



Assessment of Human Capital Development and Economic Growth in Africa.

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Abstract

The study assesses the effect of human capital development on economic growth in West African countries. Panel series data from seven (7) selected West African countries (Cote d'Ivoire, Nigeria, Gambia, Senegal, Benin, Togo, and Sierra

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Leone) was used. The study employed human capital and growth theories; the research covered seventeen (17) years (i.e., 2000–2016) due to the availability of data from the selected countries, and the following variables were used: GDP as a dependent variable and four (4) independent variables. All the variables were subjected to econometric tests, and the study revealed that there is an insignificant effect of human capital on economic growth within the region called West Africa. The researcher hereby recommends that there should be provision for a human capital development ministry in West Africa to help boost and grow its economy all over the region.

Keywords: Human Capital, Economic growth, and West Africa.

Introduction

One of the main contributing aspects to a country's prosperity has been identified as human capital. Smith (1776) defined it as all of a society's members acquired and valuable skills. Ihendinihu, Jones, and Nwaiwu (2015) this shows that human capital simply prioritizes improving an individual's quality of life through health and education to produce results that are valuable to both the person and society. Humans are the creator of national growth and development via the combination of various resources. Both human and material resources are considered elements of growth. A nation won't be able to create anything else if it cannot successfully employ the skills and expertise of its citizens in the national economy. For both individuals and societies,

increased productivity growth results from more knowledge and wellbeing (Miyanda and Seshamani, 2017). African nations attained the highest level of the Human Development Index (HDI) in 2012, marking a significant milestone for the continent and underlining some challenges to advancement in the areas of education, health, and social well-being. To enable these improvements, economies still need to be transformed, and a lot of work needs to be done before any progress and or efficiency in both public and private sectors. Based on the aforementioned data, the study divided Human Capital Development in Africa into three (3) groups: Libya, Mauritius, Algeria, and Tunisia were ranked higher; other countries were ranked as having medium human capital development, while others had low levels. According to this study's conceptualization, the human capital development index lags behind physical capital by a wide margin. As an example, Togo, Cote d'Ivoire, Nigeria, Benin, Senegal, Gambia, and Sierra Leone all experienced severe underdevelopment. This served as an overview of the composite statistical index, which uses the UNDP's standard index methodology to measure the average level of human capital development. Only healthy people can be completely productive, though, as health care not only promotes health but also generates income. Both are fundamental to the broader idea of expanded human capabilities, which is essential for economic growth and the development of a country's economy (Miyanda and Seshamani, 2017). Education and health are basic development goals because they are important to well-being and necessary for a fulfilling and rewarding life. According to Solow (1956), the concept of economic growth can be seen as expansion of an

economy's capacity to generate goods and services over time. Although other measurements are occasionally used, gross domestic product (GDP) has historically been used to gauge overall economic growth. The term economic growth is the gradual rise in the general market value of the commodities and services that a given nation produces, adjusted for inflation. West African countries were categorized into three categories of economies based on the value of their economic growth (Hellwig, 2018).

However, without significant expenditures in human capital, no nation has ever had long-term economic growth. It is impossible to overstate the relevance and function of human capital in accelerating economic growth. Human capital is a vital pre-requisite for a country's socioeconomic and political change, as economists have recognized. Since people are the most precious resource, it is necessary to organize, develop, and empower them so they may fully engage in all socioeconomic activities. Gaining economic prosperity increases economic prosperity, which in turn enhances the lives of people who can participate in the system. It had been realized that without the appropriate development of human capital, no nation could see considerable economic progress. Without acknowledging the crucial role that human capital plays in the development process, the majority of policies in West Africa were focused on the acquisition of human resources for quick economic growth and development. Human capital, as we all know, is the store of abilities, talents, ideas, and personality traits that people possess and that enable them to execute work that results in the development of personal, monetary, and social value

(Oguiuba & Okafor, 2013). The United Nations Development Program's (UNDP) standard measurement of physical capital methodology is used in the study to assess the important aspects of physical capital development in West African countries over the past few years. For instance, Senegal, Sierra Leone, Gambia, Togo, Nigeria, Benin and Cote d'Ivoire all made significant strides. There have been a number of empirical studies on the development of human capital and economic growth, but the findings have been conflicting, necessitating further research. Adelowokan (2012) investigated the impact of health and education spending between 1970 and 2010 on economic growth in Nigeria. According to the study, private investment has been contributing less to growth of the Nigerian economy, whereas public investment and public consumption (in the areas of health and education) had a favorable impact. Additionally, Isola & Alani (2012) looked at how several metrics of human capital development impacted economic growth in Nigeria. Although less attention had been paid to health compared to education, the study discovered that both the development of human capital and health are essential to Nigeria's economic progress. On the other hand, Osoba (2013) looked into how human capital and FDI interacted to affect growth in Nigeria and attempted to determine the long-term viability of the FDI-induced growth process. According to the study, human capital had long-term, significant negative effects on growth, and FDI in Nigeria had a tiny contribution. FDI was also found to have a negative link to growth in Nigeria. The paper applies the model to actualize the objective. The model examines the effects of human capital development on economic growth.

$$RGDP_{it} = \alpha_0 + \alpha_1 GEE_{it} + \alpha_2 GEH_{it} + \alpha_3 LR_{it} + LE_{it}$$

Where: Logarithm of Real Growth Domestic Product (LOGRGDP), Logarithm of Government Expenditure on Health (LOGGEH), Logarithm of Literacy Rate (LOGLR), and Logarithm of Life Expectancy Rate (LOGLE)

Pre-estimation Tests

Murinde et al. (2004) descriptive statistics is a vital test to be conducted before proceeding to subsequent test or analysis of any given data. For the mean and median statistics, four (4) series (i.e., RGDP, GEH, LE, and LR) shows an accepted mean and median values which was fall within the expected range, while the value of GEE is out of the expected range (i.e., low). The Standard deviation of the series in the data set values, the series RGDP, GEH, and LR deviated from the real actual mean value that are very small, as expected, while GEE and LE are very large. For skewness, the variables RGDP (0.954599), GEH (0.821943), and LR (0.651526) are positively skewed as expected; this indicates that observed values of the variables have a long tail to the right, while GEE (-0.244068) and LE (-0.267455) are negatively skewed. For the kurtosis statistics, which measure the peakness or flatness of the distribution of the series, all the series, as expected, RGDP (2.861285), GEE (2.247934), GEH (3.055530), LE (2.474435), and LR (3.272881), are flat (platykurtic) relative to the normal. Finally, all the Jarque-Bera values fall within the accepted range. RGDP (8.16870), GEE (3.985901), GEH (3.41449), LE (2.788310), and LR

(8.788200); it can be concluded that RGDP, GEE, GEH, LE, and LR are normally distributed as expected.

Correlation Matrix Results

Correlation of matrix, Pearson's correlation was considered to identify the relationship among the series of the study; the result obtained from the above table revealed that there is relationship among the variables. The decision rule is that when the value is closer to one means a strong relationship and when the value displays a negative value means there is no relationship among the specified series. The correlation matrix condition is that there should be diagonal values of 1.000000 if the series have a good relationship among themselves (Hellwig, 2017). The Correlation table shows (GEE) with -.222615, (GEH) -.564302, and (LE) -0.182337 conjugate an inverse positive relationship with (RGDP); in the same vein, there exists a positive relationship between RGDP and (LR) 0.923923. Summarily, it can be concluded that GEE, GEH, LE, and LR have a blissful agreement with RGDP.

Panel unit root test: Levin and others (2002) The variables were put to the test to see if they were stationary or non-stationary. If the P-value is negative, rejection of the null hypothesis is necessary (Levin et al., 2002). The initial difference and levels were subjected to the panel unit root test, as shown in Table 3. The finding reveals that differentiating the other variables is necessary to establish stationarity since only LE is stationary at levels, while the other four (4) variables took their first difference and became

stationary. Therefore, we may say that the series is quite trustworthy for any other relevant test(s).

Table 4: Result of Panel Pooled Mean Group for the Seven (7) countries considered for the study within West Africa.

Dependent Variable: LOGRGDP

Country	ECT'	ΔLOGGE E	ΔLOGGE H	ΔLR	ΔLE
Benin Rep.	- 0.1585 ** (0.201 0 [0.030]	-0.0003 (0.0018) [0.858]	-0.0662 (0.0595) [0.266]	0.0060 (0.2956) [0.984]	0.1663** * (0.1245) [0.182]
Cote d'Ivoire	- 0.2625 ** (0.106 8 [0.014]	0.0021 (0.0064) [0.974]	0.0681 (0.026) [0.276]	0.3819* * (0.2190) [0.081]	-0.0036 (0.0344) [0.915]
Gambia	- 0.1767 *** (0.129 9 [0.174]	0.0008 (0.0021) [0.686]	-0.0443*** (0.0292) [0.129]	-0.1289 (0.1850) [0.486]	0.3243 (0.3993) [0.417]
Nigeria	- 0.3675 * (0.075 4 [0.000]	0.1704* (0.0546) [0.002]	0.0399 (0.0326) [0.221]	0.1372 (0.1137) [0.228]	0.1094** * (0.0677 [0.106]

Senegal	-	-0.0020	0.0190	0.8311*	-0.3080*
	1.1061	(0.024)	(0.0228)	(0.2233)	(0.0670)
	*	[0.407]	[0.408]	[0.000]	[0.000]
	(0.187 2 [0.000]				
Sierra Leon	-	0.0061	0.0217	0.1317	-0.1273
	0.2755	(0.0051)	(0.0391)	(0.3223)	(0.1458)
	**	[0.753]	[0.578]	[0.683]	[0.383]
	(0.133 3 [0.039]				
Togo	-	-0.0007	-0.0700**	-0.0794	0.0206
	0.1587	(0.0028)	(0.0365)	(0.1303)	(0.0405)
	**	[0.801]	[0.055]	[0.542]	[0.611]
	(0.092 7 [0.087]				

Source: By the Author using a software called STATA version: 14 (2023)

Results and Discussion: The PMG result helps in actualizing the main objective of the study, which is to assess the effect of human capital on economic growth in some selected West African Countries. From the above table, titled Table 4, the following results were revealed: Benin Republic shows that GEE and GEH were negatively affecting the RGDP, but not significant, while the third variable indicates a positive but not significant effect, and LE shows a positive and statistically significant effect. In the case of Cote d'Ivoire, GEE and GEH have a significant positive effect on the GDP; the third variable also affects the GDP positively but is insignificant; LR has an insignificant negative effect on

the GDP. The Gambia result revealed that the first and third variables had an insignificant positive effect, while the second and fourth variables had a negative and significant effect on the dependent variable. All the results from Nigeria were positive, and GEE, LR, and LE are insignificant, while GEH is significant. Senegal indicated that expenditure on health and literacy rates were positive; however, GEH is not significant and the other one is significant. Where the expenditure on education and the last series are negative, however, LE is significant while the other one is not. In Sierra Leone, the first three variables were positive but insignificant. However, the last series shows negative and insignificant growth in the economy. The last result from Togo's results denoted that the first three variables had a negative and significant effect on the GDP, but the last variable had a positive and significant effect. The discussion of findings was based on the captured objective of the study, which was estimated and interpreted as well. Findings from this research and individual-country analysis show that, despite being insignificant, human capital (proxied by GEE, GEH, LE, and LR) is affecting RGDP in each of the seven (7) selected countries. Therefore, on a general note, human capital has a positive effect on economic growth but is statistically insignificant in the seven countries selected. This finding is not surprising because, over the years, West Africa's commitment to investment in human capital has been falling. This can be evidenced in the declining budgetary allocation when compared with the UNESCO and Abuja declaration thresholds of 26% and 15% of the national budget to be allocated to the education and health sectors, respectively. The finding is consistent with the

classical theory of economic growth, whose proponents are Cleaver (1776) and David Ricardo (1772 – 1823), suggesting that economic growth (EG) will be caused by growth in the labor force (Lg) through human capital development (Obialor, 2017). The findings also corroborate the work of Gyimah-Brempong (2011), who examines the impact of education, human capital, and economic growth in African countries.

Conclusion

This study investigates human capital development and economic growth using panel series data from seven (7) selected West African countries, covering the period of 17 years (2000–2016). The study considered four independent variables (LOGGEE, LOGGEH, LOGLR, and LOGLE) and one dependent variable (RGDP). The study employed econometric tools, which include pre-estimation and estimation tests. The research affirmed that there is an effect of human capital on economic growth in West African Countries, but it is not significant. The researcher hereby recommends that there *should be provision for a human capital development ministry in West Africa to help boost and grow its economy all over the region.*

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