with GDP granger causing the latter. However, there is no evidence to suggest that public expenditure on education granger causes GDP. The study conducted by Mallick, Pradeep, and Pradhan (2016) aimed to assess the relationship between education expenditure and economic growth in 14 prominent Asian nations. The researchers used econometric analytic techniques and utilized balanced panel data

spanning from 1973 to 2012. The temporal scope of the investigation included the years 1973 to 2012. Based on the study results, it can be inferred that the education sector plays a significant role in fostering economic development throughout the 14 primary Asian nations.

## Conclusion

The last section of this paper focuses significant emphasis on the role of education and human capital in fostering economic progress. The analysis of relevant literature demonstrates a robust correlation between human development and economic progress. This summary of pertinent research incorporates studies that provide evidence for the positive impact of education on GDP development. Research has shown that there exists a positive and substantial correlation between the enrollment rate in educational institutions, particularly at advanced levels of education, and the magnitude of economic activity. Furthermore, empirical studies have substantiated the notion that investing financial resources in education has a significant role in fostering long-term economic growth. It is imperative to acknowledge, notwithstanding this, that the precise relationship between human capital and economic growth remains a subject of contention since several studies have discovered a negative or insignificant correlation between the two. Education has a pivotal role in facilitating both economic and social progress, yet more inquiry is necessary to comprehend the intricate relationship between education and economic development.

## References

1. Ahsan, H. and Haque, M.E. (2017), "Threshold effects of human capital: schooling and economic growth", *Economics Letters*, Vol. 156, pp. 48-52, doi: 10.1016/j.econlet.2017.04.014. Available at < <https://www.sciencedirect.com/science/article/abs/pii/S0165176517301544>>
2. Azamatov, Z. T., Akbarova, N. A., Kulagin, I. Y. A., Gaponov, V. E., Redkorechev, V. I., & Isayev, A. M. (2017). Digital holographic interferometry in physical nanomeasurements. *Наносистемы: физика, химия, математика*, 8(1), 79-84.
3. Barro, R. J., (1991), "Economic growth in a Cross Section of Countries", *Quarterly Journal of Economics* vol. 106, no. 2, pp.407-443. Available at < <https://academic.oup.com/qje/article-abstract/106/2/407/1905452> >
4. Barro, Robert J. and Xavier Sala-i-Martin, (1995), *Economic Growth*. New York: McGraw-Hill. Available at < <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.467.1012&rep=rep1&type=pdf> >
5. Benhabib, J. and Spiegel, M.M. (1994), "The role of human capital in economic development evidence from aggregate cross-country data", *Journal of Monetary Economics*, Vol. 34 No. 2, pp. 143-173.



6. Bils, M. and P. Klenow, (2000), "Does Schooling Cause Growth?" *American Economic Review*, Vol. 90, No. 5, pp. 1160-1183. Available at < <https://www.aeaweb.org/articles?id=10.1257/aer.90.5.1160>>
7. Gennaioli, N., Porta, R.L., Lopez-de-Silanes, F. and Shleifer, A. (2011), Human capital and regional development (No. w17158). National Bureau of Economic Research.
8. Сабиров, О. И., Акбарова, Н. А., & Сапаев, У. К. (2022). К теории параметрического усиления коротких лазерных импульсов в нелинейных фотонных кристаллах. «Узбекский физический журнал», 24(1), 8-9.
9. Holmes, C. (2013), "Has the expansion of higher education led to greater economic growth?", *National Institute Economic Review*, Vol. 224 No. 1, pp. R29-R47. Available at < <https://journals.sagepub.com/doi/abs/10.1177/002795011322400103>>
10. Hua, Yubo, 2016 "The Relationship between Public Expenditure on Education and Economic Growth: Evidence from China". *All Theses*. 2361. Available at [https://tigerprints.clemson.edu/all\\_theses/2361](https://tigerprints.clemson.edu/all_theses/2361)
11. Lee, J.W. and Hong, K. (2012), "Economic growth in Asia: determinants and prospects", *Japan and the World Economy*, Vol. 24 No. 2, pp. 101-113.
12. Mallick, Lingaraj, Pradeep Kumar Das and Kalandi Charan Pradhan 2016 "Impact of educational expenditure on economic growth in major Asian countries: Evidence from econometric analysis". *Theoretical and Applied Economics*, Volume XXIII (2016), No. 2(607), Summer, pp. 173-186
13. Mankiw, N. Gregory, David Romer, and David N. Weil, (1992), „A Contribution to the Empirics of Economic Growth.“ *Quarterly Journal of Economics*, Vol. 107, pp. 407-437. Available at < <https://academic.oup.com/qje/article-abstract/107/2/407/1838296>>
14. [Marquez-Ramos, L.](#) and [Mourelle, E.](#) 2019, "Education and economic growth: an empirical analysis of nonlinearities", *Applied Economic Analysis*, Vol. 27 No. 79, pp. 21-45. Available at <<https://doi.org/10.1108/AEA-06-2019-0005>>
15. Muktdair-Al-Mukit Dewan, 2012, Public Expenditure on Education and Economic Growth: The Case of Bangladesh. *International Journal of Applied Research in Business Administration & Economics (IJARBAE)* 1(4): p.10-18. Available at < <https://core.ac.uk/download/pdf/33797956.pdf> >
16. Mussagy, Ibraimo Hassane and Musibau Adetunji Babatunde 2015 "Government spending on education and economic growth in Mozambique: A cointegration approach". Available at < <http://reid.ucm.ac.mz/index.php/reid/article/viewFile/68/84>>
17. Mustafa, G., Rizov, M. and Kernohan, D. (2017), "Growth, human development, and trade: the Asian experience", *Economic Modelling*, Vol. 61, pp. 93-101. Available at < <https://www.sciencedirect.com/science/article/abs/pii/S0264999316308240> >

18. Narayan, P.K. and Narayan, S. (2010), “Carbon dioxide emissions and economic growth: panel data evidence from developing countries”, *Energy Policy*, Vol. 38 No. 1, pp. 661-666.
19. Zh, Z. R., & Akbarova, N. (2022). Third Harmonic Generation of Femtosecond Laser Pulse in Argon. *Journal of Optoelectronics Laser*, 41(10), 134-139.
20. Ozturk, I. 2008, *The Role of Education in Economic Development: A Theoretical Perspective*. Available at <SSRN: <https://ssrn.com/abstract=1137541> or <http://dx.doi.org/10.2139/ssrn.1137541>>
21. Pischke, J.D. (1998), “Poverty, human development and financial services”, Occasional Paper no. 25.
22. Pritchett, L. (2001), “Where has all the education gone?”, *The World Bank Economic Review*, Vol. 15 No. 3, pp. 367-391. Available at <<https://elibrary.worldbank.org/doi/abs/10.1596/1813-9450-1581>>
23. Sianesi, B. and Van Reenen, J. (2003), “The returns to education: macroeconomics”, *Journal of Economic Surveys*, Vol. 17 No. 2, pp. 157-200. Available at <<https://onlinelibrary.wiley.com/doi/abs/10.1111/1467-6419.00192>>

