# STATISTICAL ANALYSES ON THE CORRELATION OF CORRUPTION PERCEPTION INDEX AND SOME OTHER INDICES IN NIGERIA

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**ABSTRACT**

*This study investigated the statistical analysis of Corruption Perception Index (CPI) in Nigeria considering some other indices which are, Human Development Index (HDI), Global Peace Index (GPI) and Global Hunger Index (GHI). Data set was standardized using two different methods due to the different units and scales used in measuring the indices. Analyses were carried out on the two standardized data sets resulting in different covariance matrices but same correlation matrices, multiple and partial correlation coefficients. Hypothesis testing was carried out on both multiple and partial correlation coefficient at 5% level of significance. Result shows that a slight positive correlation exists between CPI and HDI, CPI and GHI (which implies that as CPI is increasing, HDI is also increasing, same for CPI and GHI) while a slight negative correlation exists between CPI and GPI (which implies a reverse). The partial correlation analysis carried out on the standardized data set indicates that a slight positive relationship exists between CPI and HDI holding GHI and GPI constant, a fair positive relationship exists between CPI and GHI holding HDI and GPI constant (which implies that without considering the effect of GPI, as CPI is decreasing, GHI and HDI are also decreasing) , a fair negative relationship exists between CPI and GPI holding HDI and GHI constant (without considering the effect of HDI and GHI, as CPI is decreasing, GPI is also decreasing) holding CPI constant a fair positive relationship exist between HDI and GHI(without considering the effect of CPI, as HDI is increasing, GHI is also increasing, a moderate positive relationship exists between HDI and GPI and a substantial positive correlation exists between GHI and GPI. Multiple correlation analyses were also carried out on the standardized data set which indicates a moderate positive relationship. Generally, CPI and HDI have dominant effect on the national economy.*

**Keywords**: Index, Corruption, Correlation, Global, Standardize.

## INTRODUCTION

The Corruption Perception Index (CPI) is the tool, which Transparency International uses to measure levels of corruption inherent in countries across the globe. The maximum point a country can score is 100 points, and the least is zero, which signifies the worst performing countries and 100, the best ranked. While the ranking is seen by many countries as an indicator that corruption in their domain has gotten worse over the years, only a few countries, including Nigeria are used to throwing tantrums and rejecting the report, especially when it is unfavorable **(Eno-Abasi,2022)**. Correlation analysis has been used in different studies like in studying relationship among different infectious diseases (Ogoke and Mbachu (2018)), comparison on foot measurement Ogoke, et al, (2013), examining the dominating clasp of the financial sector Kennett et al (2010), servant leadership and job satisfaction in a religions

educational organization Kelly (2005), finding interaction with spearman rank correlation and proportion correlation as correlation measures between taxon (Wen Jun Zhang and Xin Lu (2015), the relevance and significance of correlation in social science research Maiwada and Lawrence (2015). Omenka (2013) examined the effect of corruption on Nigerian development and identified the causes of corruption to include poverty, pressure from families, community ethnic loyalties among others. Corruption has been identified as significant factor contributing to poor social welfare in Nigeria Akor (2014), Heather (2011). Osimen et al. (2013) identified factors including lack of accountability, moral slackness, weak government institutions, unemployment, and poverty as important stimulants of corruption in Nigeria. In this study therefore, the relationship between Corruption Perception Index (CPI), Human Development Index (HDI), Global Peace Index (GPI) and Global Hunger Index (GHI) in Nigeria is evaluated by applying partial and multiple correlation analyses to determine which of these other factors has great influence or effect on the increase or decrease of corruption perception index in Nigeria.

## METHOD

Computation of Missing Value, Standardization of Data, Estimation of the Covariance Matrix, Estimation of the Correlation Matrix, Estimation of the Partial and Multiple Correlation Coefficients are all steps in the methodology used to analyze the relationship between the Corruption Perception Index (CPI), Human Development Index (HDI), Global Peace Index (GPI), and Global Hunger Index (GHI) in Nigeria. The limitations of this work include: Measures/Studies of these indices did not begin at the same time hence we took a common time frame of 2007- 2016. The indices were measured in different units, hence there was a need for standardization. One missing value was encountered and needed to be estimated.

### Computation of Missing Value

The mean imputation method is used to obtain the 2016 human development index score in the human development index data set. The imputation formula is given as;

$$\dot{X} = \frac{sum\ of\ exisrting\ data\ (2007-2015)}{number\ of\ existing\ data} \tag{1}$$

### Standardization of Data Set

The data obtained for Corruption Perception Index (CPI), Human Development Index (HDI), Global Peace Index (GPI) and Global Hunger Index (GHI) will be standardized using two methods.

### Method 1

$$Y_i = \frac{x - \bar{X}}{SD} \times 100 \tag{2}$$

where $x_i$ is the score for each year in the data set; $\bar{x}$ is the mean score of the data set.

SD is the standard deviation of the data set.

**Method 2**

$$Y_i = \frac{x_i - center\ point}{index\ scale} \times 100 \tag{3}$$

Center point = (Maximum Value + Minimum Value) ÷2

**Estimation Of The Correlation Matrix**

The correlation coefficient is defined in terms of the covariance $\delta_{ik}$ and variance $\delta_{ii}$ and $\delta_{kk}$ as

$$\delta_{ik} = \frac{\delta_{ik}}{\sqrt{\delta_{ii}}\sqrt{\delta_{kk}}} \tag{4}$$

The correlation coefficient measures the amount of linear association between the random variable $X_i$ and $X_k$. Let the population correlation matrix be the (pxp) symmetric matrix **r**, where

$$\mathbf{r} = \begin{bmatrix} \frac{\delta_{11}}{\sqrt{\delta_{11}}\sqrt{\delta_{11}}} & \cdots & \frac{\delta_{1p}}{\sqrt{\delta_{11}}\sqrt{\delta_{pp}}} \\ \vdots & \ddots & \vdots \\ \frac{\delta_{1p}}{\sqrt{\delta_{11}}\sqrt{\delta_{pp}}} & \cdots & \frac{\delta_{pp}}{\sqrt{\delta_{pp}}\sqrt{\delta_{pp}}} \end{bmatrix} \tag{5}$$

$$\mathbf{r} = \begin{bmatrix} 1 & \cdots & r_{1p} \\ \vdots & \ddots & \vdots \\ r_{1p} & \cdots & 1 \end{bmatrix} \tag{6}$$

**Estimation of The Partial and Multiple Correlation Coefficients**

Let 1= CPI, 2= HDI, 3=GPI, 4= GHI

$$\gamma_{1.234} = \gamma_{CPI.HDI\ GPI\ GHI} \tag{7}$$

$$\gamma_{12.34} = \gamma_{CPI\ HDI\ .GPI\ GHI} \tag{8}$$

**Correlation Coefficient**

**Theorem:** Let $R$ be the sample partial correlation coefficient between $X_1' = (x_1)$ and

$X_2' = (x_2, x_3, \cdots, x_p)$ based on sample size n from a normal distribution. If $\bar{R} = 0$ (i.e. population partial correlation), Then

$$t_{cal}^* = \frac{R\sqrt{n-k-2}}{\sqrt{1-R^2}} \tag{9}$$

is distributed as $t_{\frac{\alpha}{2},(n-k-2)}$. We consider the hypothesis

$$H_0 : R = 0$$
$$VS \quad\quad\quad\quad\quad\quad (10)$$
$$H_1 : R \neq 0$$

**Decision Rule:** The Null hypothesis $H_0$ is rejected if $t^*_{cal} > t_{\frac{\alpha}{2},(n-k-2)}$ otherwise we accept the null hypothesis.

## PRESENTATION OF RESULTS

### Table 3.1: Data on Corruption Perception Index for Nigeria

| S/N | Year | CPI Score | Rank | No of Countries Surveyed | Remark (No of Countries that Nigeria is better than for the year under consideration) |
|---|---|---|---|---|---|
| 1 | 2007 | 22 | 147 | 179 | 32 |
| 2 | 2008 | 27 | 121 | 180 | 59 |
| 3 | 2009 | 25 | 130 | 180 | 50 |
| 4 | 2010 | 24 | 134 | 178 | 44 |
| 5 | 2011 | 24 | 143 | 183 | 40 |
| 6 | 2012 | 27 | 139 | 178 | 39 |
| 7 | 2013 | 25 | 144 | 177 | 33 |
| 8 | 2014 | 27 | 136 | 175 | 39 |
| 9 | 2015 | 26 | 136 | 168 | 32 |
| 10 | 2016 | 28 | 136 | 176 | 40 |

Source www.transparency.org/CPI.

### Table 3.2: Data on Human Development Index for Nigeria

| S/N | Year | HDI Score | Rank | No of Countries Surveyed | Remark (No of Countries that Nigeria is better than for the year under consideration) |
|---|---|---|---|---|---|
| 1 | 7 | 0.51 | 158 | 182 | 24 |
| 2 | 2 | 0.48 | 152 | 176 | 24 |
| 3 | 0 | 0.42 | 142 | 169 | 27 |
| 4 |  | 0.42 | 142 | 169 | 27 |
| 5 |  | 0.46 | 156 | 189 | 33 |
| 6 |  | 0.47 | 153 | 186 | 33 |
| 7 | 3 | 0.50 | 152 | 187 | 35 |
| 8 |  | 0.51 | 152 | 188 | 36 |
| 9 | 5 | 0.53 | 152 | 188 | 36 |
| 10 | 26 | Not Given | Not Given | Not Given | Not Given |

**Source: http://hdr.undp.org**

**Table 3.3: Data on Global Peace Index in Nigeria**

| S/N | Year | GPI Score | Rank | No of Countries Surveyed | Remark (No of Countries that Nigeria is better than for the year under consideration) |
|---|---|---|---|---|---|
| 1 | 2007 | 2.90 | 117 | 121 | 10 |
| 2 | 2008 | 2.57 | 118 | 140 | 22 |
| 3 | 2009 | 2.60 | 129 | 144 | 15 |
| 4 | 2010 | 2.76 | 139 | 149 | 10 |
| 5 | 2011 | 2.74 | 142 | 153 | 11 |
| 6 | 2012 | 2.80 | 146 | 158 | 12 |
| 7 | 2013 | 2.69 | 148 | 162 | 14 |
| 8 | 2014 | 2.71 | 151 | 162 | 11 |
| 9 | 2015 | 2.91 | 151 | 162 | 11 |
| 10 | 2016 | 2.88 | 149 | 163 | 14 |

**Source**: www.economicsandpeace.org

**Table 3.4 Data on Global Hunger Index for Nigeria**

| S/N | Year | GHI Score | Rank | No of Countries Surveyed | Remark (No. of Countries that Nigeria is better than for the year under consideration) |
|---|---|---|---|---|---|
| 1 | 2007 | 19.3 | 80 | 118 | 38 |
| 2 | 2008 | 18.4 | 50 | 120 | 70 |
| 3 | 2009 | 18.4 | 46 | 121 | 75 |
| 4 | 2010 | 17.8 | 47 | 122 | 75 |
| 5 | 2011 | 15.5 | 40 | 122 | 82 |
| 6 | 2012 | 15.7 | 40 | 120 | 80 |
| 7 | 2013 | 15.0 | 39 | 120 | 81 |
| 8 | 2014 | 14.9 | 38 | 120 | 82 |
| 9 | 2015 | 32.8 | 91 | 117 | 26 |
| 10 | 2016 | 25.5 | 84 | 118 | 34 |

**Source: www.ifpri.org/ghi**

**Estimation of 2016 index score for Human development Index data using the mean imputation method.**

**Table 3.5: Standardized Data Set of CPI**

| S/NO | Year | Score | Standardized Score | |
|---|---|---|---|---|
| | | | Method I | Method II |
| 1 | 2007 | 22 | -190.22 | -3.00 |
| 2 | 2008 | 27 | 81.52 | 2.00 |
| 3 | 2009 | 25 | -27.17 | 0.00 |
| 4 | 2010 | 24 | -81.52 | -1.00 |
| 5 | 2011 | 24 | -81.52 | -1.00 |
| 6 | 2012 | 27 | 81.52 | 2.00 |
| 7 | 2013 | 25 | -27.17 | 0.00 |
| 8 | 2014 | 27 | 81.52 | 2.00 |
| 9 | 2015 | 26 | 27.17 | 1.00 |
| 10 | 2016 | 28 | 135.87 | 3.00 |

**Table 3.6: Standardized Data Set of HDI**

| S/N | Year | Score | Standardized Score | |
|---|---|---|---|---|
| | | | **Method I** | **Method II** |
| 1 | 2007 | 0.51 | 75.00 | 3.00 |
| 2 | 2008 | 0.48 | 0.00 | 0.00 |
| 3 | 2009 | 0.42 | -150.00 | -6.00 |
| 4 | 2010 | 0.42 | -150.00 | -6.00 |
| 5 | 2011 | 0.46 | -50.00 | -2.00 |
| 6 | 2012 | 0.47 | -25.00 | -1.00 |
| 7 | 2013 | 0.50 | 50.00 | 2.00 |
| 8 | 2014 | 0.51 | 75.00 | 3.00 |
| 9 | 2015 | 0.53 | 125.00 | 5.00 |
| 10 | 2016 | 0.48 | 0.00 | 0.00 |

**Table 3.7: Standardized Data Set of GPI**

| S/N | Year | Score | Standardized Score | |
|---|---|---|---|---|
| | | | **Method I** | **Method II** |
| 1 | 2007 | 2.90 | 116.67 | 3.20 |
| 2 | 2008 | 2.57 | -158.33 | -3.40 |
| 3 | 2009 | 2.60 | -133.33 | -2.80 |
| 4 | 2010 | 2.76 | 0.00 | 0.40 |
| 5 | 2011 | 2.74 | -16.67 | 0.00 |
| 6 | 2012 | 2.80 | 33.33 | 1.20 |
| 7 | 2013 | 2.69 | -58.33 | -1.00 |
| 8 | 2014 | 2.71 | -41.67 | -0.60 |
| 9 | 2015 | 2.91 | 125.00 | 3.40 |
| 10 | 2016 | 2.88 | 100.00 | 2.80 |

**Table 3.8: Standardized Data Set of GHI**

| S/N | Year | Score | Standardized Score | |
|---|---|---|---|---|
| | | | **Method I** | **Method II** |
| 1 | 2007 | 19.30 | -0.18 | -4.45 |
| 2 | 2008 | 18.90 | -15.99 | -5.35 |
| 3 | 2009 | 18.40 | -15.99 | -5.35 |
| 4 | 2010 | 17.80 | -26.54 | -5.95 |
| 5 | 2011 | 15.50 | -66.96 | -8.25 |
| 6 | 2012 | 15.70 | -63.44 | -8.05 |
| 7 | 2013 | 15.00 | -75.75 | -8.75 |
| 8 | 2014 | 14.70 | -81.02 | -9.05 |
| 9 | 2015 | 32.80 | 237.08 | 9.05 |
| 10 | 2016 | 25.50 | 108.79 | 1.75 |

## Covariance Matrix

$$\begin{array}{cccc} & CPI & HDI & GPI & GHI \end{array}$$

$$\begin{array}{c} CPI \\ HDI \\ GPI \\ GHI \end{array} \begin{bmatrix} 10009.61 & 1358.53 & -1359.56 & 2032.42 \\ 1358.53 & 8538.33 & 4241.00 & 3452.33 \\ -1359.56 & 4241.00 & 9833.98 & 5772.56 \\ 2032.42 & 3452.33 & 5772.56 & 10009.62 \end{bmatrix}$$

## Correlation Matrix

$$\begin{array}{cccc} & CPI & HDI & GPI & GHI \end{array}$$

$$\begin{array}{c} CPI \\ HDI \\ GPI \\ GHI \end{array} \begin{bmatrix} 1 & 0.15 & -0.14 & 0.20 \\ 0.15 & 1 & 0.46 & 0.39 \\ -0.14 & 0.46 & 1 & 0.58 \\ 0.20 & 0.37 & 0.58 & 1 \end{bmatrix}$$

## Partial Correlation Coefficient

$r_{CPI\ HDI.GHI\ GPI} = 0.20$ — $r_{CPI\ GHI.HDI\ GPI} = 0.33$ — $r_{CPI\ GPI.HDI\ GHI} = -0.37$ — $r_{HDI\ GHI.CPI} = 0.35$ — $r_{HDI\ GPI.CPI} = 0.49$ $r_{GHI\ GPI.CPI} = 0.63$

## Multiple Correlation Coefficient: $r_{CPI.HDI\ GHI\ GPI} = 0.42$

## Covariance Matrix

$$\begin{array}{cccc} & CPI & HDI & GPI & GHI \end{array}$$

$$\begin{array}{c} CPI \\ HDI \\ GPI \\ GHI \end{array} \begin{bmatrix} 10009.61 & 1358.53 & -1359.56 & 2032.42 \\ 1358.53 & 8538.33 & 4241.00 & 3452.33 \\ -1359.56 & 4241.00 & 9833.98 & 5772.56 \\ 2032.42 & 3452.33 & 5772.56 & 10009.62 \end{bmatrix}$$

## Correlation Matrix

$$\begin{array}{cccc} & CPI & HDI & GPI & GHI \end{array}$$

$$\begin{array}{c} CPI \\ HDI \\ GPI \\ GHI \end{array} \begin{bmatrix} 1 & 0.15 & -0.14 & 0.20 \\ 0.15 & 1 & 0.46 & 0.39 \\ -0.14 & 0.46 & 1 & 0.58 \\ 0.20 & 0.37 & 0.58 & 1 \end{bmatrix}$$

## Partial Correlation Coefficient

$r_{CPI\ HDI.GHI\ GPI} = 0.20$ — $r_{CPI\ GHI.HDI\ GPI} = 0.33$ — $r_{CPI\ GPI.HDI\ GHI} = -0.37$ — $r_{HDI\ GHI.CPI} = 0.35$ $r_{HDI\ GPI.CPI} = 0.49$ $r_{GHI\ GPI.CPI} = 0.63$

## Multiple Correlation Coefficient: $r_{CPI.HDI\ GHI\ GPI} = 0.42$

**Table 3.9: Level of Reliability of Correlation coefficient of CPI, HDI, GPI and GHI.**

|  | Level Of Reliability |
| --- | --- |
| Variable(s) Considered | Correlation Coefficient |
| CPI/HDI | 0.15 (Slight/Positive) |
| CPI/GHI | 0.20 (Slight/Positive) |
| CPI/GPI | -0.14 (Slight/Negative) |

**Table 3.10: Level of Reliability of Partial correlation of CPI, HDI, GPI and GHI.**

|  |  | Level Of Reliability |
| --- | --- | --- |
| Variable(s) Considered | Variable(s) Held Constant | Partial Correlation Coefficient |
| CPI/HDI | GHI and GPI | 0.20 (Slight/Positive) |
| CPI/GHI | HDI and GPI | 0.33 (Fair/Positive) |
| CPI/GPI | HDI and GHI | -0.37 (Fair/Negative) |
| HDI/GHI | CPI | 0.35 (Fair/Positive) |
| HDI/GPI | CPI | 0.49 (Moderate/Positive) |
| GHI/GPI | CPI | 0.63 (Substantial/Positive) |

**Table 3.11: Level of Reliability of Multiple Correlation Coefficient**

|  |  | Level Of Reliability |
| --- | --- | --- |
| Variable(s) Considered | Variable(s) Held Constant | Multiple Correlation Coefficient |
| CPI | HDI,GHI and GPI | 0.42 (Moderate/Positive) |

**Table 3.12: Hypothesis Testing of Multiple and Partial Correlation Coefficients ($\propto$= 5%)**

| Variables | tcal/tab | Fcal/Ftab | Conclusion |
| --- | --- | --- | --- |
| **Multiple Correlation Coefficient** | Nil | 0.43/4.76 | $H_0$ Accepted |
|  | **Partial** | **Correlation** |  |
|  | **Coefficient** |  |  |
| (*a*) $R_{CPI\ HDI.GHI\ GPI}$ | 0.5/2.45 | Nil | $H_0$ Accepted |
| (*b*) $R_{CPI\ GHI.HDI\ GPI}$ | 0.86/2.45 | Nil | $H_0$ Accepted |
| ( c) $R_{CPI\ GPI.HDI\ GHI}$ | -0.98/2.45 | Nil | $H_0$ Accepted |
| (d) $R_{HDI\ GHI.CPI}$ | 0.99/2.37 | Nil | $H_0$ Accepted |
| (*e*) $R_{HDI\ GPI.CPI}$ | 1.49/2.37 | Nil | $H_0$ Accepted |
| (*f*) $R_{GHI\ GPI.CPI}$ | 2.15/2.37 | Nil | $H_0$ Accepted |

**Table 3.13: Average Number of Country Surveyed and Better Than**

| Variables | Average Number of Country surveyed | Average Number of Country Better Than | Difference |
|---|---|---|---|
| CPI | 177 | 41 | 136 |
| HDI | 163 | 28 | 135 |
| GHI | 151 | 13 | 138 |
| GPI | 120 | 64 | 56 |

## DISCUSSION OF RESULTS

The data obtained for various indices: Corruption Perception Index (CPI), Human Development Index (HDI), Global Peace Index (GHI) and Global Hunger Index (GHI) of Nigeria for a period of 10 years (2007-2016) is presented in Tables 3.1-3.4 (Column 2 is Nigeria's index for CPI for the year considered, Column 3 is the rank (Nigeria's position), Column 4 shows the number of countries who have their CPI for the year under consideration, the last column refers to the countries Nigeria is better than (Column 4-column 5). Tables 3.5 to 3.8 shows the standardized data set resulting in different covariance matrix but the same correlation matrix, partial correlation coefficient and multiple correlation coefficient. The level of reliability of Pearson Correlation was classified using the characterizations reported by Landis and Koch (1977). This characterization range from 0.00 to 0.20 (Slight), 0.21 to 0.40 (Fair), 0.41 to 0.6 (Moderate), 0.61 to 0.80 (Substantial), 0.81 to 1.00 (Almost Perfect).

Table 3.9 shows the level of reliability of the correlation coefficient between CPI, HDI, GPI, and GHI. The correlation coefficient between CPI and HDI, CPI and GHI indicate a slight positive relationship which implies that there is a slight positive relationship existing between CPI and HDI, CPI and GHI (i.e. increase (decrease) in CPI implies a slight increase (decrease) of HDI and GHI). Also, the correlation coefficient between CPI and GPI indicates that a slight negative relationship exist between them which implies that an increase (decrease) in CPI implies a slight decrease (increase) of GPI. Table 3.10 shows the level of reliability of partial correlation coefficient. The partial correlation coefficient between CPI and HDI holding GHI and GPI shows that a slight positive relationship exist between CPI and HDI which implies that an increase (decrease) in CPI implies a slight increase (decrease) in HDI. The partial correlation coefficient between CPI and GHI holding HDI and GPI constant, HDI and GHI holding CPI constant shows that a fair positive correlation exists between them implying an increase (decrease) in CPI implies also a fair increase (decrease) in GHI likewise an increase (decrease) in HDI implies also a fair increase (decrease) in GHI. The partial correlation coefficient between CPI and GPI holding HDI and GHI constant indicates that a fair negative correlation exists between them which indicates that an increase (decrease) in CPI implies a fair decrease (increase) in GPI. The partial correlation coefficient between HDI and GPI holding CPI constant indicates that a moderate positive correlation relationship exist between them. This implies

that an increase (decrease) in HDI implies a moderate increase (decrease) in GPI. Also the partial correlation coefficient between GPI and GHI holding CPI constant indicates that a substantial positive correlation exists between them. This also implies that an increase (decrease) in GHI implies a substantial increase (decrease) in GPI. Table 3.11 shows the level of reliability of multiple correlation coefficient. The multiple correlation coefficient indicates that a moderate positive correlation exists. The summary of test hypothesis on Table 3.12 with α=5% shows the results of the multiple and partial correlation coefficient. The null hypothesis was accepted which implies that the multiple correlation coefficient is not significant. All the partial correlation coefficient were accepted which also implies that the partial correlation coefficient are not significant. Table 3.13 shows the average number of countries surveyed with number of countries that Nigeria is better than over the ten (10) years for which data was obtained. For CPI, an average number of 177 countries were surveyed and Nigeria is better than 41 countries which implies that 136 countries were better than us. For HDI, an average number of 163 countries were surveyed and Nigeria was better than 28 countries which implies that 135 countries were better than us. For GHI, an average number of 151 counties were surveyed and Nigeria is better than 13 countries which implies that 138 countries were better than us, and for GPI an average number of 120 countries were surveyed and Nigeria is better than 64 which implies that 56 countries are better than us.

## SUMMARY AND CONCLUSION

In order to achieve a knowledge of knowing the kind of relationship that exist between two or more variables, correlation analysis becomes inevitable especially in the study of CPI, HDI, GPI and GHI of Nigeria from 2007 to 2016. The data obtained for CPI, HDI, GHI and GPI was standardized using two method and Partial Correlation analysis was used to analyze the standardized data set. The result from the analysis carried out on the standardized data set shows that a positive linear relationship exists among all the variable considered except for CPI and GPI holding HDI and GHI constant which indicates that a fair negative linear relationship exists between them. Also the test of hypothesis carried out on the partial and multiple correlation coefficient shows that the partial and multiple correlation coefficient are equal to zero. The significance of the effect of Correlation analysis cannot be over emphasized as it stands as the only statistical tool that helps to bring to limelight the linear relationship existing between two or more data sets. The results of the analysis shows that all possible comparison exhibit linear relationship either positive or negative. The result from the analysis shows that an increase in CPI of Nigeria implies a very slight increase in Human HDI, GPI and GHI of Nigeria which in general term means that an increase of the Corruption Perception CPI of Nigeria has a very slight effect on the increase of the HDI of Nigeria, GPI of Nigeria and GHI of Nigeria. Generally, CPI and HDI have dominant effect on the national economy.

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