

Literacy Rate And Productivity Growth In Africa: An Impact Analysis

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Abstract

As of 2022, in sub-Saharan Africa, more than 1 in 3 adults cannot read and write, over 65% of children between the ages of 5 to 9, do not go to school, and over 40 million youths between the ages 15 to 24, are illiterate. The incidence of low literacy rates has been the bane of economic growth and development in Africa, and these countries still lack the needed educational know-how to compete with the technologically advanced countries of the world. This article emphasized the need for countries of Africa to raise education expenditure levels, as a percentage of GDP, reform the curricula, engage participation of the private sector, and as a reform strategy, raise the literacy levels that provide the needed skills necessary for raising productivity, and economic growth and development. We recommend that there must be a strong political will, on the part of the leaders in driving these reforms in the educational sector that will ultimately contribute to the growth in productivity, raise living standards and well-being, create employment opportunities in the labor market, and reduce the level of poverty and inequality.

Keyword: Literacy Rate; Productivity Growth

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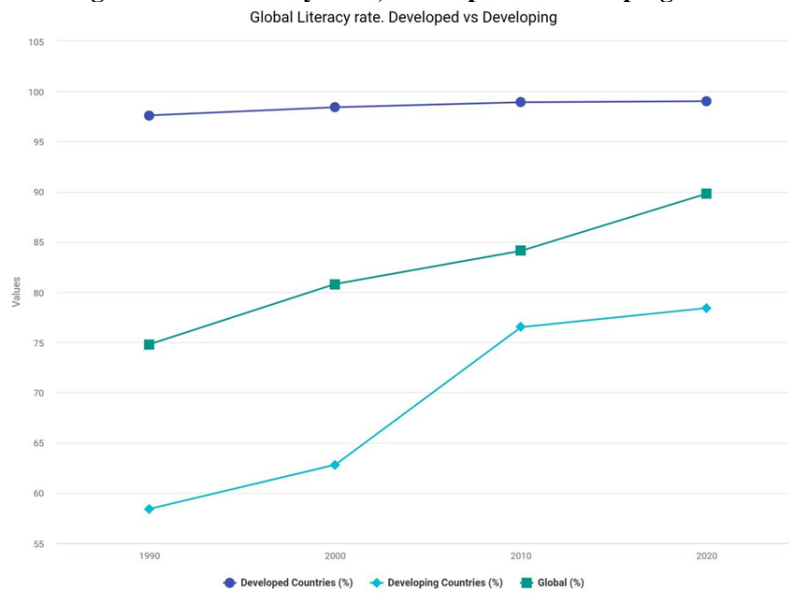
I. Introduction

Education is the most important driver of socio-political and economic growth. Modern society relies on education to build functional members that contribute to progress and growth. Generally, education involves studying to acquire knowledge and a deeper understanding of the characteristics, functions, systems, and activities that contribute to socioeconomic and political progress in a society. It contributes to the growth and human development, through the acquisition of knowledge that results in personal development and freedom, productivity, financial security and stability, higher self-esteem, and reduction in the level of poverty and social and economic inequality. Studies have shown that societies with higher rates of educational attainment have better and more stable political and economic environments, better overall health, and standards of living. The major reasons why education benefits society are, it helps individuals to gain knowledge and skills, cultivates critical skills, improves productivity, and discovers talents, that contribute to societal growth and development. United Nations Sustainable Development Goal 4 highlighted education as the key driver to reducing social and economic inequality, empowering members of society to live more healthy and sustainable lives and break from the unending circle of poverty.

Education is an integral part of economic growth and development in global societies. It contributes to the creation of a highly skilled workforce and labor productivity, critical for improved welfare and standard of living. Al-Shuaibi (2014) asserted that education is the most important issue in the life of an individual. It helps to build character, mindset, and thinking skills, and helps to prepare an individual for life experiences and challenges. Education is the centerpiece of growth and development in modern society. It fosters a skilled workforce that raises the level of personal growth, and productivity, enriches social mobility, innovation, and progress, and it is critical for individual and societal progress. Education is the most powerful tool to addressing global challenges, reducing the levels of poverty, and social and economic inequality, and creating a more just, equitable, and sustainable world.

Global literacy rate refers to the percentage of people, in a population of given age group, who can read and write. Statistics shows that as of 2023 the literacy rate for individuals, males and females, aged 15 and over is 86.3 percent. However, this varies significantly between the developed and developing countries.

Fig 1. Global Literacy Rate, Developed vs Developing. 2023



Source: Macrotrends data (1976-2024)

In Fig. 1, the global literacy rate has risen from 74.8 percent in 1976 to 89.8 percent as of 2020. The percentage literacy rate in developed economies has averaged 98.4 percent, while the rate in developing countries had a moderate increase from 58.4 percent to 78.4 percent, between 1976 and 2020. The literacy rate is categorized into adult, youth, and elderly. Literacy rate, typically, measures the ability to read and write and generally encompasses numeracy, which includes a simple assessment of arithmetic ability. Literacy progress has been made since 1990, and this has significantly impacted both the youth and adult population in developing countries. As of 2020, the global literacy rate stands at 89 percent, however, there is still a significant gap between the developed and developing countries.

World Population Review (2021) statistics showed a significant disparity between male and female literacy rates. The global literacy rate among males and females over the age of 15 is 90 and 82.7 percent respectively. Global estimates show over 700 million adults and children do not have basic literacy abilities, and between 1976 and 2024, the global literacy rate rose significantly, with more illiterate adults from sub-Saharan Africa, and South and West Asia.

Fig.2 Global Male vs Female Literacy rate (1990 - 2020)

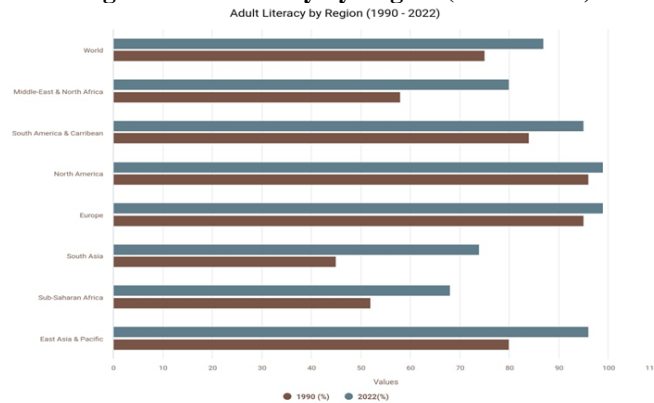


Source: World Population Review, 2020

Fig 2 shows a consistent disparity in literacy rates between males and females, between 1990 and 2020. As of 1990, there was a 15 percent gap in the ratio of male to female literacy rate. By 2020, the gap between the ratios had dropped significantly to about 8 percent. Global estimates as at 2022, showed 90 percent of men and 84 percent of women. However, in developing countries, UNESCO (2022), the female adult literacy rate was estimated at 53 percent, compared to 69 percent for men. Growth in literacy rate correlated with an enhanced educational system designed to equip individuals with the necessary basic skills needed for productivity growth. A high literacy implies that the education system is efficient in enhancing the needed skills and innovation as a prerequisite for productivity growth in the economy.

Productivity growth is a necessary condition for the growth in economic activities. Productivity measures the ratio of input to output in a production process. It measures output per worker, and the efficiency of a country's production process, and the most common input is the labor hours, capital, and natural resources. Labor resources are essential in maintaining the stability and balance in the production process. Increased productivity translates to higher growth in GDP, higher factor wages, higher income levels, standard of living, and improved welfare. Literacy rate impacts productivity growth, as a more educated population contributes more through improved methods of production, innovation, and invention, so that output per worker grows with the same quantity of inputs, resulting from a more educated population. Adult literacy is vital for productivity growth.

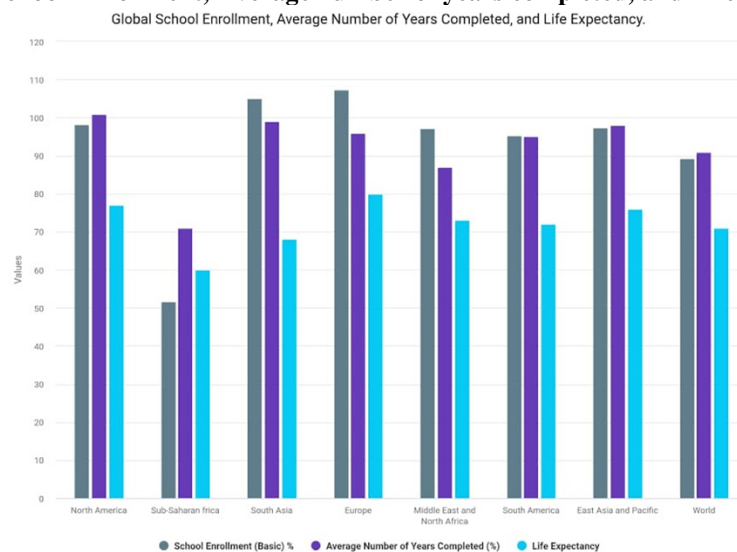
Fig 3. Adult Literacy by Region (1990 - 2022)



Source: World Bank data, 2023

In Figure 3, between 1990 and 2022, North America and Europe had the highest adult literacy rate at 99 percent, from 96 and 95 percent respectively. Sub-Sahara Africa and South Asia had the lowest rates at 68 and 74 percent respectively. A high literacy rate suggests an effective primary education system that provides easy access to a larger proportion of the population, the ability to read and write, and make simple arithmetic calculations. Other factors include school enrollment rates, the average number of completed years of education, and life expectancy.

Figure 4. Global School Enrollment, Average number of years completed, and Life Expectancy. (2022)



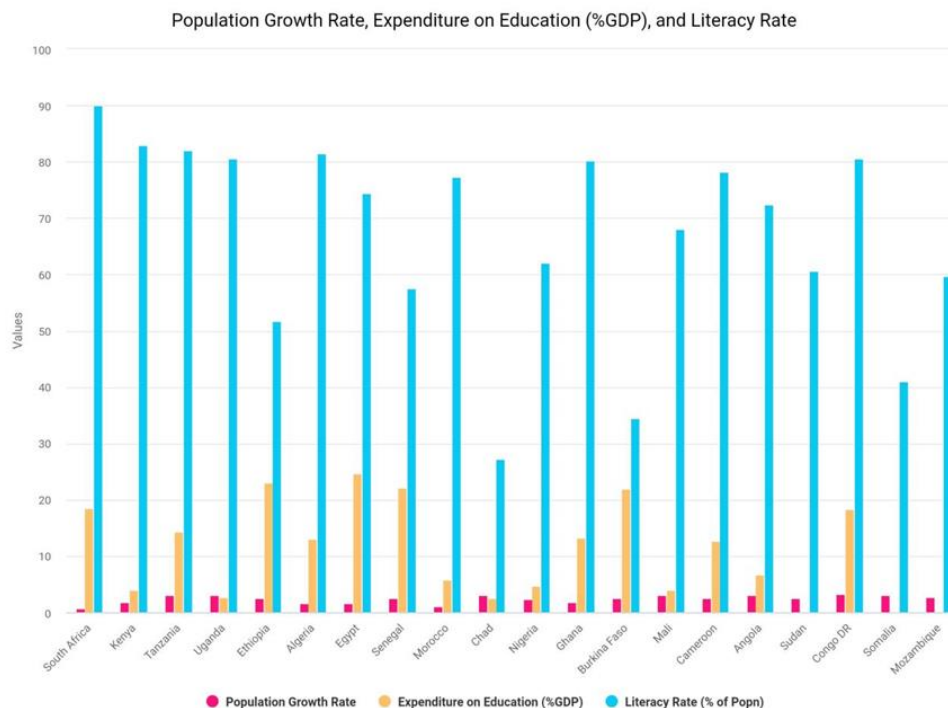
Source: World Bank Data, 2022.

The global average school enrollment rate is 89.2 percent. In North America, the United States had one of the lowest enrollment rates, among the OECD countries. Sub-Saharan Africa has the lowest enrollment rates in the world at 51.77 percent. In Figure 4, Europe has the highest rate at 107 percent, with South Asia at 105 percent. At 71 percent, Sub-Saharan Africa has the lowest average number of years completed, and this is compared to the global average of 91 percent. Life expectancy at birth, among Sub-Saharan Africans is 60 years, compared to the global average of 71. Studies have shown that there is a positive relationship between education and life expectancy and that each additional year of education lowers the death rate by 2 percent. More education raises awareness and resources that contribute to a healthy lifestyle.

A high literacy rate is a major source of skilled labor, it raises the level of productivity, creates economic opportunities for a larger population, and contributes to the GDP. A low literacy rate is a cost to nations in lost productivity. Literacy rates drive productivity levels, and a larger proportion of a nation’s workforce, engaged in jobs requiring the use of reading and numeracy skills tend to be more economically productive. Cree et al, World Literacy Foundation (2022), in its final report, observed that the effects of illiteracy are similar in Sub-Saharan Africa, other developing countries, and the developed nations. One in five people struggle with illiteracy worldwide, and the socioeconomic impact cannot be quantified, however, recent studies shows the cost of global illiteracy is in excess of \$1 trillion.

DeSilver (2013), in the relationship between productivity and literacy, observed that nations where majority of the labor force engaged in jobs requiring the use of reading and numeracy skills are more economically productive. In the last three decades, the use of emerging technology has been a requisite for improved reading and numeracy skills, which has raised the level of global productivity. Mathematical and numeracy skills are linked with greater cognitive abilities, which is indicative of an individual ability to raise his thinking and problem solving skills. Numeracy is a necessary skill required for the daily lives of individuals. Cognitive development requires an early exposure to mathematical concepts, reading, and writing. These improve memory, problem-solving quality, and logical reasoning. Numeracy and the ability to read and write is a precondition for the development and improvement of skills required to raise productivity for economic growth. An economy with more educated workers are more effective and efficient in undertaking tasks requiring numeracy and critical thinking skills, which ultimately raise the level of productivity. As the proportion of the population becomes more literate, the economy becomes more productive, and see faster economic growth. Education and growth in literacy rate is an investment in human capital. Developing countries with higher expenditure on education as a percentage of GDP tend to have a population with knowledge and skills that provide economic value that often leads to increased productivity. Ultimately, countries with higher literacy rate tends to attract more foreign direct investment that raises the level of economic growth.

Figure 5. Population Growth Rate, Expenditure on Education (% of GDP), and Literacy Rate in 20 African Countries.



Source: World Bank Data, 2022.

Figure 5 depicts a comparison between growth in population, expenditure on education, as a percentage of GDP, and literacy rate in 20 African countries. Growth in population can have varied effects on the expenditure on education, as a percentage of a country's GDP. A growing population increases the demand for education, and the resultant effect is a rise in literacy rate. However, growth in population also increases pressure on a nation's existing resources, thus reducing the expenditure on education. Congo DR has the highest population growth rate in Africa, allocating 18.41 percent of its expenditure on education, as a percentage of its GDP, and has one of the highest literacy rates in Africa. Ethiopia, with a population growth rate of 2.5 percent, allocates the highest expenditure on education in Africa. A high growth rate in population induces greater expenditure in education, increases the level of literacy, and raises productivity growth.

II. Impact Of Literacy On Productivity Growth

Growth in literacy rate has both social and economic impact on any nation. The literacy rate has become a standard index for gauging the rate of human and economic development in developing countries. Low literacy rate affects the supply of quality labor, which ultimately affects productivity growth. Information and communication technology have become the global standard for productivity growth, and the rate countries embrace new technologies, is a function of having skilled labor. The skill requirements in the labor market in developing countries have changed in the last two decades, with the advent of new technologies. These skills are necessary requirements in our globalized economy. A country with a high literacy rate has a larger proportion of its labor force has the necessary skills, which ultimately raise productivity growth. Developing countries have made concerted efforts to raise literacy rates to meet the skill requirements in today's highly technical and innovative economic environment. Studies have shown that, on average, a 1% increase in the literacy rate impacts the GDP by about 1.5%, and raises productivity growth by about 2.5%. Ultimately, a high literacy rate improves the accumulation of human assets in terms of potential productivity growth.

In summary, developing countries in Africa can raise literacy rate by embracing the use of technology, as a way to meet global competitive standards; reforming the current curricula to include technological changes, based on the needs of the society; public-private partnership is key to driving growth in literacy rate, through the encouragement of private initiatives; improvement in the living and compensating conditions of literacy staff that would drive commitment in the educational sector; developing countries of Africa should embrace innovation in the educational sector through the introduction of digital education, domestic funding initiatives, and other support programs that targets learning; and the lack of political will has always been the bane of literacy growth in Africa. Governments should be more committed to literacy programs through the increase in budgetary allocation to the educational sector, by at least 5% of its GDP.

Over time, the difference in literacy growth in African countries, explains the significant difference in the rate of literacy between these countries. A high literacy rate impacts human capital accumulation, drives productivity growth, and ultimately raise GDP levels. It reduces the levels of inequality, and access to educational benefits, and helps in addressing access to employments and learning outcomes. Countries of Africa have experienced unprecedented growth in the levels of literacy in the last two decades, and despite this growth trend, and heavy investment in education, a significant proportion of the labor force still grapple with the incidence of low literacy and numeracy levels. For productivity growth, investment in literacy and numeracy should target labor market demands that contribute more to productivity and economic growth. However, the statistics for literacy rate in Africa is a stark contrast to the developed countries of the world, and as of 2022, in sub-Saharan Africa, more than 1 in 3 adults cannot read and write, over 65% of children between the ages 5 to 9, do not go to school, and over 40 million youths between the ages 15 to 24, are illiterates. To eradicate illiteracy in Africa, leaders must focus on reforms, raise the levels of expenditure on education, involve the private sector in educational participation, and ultimately implement systemic changes on how the educational system can raise productivity, support growth, and economic development, in the long term.

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