

Human Development and Its Effects on Economic Growth and Development

Michael Appiah*, Richard Amoasi**, Doreen Idan Frowne**

* Department of Management Science & Engineering, School of Finance and Economics, Jiangsu University, 301 Xuefu Road, Zhenjiang, Jiangsu, 212013, P.R. China

** Department of Marketing, Koforidua Technical University, P. O. Box Kf 98, Koforidua, Ghana

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Corresponding author:
appiahjunior@yahoo.com

ABSTRACT

The focus of the current study is to empirically examine the impact of Human Development on Economic Growth and Development in African countries, between 1990 and 2015. The key findings and results of the study suggested the existence of a positive and significant impact of human development on economic growth and development in Africa. The study employed Human Development Index as the main variable of interest with GDP considered as the dependent variable with inflation, capital, investment and labour as control variables. The study also came out with the findings that Labour and foreign aid also have a positive and significant relationship with growth as recorded by most researchers. It was recommended that more efforts should be placed on developing the human capacities in all areas.

SARI PATI

Fokus dari penelitian ini adalah menguji secara empiris dampak dari Pembangunan Manusia pada Pertumbuhan Ekonomi dan Pembangunan di negara-negara Afrika, antara tahun 1990 dan 2015. Temuan utama dan hasil penelitian ini menyarankan adanya dampak positif dan signifikan dari pembangunan manusia pada pertumbuhan ekonomi dan pembangunan di Afrika. Studi ini menggunakan Indeks Pembangunan Manusia sebagai variabel utama interes dengan PDB yang dipertimbangkan sebagai variabel dependen dengan inflasi, modal, investasi dan tenaga kerja sebagai variabel kontrol. Metode estimasi efek Acak dan Tetap digunakan dengan uji Hausman yang diestimasi, untuk menentukan model yang tepat untuk digunakan. Studi ini juga menghasilkan temuan bahwa Tenaga Kerja dan bantuan asing juga memiliki hubungan positif dan signifikan dengan pertumbuhan sebagaimana dicatat oleh sebagian besar peneliti. Studi ini merekomendasikan agar lebih banyak upaya dilakukan untuk mengembangkan kapasitas manusia di semua bidang.

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INTRODUCTION

Human development was initially characterized as “a procedure of developing individuals’ decisions” that empowers them «to lead a long and sound life, to procure information and to approach assets required for a conventional way of life» (Hopkins, 1991). The UNDP list (HDI) speaks to a synthetic measure in which the accomplishment in life expectancy at birth, education, and (the log of) per capital income – as a proxy for different dimensions of human development not specifically related to health and education Fukuda-Parr (2003) – give a decreased type of a country’s accomplishments as far as human development.

The idea of human development was first advanced in 1990. By including the criteria of enhancing a person’s skill and ability to decide his or her very own destiny to that of income level, it has had a significant impact on the discussion on the best way to help quality of life. The HDI – a composite of indicators of life expectancy, education and income – is the principle appraisal of Africa’s human development. The 187 countries around the globe are arranged in four groups indicated as being of «very high», «high», «medium», or «low» development. Africa’s leap forward accompanied the Seychelles accomplishes a «very high human development» positioning in 46th spot, ahead of wealthier states in Europe and the Middle East. Libya, Mauritius, Algeria and Tunisia were placed in the «high» gathering and ten African nations in the «medium» division. The rest of the 37 African countries are in the «low» human development class, and that is without South Sudan being incorporated. Numerous countries with a «low» positioning are as yet improving quickly with the greatest enhancements in Angola, Burundi, Ethiopia, Mozambique, Rwanda, Sierra Leone and Zimbabwe. These countries have a rising life expectancy and incomes; however low educational fulfilment is keeping them down.

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Human development worldview that created by the United Nations Development Programme (UNDP) in 1990 essentially worries on human development as a development demonstrate that expects to extend the alternatives that can be become through the empowerment of occupants. Empowerment of this populace can be accomplished through endeavours concentrated on increasing the fundamental human skills that improve the health, knowledge, and skills that can be utilized to upgrade the investment in beneficial exercises, social, cultural and political (Wilson, 1996). Along these lines, the populace is a definitive goal and development is as a way to an objective.

As indicated by the UNDP, an indicator to quantify the accomplishment of human development is the human development index (HDI). In the HDI, there are three composite indicators used to quantify the average achievement of a nation in human development: A long life, as estimated by life expectancy at birth; education, as estimated by normal long periods of schooling and the literacy rate of the number of inhabitants in matured 15 years and over; not too bad standard of living, as estimated by per capital income. HDI is embraced by numerous nations to gauge the quality of man because of the development process. After two decades, UNDP upgrades HDI estimation technique in 2010 (Maqin, Sidharta, & Policy, 2017).

This paper emphasizes on the relationship between human development and economic growth focused on Africa. The intention here is to understand this impact and relationship by estimating the impact. Section II discusses the literature review relating to growth and human development. Section III starts by outlining data and its sources, model specification and methodology. Section IV provides empirical findings and results. Section V deals with the conclusion and recommendations.

LITERATURE REVIEW

In literature, many authors like that of (Dreze & Sen, 2002; Gustav Ranis, Stewart, & Capabilities,

2012; Stiglitz, Sen, & Fitoussi, 2009) including the Human Development Reports of the United Nations Development Programme, have tried to examine both the outcome of human development on economic growth and likewise criticism on the economic growth of a larger amount of human development, with exceptional emphasis on the job that income it has in showing signs of improvement in human development.

Clearly there exists a solid two-route connection between economic growth (EG) and human development (HD). As identified by Gustav Ranis, Stewart, and Ramirez (2000), there is a strong bidirectional relationship amongst human development and economic growth. Again, economic growth offers the means to support the increased in sustainable human development; moreover, sustainable development in the value of human development is a very vital supporting determinant of economic growth (EG).

Gustav Ranis (2004) completed an investigation on the connection between economic growth and human development, and clarified that the augmentation of the limit and opportunity lead to expanded economic performance, and human development would have a significant impact on development. Likewise, on the degree of growth the scope of options and capabilities that promote a similar degree of units yet in addition to the administrations; along these line growth will improve human development. Gustav Ranis and Stewart (2005) affirms the significance of the numerous experimental associations in the two bearings along the time, from economic growth to human development, human development to economic growth, including investment report.

As shown by Dreze and Sen (2002) who recorded that countries with lower income and lower growth of income can contribute to the improvement of human development to the tune that it adopts and device sets of policies, mostly those which give priority to 'human development' sectors and subsectors.

New theories of growth established and recognized that economic growth and development will not reach an optimal level and improvement without human resources development (Barro, Sala-i-Martin, & McGraw-Hill, 1995; Benhabib & Spiegel, 1994; Lucas, Wheeler, & Hettige, 1992; Romer, 1994; Srinivasan, 1978; Stiglitz et al., 2009). Agarwal (2006) said education as well as training improves the skills and capabilities of individuals and making them the centre of a country's economic development. Countries focusing on human capital formation in a few years are achieving higher growth course in GDP, including per capita income (OECD/ UNESCO, 2002).

Economic growth, which make an essential commitment to human development, can be synchronized. In this manner, customary political measures, which contend that improving human development should hold up until economic growth increases, appear to be a blunder.

Investigating the associations between economic growth and human development by Ramirez, Ranis, and Stewart (1997), recognizing two bearings, one of the economic growth to human development and the other, the other way, from human development toward economic growth, was found out to be that there is a strong and positive relationship in both directions, and expenditures on social services as well as education are critical associations that decides the relationship between economic growth and human development, while investment rate and income dissemination associations are imperative to decide the connection between human development and economic growth.

It can be contended that human development can be characterized as a process of growing individuals' opportunities. As indicated by the new worldview, (Sen, 2004) referenced by Daniela-Mihaela and Oana-Georgiana (2015) said human development can be viewed as a process of expanding the genuine opportunities delighted in by the general population.

DATA

The data set and variables used in this study spread over from 1990-2015 period and contains 5 African countries, including Kenya, Tanzania, Rwanda, Ghana and Cote d’Voire. For these countries data set is accessible for all variables employed in this study, meaning there is a balanced data set for all estimations. World bank development indicators and world bank database are the source of data for the study. Variables used for the investigation are in consistent with those by (Fatah, Othman, Abdullah, & Science, 2012; Grubaugh & Development, 2015; Suri, Boozer, Ranis, & Stewart, 2011) which include Growth proxied as GDP measured in current USD as the dependent variable, Human Development Index (HDI) measured in percentage as the variable of interest with Inflation (INF) proxied as Consumer price index measured in percentage, Capital (CAP) proxied as Government Capital formation measured in % of GDP, Aid (AID) proxied as official development assistant measured in current USD, Investment (INV) proxied as foreign direct investment measured as (% of GDP) and Labour (LAB) as control variables. The table below gives a summary of the variables with their unit of measurement.

Model

The study integrate the above-mentioned variables in the subsequent growth model adopted by (Barro

et al., 1995; Solow, 1956), using Random and Fixed effects estimations.

$$Growth_{it} = a + \beta_1 INF_{it} + \beta_2 CAP_{it} + \beta_3 HDI_{it} + \beta_4 AID_{it} + \beta_5 INV_{it} + \beta_6 LAB_{it} + e_{it} \dots\dots\dots (1)$$

Where Growth is the dependent variable, Human Development Index (HDI) measured in percentage as the variable of interest with Inflation (INF) proxied as Consumer price index measured in percentage, Capital (CAP) proxied as Government Capital formation measured in % of GDP, Aid (AID) proxied as official development assistant measured in current USD, Investment (INV) proxied as foreign direct investment measured as (% of GDP) and Labour (LAB) as control variables.

METHODS

This type of study is an exploratory one that tries to find out the significance and relationship between economic growth and human development index by assessing the factors that determines economic growth and development in Africa. At the first stage, a unit root estimation is conducted to determine the stationarity of the data by using the Im, Pesaran and Shin procedure in the estimation. Secondly, both Random and Fixed effects estimation technique are employed to analyse and assess the significance and relationship between economic growth and human development. Finally, a Hausman Test is

Table 1. Summary of Variables

Variables	Unit Of Measurement	Sources Of Data
Growth (GDP)	Current USD	WDI
Inflation (INF)	Percentage	WDI
Capital(CAP)	Percentage	WDI
Human Development Index (HDI)	Percentage	WDI
Aid (AID)	Current USD	WDI
Investment (INV)	Percentage	WDI
Labour (LAB)	Thousands	WDI

Source: Authors Own

conducted to determine the appropriate method for the model.

RESULTS AND FINDINGS

Table 2 shows the summaries of the results and findings on investigating human development and its effects on economic growth and development. Results from the table 2 indicates that all variables have unit root meaning they were stationary at Level with and without Panel means and Time trend. It showed that the null hypothesis of variables having unit root was not rejected at Level. In the same vein, the hypothesis of variables having unit root, thus stationary was rejected after the 1st Difference of the variables were effected, meaning the data were non-stationary (no unit root) at 1st Difference with and without Panel means and Time trends. The variables were stationary in order I(O) and I (1).

The estimation gives a summary of statistics for both Random and Fixed effects. The Hausman test will be used to determine the appropriate model for estimations. Based on the result of the Hausman test it can be noted that the fixed effects model is appropriate for the model. The results in Table 3 are estimated using both Random and Fixed effects. It can be noticed that inflation is significant

and have a positive relationship with economic growth and development at a significant value of 1%. These results and findings go in line with that of (Barro, 1995; Jones, Manuelli, & Control, 1995) and contradicts a study by Gokal and Hanif (2004) and (Pollin & Zhu, 2006).

Again, from the table above, capital (CAP) is seen to be positively related to Growth but insignificant at any level. Levine ((1992)) recorded that capital (CAP) has a positive relationship and significant on economic growth, this investigation goes contrary to this result which states that capital has no significance on growth. In the same vein, (Blomstrom, Lipsey, & Zejan, 1993; Kendrick, 1993) confirmed this result in their study on “Is fixed investment the key to economic growth?” and “how much does capital explain” respectively.

Many studies and literatures proposes that human development supports economic growth. Studies from Ghosh and Weekly (2006) and Saksena and Deb (2016) supports the results and findings of this study. From table 3, it is recorded that human development has a significant effect and positively related to economic growth in the countries under study at a statistically significant value of 1% level.

Table 2. Unit Root Estimation

Im-Pesaran-Shin Unit-Root Test	Level Panel		Level Panel		1 st Dif Panel		1 st Dif Panel	
	Means: Included	Time Trend: Not Included	Means: Included	Time Trend: Included	Means: Included	Time Trend: Not Included	Means: Included	Time Trend: Included
Variables	T.Statistics	Prob	T.Statistics	Prob	T.Statistics	Prob	T.Statistics	Prob
Growth	5.0627	1.0000	1.6440	0.9499	-2.2947	0.0109**	-2.2070	0.0137**
INF	5.8220	1.0000	3.7397	0.9999	-0.6081	0.2715	-1.4610	0.0720*
CAP	-0.1002	0.4601	-0.8333	0.2023	-7.4579	0.0000***	-6.6338	0.0000***
HDI	5.7896	1.0000	0.6034	0.7269	-0.4323	0.3328	-0.8142	0.2078
AID	1.4535	0.9270	-0.4167	0.3384	-6.4025	0.0000***	-4.5893	0.0000***
INV	-0.4576	0.3236	-0.3863	0.3496	-7.0650	0.0000***	-6.5237	0.0000***
LAB	5.1381	1.0000	-3.4648	0.0003***	-1.2457	0.1064	-1.1154	0.1323

NB: *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level. Source: Authors Own

Table 3. Regression Statistics Dependent Variable: Growth (GDP Current USD)

VARIABLES	FIXED EFFECTS	RANDOM EFFECTS
INF	2.38e+08*** (3.48e+07)	1.51e+08*** (2.05e+07)
CAP	2.73e+07 (1.16e+08)	-5.35e+08*** (1.31e+08)
HDI	-6.74e+10*** (1.29e+10)	6.37e+10*** (1.01e+10)
AID	3.810456*** (.9211475)	4.063006*** (1.375004)
INV	-4.40e+08 (2.89e+08)	-2.59e+08 (3.31e+08)
LAB	1817.153*** (474.7941)	695.7245*** (166.0174)
CONS	8.24e+09 (6.02e+09)	-2.28e+10*** (3.72e+09)
PROB	0.0000	0.0000
R ²	0.5547	0.7999

NB: *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level. Standard errors are in parentheses Source: Authors Own

The estimated coefficient for Human Development (HDI) in Africa equation is $-6.74e+10$; a 1-unit increase in Human Development (HDI) in Africa would increase Growth more than by 100% when all variables are held constant.

Furthermore, the result and findings pertaining to Aid (AID) are consistent with studies conducted by (Hansen & Tarp, 2001; Minoiu, Reddy, & Finance, 2010) which is recorded that Aid (AID) is significantly and positively related to economic growth and development in Africa. The statistical results indicate that Aid (AID) has a coefficient of 3.810456 and significant at 1%. This can be explained that a unit increase in the official development assistance provided by donors to Africa increase the growth and development in Africa by more than 100%. This result is contrary to that of Voivodas (1973) and Burnside and Dollar (2000) in their study on Aid and economic growth .

Moreover, it can be recorded that Investment (INV) has a non-significant position and negatively related to growth in Africa. This result is confirmed

by (Borensztein, De Gregorio, & Lee, 1998; Su & Liu, 2016) and goes contrary to that of Bengoa and Sanchez-Robles (2003) who stated that despite the fact that FDI is positively associated with economic growth, and host nations require least human capital, economic stability and liberalized economy so as to profit by long haul FDI inflows. Interestingly, Bende-Nabende, Ford, Slater, Sen, and Business (2002) found that direct long-term effect of FDI on growth is significant and positive for comparatively economically less propelled nations like Philippines and Thailand, yet negative in the more economically propelled nations like Japan and Taiwan.

In a nut shell, labour force (LAB), is defined as the currently active population within a country at a particular point in time and comprises of all persons who satisfy the criteria for inclusion amongst the employed. From the above results, it can be recorded that a percentage increase in Labour will directly lead to rapid economic growth of about 100% showing that Labour(LAB) has a significant and is positively related to economic growth. Statistically, it can be indicated that Labour (LAB)

Table 4. Hausman Test Estimation

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	464.73	6	0.0000

Source: Authors Own

recorded coefficient of 1817.153 and a probability value @ 1% significant level (Khan, 2007); Manh, Dao, and Van Ngoc (2014) hypothesised that labour (Lab) has a positive impact on economic growth and this supports the findings in the same vein. Herman (2011) argue the presence of a low employment elasticity of economic growth in EU, yet this has significant contrasts starting with one nation then onto the next.

Overall, it can be estimated that the model has an R² of 0.5547 meaning that the independent variables under discussions can explain up to 55.5% of the situation under consideration.

From the above table 4 it tends to be noticed that there is a probability estimation of 0.0000 showing a significant value at a significant level of 1%. The estimation tosses out the nearness of a relationship between the individual effects and the independent variables at the 1% level. Along these lines the null hypotheses of the Random effect model are appropriate is rejected with the alternative hypothesis of Fixed effect model is appropriate is accepted, meaning the model for this examination is to be estimated with fixed effects estimations.

MANAGERIAL IMPLICATIONS

The findings and results of the study suggest that more governmental efforts should be placed on the development of the human capital. For the area of life expectancy, governments should provide good and better health care policies and facilities for both the poor and the rich example like the introduction of health insurance by the government of Ghana.

Again, quality education should be easily accessible at all levels being it primary, secondary and tertiary

education as in the case of Ghana as there is free education at both the primary and secondary levels.

Lastly, there should be financial development and improvement activities as well as poverty reduction strategies for example like LEAP (Livelihood Empowerment programme) undertaking by Ghana to help alleviate poverty to help close the income inequality gap.

CONCLUSION

This study highlighted the significance of human development in achieving economic growth and development proxied as Gross Domestic Product (GDP) measured in current USD. The model shown a positive association, statistically significant between Growth and human development (evidenced by human development index) as expected according to UNDP.

Unforeseen is the negative connections between Capital (CAP) on Growth and Investment (INV) on Growth, a possible reason being the heterogeneity of the study countries. However, the negative statistics of the prob value and the coefficients of both variables lead to the conclusion that the findings and results are confirmed against those of (Blomstrom et al., 1993; Kendrick, 1993) and (Bengoa & Sanchez-Robles, 2003).

Moreover, the model indicated positive influence of inflation on Growth which goes contrary to most studies on Inflation and Growth. Inflation stimulates economic growth at the short term and normally at socialist economic countries. The model can be used as an alternative when conducting future studies on human development. ■

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