Social Protection Expenditure And Human Capital Development In Nigeria

Omeje, Danjuma1 and Ebikabowei Biedomo Aduku2

1Department of Economics, Niger Delta University, Bayelsa State, Nigeria
2Department of Economics, University of Africa, Toru-Orua, Bayelsa State, Nigeria
Email: ebiopportunity@gmail.com

Abstract: *This study examines the effect of social protection expenditure on human capital development in Nigeria from 1981 to 2021 using the Autoregressive Distributed Lag (ARDL) technique. Empirical results showed that in the long and short runs, social protection expenditure had a positive and significant effect on human capital development. Also, real GDP growth had positive and significant effect on human capital development both in the long run and short run. The findings also showed that the effect of domestic investment on human capital development in the long run was positive and significant, and positive and insignificant effect on human capital development in the short run. It was also found that in the long and short runs, population growth had negative and insignificant effect on human capital development. The expansion of social assistance programmes is recommended to accommodate more beneficiaries especial the poor and the less privileged.*

Keywords: Social Protection; Human Capital Development; Autoregressive Distributed Lag

1   Introduction

Social protection interventions such as social insurance schemes, social assistance schemes and labour market interventions have gain momentum especially in developing countries more recently. The reason for the increasing attention can be linked to the rising poverty, vulnerability and social exclusion. Countries mostly the developing countries with hostile prevailing poverty and vulnerability adopt social protection as a fiscal policy approach to alleviate and bring individuals out of poverty. Social protection measures, if appropriate and efficient, has the likelihood to bring people out of poverty, reduce the number of school dropout, stimulate small and medium entrepreneurship (SMEs) growth and ensures social stability (1). Social protection is a step to protect the poor and vulnerable against risk and, an avenue to enhance the economic growth process and development and not a growth and development by-product. It is a source of inclusive and sustainable economic growth. Social protection acts as a policy tool to reduce social and economic inequality through transfers and distribution of cash and other social investment programs. The realization of the objectives of social protection depends on the degree of effect of social protection on especially human capital development among others.

Human capital development, on the other hand, is vital to the socio-economic development of any country. Without human capital development, advancements like technology advancements will be of a little value to an economy because human skill and technology are complementary. The means of human capital development include formal learning – substantiated by school and university qualifications, and other non-certified ways like knowledge acquired from work experience. Human capital development, in line with the definition of the Organization for Economic Co-operation and Development (OECD) are attributes including skills, knowledge, experience and competences embodied by an individual alongside health expenditures. Better earnings, improve health conditions, etc. are linked to human capital development. In fact, expenditure on healthcare, education and training is considered to be an investment in human capital (2) necessary for poverty alleviation, social inclusion and social stability and brings about better population outcomes.

The link between expenditure on social protection and human capital development is that social protection brings about human capital development by mainly increasing school attendance by children. Most times school attendance can serve as a requirement to benefit from a social protection scheme. Through social protection, additional incomes are provided to reduce credit-constraint challenges in sending their children to school by effectively reducing the relative price schooling [3; 4]. Also, human capital development can be improved by social protection expenditure through improved nutrition and health, which improves cognitive and learning outcomes, which are linked to higher productivity of labour. Social protection expenditure can improve nutrition and health outcomes by setting-up better and quality food consumption and health services, mostly for children and the mother.

Nigeria, a lower-middle income country in Sub-Saharan Africa (SSA) is richly endowed with natural resources. However, compared to most other countries Sub-Saharan Africa (SSA) has more extremely poor people with increasing vulnerability to poverty. Income inequality is on the increase which could be linked to growth disproportion that is benefiting the rich more than the poor coupled

with the issues of social conflicts, insecurity as well as the Corona Virus Pandemic – COVID 19 that has negatively affected the world economy. In 2019, the Nigerian Bureau of Statistics (NBS) reported about 40%, representing approximately 83 million people below the poverty line of ₦137,430 or $381.75 per year [5]. As at 2020, there were about 7 million newly poor [5].

Results on human capital development are ranked among the poorest in the world, leading among the worst seven countries in the World Bank human capital development index. Following the reports of [6], human capital development index (HDI) moved from 0.465 in 2005 to 0.532 in 2017, an increase of 14.4% in a space of 12 years. In 2015, the HDI ranked Nigeria 152 out of 187 with a value of 0.514. In 2017, the country dropped in ranking to 157 out of 187 with a slightly increased line value of 0.532, keeping Nigeria in the low human capital development category – below the average of 0.537 for countries in Sub-Saharan Africa [6].

Different platforms have been set up to coordinate social protection interventions. These among others include increasing budgetary allocation to social protection especially at the national level, the national youth empowerment (N-Power) scheme with over 1 million beneficiaries as well as spending on subsidies. Notwithstanding, all the social protection efforts did not seem to eliminate the main challenges of human capital development. The aim of this paper, therefore, is to provide empirical evidence on the effect of social protection expenditure on human capital development, using Nigeria as a case study.

2.1 Review of Key Terms

2.1.1 Social Protection

Social protection is defined following [3] as collection of social policies and programmes targeted towards protecting everyone especially the vulnerable group against vulnerability, poverty and social exclusion. Through social protection, poverty-targeted benefits are provided for people – in cash or kind, by means of social assistance (non-contributory schemes) or social insurance (contributory schemes). Similarly, social protection, as defined by [7], is policies directed to prevent and cut down poverty, vulnerability and social exclusion in the lifecycle of an individual. [8] sees social protection as that which concerns the availability of security for people and families in the presence of vulnerabilities and contingencies; it is about access to healthcare, and safe working conditions.

Three main components of social protection are social assistance, social insurance and labour protection. Social assistance are transfers that are non-contributory, which can be in form of kind (such as school feed programmes as well as food for victims) or in cash (like cash transfers, fee waivers and public work programmes). Social insurance is non-contributory measures to guide against the effect of social and economic shocks. Social insurance includes unemployment insurance, health insurance and contributory pension schemes. Labour market protection, on the other hand, is a protection of labour. These comprises of unemployment benefits, effective labour market policies and programs that enhances labour employability [3]. For [9], the components of social protection jointly comprise of contributions to the pension and security fund by the central government and social subsidies – like electricity subsidy, and free medical treatments at times of emergency that have direct benefits to the poor. One of the measures of social protection among others is social and civil service pensions and gratuity.

2.1.2 Human Capital Development

The concept of human capital development is defined by authors in a slightly different way. For example, [10] viewed it as knowledge, habits, attributes like social and personal attributes as well as creativity possessed by individual that can be used to perform labour. Similarly, to [11], human capital development is enhancement of skills, knowledge and inventiveness of individuals through human capital formation process broadly conceived. It is a collection of activities that develops knowledge, improves skills, inputs value and promotes behaviour that is vital for the actualization of the potentials of individuals. The process of human capital development is a continues process from childhood to old age, as stated by [12]. The development of human capital is important because the qualitative aspects of people are seen in the scope of labour capital and service delivery.

The human capital development theory emphasized the need for education in the production of goods and services, and the efficiency of workers through training and increase in skills. [13] stated that through the combination of innate abilities with investment in human beings, investment in education and an increase in the stock of capabilities can be formed. These investments come in the form of expenditure on-the-job training, health, nutrition, and education like construction of schools and institutions. However, if gross investment exceeds depreciation as time goes on, because of intense use or lack of use, then the stock of human capital increases. The human capital theory proponents view human capital to be equal or more important than physical capital. These proponents saw that investment in education is a productive investment in human capital.

Also, human capital theorist suggests that the enhancement in the productivity of workers' low skill occupation could be achieved through established basic literacy. Increase in the marginal productivity of workers mostly those in the in high skill or professional position could be achieved through tasks that demand logical and analytical reasoning and this helps to provide specialized and technical knowledge [14]. These theorists concluded that for there to be an increase in national productivity and economic growth that there should be an increase in the provision of schooling society.

Human capital includes the accumulation of all investments in education, on-the-job training, health, migration, and other factors that increase individual production in goods and services and earnings as well. Also, through acquiring knowledge and skills that have economic value, that labourers have become capitalists. The great part of product investment is the acquisition of knowledge and skills combined with investment in other capital.

2.1.3   Empirical Evidence

There are just a handful of empirical works especially as it relates to human capital development and welfare. Empirical studies in this area include, [15] who examined the effect of social protection on human capital development in South Sudan using household data. The data was analysed using the ordinary least square technique. The study found no significant impact of social protection on human capital development. In Czech Republic, [16] examined if government investment in human capital aids development. The study covered the periods from 1995 to 2018. It was found that spending on recreation, culture, and religion had more impact on human capital development, more than expenditure on education and health. [17] carried out an international comparative analysis of social protection systems, focusing mainly on sub-Saharan Africa (SSA), the Latin America, the Caribbean (LAC), and the Asia-Pacific (APAC) regions. They specifically focused in the role of foreign aid in these dynamics. The Tobit models, and the fractional response models were employed by the authors. It was found that human capital development aid had contributed to an increase in social protection systems. It was also found that an increase in social protection aid resulted to an increase in the share of countries' population which the social protection system covers. The relationship between government social expenditure and economic growth in India was examined by [18]. It was found that social expenditure had significant impact on human capital formation. Using Nigeria, Ghana and Senegal as case study, [19] examined the relationship between social spending and human development. The fixed effect partial adjustment model was employed by the author. It was found that health spending was significant in explaining human development in both in the short and long runs, while education spending was not.

[20] examined if social capital improves the economic growth through government investment in human capital using a model of stochastic endogenous growth. It was found that increase in social capital leads to a higher share of output on public education. Social spending plays a key role in development of Sudan was examined by [21] using the ARDL technique. The study covered the periods from 1970 to 2011. It was found that social spending in the long run and short run increase output. The relationship between public expenditure and human capital development in Nigeria was examined by [22]. The study covered the periods from 1960 to 2019. The study employed the Ordinary Least Square Regression technique in analyzing the data. It was found that investment in education and health affect human capital development. The relationship between government spending on "cultivation" services and economic growth in India was examined by [23]. The study covered the periods from 1998 to 2012. The Granger causality technique was employed to analyze the data. The findings showed that there was a stable long-term relationship between public spending and economic growth. The findings also showed that public spending had both positive and significant impact on economic growth.

Despite the relevance of the issue – social protection and its effect on human capital development, no study, to the best of our knowledge examined this relationship in Nigeria. There is no empirical evidence specifically on this relationship. Though there are very few similar studies who has examined the relationship between social protection and other macroeconomic variables including poverty, which slightly differ from our study. Specifically, this study contributes to the literature by empirically establishing the effect of social protection expenditure on human capital development in Nigeria, which no known study has directly examined. This will be relevant since empirical evidence of social protection expenditure could contribute to the formulation of more appropriate social expenditure policies.

3   Methodology

The data is an annual timeseries data for Nigeria drawn from the World Development Indicators of the World Bank and the Central Bank of Nigeria (CBN) statistical bulletin, various issues. The period covered from 1981 – 2021. We build our framework from [24]. The [24] framework predicted the utilitarian function for social welfare, having similar characteristics with the social opportunity function. However, for the purpose of this study, some modifications will be made. The reason for the modification is because social

protection and human capital development, which are core variables in this study are not considered in their study. Also, their study is a panel study while this study is a country (Nigeria) specific study. Consider the following equation:

$$Y_t^* - Y_{t-1}^* = \vartheta_1 \tilde{y}_t + \vartheta_2 X_t \qquad (1)$$

Where $Y_t^* - Y_{t-1}^*$ is inclusive growth at time t, $\tilde{y}_t$ is income at time t, and X_t is determinants of growth and inequality at time t. Since economic welfare brings about inclusive growth and verse versa, thus, inclusive growth $(Y_t^* - Y_{t-1}^*)$ in equation (1) can be represented by economic welfare, which for this study is substituted with human capital development (HKD). Initial income $(\tilde{y}_t)$ is proxied by GDP, while X_t, for the purpose of this study, is taken to be social protection expenditure. Thus, we re-specify equation (1) as:

$$HKD = GDP + SOPX \qquad (2)$$

We augment population growth rate and domestic investment in equation (2) as control variables, and respecify the equation as;

$$HKD = GDP, SOPX, POGR, DINV \qquad (3)$$

Where HKD is human capital development – measured by human capital development index, GDP is GDP growth (annual %), SOPX represent social protection expenditure – measured by government expenditure on social services as a percentage of total expenditure, POGR is population growth rate, and DINV is domestic investment – measured by gross fixed capital formation (GFCF). Equation (3) is presented in the form of an autoregressive distributed lag (ARDL) model:

$$HKD = b_0 + b_1 HKD_{t-1} + b_2 GDP + b_3 LogSOPX + b_4 POGR + b_5 LogDINV + \sum_{j=1}^{p} \phi_1 HKD_{t-j} + \sum_{s=0}^{q} \phi_2 GDP_{t-s} + \sum_{m=0}^{q} \phi_3 LogSOPX_{t-m} + \sum_{z=0}^{q} \phi_4 POGR_{t-z} + \sum_{z=0}^{q} \phi_5 LogDINV_{t-z} + \mu_{3t} \qquad (4)$$

In equation (4), the short-run variables are the different terms while the lag variables are the long-run process. μ_{3t} is the error term, ϕ_i and b_i (i = 1, 2, … 5) are coefficients for the long run and the short-run for the variables respectively. HKD, GDP, and POGR, are not logged as they are already in rate. The choice for optimal lag length is based on the result or the outcome of the Akaike information lag length selection criteria. This model is considered favourable because it has an advantage of small sample property. Also, we get unbiased estimates and t-values for the long and short-run periods even with the presence of endogenous regressors in the model. The model is even useful when the regressors are stationary whether at order 0, I(0) or at I(1) or a mix of both I(0) or I(1). If cointegration exists among the variables, then it implies that the variables adjust to equilibrium, which can be captured by an error correction model, specified as:

$$\Delta HKD = a_0 + \sum_{j=1}^{p} \phi_1 HKD_{t-j} + \sum_{s=0}^{q} \phi_2 GDP_{t-s} + \sum_{m=0}^{q} \phi_3 LogSOPX_{t-m} + \sum_{z=0}^{q} \phi_4 POGR_{t-z} + \sum_{z=0}^{q} \phi_5 LogDINV_{t-z} + \varphi ECM_{t-1} + \mu_{4t} \qquad (5)$$

Where ECM_{t-1} is the error correction term

The estimation will begin with identification of the order of the ARDL. After that, the Ordinary Least Square (OLS) technique or estimator will be used to estimate the model. This estimator is considered the Best, Linear and Unbiased Estimator (BLUE). It is linear, which means a linear function of a random variable. It is unbiased, that means the average values or the value expected $E(\hat{a}_i)$ is the same with the true value (a_i). Also, among all linear unbiased estimators, it has the least variance. An estimator is considered efficient when it is unbiased and when it as the least variance. The model will be estimated after testing for the appropriate lag order applying the Akaike information model selection criteria. This will enable us to determine the right lag order to use while estimating the model.

4   Estimation Results

4.1   Unit Root Test

The Augmented Dickey Fuller and Philips Perron unit root test were conducted to test the variables for unit root. The results are reported in Table 1.

Table 1: Augmented Dickey-Fuller and Philips–Perron unit root test results

Variable	Augmented Dickey-Fuller Result		Philips–Perron Result		Lag order	~I(d)
	Level	1st Difference	Level	1st Difference		
LogSOPX	-2.441	-3.911*	-3.280	-4.280*	2	I(1)
GDP	-3.474	-3.884*	-2.922	-3.922*	2	I(1)
POGR	-1.512	-4.352*	-2.847	-4.082 *	2	I(1)
HKD	-1.865	-5.951*	-3.431	-5.614*	2	I(1)
LogDINV	-1.960	-3.963*	-1.927	-6.140*	2	I(1)

Where * denotes significance at 5% and the rejection of the null hypothesis of the presence of unit root. The optimal lag lengths were chosen according to Akaike's Final Prediction Error (FPE), and Akaike's information criterions. The ADF 5% critical values at level and 1st difference are -3.556 and -3.560. The Philip-Perron 5% critical values, on the other hand, at level and 1st difference are -3.548 and -3.552. Trend is included in both the Augmented Dickey-Fuller and Philips–Perron unit root test models estimated.

Source: Authors' Computation

For the Augmented Dickey-Fuller test, each of the variables at level has test statistic that is less than the value. Thus, at levels, the null hypothesis of unit root is accepted. The acceptance of the null hypothesis at level warrants differencing of the variables. Thus, the variables were differenced once and, the test was conducted again. At 1st difference, the test statistics of the variables are higher than the critical value. Thus, the null hypothesis availability of unit root is rejected. That is, the variables are stationary at 1st difference. That is, the variables are integrated of order 1. The Philips–Perron test also confirmed it. None of the variables is stationary at level. However, the test at 1st difference, all the variables are stationary.

4.2   The Effect of Social Protection Expenditure on Human Capital Development

In this section, we present and discuss the results for the effect of social protection expenditure on human capital development. We begin with the Bounds test result for the existence of a level form relationship or the presence of cointegration among the variables. The result of the test is reported in Table 2. Since the variables are stationary at order 1, our interpretation is based on the F-value and the t-value compared to the order 1 critical value at 5%, and the order 1 p-value at 5%.

Table 2: Bounds test result

	10%		5%		1%		p-value		
	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)		I(0)	I(1)
F	2.620	4.026	3.219	4.843	4.695	6.842		0.000	0.000
t	-2.468	-3.590	-2.847	-4.037	-3.630	-4.959		0.006	0.009
F = 5.062									
t = -4.651									

Author's computation

The F-value of 5.062 is compared with the 5% critical value at order 1 and found that the F-value is greater than the order 1 critical value. Therefore, the hypothesis of no cointegration is rejected. This means that the variables are cointegrated. The significant probability value of 0.000 confirms that there is no significant error in rejecting the null hypothesis. The t-value of -4.651 is also greater than the order 1 critical value at 5%. Therefore, we reject the null hypothesis at the 5% level. It means that there is a long-run relationship among the variables in the model. Thu, the error correction model is estimated. We showed the result in Table 3.

Table 3: Error Correction Estimates of the effect of social protection expenditure on human capital development

The dependent variable is Human capital development (HKD)				
HKD	coefficients	Standard Errors	t-Statistics	P-value
Adjustment	-0.2429	0.0917	-2.65	0.002
Long-Run				
GDP	0.0223	0.0091	2.44	0.032
LogSOPX	0.3576	0.1375	2.60	0.004
POGR	-2.8495	4.1117	-0.69	0.496
LogDINV	0.2717	0.1357	2.03	0.039
Short-Run				
HKD	0.0407	0.0189	2.15	0.039
GDP	0.0056	0.0057	2.23	0.037
LogSOPX	0.0249	0.0087	2.86	0.000
POGR	-2.2385	2.2845	-0.98	0.338
LogDINV	0.0562	0.1285	0.44	0.666
Constant	1.9613	1.3405	1.46	0.158
R2	0.7788			
Adjusted R-Squared	0.4470			
F-statistics	19.44 (p = 0.0040)			
Durbin-Watson d-statistic (15, 37)	1.9579			
Breusch-Godfrey LM Chi-square Statistics	2.420 (p = 0.5004)			
HKD, GDP, and POGR, are not logged as they are already in rate.				

Source: computed by the authors

The result came out with an error correction adjustment coefficient of -0.2429 with a t-value of -2.65. The significant negative and significant value of -0.2429 reveals that when there is discrepancy in the short run, the variables could adjust back to equilibrium in the long run at a significant speed of 24.29% per annum.

Concerning social protection expenditure, a positive coefficient of 0.3576 came out with a t-value of 2.60. Since the t-value of 2.60 is statistically significant, we reject the null hypothesis that social protection expenditure has no significant effect on human capital development. Therefore, social protection expenditure has a positive and significant effect on human capital development in Nigeria. An increase in social protection expenditure in the long run results in a 0.36% significant increase in human capital development. In the short run, social protection expenditure showed a positive and statistically significant coefficient. The null hypothesis, therefore, is rejected in the short run. A percentage increase in social protection expenditure in the short run leads to a 0.02% significant increase in human capital development. Therefore, in the long and short runs, social protection expenditure positively and significantly effected human capital development.

The GDP growth (annual %) coefficient in the long run is 0.0223 with a t-value of 2.44. Based on the significant t-value, we reject the null hypothesis of no significant effect of GDP growth (annual %) on human capital development in Nigeria. GDP growth – annual percentage positively and significantly effect human capital development in the long run. A percentage growth in GDP brings about a 0.02% significant increase in human capital development. Similarly, in the short run, the coefficient of GDP growth (annual %) is positive with a t-value of 2.23. The significant t-value suggests the rejection of the null hypothesis in the short run. The significant p-value of 0.037 means that there is no significant error in rejecting the null hypothesis at the 5%. This means that in the

short run, GDP growth (annual %) has a positive and significant impact on human capital development. Specifically, a percentage growth in GDP (annual %) leads to a 0.01% significant increase in human capital development in the short run.

The population growth coefficient, on the other hand, is -2.8495 in the long run with a t-value of -0.69. The insignificant t-value also guides us to accept the null hypothesis at the 5% level. The insignificant p-value also points to accepting the null hypotheses. Therefore, an increase in the population growth in the long run leads to a 2.85% insignificant decrease in human capital development. The coefficient and t-value in short-run, similar to the long run are -2.2385 and -0.98. Since the t-value is not significant, we accept the null hypothesis that population growth has no significant effect on human capital development. This means that population growth has no significant effect on human capital development. Specifically, a percentage increase in population growth leads to a 2.24% decrease in human capital development.

Domestic investment has a coefficient of 0.2717. The associated t-value is 2.03. The null hypothesis of no significant effect of domestic investment on human capital development is rejected. Thus, an increase in domestic investment results to a 0.27% significant increase in human capital development. Domestic investment, in the short run, showed 0.0562 and a t-value of 0.44. Thus, the null hypothesis of no significant effect of domestic investment, in the short run, on human capital development is, however, accepted. The insignificant p-value of 0.666 points to the acceptance of the null hypothesis. If domestic investment increases, human capital development also increases insignificantly by 0.07% in the short run.

The initial human capital development has 0.0407 as the coefficient and a t-value of 2.15 in the short run means that initial human capital development results to further significant increase in human capital development by 0.04%. This means that a significant initial capital development will bring about a significant development in human capital. This also means that countries with high human capital development will experience significant growth and development in human capital than countries with low rate of human capital development.

The R^2 is 0.7788. This, therefore, informed us that the variables explain approximately 77.88% change in human capital development. The remaining percentage change in human capital development is linked to other variables not in this study. The Durbin-Watson d-statistic shows the absence of author correlation. Also, the Breusch-Godfrey LM Chi-square Statistics indicate no serial correlation.

4.3   Discussion of the Findings

The finding that social protection expenditure, in the long and short runs, had a positive and significant impact on human capital development implies that expenditure on social protection significantly promotes human capital development. Social assistance can derive human capital development. GDP growth (annual %) was also found positively and significantly effected human capital development in the long run and short run. This means that economic growth also instigates human capital development. A growing (developed) economy has higher capacity to train productive and skill workers and contributes to the development of human capital. Also, population growth negatively and insignificantly impacted human capital development. This means that rapid population growth is a greater obstacle to human capital development in Nigeria. The impact can be reflected in increased cost of human capital development and human capital will not be upgraded. It was also found that domestic investment had positive effect on human capital development. The effect, in the long run was significant. But in the short run, the effect was insignificant. This means that domestic investment especially in the long run can promote human capital development human capital.

5   Conclusions

The effect of social protection expenditure on human capital development in Nigeria been examined. The study came with several findings. Based on the findings, we conclude that Expenditure on social protection significantly promotes human capital development. Social assistance derives human capital development significantly. Economic growth also instigates human capital development. Both in the long and short run, population growth and domestic investment have negative on human capital development. We recommend expansion of social assistance programmes to accommodate more beneficiaries especial the poor unemployed and the youths. Also, more efforts should be made to foster economic growth. It will instigate human capital development.

REFERENCES

[1]   Mathers, N. & Slater, R. (2014). Social protection and growth: Research synthesis. Commonwealth of Australia Available at: https://www.researchgate.net/publication/338901630_Social_protection_and_growth_Research_synthesis

[2]   Nickolas, S. (2019). What is the relationship between human capital and economic growth? Available at: https://www.investopedia.com/ask/answers/032415/what-relationship-between-human-capital-and-economic-growth.asp

[3]   Kangasniemi, M., Knowles, M. & Karfakis, P. (2020). The role of social protection in inclusive structural transformation. Rome, Food and Agriculture Organization of the United Nations. Available at: http://www.fao.org/3/ca7333en/CA7333EN.pdf

[4]   De Hoop, J. & Rosati, F. C. (2014). Cash transfers and child labor. *The World Bank Research Observer*, 29(2), 202 – 234.

[5]   World Bank (2020). Nigeria releases new report on poverty and inequality in country. Brief. Available at: https://www.worldbank.org/en/programs/lsms/brief/nigeria-releases-new-report-on-poverty-and-inequality-in-country

[6]   Human Development Report Office (2018). Available at: https://data.humdata.org/organization/undp-human-development-reports-office?

[7]   OECD (2019). Can social protection be an engine for inclusive growth? Available at: https://www.oecd-ilibrary.org/docserver/a43dc9c3-en.pdf?expires=1613106761&id=id&accname=guest&checksum=8BBF17DEE6CB3065B7EF98FE0D168F2D

[8]   International Labour Organization – ILO (2001). Social security: A new consensus. Geneva.

[9]   Hassan, H. M. (2014), Social spending and economic growth in the Sudan. An econometric perspective. Available at: https://www.grin.com/document/355654

[10]   Becker, G. (1964). *Human Capital*. 2nd edition. Columbia University Press: New York

[11]   Aluko, A. Y. (2015). Human capital development: Nigeria's greatest challenge. NISER, Ibadan, Nigeria.

[12]   Aigbedion I. M. & Sarah, O. A. (2016). Government education expenditure for inclusive growth in Nigeria: An error correction model. Selected Papers of the Nigerian Economic Society 56 Annual Conference October 12-15, 2015 Sheraton, Abuja-Nigeria.

[13]   Adelakun, O. J. (2011). Human capital development and economic growth in Nigeria. European Journal of Business and Management, 3(9), 29 – 37.

[14]   Todaro, M. P. & Smith, S.C. (2003). Economic Development, 8th Ed. India: Pearson Education (p) Ltd.

[15]   Sulaiman, M. (2012). Social protection and human capital accumulation in developing countries. A thesis. London School of Economics. Available at: http://etheses.lse.ac.uk/227/1/Sulaiman_Social_protection_and_human_capital_accumulation_in.pdf

[16]   Linhartová, V. (2020). The effect of government expenditure on human capital in the Czech Republic. Scientific Papers of the University of Pardubice, Series D: Faculty of Economics and Administration, 28(2), 1056. Available at: https://dk.upce.cz/bitstream/handle/10195/77214/SciPap-01056.pdf?sequence=1

[17]   Niño-Zarazúa, M. & Hernández, A. S. (2023). Aid's impact on social protection in low- and middle-income countries. WIDER Working Paper No. 110. Available at: https://www.wider.unu.edu/sites/default/files/Publications/Working-paper/PDF/wp2023-110-aid-impact-social-protection-low-middle-income-countries.pdf

[18]   Sasmal, J. & Sasmal, R. (2023). Public expenditure, human capital formation and economic growth in modified Luca's framework: A study in the Indian context. Journal of Quantitative Economics. Available at: https://link.springer.com/article/10.1007/s40953-023-00358-7#citeas

[19]   Iheoma, C. G. (2012). Social spending and human development in selected West African Countries. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2129219

[20]   Ponzetto, G. A. M. & Troiano, U. (2018). Social capital, government expenditures and growth. NBER Working Paper Series Number 24533. Available at: https://www.nber.org/system/files/working_papers/w24533/w24533.pdf

[21]   Hassan, H. M. (2014). An econometric perspective social spending and economic growth in the Sudan. Social Science Research Network (SSRN). Available at: https://www.zbw.eu/econis-archiv/bitstream/11159/225568/1/EBP085074349_0.pdf

[22]   Erasmus, E. G. (2021), Public expenditure and human capital development in Nigeria. Journal of Accounting and Financial Management, 7(2), 26 – 43.

[23]   Gangal, V. L. & Gupta, H. (2013). Public expenditure and economic growth: A case study of India. *Global Journal of Management and Business Studies*, 3(2), 191-196.

[24]   Anand, R., Mishra, S. & Peiris, S. (2013). Inclusive growth: measurement and determinants. IMF Working Papers No., 13/135.