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The Nexus among Human Capital Development, Institutions and Economic Growth in ECOWAS Sub-Region, Nigeria

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Abstract:
This research work examined The Nexus among Human Capital Development, Institutions and Economic Growth in West African Sub-Region. It focused on the impact of human capital development, institutions, and economic growth variables such as human capital, voice of accountability, social security, government effectiveness, rule of law. The study used secondary data obtained from the world development indicator, 2018. The ordinary least square (OLS) econometric techniques were employed. The result of the analysis reveals that human capital exerts a positive and significant influence on economic growth in the region, while the effect of physical capital on GDP is positive, indicating a positive effect of physical capital on economic growth in the region. However, the institutional quality on economic growth is negative and insignificant at the same time. Based on the findings, the study suggests strong investment in Education and Health being significant contributors to economic growth in the sub region to further enhance economic growth and development.

Keywords: Human capital development, institutions, economic growth

1. Introduction

Human capital is the main basis of growth compulsory to drive continued growth in emerging countries. The connection between human equity, institutions, and economic expansion emphasizes the implication of institutions to deduce income categories and economic growth, and in enabling economic compensations that support input accumulation (Joilson & Edinaldo, 2011). However, studies by (Schultz, 1961 & Denison, 1962) ascertained that the economy relied on education to promote economic growth. Human capitals are the abilities and skills of human resources, and human capital development refers to the process of acquiring and increasing the number of skilled persons who have the education and experience which are critical for the economic growth of the country (Ogunmuyiwa & Adelowokan, 2017).

Weak human capital development efforts in Africa and the obvious disconnect between aggregate growths, what's more, wellbeing and training markers it basic to comprehend the driving elements of human capital advancement. Life expectancy at birth shows that Africa records the lowest value compared with other regions (United Nations Development Programme, 2013). However, despite the World Health Organization's recommendation, medical doctors per 1,000 people in Africa stood at 0.2%. In terms of education, Africa records the lowest school enrollment in the world. The gross percentage of school enrollment in Africa stood at 8.1% while North America and the world average was 90.9% and 32%, respectively in 2012.

According to Bashir, Herath, & Gebrernedhin (2012), investment in education and health services are the major factors for human capital development and the subsequent impact on economic growth. Thus, given that expenditure is a form of investment (Barro, 2001), there is support for a study of this nature to measure human capital investment with public expenditure on education and health.

Additionally, Ejere (2011) positioned that human wealth attributes to the human characters in the generation method; and comprises the intimate information, skills or skills and capacities of the manpower. Of all factors of production, the significance of human capital is vast because, only human beings are capable of learning, adapting, innovative and creative (Florencio, 2012). Human equity array or development, pursuing Harbison (1973), can be seen as the deliberate and consecutive process of developing requisite understanding, skills, and understandings that are pertained to produce economic importance for steering sufferable nationwide expansion. The endogenous growth models, especially by Romney, 1986 and Lucas, 1988. Stressed knowledge or human capital accumulation as significant in determining long term economic growth.

Human equity advancement is accordingly related to interest in the man and his advancement as a productive and valuable help (Jhingan 2012). Onakoya (2013) portrayed human capital as a significant consider utilized changing overall assets to profit humankind.

The concept of institutions is of relevance in the modern world. This is because the interactions in an economic system happen in a way that latent factors (institutions) impact on economic agents. The study of these factors is the core idea in the field of New Institutional Economics (NIE) built on the contributions of Coase, (1937, and 1960), Williamson (1975, 2000). North, (1981, 1990, 2005), & Ostrorn, (1990, 2005. Other scholars like King and Levine (1993). De Long & Shleifer (1993), Acemoglu, (2001) view institutions as a determinant of economic growth. Developing countries across the globe is a myriad of challenges ranging from poor governance, poor programmed implementation, and corruption, (Adelowokan. 2012). For instance, in 2010 the average per capita GDP in Africa is US\$ 1,669, which is far below the lower-middle-income groups' average of US\$ 2,530.5 (Abdulsalami, Sauna & Mohammed, 2015). This poor economic performance is more severe in the West African region under its organization. Ekpo, (2015) showed that GDP per capita for the ECOWAS sub-region which stood at US\$ 477.93 in 1970 rose marginally to US\$ 485 in 1987 and declined to US\$470.4 in 1990. It rose to US\$ 680.8 in 2008. In 2010 average GDP per capita of the ECOWAS region was US\$ 669.5 and by 2014, GDP per capita jumped to US\$780.25, placing the region into the low-income group (World Bank. 2013).

1.1. Statement of Research Problem

Human capital advancement has been viewed as one of the components driving financial development. (Omojimite, 2011; Asaju, Kajang and Anyio, 2013; World Bank, 2010; Ndulu, 2010; Odia and Omofonmwan, 2010; Bong, 2009), while a few inquiries about have inspected different settings. For example (Acemoglu, Gallego, and Robinson, 2014; Binder and Georgiadis, 2011; United Nations Development Program, 2009; De Muro and Tridico, 2005) thought about the institutional viewpoint; while (Sapkota, Ludema, (2014) and (Waema, 2002) considered the infrastructural setting. In spite of the fact that these investigations have underscored the job of human capital towards continued monetary advancement, they disregarded the job of foundations, which has stayed at the cutting edge of Africa's improvement motivation.

West Africa positions low in infrastructural pointers and in the human improvement list (UNDP, 2013). Be that as it may, while (Diop, 2010) ascribed the low GDP per capita development of ECOWAS nations to poor administration and frail organizations, Abdulsalam, (2015) credited the low financial exhibition in ECOWAS to low human capital aggregation. To this end, the pattern investigations of the factors including GDP per capita, human capital, and institutional quality will give more experiences to the situation with respect to these factors in ECOWAS nations.

The relevance of human capital development to economic growth has been a motivating factor for researchers to examine the subject matter. Several studies have examined the relationship between human capital and economic growth but the consensus in the literature remains controversial. Some studies find no relationship between human capital and growth when the Lucas approach is tested for broad samples of countries (Benhabib and Spiegel 1994; Pritchett 2001; Caselli, Esquivei and Lefort 1996), although their finding was later refuted on the basis of misspecification of the model, measurement error and unrepresentative observations Some authors argued that there is a negative relationship between human capital and economic growth (Ararat, 2007; Gorostiaga, 1999; Islam, 1995), while others found human capital to be statistically significant for economic growth (Vinod & Kaushik, 2007; Mamuneas, Savvides & StengoS, 2006).

Human Development Report of UNDP (2008) demonstrated that West Africa is still at the low degree of human advancement contrasted with created nations in rising economies Available measurements demonstrated that about 48% of West Africans are unskilled, contrasted with 19% in created nations (United Nations. 2010).

In established truth, as much as the West African governments have been attempting to fabricate human capital for the country, the poor degree of institutional quality has been a bottleneck. Besides, there has been a debate in the writing as respects the impact of institutional quality on monetary development. development. Nzewi and Emejul (2016) demonstrated that there is an immediate negative effect of establishments on monetary development. In a similar soul, Levine, and Renelt (1992), on their part, stressed the little powerful part of the outcomes concerning the effect of institutional factors on the financial exhibitions.

In writing, a few examinations have utilized various measures to catch institutional quality. While concentrates, for example, Valeriani and Peluso (2011), utilized common freedoms, a number of veto players and the nature of government to quantify organizations: Barro (1996), Azam (1996), Londregan and Poole (1990) utilized political insecurity. Others like Alesina and Perotti (1994) utilized vote based system; Zouhaier and Kefi (2005) utilized monetary opportunity, political rights, and common freedoms; Vijayaraghavan and Ward (2000) utilized administration (normal of three-pointers defilement, guideline of law and bureaucratic quality), security of property rights, size of government and political opportunity; Ubi and Udah (2014) utilized Contract Intensive Money. In this examination, I mean to investigate utilizing the institutional record. (Government Stability, Corruption. Peace, Democratic Accountability and Bureaucracy Quality) to gauge the impacts of foundations and human capital improvement in ECOWAS Countries.

The objective of the study is to determine the impact of Human Capital Development, Institutional Quality and Economic Growth in ECOWAS Countries and to examine the relationship between Human Capital Development, Institutional Quality and Economic Growth in ECOWAS countries

2. Literature Review

2.1. Human Capital Development

Improvement assets when multiplied will jump up yield development (Aghion and Howitt, 1998). He predicts that enduring state development relies upon the degree of research and advancements and that of human improvement models of development never again have consistently come back to scale as the neoclassical hypothesis of Solow and Swan guarantees steady come back to scale. He focused further that addition in learning will add to the degree of innovation at

every development. Lucas (1988) likewise contributed that the development pace of human capital is controlled by time spent in instruction or preparing, which depicts the way human capital influences the current generation. This was bolstered by Barro and Sala – Martin (1995) which set forward that training accomplishment (estimated by normal long stretches of tutoring) is fundamentally connected with ensuing development and that open spending on instruction additionally has a noteworthy constructive outcome on development. Benhabib and Spiegel (1994) that nations with advanced education lead to close the innovation hole quicker than the others.

2.2. Education and Health

Human Capital is an expansive and multifaceted idea incorporating a wide range of kinds of interest in individuals. Training and wellbeing are speculations made in a similar person. Training is the way to making, adjusting, and spreading information. Instruction can add to the estimation of creation in the economy and furthermore to the salary of the individual who has been taught. In any case, even with a similar degree of salary, an individual may profit by training - in perusing, imparting, contending, in having the option to pick in a progressively educated manner, in being paid attention to additional by others, etc. (Nobel Laurate Amatyasen 1999). Wellbeing and sustenance are unquestionably a significant part of such venture, especially in creating nations where lacks in these regards may seriously restrain the populace's capacity to participate in profitable exercises. The association between wellbeing and training incorporates comparative diagnostic treatment. There is a double effect of impacts of wellbeing spending on the viability of the instructive framework and the other way around. More noteworthy wellbeing capital may raise the arrival on interest in training and bad habit - Versa. For instance, in youth, great wellbeing improves the instructive result, once more, desire for good grown-up wellbeing improves tutoring interests in adolescence while training influences wellbeing in adulthood. Moreover, may wellbeing projects depend on expertise gain from school (counting proficiency and numeracy). School shows essential individual cleanliness and sanitation. Instruction is required for the advancement and preparing of wellbeing staff. Future additionally raises come back to interests in Education.

In cutting edge nations, in any case, the key part of human capital has to do with the intellectual and non-psychological capacities that are obtained at home, in the workplace and informal and casual preparing and are helpful underway of products, benefits and further learning (Fuente 2006). Human Capital improvement identifies with the instruction, preparing and usage of human possibilities for social and financial advancement (1990) recognized five jolts of the energy of human capital advancement: training, wellbeing, and sustenance; the earth, work, and political and financial opportunity. These energizers are interlinked and reliant however training is the premise of all the others as fundamental intent of wellbeing and sustenance for keeping up a top-notch condition, for extending and improving the work pool, and for supporting political and monetary duty. In this manner for the fulfillment of monetary development and advancement in an economy, there is not kidding need to create HR in that economy. (Adamu, 2002) portrayed instruction as the best instrument through which the general public can be changed, however the degree to which a national interest in training among different areas, will decide the level and the pace of its change. Training outfits HR with required information, abilities, and skills which would make them useful and add to the overall improvement of the country.

2.3. Institution Development

Establishments are the principles of the game in general public or, all the more officially, are the humanly concocted imperatives that shape human association, (Douglass North, 1990). The idea that impetuses matter is natural to financial analysts, and foundations, in the event that they are a key determinant of motivations, ought to majorly affect monetary results, including monetary advancement, development, imbalance, and destitution. However, isn't that right? Are foundations key determinants of financial results or optional plans that react to other, maybe geographic or social, determinants of human and monetary collaborations? Much exact research endeavors to respond to this inquiry. Before examining a portion of this exploration, it is valuable to stress a significant point: eventually, the point of the examination on foundations is to pinpoint explicit institutional qualities that are answerable for monetary results in explicit circumstances (for instance, the impact of legitimate organizations on the sorts of business contracts).

In any case, the beginning stage is regularly the effect of a more extensive thought of establishments on an assortment of financial results. This more extensive thought, in accordance with Douglass North's origination, fuses numerous parts of financial aspects and the political and social association of society. Establishments can vary between social orders in view of their conventional techniques for aggregate basic leadership (majority rule government versus fascism) or as a result of their financial organizations (security of property rights, passage boundaries, the arrangement of agreements accessible to specialists). They may likewise vary in light of the fact that a given arrangement of formal foundations are relied upon to and do work another way; for instance, they may contrast between two social orders that are a vote based on the grounds that the circulation of political power lies with various gatherings

The Role of Institutions in Growth and Development or social classes, or because in one society, democracy is expected to collapse while in the other it is consolidated. This broad definition of institutions is both an advantage and a curse. It is a favorable position since it empowers us to begin with hypothetical and observational examinations of the job of establishments without getting hindered by scientific categorizations. It is reviled in light of the fact that except if we can line it up with a superior comprehension of the job of explicit foundations, we have adapted pretty much nothing. Education

2.4. Review of Theoretical Literature

2.4.1. The Human Capital Theory

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2.4.2. Education

There is no acceptable definition of Education and this is because it connotes different things to different people, culture and society. Ukeje (1979) sees Education as a process, a product, and a discipline. As a process, Education is a set of activities which entails handling down the ideas, values, and norms of the society across generation. As a product, Education is measured by the qualities and traits displayed by an educated person. Here, the educated person is traditionally conceived of as a "knowledgeable "and "cultured" person. While as a discipline, Education is defined in terms of the benefits of organized knowledge to which students are exposed to. Fafunwa (1974) defines Education as the aggregate of all the processes through which a child develops abilities and other forms of behavior which are of positive value to society.

Thus, we can see from the above definitions that Education does not end at the acquisition of knowledge. It is the ability to apply it to enhancing individual and societal progress. But the technological gap between the developing countries including Nigeria and the developed nation has continued to widen as these developing countries are still finding it difficult to provide her citizens with the basic necessity of life (i.e. food, cloth, and shelter, etc.). In other words, these countries are still battling with the problems of poverty, hunger, and other vices of underdevelopment despite the availability of abundant human and natural resources.

Human Resource Development. Human Resource Management (HRM) is a key and lucid way to deal with the administration of an association's most important resource. The individuals working there independently and all things considered the accomplishment of their goals (Armstrong, 2004: 30). From the above definition, Human Resource Management implies the effective manipulation of people to get the best out of them towards achieving organizational goals or objectives. According to Frank (1974), Human Resource Management is a series of activities in which the Job, the individual and the organization all interact as each develops and changes. He further identified two major activities within the human resource area. The first is concerned with recruitment, selection, placement, compensation, and human resource appraisal.

The Wagnerian and Keynesian theories of public expenditure economic with public expenditure. The theory of government efficiency of Dias and McDermott (2006) brings out the role of government efficiency and public institutions in fostering economic growth. The more relevant theory is that of Joilson and Edinaldo (2011) which links institutions with economic growth through human capital development. The theory serves as the basis for studying the interrelationship among the three variables.

The human capital hypothesis places accentuation on interest in people than in physical capital in light of the fact that the human capital deals with the physical capital through sufficient expertise being gained to work the physical capital set up. Alfred Marshal (1930) attested that the most important of all capital is that put resources into individual and that it invigorates advancement in any country (Jaiyeoba, 2015). Lucas (1988) contends that the collection of human capital is liable for supported development, and training is the principal channel through which the human capital gathers. The human capital theory sees education as a tool that increases the stock of human capacities available in a nation which then determines the level of economic growth. Investment in health triggers development as only healthy people can contribute to the efficient production of output in an economy (Todaro, 2003). Barro (1996) argues that better health can reduce the depreciation of education capital, and thus increases the favorable effect of education on growth. This specifically explains the linkage between education and health in stimulating growth.

2.4.3. The Theory of Public Expenditure

Prior to Wagner (1876), there was no formal model for the determination of' public expenditures (Adelowokan., 2012). Further from Adelowokan, (2012), Wagner's law states that in the process of economic development, government expenditure tends to expand relative national income. The law supports unidirectional causality from economic growth to public expenditure. The essential Wagnerian supposition that will be persistentpen use development is related to the proceeding with development in network yield in creating nations. In addition, open use increments at a rate quicker than the development of network yield. Likewise, According to Keynes (1936), government spending causes development and not something else. Keynesians state that administration consumption doesn't deter monetary development rather it quickens development through full-work, expanded total interest, etc. The Keynesian hypothesis suggests causation between open use and monetary development.

2.4.4. The Theory of Government Efficiency

Dias and McDermott (2006) developed a theory that associates the efficiency of public institutions and the market incentive for input accumulation. In their model, individuals choose to be educated, rent-seekers, or entrepreneurs. The non-educated, in order to become educated, depend upon the number of entrepreneurs in the market. The entrepreneurs are the ones that generate jobs for educated and non-educated individuals. Once educated, individuals born with the

inherent ability for entrepreneurship may become entrepreneurs depending upon the return of their business, which depends on government cost (tax level plus the rent seeker's income). Thus, a tax increase improves the chances of individuals becoming rent-seekers instead of working as educated labor or entrepreneurs. Therefore, government efficiency plays a key role in setting up the levels of productive inputs in the economy: educated labor and entrepreneurs. Under this theory, government efficiency is the mechanism that sets up the long-run growth process of the economy; hence, economies plagued by rent-seekers will possess the wrong institutions.

2.4.5. The Micro Foundation Theory of Institutions

Joilson and Edinaldo's (2011) micro-foundation theory shows how institutions affect the process of economic growth via human capital. The theory has two sectors (goods and education) and both sectors use qualified (human capital) and non-qualified workers in the production function. The size of the educational sector is endogenous and depends upon the quality of the institutions. Institution's quality directly affects the productivity of workers in the educational sector, either by rewarding them correctly or not. This is achieved by imposing conditions that allow them to fully use their knowledge or not, by making educational infrastructure available or not, etc.

In this model, the human capital accumulation function is derived from an endogenous process. Institutions play a crucial role in this process as they affect the rate of return to education. Better institutions that provide a superior functioning market for human capital make the effective rate of return higher, thus stimulating human capital accumulation. Therefore, the amount of human capital available in the economy depends on the quality of institutions. Since the productivity of an economy depends on the accumulation of human capital.

Monetary improvement is connected to the nature of the foundations. Establishments set the tone for human capital aggregation. Human capital at that point cultivates innovation and yield development, which expands the profits to human capital aggregation and prompts non-instructed laborers to put resources into training and become taught. This produces a self-sustaining amassing system which can be upgraded by improving organizations.

2.5. Empirical Literature

This section reviews past studies relevant to this study. It contains the review of empirical works on the relationship between human capital and economic growth; the relationship between government spending and economic growth; and the relationship among human capital investment, institutional quality, and economic growth.

In considered health to be an asset with an intrinsic value as instrumental value, Aug, Madsen and Islam (2011) used a sample of 87 countries to find out whether the composition to human capital affects innovation to promote growth using the system generalized method of moments (GMM) technique. The authors discovered that a higher intensity of human capital with primary and secondary education translates to imitation while a higher intensity of human capital with tertiary education facilitates innovation. The study posited that developing economies characterized by more of human capital with only primary and secondary education translates in imitation instead of innovation. Thus, such economies imitate what advanced economies are doing as against generating new ideas, processes and products. This suggests that the composition of human capital has a direct impact on innovation growth.

For Nigeria, Isola and Alani (2012) evaluated the contribution of different measures of human capital to economic growth. Based on the estimated regression and a descriptive statistical analysis of trends of government commitment to human capital development, the study found that though little commitment had been accorded health compared to education. Empirical analysis showed that both education and health components of human capital development are crucial to economic growth in Nigeria.

Mehrara and Musai (2013) examined the Granger causality between human capital and income for 101 developing countries over the period 1970-2010. Real capital formation measured by investment was included in the estimated model. The panel integration and Co integration techniques were employed to investigate the relationship between the three variables: human capital, GDP, and investment. The results suggest that there is strong causality running from GDP and investment to human capital with no tied facts from human capital to GDP developing countries. It means that it is the investment and GDP that drives the human capital in mentioned countries, not vice versa.

Eigbiremolefl (2014) employed the augmented Solow human capital-growth model to investigate the impact of human capital development on economic growth, using quarterly time- series data from 1999-2012. Empirical results showed that human capital development. In line with theory, exhibits significant positive impact on output level. This implies that human capital development is indispensable in the achievement of sustainable economic growth in Nigeria.

Jonathon and Jamus (2014) combined both developed and developing countries to establish the linkages by which government effectiveness affects per capita income, via its mediating effect on human capital formation. The study involved 64 developed and developing economies. The results identified a significant and positive effect of human capital on per capita income levels, and partially resolved the inconsistency between macro- and micro-level studies of the effect of human capital on income. The results are supportive of the notion that human capital is central to cross-country incomes. And that 1 percent increase in human capital contributes 3:33 per cent to income per capita and this contribution outstrips that of physical capital.

More recently, Ogundipe (2014) attempted to investigate the relationship between human capital capital and economic growth in fifteen Africa countries for the period of 2000-2010. The study adopted a panel data framework using the fixed and random effect model; the Flausman test employed in the model emphasized the appropriateness of the fixed effect model. The study found the indicator of government expenditure to induce a positive inelastic variation on economic growth; while the growth rates of government expenditure induce a nearly perfect inelastic negative variation on the GDP growth rates.

In Nigeria, Sankay, Ismaji and Shaarj (2010) investigated the impact of human capital development on economic gro%tl1 in Nigeria using the Johansen co integration technique and vector error correction analysis. The variables used in the study are real gross domestic product. Real capital expenditure on education, real recurrent expenditure on education, real capital stock. Total school enrolments and labor force are used to proxy human capital development, the result indicated that human capital development has significant impact on Nigeria's economic growth.

Oluwatobi and Ogunrinola (2011) examined the relationship between human capital development efforts of the government and economic growth in Nigeria. The study sought to find out the impact of government recurrent and capital expenditures on education and health in Nigeria and their effects on economic growth. The study adopted the augmented Solo' model, the result showed that there exists a positive relationship between government recurrent expenditure on human capital development and the level of real output. High capital expenditure is negatively related to the level of real output. The study recommended appropriate channeling of the nation's capital expenditure on education and health to promote economic growth.

Adawo (2011) examined the contributions of primary education, secondary education and tertiary education to economic growth of Nigeria. These variables ere proxies by school enrolments at various levels, other variables included physical capital formation and health measured through total expenditure on health. In all, primary school input. Physical capital and health were found to contribute to growth. Secondary school input and tertiary institution etc. bund to dampen growth.

Olulu, (2014) discovered that there is inverse relationship between government expenditures on health sector and economic growth in Nigeria. This implies that the expenditures of the Nigerian government on the health sector are not enough to transpiring the gross domestic product of the Nigerian economy. It was also discovered that there exists a long-run relationship between government expenditures and economic growth in Nigeria.

Hussin & Razaq, (2012) examined the long run relationship and causality between government expenditure on education and economic growth in the Malaysian economy using a Vector Auto Regression model for the period 1970 to 2010. Findings from this study showed that economic growth (GDP) is positively co integrated with fixed capital formation, labor force participation and government expenditure on education. With regard to the short-run relation, it was found that there is a short-run bidirectional relationship between economic growth and education expenditures. The study indicated that education expenditure plays an important role in influencing Malaysia's economic growth.

Adelowokan, (2012) analyzed the effect of education and health expenditures on economic growth in Nigeria between 1970 between 2010 using a static regression model. The long run relationship between human capital spending and economic growth as established using the Engle-Granger two-step co integration procedure. The estimated model revealed that that public investment and public consumption (in education and health) exertpositive influence on economic growth while, private investment and public capital investment exerts negative effect on economic growth in Nigeria. Similarly, the null hypothesis "no co integration" was rejected and thus indicates that there is long-run relationship between economic growth and expenditure on education and health in Nigeria.

Kareem, Bakare, Ademoyewa, Bashir, Ologunla & Arije, (2014) disaggregated public sector spending into administration, agriculture, education, economic, social and community transfer, industry and health services and studied their impacts on economic growth in Nigeria for the period spanning between 1960-2010. The result concluded that social and community services, health and services are significant variables of government spending contributing to economic growth in Nigeria.

Syed & Muhammad, (2015) studied the empirical relationship between human capital and economic growth in some selected Asian countries for the period 1990-2012. In the study, government expenditure on health and gross school enrolment at secondary level served as proxy variables for measuring human capital. The results of econometric estimation and panel least squares estimates indicated a strong positive association of government expenditure on health with GDP. Another result of this study is that the gross school enrolment has positive but insignificant impact on gross domestic product. The study recommended that government should escalate the enrolment of students in primary and secondary level.

Specifically, on Ghana, Victor, (2015) investigated the relationship between education expenditure and economic growth in Ghana. Vector error correction and co integration analysis were employed to test for the causal relationship between the variables for the period 1970 to 2012. The empirical results showed a positive and significant long-run relationship between education expenditures and real GDP. The results indicated that education contributes meaningfully to the long-term growth of Ghana's economy. Also, in the short run, Granger causality runs both directions between economic growth and education expenditures. The result indicated that education is essential to Ghana's economic growth and human capital capabilities. His closest study to the current study, Joilson & Edinaldo, (2011) explored the relationship between human capital, institutions, and economic growth with cross—country panel data from 1965 to 2005. The study found that structural institutions affect long-term economic performance while political institutions are uncorrelated with productivity and long-term economic growth. The empirical estimates also showed that growth (not levels) of human capital determines long-run economic growth.

Author(S)	Scope of The Study	Estimation Techniques	Objectives	Findings
ASAJU		Panel Analysis	examining the effects of low standard of education in Nigeria on its Human Resource Development	He present rate of underdevelopment and poverty among other social ills experience in Nigeria is a consequence of the decline in the quality and functional education in the country
Muhammad A., Muhammad E. & Hina F.	1971to 2010	Time series data	To Test bi-directional causality between education and economic growth, between economic growth and poverty and between poverty and education.	The results of ARDL model confirm that both the short-run and long-run effect of physical capital on economic growth have been found to be positive and significant. Education affects economic growth positively and significantly only in the long-run. In the long-run, poverty and economic growth are inversely and significantly related.
Florian & Schumacher, (2011)	1987-2010	quasi-Mincerian approach	To examines whether knowledge spillover exists in the United States and Brazil	This paper finds evidence of a positive and significant spillover. In addition, this paper also finds evidence of increasing returns to education in Brazil, and diminishing returns to education in the United States.
Iheriohanma, Ukachukwu, Chukwuma .C.	1986-2014	Panel data analysis	Highlight the importance of human capital development to the production process in Nigeria.	It concludes that the task of developing a reservoir of skills and knowledge that will tackle the factors constraining the adaptation of knowledge-based production processes in Nigeria is not only imperative but also urgent.
Asaju K, Thomas John K & Silas F.	2013	OLS analysis	This paper is aimed at examining the effects low standard of education in Nigeria on its Human Resource Development.	finding shows that, the present rate of underdevelopment and poverty among other social ills experience in Nigeria is a consequence of the decline in the quality and functional education in the country.
Abdulsalam & Zebulu, (2015)		Regression	To test the relationship between economic growth and human capital	Result established a positive relationship between human capital and economic growth
Adeyemi & Akindele, (2015)	1980 to 2013	Time series data	It was set out to explore the relationship between human capital indices (education and health) and economic growth.	The findings from the study revealed that there is positive long-run relationship among secondary school enrolment, public expenditure on education, life expectancy rate, gross capital formation and economic growth but it is statistically insignificant.
Heart, (2014)		OLS and Johanson cointegration		There is positive association between secondary education and economic growth

Figure 1: Summary of Empirical Literature on Developed countries

3. Methodology

This section describes the theoretical through which the objectives of the study will be achieved. It comprises the theoretical framework, the specified model, the measurement of variables, data sources and analytical techniques.

3.1. Model Specification

So as to accomplish the hypothetical talk about above, the human-capital-development model would be changed to take an extra factor. The determinant of human capital advancement on financial development in West African Sub-area, following them, will utilize the expanded Solow human-capital-development model adjusted from Oluwatobi. and Ogunrinola, (2011). The model for the impact of financial development and foundation on Human Capital expressed as:

HC_it=f (GDP_it, INQ_it)   3

Where GDP is the total national output utilized as an intermediary for financial development, INQ is establishment.
Where GDP is the total national output utilized as an intermediary for financial development, INQ is establishment.
From condition 3 above, the foundation is a component of responsibility, standardized savings, government viability and the principle of law. In a utilitarian structure, institutional quality could be express as:

$$INQ_{it} = g(ACC_{it}, SOP_{it}, GOV_{it}, RL_{it}) \qquad 4$$

Where ACC is the voice of accountability, SOP is the social security, GOV is the government effectiveness, RL is the rule of law. Incorporate equation 4 into equation 3 thus becomes,

$$HC_{it} = h(GDP_{it}, ACC_{it}, SOP_{it}, GOV_{it}, RL_{it}) \qquad 5$$

From equation 5, linearizing and introducing the stochastic term gives

$$HC_{it} = \alpha + \beta GDP_{it} + \gamma ACC_{it} + \delta SOP_{it} + \varphi GOV_{it} + \tau RL_{it} + (\varepsilon_{it}) \qquad 6$$

Panel Vector Auto-regression (PVAR) model will be used to achieve the objectives of this study with variables such as human capital, economic growth, and institution. The measure of the institution is compressed into single variables. The VAR method has an important tool in macroeconomics studies. From equation 3, the VAR model is specified as

$$\Delta HC_{it} = \alpha_1 + \sum_{i=0}^{n} \beta_{1i}\Delta GDP_{i,t-i} + \sum_{i=1}^{n} \gamma_{1t}\Delta INQ_{i,t=1} + \sum_{i=1}^{n} \delta_{1t}\Delta HC_{i,t-1} + \varepsilon_{it} \qquad 9$$

$$\Delta GDP_{it} = \alpha_2 + \sum_{i=0}^{n} \beta_{2i}\Delta GDP_{i,t-i} + \sum_{i=1}^{n} \gamma_{2t}\Delta INQ_{i,t=1} + \sum_{i=1}^{n} \delta_{2t}\Delta HC_{i,t-1} + \varepsilon_{2t} \qquad 10$$

$$\Delta INQ_{it} = \alpha_3 + \sum_{i=0}^{n} \beta_{3i}\Delta GDP_{i,t-i} + \sum_{i=1}^{n} \gamma_{3t}\Delta INQ_{i,t=1} + \sum_{i=1}^{n} \delta_{3t}\Delta HC_{i,t-1} + \varepsilon_{3t} \qquad 11$$

3.2. Model Specification

Given the theoretical framework discussed above, the model used is specified.

$$LGDPWE_{it} = \mu_1 + \mu_2 HUMANCAP_{it} + \mu_3 LCAPIT_{it} + \mu_3 LABOURFO_{it} + \mu_4 REGULQUALI_{it} + \mu_5 CORRUQUA_{it} + \mu_6 DOMEGROV_{it} + \vartheta_{it}$$

Where LGDPWE is the log of GDP of the selected countries in the regions, HUMANCAP is the human capital. It was peroxided by primary school enrolment, LCAPIT is the log of physical capital, measured using gross fixed capital formation, LABOURFO is total labor force, REGULALQUALITY is the first measure of institutional quality, measured as the regulatory qualities in the countries, and CORRQUA is the second proxy of institutional quality, measured as the control of corruption in the countries. DOMEGROV is the domestic value-added.

3.3. Data Source

The data used for all the variables, except the institutional variables were from the World Bank Development Indicators. The institutional quality variables were World Governance Indicators (2018).

3.4. Result Discussions

3.4.1. Descriptive Analysis

Table 2demonstrates that the normal size of the nation's genuine GDP is 23 billion USD while the greatest sum is 26 billion USD and the least is 22 billion USD. The ramifications of this are the distinction in the size of the GDP of the West African nations isn't generally noteworthy. Correspondingly, as far as a human capital improvement, the most noteworthy elementary school enrolment 132 in each 1000 age bunch populace of kids who should be in school, while the base is 113, and normal is 125. This demonstrates a low degree of human capital improvement in the district. Also, the nature of the foundations in the locale is low with a most extreme gauge of guideline quality remaining at 1.40, while the normal is 1, 27. The nature of debasement control is likewise low, remaining at a negative quality inside the periods. The inflow of FDI into the area inside the periods arrived at the midpoint of 2.03 billion USD, yet the most extreme was around 4. Billion USD. This likewise demonstrates a low inflow of FDI into the locale inside the periods.

	GDP	LGV	LCAP	REGUL	CORR	HUMAN	LABOR	FDI
Mean	23.55399	28.75523	22.05054	1.279529	-0.627117	125.0065	15.61861	2.030841
Median	23.11921	28.73997	21.73912	1.286389	-0.604578	126.9299	15.62202	1.933517
Maximum	26.86376	28.96088	24.98267	1.405550	-0.503310	132.4683	17.89364	4.174097
Minimum	22.14400	28.59804	20.68877	1.157765	-0.856533	113.1883	13.72172	-0.263935
Std. Dev.	1.239367	0.121587	1.030312	0.064400	0.104033	5.900067	0.945275	1.394850
Skewness	1.528217	0.256825	1.866259	0.088462	-0.893637	-0.630996	0.519470	0.107811
Kurtosis	4.607558	1.687412	5.736683	2.951714	2.938957	2.267726	4.071847	1.942256
Jarque-Bera	49.69178	8.278018	89.25471	0.140139	13.32530	8.870204	9.284380	4.855484
Probability	0.000000	0.015939	0.000000	0.932329	0.001278	0.011854	0.009637	0.088236
Sum	2355.399	2875.523	2205.054	127.9529	-62.71167	12500.65	1561.861	203.0841
Sum Sq. Dev.	152.0670	1.463558	105.0928	0.410583	1.071471	3446.268	88.46089	192.6150
Observations	100	100	100	100	100	100	100	100

Table 2: Descriptive Analysis of the Variables
Sources: Authors Computation, 2019

3.4.2. Effect of Human Capital Development on the Economic Growth in the West African Region
        In other to examine the effect of human capital on economic growth in the region, four models were used. The aim is to determine the channel of influence from human capital to economic growth in the region. As discussed in the previously, the first was done without the inclusion of FDI, while the second was done with FDI variable included. The other two were also done without the variables used for institutional qualities. The regressions were done using the Random effect, which was determined by the Husman test conducted. The results are presented in Table 3
        In the first model, the relationship between human capital proxies by primary school enrolment, and GDP, s positive. This shows that human capital exerts a positive influence on economic growth in the region. This is in line with the theoretical expectation. However, it is not significant. On the other hand, the effect of physical capital on GDP is positive, indicating a positive effect of physical capital on economic growth in the region. Similarly, the effect of the lathe labor force on GDP is positive. A 1% increase in the size of labor is accompanied by a 0.8% increase in the region's GDP. In other words, a high labor force leads to a high level of economic growth. The result of the total value added of the regions is also positive. The higher the value added by the region, the higher is her growth. The effect of institutional quality on economic growth is negative and insignificant at the same time.
        In the second model, the FDI inflow was included in the model. The result is not significantly different than when it was not included. Human capital development is also positively related to GDP but is also not significant. Similarly, physical capital exerts a positive effect on economic growth at 1% significant level. The result of domestic value-added is also significant and positive, while the result of labor on economic growth is also positive and significant. The result of institutional quality is positive in the case of regulatory quality, but it is negative in the case of corruption control.
In the third regression, the institutional variables were dropped as well as the FDI inflow variables. The results also were not significantly different from what it was in the previous regressions. The significant variables are majorly physical capital, labor supply, and the domestic value-added. The variables all have positive effects on GDP, translating to positive effects on economic growth. The human capital variables are also not significant.
        When FDI was included in the fourth regression, the influence of FDI on the region's growth is positive, but it is not significant. Similarly, the effect of human capital development on the growth of the region is also positive, but it is also not significant. Physical capital and labor supply, as well as domestic value-added, exert a significant effect on GDP, and consequently, economic growth in the fourth model. The of the results is that human capital development can truly exert economic growth in the region positively. However, it has not been fully developed to the level that is required to have a significant effect on GDP. More importantly, the results that the channel of effect does not matter. All the channels examined show that human capital is positively related to economic growth, but none is significant. This shows that there is no significant difference in the effect of human capital on economic growth using any of the channels.

Variable	1st Model	2nd Model	3rd Model	4thModel
LCAPIT	0.073592***	0.072942***	0.073421***	0.072656***
FDIFLOW		0.000166		0.003142
HUMANCAP	0.000255	0.002409	0.000984	0.000337
LABOURFO	0.875277***	0.881229***	0.876331***	0.881312***
REGULQUALI	-0.011628	0.001336		
DOMEGROV	0.507842***	0.496417***	0.475316***	0.483426***
CORRUQUA	-0.032588	-0.016792		
Observations:	100	100	100	100
F-statistic	150.6690	79.36028	112.9106	3341.904
Prob(F-statistic)	0.000000	0.000000	0.000000	0.000000

Table 3: Effect of Human Capital Development on the Economic Growth of the West African Region
*** indicates significant at 1%, ** indicates significant at 5%, * indicates significant at 10%,
Sources: Authors Computation, 2019

4. Conclusion and Recommendations

Evidences from this study shows clearly that health and education remarkably impact economic growth in the West African sub region during the period under review. Also, institutional arrangements have some effects as well. The results from this paper reveal that both education and health components of human capital significantly influences economic growth in West Africa region.

The results of the study in large part agrees with the earlier works of Lawanson, (2015) that human capital development and good institutional arrangements are significant contributors to economic growth in West Africa. Hence Government should make strenuous efforts to allocate more funds and consciously invest in these critical sectors to enhance economic growth and development in the Sub region.

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