



## THE IMPACTS OF UNEMPLOYMENT AND INFLATION ON HUMAN CAPITAL DEVELOPMENT IN NIGERIA

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### Abstract

Over the years, the first and second world countries in the world have continued to witness extra ordinary improvement in the quality of human capital which accelerated economic growth and development of these countries in the long run. But Nigeria and other developing countries are yet to enjoy these accelerated economic growth and development, and this may likely stem from the fact that Nigeria and other developing countries ranked low in human development index. This poor human development index may likely depend on high rate of inflation and unemployment in Nigeria. Therefore, the study investigated the impacts of unemployment and inflation on human capital development in Nigeria. The study was an econometric study which relied on time series dataset from secondary sources including United Nation (2022) human development index report, and World Bank (2022) historic data – macro-trends on unemployment rate, hunger statistics, inflation rate and consumer price index. Human development index was used to measure human capital development, unemployment rate and hunger statistics were used to measure unemployment, while inflation rate and consumer price index were used to measure inflation. The data collected was analyzed using ordinary least square linear model. Results of the study indicated that: (1) There is significant negative effect of unemployment on human capital development, as revealed by the two measures of unemployment used in the study. (2) There is no significant effect of inflation on human capital development, although the two measures of inflation used in the study revealed negative and positive effects respectively. The researcher recommends that government in Nigeria need to strategically partner with the organized private sector and international non-governmental organizations to invest in small and medium scale enterprises to create employment opportunities and reduce unemployment. This will have a multiplier effect in respect of hunger reduction and control of inflation in Nigeria.

**Key words:** Unemployment, Inflation, Human Capital, Nigeria.

### Introduction

According to Goldin (2014), human capital development is a concept used by economists to designate personal attributes considered useful in the production process. It comprises of employee knowledge, skills, know-how, good health and education. Ifejika (2017), described it as a component of development consisting of various ingredients including knowledge, talents, skills, abilities, experience, intelligence and training among other things, possessed by a country's human population. It is closely tied to various societal aspects like education, healthcare and sustainable development. Human capital development is an aspect of economic development which influences further economic development through its contribution to the production process in a country, and increase in an individual's earnings. Deming (2022), posited that it has a substantial impact on individuals' earnings. Investments in the education and healthcare of the people improve or develop human capital in any country. Suhaili,



Widayati and Fatah (2022), stated that investments in education are crucial for developing human capital and fostering individual and societal progress. Bleakly (2010), discussed a range of micro evidence, which finds that health is both human capital itself and an input to producing other forms of human capital.

The core of human capital development lies on empowering individuals to achieve their full potential, lead fulfilling lives, participate in decision making and contribute meaningfully to society. Education and health for sustainable human capital development, through the human capability approach, aims to enhance individuals' agency, capabilities and participation in shaping a sustainable future for themselves and future generations. This approach, according to Landorf, Doscher and Rocco (2018), stresses the importance of economic prosperity, social justice, environmental stewardship and intergenerational equity in promoting sustainable human capital development. This economic prosperity cannot be attained where there is high level of involuntary unemployment and inflation, because unemployment and inflation may adversely affect human capital development in any country. De-Castella and Meclatchey (2011) defined unemployment as when a person who is of normal working age does not have a paid job. Jhingan (2016), described it as involuntary idleness of a person willing to work at the prevailing rate of pay, but unable to find job.

On the other hand, Finkel (2023), defined inflation as increase in general level of prices, that is when prices are going up, and more money is needed to pay for goods and services.

Runtunuwu (2020) reported that unemployment had a significant negative impact on human capital development, while Adeyemi, Afolabi, Olawumi and Okunade (2023), revealed that moderate inflation was found to stimulate growth, but exceeding it resulted in detrimental effect on human capital development and economic stability. In this study, the impacts of unemployment and inflation on human capital development in Nigeria will be investigated. Human capital development will be measured with Human Development Index of Nigeria (HDI) which measures the overall human development of a country including the human capital aspect. HDI serve as a pivotal indicator that offers a multidimensional assessment of a country's development based on key components such as life expectancy, education and living standards. (Natasya, 2023). Unemployment rate and hunger statistics will serve as yardsticks to measure unemployment in this study, while inflation rate and consumer price index will be adopted to measure inflation.

### **Objectives of the Study**

The broad objective of the study is to investigate the impacts of unemployment and inflation on human capital development in Nigeria. Specific objectives are:

- To determine the relationship between unemployment rate and human capital development.
- To establish the relationship between hunger statistics and human capital development.
- To determine the relationship between inflation rate and human capital development.
- To find out whether there is relationship between consumer price index and human capital development.
- To establish whether long-run relationship exist among unemployment rate, hunger statistics, inflation rate, consumer price index and human capital development.



## Research Hypotheses

The operational hypotheses are stated as follows:

- **H<sub>0</sub>:** There is no significant relationship between unemployment rate and human capital development.  
**H<sub>1</sub>:** There is significant relationship between unemployment rate and human capital development
- **H<sub>0</sub>:** There is no significant relationship between hunger statistics and human capital development.  
**H<sub>1</sub>:** There is significant relationship between hunger statistics and human capital development.
- **H<sub>0</sub>:** Significant relationship does not exist between inflation rate and human capital development.  
**H<sub>1</sub>:** Significant relationship exists between inflation rate and human capital development.
- **H<sub>0</sub>:** Significant relationship does not exist between consumer price index and human capital development.  
**H<sub>1</sub>:** Significant relationship exists between consumer price index and human capital development.
- **H<sub>0</sub>:** There is no significant long run relationship among unemployment rate, hunger statistics, inflation rate, consumer price index and human capital development.  
**H<sub>1</sub>:** There is significant long run relationship among unemployment rate, hunger statistics, inflation rate, consumer price index and human capital development.

## Scope and Limitation to the Study

The scope of the study covers the period from 2001 to 2021. The choice of this time frame is based on the availability of data. The limitation to the study is that the range of years before 2001 and after 2021 (i.e 2022 – 2024) is not covered in the study.

## Conceptual Issues

### Concept of Unemployment and its Impact on human Capital Development

The concept of unemployment is multifaceted, encompassing various definitions, causes and consequences that affect individuals and society at large. It is a critical economic problem that affects the well-being of the people. According to Chike and Okeke (2024), unemployment can hinder access to education, limiting opportunities for skill development, professional growth and economic empowerment which together constitute factors associated with human capital development. Curto, Einav, Finkelstein, Levin and Bhattacharya (2017), stated that individuals who experience prolonged periods of unemployment may face challenges in maintaining and developing their skills which adversely affects human capital development. Studies have shown that an increase in adult unemployment rate may affect secondary school education enrollment of the children of those adults. (Guio, Choi & Escardibul, 2018).



Also, according to Bejakovic and Mrnjavac (2018), long term unemployment can result to skill degradation, decreased employability, and increased psychological distress, including high rates of depression and anxiety which are health related problems that adversely affect human capital development. Mattei and Pistoresi (2018) posited that the longer individuals remain unemployed, the more difficult it becomes for them to reintegrate into the workforce, creating vicious cycle of unemployment and mental health deterioration. Furthermore, Ezenekwe (2017), posited that one of the effects of unemployment is the decline in quality of life (standard of living). According to Olubitan (2018), unemployment negatively affects people's aspirations and turned it to mirage. And these aspirations may include access to quality healthcare services and education.

### **Concept of Inflation and Its impact on Human Capital Development**

The concept of inflation covers various dimensions including the policies usually employed to manage and control it, causes of inflation and the effects of inflation which is quite negative on human capital development.

According to Curto, Einav, Finkelstein, Levin and Bhattacharya (2017), inflation may adversely affect private spending on education and healthcare, as individuals and families face higher costs for private education and medical services. At macro level, inflation can put pressure on public sector budgets allocated to education and healthcare leading to constraints on resources to provide quality education and healthcare for the people. (Lin, Dewey & Tsikitis, 2021). Bao, Tao, Afzal, and Dorduncu (2022), revealed that increase in inflation positively affects the infant morality rate and has a negative effect on life expectancy. Studies report that inflation shocks might affect education, skills formation and health negatively. (Almond, Currie & Simeonova, 2011). Also, according to Heckman (2012), during inflation, the resulting decline in affordability influences the well-being of people through reduction in investment for education, malnutrition and poor health outcomes.

McKee, Ryan, Song, Wanberg and Kinicki (2015) stated that inflation diminishes the purchasing power of consumers leading to a decline in their standard of living and limiting their ability to afford essential items and services including education and healthcare. Finally, Ilham (2023), stated that economic disruptions like natural disasters, can increase inflation, which negatively impact human capital development.

### **Types of Unemployment and Their Causes**

There are many types of unemployment, but for this study, attention is restricted to three major types. According to Olubitan (2018), some of the types of unemployment included:

**Structural Unemployment:** This arises as a result off fall in aggregate demand and change in the structure of an economy.

**Frictional Unemployment:** This is caused by changes in the method of production, when labour intensive method is being replaced with capital intensive method like use of machines, computers and artificial intelligence machines like robots.

**Seasonal Unemployment:** This occurs when people remain unemployed after a period or a season, because their job expires or ends after the end of that season or period.



## **Types of Inflation and their Causes**

Here, attention is focused on the two major types on inflation, namely the demand-pull inflation and the cost-push inflation.

**Demand-Pull Inflation:** This is caused by increase corresponding increase in their supply. Jhingan (2016), described it as the inflation that arises as a result of excess of aggregate demand over aggregate supply.

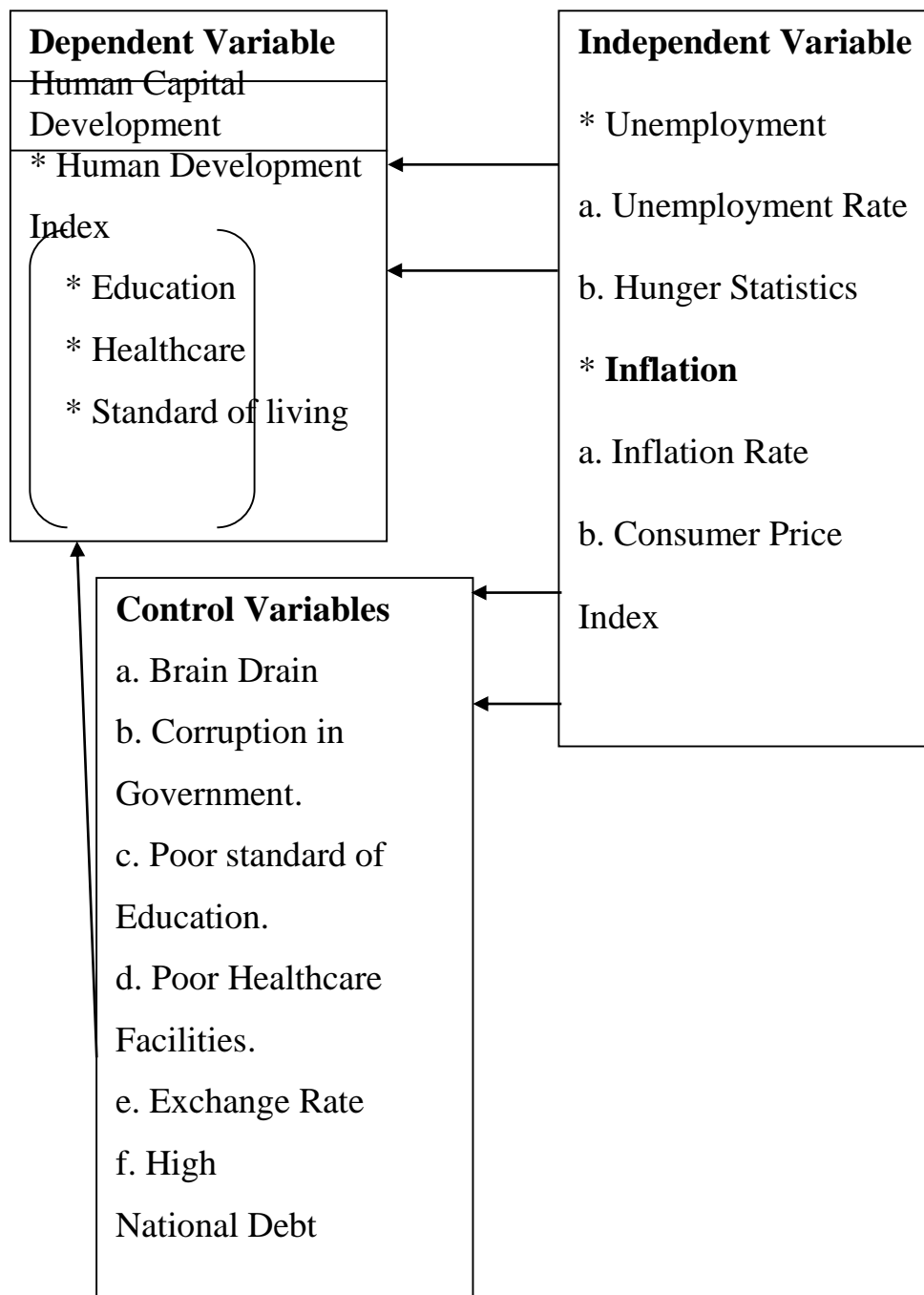
**Cost-Push Inflation:** This is caused by increase in the cost of production, which according to Jhingan (2016) may include rise in wages, rise in prices of imported raw-materials and rise in prices of factors. Ezenekwe (2017), stated that it may be caused by wage increases enforced by unions and profit increases by employers.

## **Conceptual Framework**

Swaen and George (2022), posited that conceptual framework expresses the expected relationship between variables and defines the relevant objectives for research process and maps out how they come together to draw coherent conclusions. In this study, unemployment is measured with unemployment rate and hunger statistics. Hunger level in any country usually have positive relationship with unemployment. Unemployment is widely recognized as a primary risk factor for household food insecurity. Huang, Kim and Birkenmaier (2015), reported that job loss or unemployment is one of the most significant determinants of hunger or food hardship, especially during economic recessions. Inflation is measured with inflation rate and consumer price index, while human capital development is measured with human development index that measures all aspects of human development including human capital. This index covers the variables like life expectancy and morality rate which are associated with healthcare. And also comprises of education and quality of life of people. These constitute human capital development.



### Diagrammatic Representation of Conceptual Framework



### Empirical Review

Yolanda (2017), carried out a study on the analysis of factors affecting inflation and its impact on human capital development and poverty in Indonesia. It was an econometric study, but partially adopted a survey method. Data were collected from secondary sources for the period 1997 – 2016 and primary sources through purposive sampling. Method of data analysis was multiple regression. One of the results of the study revealed that inflation had a negative



significant effect on human capital development. The study had inflation policy implication and is related to the present study in respect of inflation and human capital development.

Hermans (2021), investigated the impact of inflation and city minimum wages on human capital development in Indonesia. The study made use of time series data set from 2010 – 2020. The data collected was analyzed using SPSS version 25. The result of the study indicated that partially inflation had no significant effect on human capital development in the city of Pekanbaru, in addition to other findings. The study had relationship with the present study with regards to inflation and human capital development.

Priambodo (2021), examined the impact of unemployment and poverty on economic growth and human capital development. The study was an econometric study which relied on the data on unemployment rate in Purbalingga Regency 2010 – 2019, and the data collected was analyzed using multiple correlations. The result showed that unemployment and poverty negatively affected economic growth and human capital development. The study had unemployment and poverty policy implication and is relevant to the present study in respect study in respect of unemployment and human capital development.

Syafri, Firdayeti and Handoyani (2021), conducted a study on the determinant of human development index: case study of provinces in Indonesia. It was an econometric study and used secondary data in the form of panel data from 33 provinces from 2010 – 2019 period obtained from central Bureau statistics and bank of Indonesia. Panel data regression model was adopted for data analysis. The result indicated that unemployment, inflation and poverty had a ndegative impact on human capital development. The study had unemployment, inflation and poverty policy implication and is related to the present study in respect of unemployment, inflation and human capital development.

Also, Wahyuningrum and Soesilowati (2021), investigated the effect of economic growth, population and unemployment on human capital development. The study was an econometric study and made use of time series dataset. The data collected was analyzed using multiple regression utilizing ordinary least square model. The result revealed that open unemployment had no significant effect on human capital development, in addition to other findings. The study is relevant to the present study in respect of unemployment and human capital development.

Finally, Maharani and Yuliana (2023), investigated the effect of unemployment and education on human capital development. It was an econometric study which utilized secondary data from 2017 to 2021. The study employed path analysis as method of data analysis. The result indicated that the level of unemployment had a significant negative effect on human capital development, in addition to other findings. The study had unemployment policy implication and is related to the present study in lieu of unemployment and human capital development.

## **Research Method**

### **Theoretical Framework**

The theoretical framework is anchored on human capital theory pioneered by Gray Becker in 1964. This theory is a fundamental concept in economics that views human knowledge, skills and abilities as essential assets contributing to economic growth and development. The theory assumes the importance of investing in education and training to enhance the individuals' capabilities. Investing in education and training of an individual covers other factors including



the quality of life and healthcare of the individual which together with education, constitute investment in human capital. The weakness inherent in this theory is that sometimes investment in human capital may end up being a wasted effort as a result of the unseriousness of the individual involved. This theoretical framework is quite relevant, because without such investment, individuals that are not employed will not be able to raise money to invest in their education and training, especially students that are not working. Therefore the need for the government and organized private sector to partner and invest in human capital should become the government priority.

Also, such individuals may not be able to invest in themselves without external support especially in this prevailing economic hardship occasioned by hyper inflation in Nigeria.

### **Model specification**

The study adopted ordinary least square linear model. The model is expressed as follows:

$$Y = F (\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4) + E.$$

Where: Y represents dependent variable that is intended to be explained by weighted linear combination of regression coefficients:  $\beta_1, \beta_2, \beta_3, \beta_4$  and explanatory or independent variables:  $X_1, X_2, X_3, X_4$ .

Applying the model, we have:

$$HDI = F (\beta_0 + \beta_1 UNR + \beta_2 HUS + \beta_3 INR + \beta_4 CPI + E.$$

Where: F = Functional Relationship

HDI = Human Development Index (Y)

UNR = Unemployment Rate ( $X_1$ )

HUS = Hunger Statistics ( $X_2$ )

INR = Inflation Rate ( $X_3$ )

CPI = Consumer Price Index ( $X_4$ )

E = Error Term

### **Estimation Techniques**

The study employed ordinary least square linear model for analysis, and the justification for its adoption is based on the fact that it is the best linear unbiased estimator. Other estimation techniques include t-test, unit root (stationarily) test, test for auto correlation, test for multi-collinearity, and coefficient of determination. (Adjusted  $R^2$ ).

### **Evaluation of Estimates**

The evaluation of estimates is based on economic theoretical criterion that is whether the estimated coefficients are theoretically meaningful. Another criterion is whether the estimated





criterion is statistically satisfactory. (First Order Test) And finally whether the estimated coefficients conform with econometric criterion (Second Order Test).

### Sources of Data

Nigeria’s human development index was sourced from United Nation (2022) human development index report for Nigeria. <https://countryeconomy.com>, while the data on unemployment rate, inflation rate, hunger statistics and consumer price index were collected from World Bank (2022) historic data – macro trends <https://www.macrotrends.net/global-metrics>.

### Presentation, Analysis and Discussion of Results

The ordinary Least Square (OLS) Result is presented in table 1 below \

**Table 1: OLS Result**

Dependent Variable: HDI

Method: Least Squares

Date: 09/03/24

Time: 03:41

Sample (adjusted: 2001-2019)

Included observations: 19 after adjustments

Variable	Coefficient	Std. Error	t-statistic	Prob
Vc	0.471418	0.009872	47.75161	0.0000
D(UNR 2(2))	-0.060290	0.018139	3.323729	0.0050
D(HUS (2))	-0.016481	0.006399	2.575498	0.0220
INR	-0.000222	0.000684	-0.324280	0.7505
D (CPI (2))	0.000733	0.000435	1.686631	0.1138
R-Squared	0.884687	Mean dependent var		0.492526
Adj. R – Squared	0.851741	S.D dependent Var		0.025988
		Akaike info		
S.E of Regression	0.010007	Criterion		-6.150227
Sum squared resid	0.001402	S.chwarz criterion		-5.901690
		Hannan – Quinn		
Log likelihood	63.4721	Criter		-6.108165
F-statistic	26.85229	Durbin-Watson stat.		1.596820
Prob (F-stat)	0.000002			

**Source:** Researchers Computation using E-view 9.



## Results

- i. From table 1, in respect of unemployment rate and human capital development, t-value of 3.32720 is greater than 1.96, and a unit increase in unemployment rate will reduce human capital development by 0.060290. The probability value of 0.0050 is less than 0.05 at 5% significant level. Therefore we reject  $H_0$  in the first hypothesis and conclude that there is significant negative effect of unemployment rate on human capital development in Nigeria.
- ii. Also in table 1, concerning hunger statistics and human capital development, t-value of 2.575498 is greater than 1.96, and a unit increase in hunger statistics will reduce human capital development by 0.016481. The probability value of 0.0220 is less the 0.05 at 5% significant level. Therefore, we reject  $H_0$  in the second hypothesis and conclude that there is significant negative effect of hunger statistics on human capital development in Nigeria.
- iii. Furthermore in table 1, with regards to inflation rate and human capital development, t-value of -0.324280 is greater than -1.96, and a unit increase in inflation rate will decrease human capital development by 0.000222. The probability value of 0.7505 is greater than 0.05 at 5% significant level. Therefore we accept  $H_0$  in the third hypothesis and concluded that there is no significant effect of inflation rate on human capital development in Nigeria. There is negative relationship, but it is insignificant.
- iv. Finally, in table 1, in respect of consumer price index and human capital development, t-value of 1.686631 is less than 1.96, and a unit increase in consumer price index will increase human capital development by 0.000733. the probability value of 0.1138 is greater than 0.05 at 5% significant level. Therefore we accept  $H_0$  in the fourth hypothesis and conclude that there is no significant effect of consumer price index on human capital development. There is positive relationship, but it is insignificant.

### Test for Long-Run Relationship

Test for long run relationship was done using unrestricted cointegration rank test (trace) and unrestricted cointegration rank test (maximum eigenvalue). The summary table of cointegration is as follows:

#### Table 2: Summary of Cointegration Test

Date: 09/05/24

Time: 03:37

Sample (adjusted): 2003– 2019

Included observations: 21 after adjustments

Trend assumption: Linear deterministic trend

Series: HDI D(UNR\_2(2)) D (HUS (2)) INR D(CPI (2)).

Lags interval (in first differences): 1 to 1



**A. Unrestricted Cointegration Rank Test (Trace)**

Hypothesized No of (ELS)	Eigen-value	Trace statistic	0.05 critical value	Prob**
None*	0.991497	142.7765	69.81889	0.0000
At most 1*	0.931308	61.73124	47.85613	0.0015
At most 2	0.474988	16.20307	29.79707	0.6980
At most 3	0.248453	5.249379	15.49471	0.7818
At most 4	0.022899	0.393808	3.841466	0.5303

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level. \* denotes rejection of the hypothesis at 0.05 level. \*\* MacKinnon – Haug – Michelis (1999) p-values.

**B. Unrestricted Cointegration Rank Test (Maximum Eigen value)**

Hypothesized No of (ELS)	Eigen-value	Max-Eigen statistic	0.05 critical value	Prob**
None*	0.991497	81.04529	33.87687	0.0000
At most 1*	0.931308	45.52817	27.58434	0.0001
At most 2	0.474988	10.95369	21.13162	0.6519
At most 3	0.248453	4.855570	14.26400	0.7600
At most 4	0.022899	0.393808	3.841466	0.5303

Max-eigen value test indicates 2 cointegrating eqn(s) at the 0.05 level. \* denotes rejection of the hypothesis at the 0.05 level. \*\* MacKinnon – Haug – Michelis (1999) p-values.

Table 2A and B above, shows that there is significant long run relationships among unemployment rate, hunger statistics, inflation rate, consumer price index and human capital development. Therefore, we reject  $H_0$  in the fifth hypothesis and conclude that there is significant long run relationships.

**Test for Auto correlation**

**Table 3: Breusch-Godfrey Serial Correlation LM Test**

F-statistic	0.438086	Prob. F (2,12)	0.652
Obs* R-Squared	1.292874	Prob. Chi-Square(2)	0.5239

There is no auto correlaion, since the probability chi-square value of  $0.5239 > 0.05$ .



### Test for Multicollinearity

**Table 4:** Variance Inflation Factors

Variable	Coefficient Variance	Uncentred VIF	Centred VIF
C	9.75 E-05	18.49368	NA
D(UNR_2(2))	0.000329	2.600920	2.056022
D(HUS(2))	4.10E-05	6.838118	5.783385
INR	4.68 E-07	14.58145	1.062038
D (CPI (2))	1.89 E-07	15.23481	5.401623

From the table 4, above, the VIFG coefficient is greater than 10, indicating that there is multicollinearity.

### Test for Heteroscedasticity

**Table 5:** Heteroscedasticity Test: Breusach-Pagan-Godfrey.

F – statistic	1.109076	Prob. F(4,14)	0.3909
Obs* R-Squared	4.571944	Prob. Chi-sq(4)	0.3341
Scaled explained SS	2.852386	Prob. Chi-sq(4)	0.5828.

**Table 6:** Heteroscedasticity Test: ARCH

F – statistic	0.319024	Prob. F(1,16)	0.5800
Obs* R-Squared	0.351886	Prob. Chi-sq(1)	0.5530

From the table 5 and 6, there is no presence of heteroscedasticity since the probability of chi-square 0.3341 and 0.5530 is greater than 0.05 (5%).



**Stationarity (Unit Root) Test**

**Table 7:** Summary of Unit Root Test

Variables	ADF test	Critical values			Unit root	Conclusion at 5% level	Level
		10%	5%	1%			
HDI	-4.721022	-4.532598	-3.673616	-3.277364	No	Stationary	At level
UNR	-6.279008	-3.857386	-3.040391	-2.66051	No	Stationary	At 2 <sup>nd</sup> difference
HUS	-2.122404	-2.708094	-1.962813	-1.606129	No	Stationary	At 2 <sup>nd</sup> difference
INR	-3.156870	-3.831511	-3.029970	-2.655194	No	Stationary	At level
CPI	-4.676554	-4.667883	-3.733200	-3.310349	No	Stationary	At 2 <sup>nd</sup> difference

Evidence from unit root table above (table 7) shows that all the study or model variables are stationary \*HDI is stationary at level \* UNR is stationary after second differencing \* HUS is stationary after second differencing, INR is stationary at level, while CPI is stationary after second differencing.

All the study variables are stationary since the ADF statistics is greater than criteria value.

**Table 8:** Summary of Descriptive Statistics Result

	HDI	UNR	HUS	INR	CPI
Mean	0.496571	4.143429	9.190476	12.60095	136.859
Medium	0.492000	3.770000	8.900000	12.56000	110.8300
Maximum	0.538000	5.712000	15.90000	18.87000	354.3000
Minimum	0.450000	3.556000	6.600000	5.390000	35.19000
Std. Dev.	0.027768	0.675678	2.197477	3.520335	92.16081
Skewness	0.068031	1.163484	1.476801	-0.111490	0.913738
Kurtosis	1.695230	2.836526	5.382065	2.390697	2.807025
Jarque-Bera	1.505820	4.761315	12.59825	0.368350	2.954795
Probability	0.470994	0.092490	0.001838	0.831790	0.228231
Sum	10.42800	87.01200	193.0000	264.6200	2874.040
Sum. Sq. Dev.	0.015421	9.130827	96.57810	247.8552	169872.3
Observations	21	21	21	21	21



## Summary of Findings

- There is significant negative effect of unemployment rate on human capital development in Nigeria.
- There is significant negative effect of hunger statistics on human capital development in Nigeria.
- There is no significant effect of inflation rate on human capital development in Nigeria. There is negative relationship, but it is insignificant.
- There is no significant effect of consumer price index on human capital development in Nigeria. There is positive relationship, but it is insignificant.
- There is a significant long run relationship among unemployment rate, hunger statistics, inflation rate, consumer price index and human capital development.

## Discussion of Findings

The study indicates that there is significant negative effect of unemployment on human capital development in Nigeria. This corroborates with the findings of Primabodo (2021), Syafri, Firdayala and Handryoni (2021) and that of Maharani and Yuliana (2023). Priambodo (2021), reported that unemployment and poverty negatively affected economic growth and human capital development. Syafri, Firdayeti and Handoyani (2021), also reported from their study that unemployment, inflation and poverty had a negative impact on human capital development. And finally, Mahararu and Yuliana (2023), reported that unemployment had a significant negative effect on human capital development.

The study, also indicate that there is no significant effect of inflation on human capital development in Nigeria, although there are negative and positive relationships in respect of inflation rate and consumer price index respectively on human capital development. But the relationships are not significant. This finding partially agrees with the finding of Hermans (2021), who reported that partially inflation had no significant effect of human capital development. The findings of the present study in respect of unemployment rate (one of the measures of unemployment), that unemployment rate had negative but insignificant effect on human capital development, partially corroborates with the account of the study of Yolanda (2017), who reported that inflation had a negative significant effect on human capital development. Also it partially agrees with the finding of Syafri, Firdayeti and Handoyani (2021), who reported that inflation had a negative impact on human capital development.

## Conclusion and Recommendation

Conclusively, unemployment and inflation are not the only factors or the variables that can negatively affect human capital development in any country. We have the extraneous or the control factors that may likely affect human capital development adversely, and the researcher suggest that future research should focus on the extraneous factors including brain-drain, corruption in government, exchange rate, high national/public debt, poor standard of education and poor healthcare facilities. The researcher strongly recommends that government need to strategically partner with the organized private sector and international non-governmental organizations to invest in small and medium scale enterprises to create employment opportunities to reduce unemployment in Nigeria. This will have a multiplier effect in respect of hunger reduction and control of inflation in Nigeria.



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**Appendix**  
**Time Series Data on Human Development Index, Unemployment Rate, Hunger Statistics, Inflation Rate and Consumer Price Index.**

YEAR	HNDI	UNRT	INFR	HUGS	CPRI	UNRT
2001	0.463	3.94	18.87	8.9	35.19	3.827
2002	0.466	3.88	12.88	8.9	39.72	3.618
2003	0.45	3.9	14.03	8.6	45.29	3.594
2004	0.462	3.88	15	7.9	52.08	3.556
2005	0.469	3.87	17.86	7.1	61.39	3.69
2006	0.477	3.86	8.23	6.7	66.44	3.718
2007	0.48	3.84	5.39	6.6	70.02	3.767
2008	0.484	3.82	11.58	6.8	78.12	3.771
2009	0.484	3.8	12.56	7.5	87.92	3.751
2010	0.482	3.78	13.72	8.2	100	3.739
2011	0.492	3.77	10.84	8.8	110.83	3.77
2012	0.499	3.74	12.22	9.1	124.37	3.76
2013	0.506	3.7	8.48	9.1	134.94	3.711
2014	0.1512	4.56	8.06	9.2	145.8	3.903
2015	0.1516	4.31	9.01	9.2	158.93	4.137
2016	0.521	7.06	15.68	9.4	183.88	4.498
2017	0.526	8.39	16.52	10	214.23	4.826
2018	0.531	8.46	12.09	10.4	240.14	5.065
2019	0.538	8.53	11.4	12	267.51	5.206
2020	0.353	9.71	13.25	12.7	302.94	5.712
2021	0.535	5.26	16.95	15.9	354.3	5.393

**Sources:** Human development index: united Nations (2022)

Unemployment, hunger statistics, inflation rate, consumer price index: World Bank (2022)