

CORRUPTION AND CITIZEN ECONOMIC CAPACITY: THE EQUATION

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Abstract

Relation of Corruption and Citizen Economic Capacity is a long global debate in the society. Though, theoretically, policy makers, scholars and researchers argue that there is a close relation between these two variables, but the quantitative relation and any global model is yet unrevealed. So, the main aim of this paper is to ascertain the nature, dimension and extent of the relationship between Citizen Economic Capacity and Corruption as well as to invent a globally accepted model. This paper will be useful for researchers, planners, policy makers and scholars who are directly or indirectly involved or willing to involve in the thrust for quantitative relation of these two variables. Literature review is the main source of information of this study. In introductory section, this paper briefly describes theoretical relationship of Citizen Economic Capacity and Corruption as well as describes the proxy variables. Gross National Income (GNI) per capita, Atlas method of 2013 estimated by World Bank of different countries are used as proxy of Citizen Economic Capacity and Corruption Perception Index (CPI) scores (2014) of different countries are used as proxy of Corruption. In methodology section this paper describes the sampling procedure and level of analysis. Due to the unavailability of per capita GNI and CPI data of all countries, this study includes 152 countries around the globe in the analysis. In the third section, this research presents the correlation value which divulge that there is a correlation ($p=.000$) with 99% confidence level. That reveals, if the level of Corruption of any country change, the Citizens Economic Capacity also revolutionize accordingly. Then in this section two quantitative models are developed using linear regression analysis. First invented model is: GNI per capita of a country (in US\$) = $(797 * \text{Level of Corruption of that country}) - 20967$. This model calibrates that one unit improvement of CPI or one unit decrease of corruption leads 797 US\$ improvement of Citizen Economic Capacity (GNI per capita). Then taking this unit change proportion, this research concoct second model for prediction purpose. The second invented model is: Predicted per capita GNI of a country (US\$) = $\text{Present per capita GNI of that country} + 797 * \text{Targeted level of CPI improvement}$. This model is applicable for any country around the globe for prediction of Citizens Economic Capacity (per capita GNI) according to the targeted reduction of Corruption level (targeted improvement of CPI level). In the last section, this paper briefly describes the application of the "Model-2" taking Bangladesh and Togo as two case countries.

Keywords: Citizen Economic Capacity, Corruption, Gross National Income (GNI) per capital.

1. INTRODUCTION

Corruption and Citizen Economic Capacity persuades important aspects of social and economic life. The level of corruption and economic capacity in a given country is extensively believed as two significant factors to consider when projecting economic growth as well as making decisions for strategic investments and forming international policies. Corruption, the biggest intimidations to

development, is a social malady that causes great harm to the countrymen and has spread its tentacles to every sphere of national life of any country around the globe. According to the World Bank definition "Corruption is the abuse of public power for private benefit". When public officials abuse their power it keeps a negative impact on the allocation of resources which affects the poorest more. On the other hand, Citizen Economic Capacity depends on economic growth, which refers to an increase in the productive capacity of an economy as a result of which the economy is capable of producing additional quantities of goods and services. Corruption control and economic growth are very important elements, which need adequate attention, when a country desires its development.

2. LITERATURE REVIEW

Corruption reduces the Citizen Economic Capacity. For instance, The United Nations top anti-crime official, Antonio Costa, estimates that Zaire and Nigeria, two of Africa's hardest-hit states, have lost some \$5 billion each in the last few years to corruption. In Pakistan, an estimated 30 percent of the price of all public works projects goes to kickbacks and bribes, while in Bangladesh corruption eats up about half of all foreign investments (Stevenson, 2003). In Bangladesh, corruption spreads every sphere of the nation that hindering economic growth as well as extending the poverty gap. According to the National House Hold Survey (NHHS), 2012 of Transparency International Bangladesh (TIB); 63.7% of the service recipient's households experienced one or the other forms of corruption and irregularities. Same study explore that, in the year 2012, due to petty corruption, households had to pay extra 21,955.60 crore (BDT). Corruption is not only a third-world phenomenon, it is undeniably more prevalent in authoritarian less developed countries, also democratic, western societies are not free of corruption (Wouter and Albert, 2009). While linking corruption and citizen economic capacity; corruption is found as the major cause of low citizen economic capacity for any country around the globe. For any nation corruption levels are unfavorable to development (Gould and Amaro-Reyes, 1983; United Nations, 1990). According to Kofi Annan, Former United Nations Secretary; Corruption hurts the poor disproportionately by diverting funds intended for development... and discouraging foreign investment and aid. This definition reveals that corruption has negative impact on poor and it hampers citizen economic capacity as it diverts fund and discourage foreign investment. So, for the improvement of citizen economic capacity, corruption control should be the number one agenda for any nation around the globe.

However, the relation between the corruption level and key parameters of economic performance... is largely qualitative (Davoodi, 2000; Hines, 1995; Huntington, 1968; Leff, 1964; Svensson, 2005; Tanzi et

al., 1992; Wei, 2000). Corruption has become progressively more important with the globalization of the international economic and political relations among countries, which has escorted various governmental and non-governmental organizations to search for adequate measures to quantify corruption (Kaufmann, et al., 2003; Knack & Keefer, 1995; Mauro, 1995; Svensson, 2005). However, a specific functional dependence between quantitative measures of corruption and citizen economic growth has not been established yet. Thus, an open question remains whether there is a general functional relation between corruption level and citizens economic capacity of different countries. So, the objective of the present research is to quantify the relationship between corruption and citizen economic capacity and to develop a global model.

Citizen Economic Capacity can be represented by Gross National Income (GNI) per capita; which represents how much one citizen of a nation earns in a year. According to the World Bank, GNI per capita (formerly GNP per capita) is the gross national income, converted to U.S. dollars using the World Bank Atlas method, divided by the midyear population. GNI is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad.

GNI, calculated in national currency, is usually converted to U.S. dollars at official exchange rates for comparisons across economies, although an alternative rate is used when the official exchange rate is judged to diverge by an exceptionally large margin from the rate actually applied in international transactions. To smooth fluctuations in prices and exchange rates, a special Atlas method of conversion is used by the World Bank. This research used the GNI per capita (2013), Atlas method of World Bank.

On the other hand, Corruption can be represented by Corruption Perception Index (CPI) score; prepared by Transparency International (TI). The CPI scores and ranks countries/territories based on how corrupt a country's public sector is perceived to be. It is a composite index, a combination of surveys and assessments of corruption, collected by a variety of reputable institutions. The CPI is the most widely used index of corruption worldwide. This research includes 2014 CPI scores of different countries for analysis. The 2014 corruption perceptions index measures the perceived levels of public sector corruption in 175 countries and territories.

The higher the CPI score means lower the corruption level. The upper limit of CPI score is 100 and lower limit is 0. This research will use the same upper and lower limit to analyze the level of corruption. 12 data sources were used to construct the Corruption Perceptions Index 2014, which are: African Development Bank Governance Ratings 2013;

Bertelsmann Foundation Sustainable Governance Indicators 2014; Bertelsmann Foundation Transformation Index 2014; Economist Intelligence Unit Country Risk Ratings 2014; Freedom House Nations in Transit 2013; Global Insight Country Risk Ratings 2014; IMD World Competitiveness Yearbook 2014; Political and Economic Risk Consultancy Asian Intelligence 2014; Political Risk Services International Country Risk Guide 2014; World Bank - Country Policy and Institutional Assessment 2013; World Economic Forum Executive Opinion Survey (EOS) 2014 and World Justice Project Rule of Law Index 2014

3. METHODOLOGY

To examine the objective, Null Hypothesis is set as H_0 = There is no relationship between Citizen Economic Capacity and Corruption. To represent Citizen Economic Capacity, different countries Gross National Income (GNI) per capita, of the year 2013, estimated by World Bank is chosen as proxy variable and to represent Corruption, Corruption Perception Index score (2014) is chosen as proxy.

This research paper will first test the null hypothesis (H_0) on the basis of the above mentioned two proxy variables by correlation test and then if the null hypothesis is rejected it will go for the model invention by regression analysis.

The invented model will apply on two case country; Bangladesh and Togo, to predict their GNI per capita according to the targeted decrease of corruption level. This study is conducted under five steps. In its first step, literature review is conducted to gather knowledge about theoretical relation between Citizen Economic Capacity and Corruption as well as to obtain Corruption Perception Index (CPI) Score (2014) and GNI of different countries (2013 estimation of World Bank). Due to the unavailability of per capita GNI data, this research includes 152 countries around the globe.

This research, put the null hypothesis as; H_0 = There is no relationship between Citizen Economic Capacity (GNI per capita) and Corruption (CPI score). To accept or reject the null hypothesis, two tailed Bivariate correlation test is conducted at 99% confident level, in its third step. To invent the model of Citizen Economic Capacity and Corruption, fourth step is conducted with Liner regression analysis. In its last stage, invented model is applied on two countries to predict GNI according to the targeted level of corruption level reduction. In this step, Bangladesh and Togo are chosen as two case countries. Detail methodology is outlined in the below table (Table-1).

TABLE 1 - SYNOPSIS OF THE METHODOLOGY

Steps	Purpose	Level of analysis
<u>Step-1:</u> Literature review	<ul style="list-style-type: none"> - To gather knowledge about theoretical relation between Citizen Economic Capacity and Corruption - To obtain Corruption Perception Index (CPI) Score 2014 - To obtain GNI per capita data 	<ul style="list-style-type: none"> - Synthesis the available literature - Preparing the CPI Score sheet - Preparing the GNI Score sheet - Hypothesis formulation: H₀= There is no relationship between Citizen Economic Capacity and Corruption H_A= There is a relation between Citizen Economic Capacity and Corruption
<u>Step-2:</u> Sampling	<ul style="list-style-type: none"> - To outline the sample framework 	<ul style="list-style-type: none"> - Checking the available data of two proxy variables of all countries - Only 152 countries are found which have both CPI scores and per capita GNI data - So, 152 countries are chosen as sample for this research
<u>Step-3:</u> Relation test	<ul style="list-style-type: none"> - To accept or reject the null hypothesis that is H₀= There is no relationship between Citizen Economic Capacity and Corruption 	<ul style="list-style-type: none"> - Two tailed Bivariate correlation test to observe the relation at 99% confident level
<u>Step-4:</u> Model Invention	<ul style="list-style-type: none"> - To invent the equation of Citizen Economic Capacity and Corruption 	<ul style="list-style-type: none"> - Liner regression analysis
<u>Step 5:</u> Implication of the Model	<ul style="list-style-type: none"> - To Predict the future citizens economic capacity (per capita GNI), if the Level of corruption reduces (CPI improves) 	<ul style="list-style-type: none"> - Apply the invented model on two case country to predict the per capita GNI, if the Level of corruption decreases (Bangladesh and Togo are chosen as two case countries)

Source: Prepared by the authors, 2015

4. MODEL INVENTION AND CALIBRATION

The CPI scores and per capita GNI data of the sample countries are given in the below table (Table-2)

TABLE 2 - CPI SCORES AND PER CAPITA GNI (US\$) OF THE SAMPLE COUNTRIES (N=152)

Country	CPI_2014	Per capita GNI_2013 US\$	Country	CPI_2014	Per capita GNI_2013 US\$
Afghanistan	12	690	Czech Rep.	51	18970
Albania	33	4510	Cyprus	63	25210
Algeria	36	5330	Denmark	92	61670
Angola	19	5170	Dominica	58	6930
Armenia	37	3800	Dominican Rep.	32	5770
Australia	80	65400	Eritrea	18	490
Austria	72	50390	Estonia	69	17780
Azerbaijan	29	7350	Ethiopia	33	470
Bahamas, The	71	21570	Finland	89	48820

Country	CPI_2014	Per capita GNI_2013 US\$	Country	CPI_2014	Per capita GNI_2013 US\$
Bahrain	49	19700	France	69	43520
Bangladesh	25	1010	Gabon	37	10650
Barbados	74	15080	Gambia, The	29	500
Belarus	31	6730	Georgia	52	3560
Belgium	76	46340	Germany	79	47250
Benin	39	790	Ghana	48	1770
Bhutan	65	2330	Greece	43	22690
Bolivia	35	2550	Guatemala	32	3340
Bosnia and Herzegovina	39	4780	Guinea	25	460
Botswana	63	7770	Guinea-Bissau	19	590
Brazil	43	11690	Guyana	30	3750
Bulgaria	43	7360	Haiti	19	810
Burkina Faso	38	750	Honduras	29	2180
Brandi	20	260	Hungary	54	13260
Cambodia	21	950	Iceland	79	46290
Cameroon	27	1290	India	38	1570
Canada	81	52210	Indonesia	34	3580
Central African Republic	24	320	Iran, Islamic Rep.	27	5780
Chad	22	1030	Iraq	16	6720
Chile	73	15230	Ireland	74	43090
China	36	6560	Israel	60	33930
Hong Kong SAR, China	74	38420	Italy	43	35620
Comoros	26	840	Jamaica	38	5220
Congo, Dem.Rep.	22	430	Japan	76	46330
Congo, Rep.	23	2590	Jordan	49	4950
Costa Rica	54	9550	Kazakhstan	29	11550
Croatia	48	13420	Kenya	25	1160
Cuba	46	5890	Kosovo	33	3940
Kyrgyz Rep.	27	1210	Sao Tome and Principe	42	1470
Latvia	55	15290	Saudi Arabia	49	26260
Lebanon	27	9870	Senegal	43	1050
Lesotho	49	1500	Serbia	41	6050
Lithuania	58	14900	Seychelles	55	13210
Luxembourg	82	69880	Sierra Leone	31	660
Macedonia, FYR	45	4870	Singapore	84	54040
Madagascar	28	440	Slovak Rep.	50	17810
Malawi	33	270	Slovenia	58	23220

Country	CPI_2014	Per capita GNI_2013 US\$	Country	CPI_2014	Per capita GNI_2013 US\$
Malaysia	52	10430	South Africa	44	7410
Mauritania	30	1060	South Sudan	15	950
Mauritius	54	9570	Spain	60	29940
Mali	32	670	Sri Lanka	38	3170
Malta	55	20980	Sudan	11	1550
Mongolia	39	3770	Suriname	36	9370
Montenegro	42	7250	Swaziland	43	2990
Morocco	39	3020	Sweden	87	61710
Mozambique	31	610	Switzerland	86	90680
Namibia	49	5870	Timor-Leste	28	3940
Nepal	29	730	Togo	29	530
Netherlands	83	51060	Trinidad and Tobago	38	15760
New Zealand	91	35760	Tunisia	40	4200
Nicaragua	28	1790	Turkey	45	10970
Niger	35	400	Turkmenistan	17	6880
Nigeria	27	2710	Uganda	26	600
Norway	86	102700	Ukraine	26	3960
Oman	45	25150	United Arab Emirates	70	38360
Pakistan	29	1360	United Kingdom	78	41680
Panama	37	10700	United States	74	53470
Papua New Guinea	25	2020	Uruguay	73	15180
Paraguay	24	4010	Uzbekistan	18	1880
Peru	38	6270	Venezuela, RB	19	12550
Philippines	38	3270	Vietnam	31	1740
Poland	61	13240	Yemen, Rep.	19	1330
Portugal	63	21270	Zambia	38	1810
Puerto Rico	63	19210	Zimbabwe	21	860
Qatar	69	86790	South Korea	55	25920
Romania	43	9050	Rwanda	49	630
Russian Fed.	27	13850	Samoa	52	3970

Source: Prepared by authors, 2015

To ascertain the relationship between Citizen Economic Capacity and Level of Corruption (CPI Score 2014) a two tailed correlation test is conducted with 99% confidence level. The null hypothesis is set as H_0 = There is no relationship between Citizen Economic Capacity and Level of Corruption.

TABLE-3 - BIVARIATE CORRELATIONS TEST

	Level of Corruption (CPI_2014)	Per Capita GNI in US Dollar (World Bank 2013)
Level of Corruption (CPI_2014)	Pearson Correlation	1
	Sig. (2-tailed)	.803**
	N	152
Per Capita GNI in US Dollar (World Bank 2013)	Pearson Correlation	.803**
	Sig. (2-tailed)	1
	N	152

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Correlation result in SPSS conducted by authors, 2015

In the correlation test the significant value is 0.000 which is less than the $p=0.01$ value and the Pearson Correlation value (.803) is bigger enough to assume that there is a relation between the two variables; Citizen Economic Capacity and Level of Corruption. So, with 99% confident level we can reject the null hypothesis (H_0) and accept the alternative hypothesis: H_A = There is a relation between Citizen Economic Capacity and Level of Corruption.

Now, we know that there is a correlation among these two variables but we don't know the nature, extent and dimension of the relationship. To ascertain the extent and dimension between Citizen Economic Capacity and Corruption, a liner regression analysis is conducted.

The equation of liner regression is:

$$Y = BX + A \dots\dots\dots(i)$$

Where, Y=Dependent Variable, X=Independent variable, B=Coefficient and A= Constant value

In this study, Level of Corruption is causal in nature and Citizen Economic Capacity is assuming as its effect. So, the Dependent Variable Y is Citizen Economic Capacity and independent variable X is Level of Corruption. Now we can put the X and Y values in the equation (i) then we will find the equation like below:

$$\text{Citizen Economic Capacity (Per Capita GNI in US\$)} = B * \text{Level of Corruption} + A \dots\dots\dots(ii)$$

Now to obtain the value of B and A, Liner regression is conducted and the results are shown in the below tables and figures (Table-4&5; Figure-1&2).

TABLE 4 - LINER REGRESSION TEST-MODEL SUMMARY^B

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.803 ^a	.645	.643	11907.63408

a. Predictors: (Constant), CPI_2014

b. Dependent Variable: GNI in US Dollar World Bank 2013

Source: Regression result in SPSS conducted by authors, 2015

TABLE 5 - LINER REGRESSION TEST-COEFFICIENTS^A

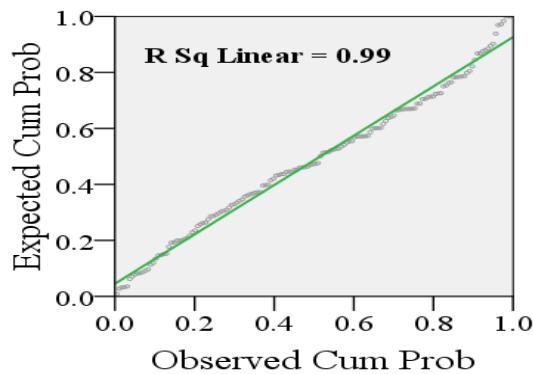
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	A= -20967.022	2360.212		-8.884	.000
	Level of Corruption (CPI_2014)	B= 797.140	48.252	.803	16.520	P=.000

a. Dependent Variable: GNI per capita in US Dollar (World Bank 2013)

Source: Regression result in SPSS conducted by authors, 2015

Figure-1: Normal P-P Plot of Regression Standardized Residual

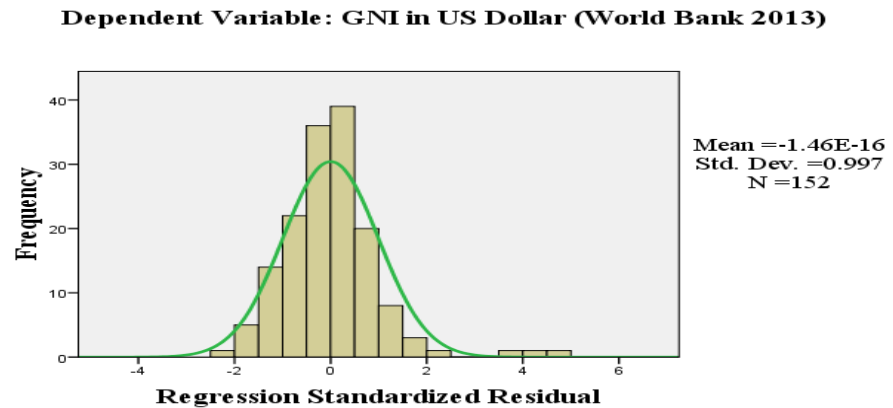
Dependent Variable: GNI in US Dollar (World Bank 2013)



Source - P-P Plot in SPSS conducted by authors, 2015

In figure-1, R square denotes that there is a linear relation among these two variables and the proportion of variance of GNI is 0.99. The R Sq. value is more or less closer to 1 which reveals that, the distribution of observed residuals matches up nicely with the distribution we would expect under normality. The residuals fall along a straight line. There are no variables which are much deviated from the normality.

Figure-2: Histogram



Source - Histogram in SPSS conducted by authors, 2015

As can be seen from the above plot (Figure-2), the standardized residuals are generally what can be labeled “well-behaved”. They do not exhibit any serious departure from normality. The standard deviation is also normal (0.997).

Now putting the value of A and B from Table-5 in the equation (ii); the equation looks like below:

$$\text{Per Capita GNI of a country (in US\$)} = (797 * \text{Level of Corruption of that country}) - 20967 \dots\dots\dots(iii) \text{ [Model-1]}$$

So, equation (iii) is the first invented model on Citizen Economic Capacity and Level of Corruption.

“Model-1” tells that how much Citizen Economic Capacity (Per capita GNI in US\$) will be increased if the level of corruption decreases (level of corruption decreases means higher value of CPI). For instance, if the level of corruption of any country is 30, the per capita GNI will be $(797 * 30) - 20967 = 2943$ and if the level of corruption decrease one unit, that is one unit improvement of CPI per capita GNI will be $(797 * 31) - 20967 = 3740$ =Hence, one unit decrease of corruption leads $(3740 - 2943 = 797)$ 797 US\$ improvement of per capita GNI.

“Model-1” can forecast the increase of per capita GNI in respect of improvement of CPI score (reduction of corruption). But the debate is that, if USA and Bangladesh reduce same level of corruption then according to this model their predicted improvement of per capita GNI will be same. But it is not realistic. Obviously, there are some other factors which also lead the improvement of per capita GNI of any country such as; social context, educational status, urbanization rate, political context etc. So, to include the values of other factors in the model, this research now going to develop another model for prediction purpose.

According to the above discussion, this research discovers that one unit reduction of corruption (one unit improvement of CPI score) leads 797 US\$ improvement of per capita GNI of a country. So, adding this unit change with present per capita GNI of a country, future per capita GNI of that country can be forecasted according to the targeted level of corruption reduction. The new model now looks below:

Predicted per capita GNI of a country (US\$)=Present per capita GNI of that country+797*Targeted level of CPI improvement¹ (iv) [Model-2]

“Model-2” is more realistic, as it will not give the same value for USA and Bangladesh. It will give different predicted values for different countries. It also considers other causal factors involvement in the model as it considers the present per capita GNI in the equation. Present per capita GNI is the outcome of all factors of a country. So, Model-2 considers all causal factors. Model-2 can predict the future per capita GNI improvement of any country according to the targeted level of CPI improvement (corruption reduction); assuming that all other causal factors will remain constant.

5. IMPLICATION OF THE MODEL

“Model-2” is applicable for any country around the globe. For the experiment purpose, Bangladesh and Togo are chosen as two case countries to apply the invented model and to predict the future per capita GNI according to the targeted Level of Corruption reduction.

Case Country-1: Bangladesh

Present per capita GNI of Bangladesh is 1010 US\$ (Tab-2) and present CPI score is 25 (Tab-2). If the country targeted to achieve 30 CPI score, then, the country actually wants to reduce 4 unit of corruption (Targeted CPI score 30-Present CPI score 26=4). Now, according to “Model-2” the predicted per capita GNI of Bangladesh will be: $1010 + (797 * 4) = 4198$ US\$. Figure below predicts the per capita GNI of Bangladesh according to different targeted level of CPI.

¹Targeted level of CPI improvement (Targeted level of corruption reduction)= Targeted CPI score-Present CPI score

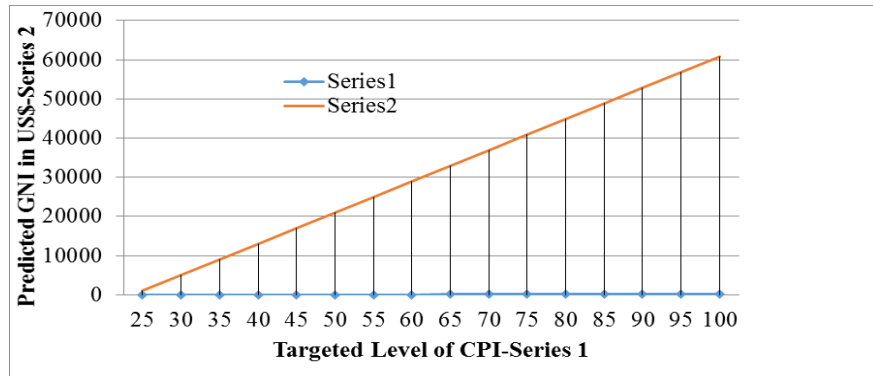


FIGURE 3 - PREDICTED PER CAPITA GNI OF BANGLADESH ACCORDING TO DIFFERENT TARGETED LEVEL OF CPI
Source: Prepared by the author applying "Model-2", 2015

According to, Figure-3, which is prepared applying "Model-2", the per capita GNI of Bangladesh will be 20000 US\$ if the country can achieve 50 CPI Score. If the country can achieve 75 CPI score, the per capita GNI will be around 40000 US\$. Thus, if the country can achieve 100 CPI score (zero corruption) the per capita GNI of Bangladesh will be 60000 US\$.

Case Country-2: Togo

Present per capita GNI of Togo is 530 US\$ (tab-2) and present CPI score is 29 (Tab-2). If the country targeted to achieve 40 level of CPI, then, the country actually wants to reduce 11 unit of corruption (Targeted CPI score 40-Present CPI score 29=11). Now, according to the "Model-2" the predicted per capita GNI of Togo will be: $530 + (797 * 11) = 9297$ US\$. Figure below predicts the GNI of Togo according to different targeted level of CPI score.

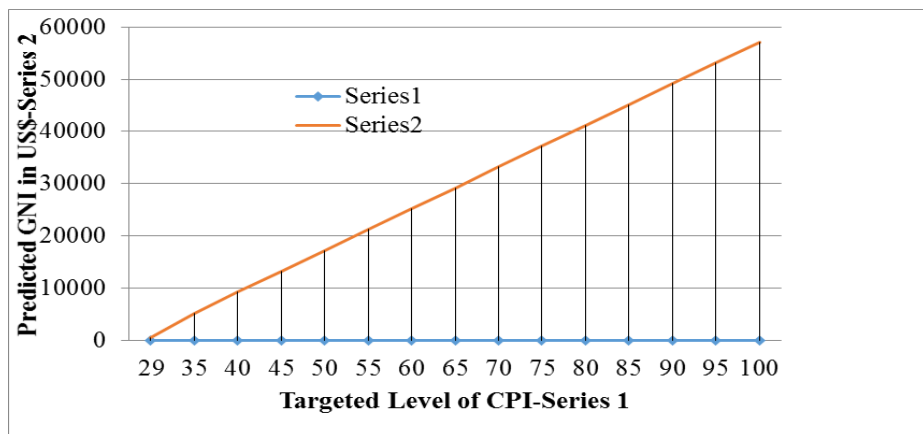


FIGURE 4 - PREDICTED PER CAPITA GNI OF TOGO ACCORDING TO DIFFERENT TARGETED LEVEL OF CPI SCORE.
Source: Prepared by authors applying "Model-2", 2015

According to, Figure-4, which is prepared applying "Model-2", the per capita GNI of Togo will be just above 20,000 US\$, if the country can achieve 55 CPI Score. If the country can achieve 80 CPI score the per capita GNI will be above 40,000 US\$.

Model-2 is useful for any country around the globe and it is hoped that each and every country will use this model for strategic decision making according to the targeted level of per capita GNI improvement.

REFERENCES:

- Eric, C. et al. (2003). Corruption and Poverty: A review of recent literature, Management Systems International, Washington, DC, USA.
- Web: <http://www.eldis.org/vfile/upload/1/document/0708/doc14285.pdf>
- Gould, David J., and Amaro-Reyes, Jose A.(1983), The Effects of Corruption on Administrative Performance, World Bank Staff Working Paper No. 580, Washington, DC: The World Bank, 1983.
- Hines, J. (1995). Forbidden Payment: Foreign Bribery and American Business After 1977, NBER Working Paper
- Huntington, S.P. (1968). Political Order in Changing Societies (Yale University Press, New Haven
- Kaufmann, D. et al. (2003). Governance Matters III: Governance Indicators for 1996–2002, World Bank Policy Research Working Paper
- Knack S., Keefer, P. (1995). Economics and Politics, p- 7, 207
- Leff, N.H. (1964). American Behavioral Scientist pp-82, 337
- Mauro, P. (1995). Quarterly Journal of Economics, p-110, 681
- Stevenson, M. (2003). UN Countries Reveal Costs of Corruption. Global Policy Forum (<http://www.globalpolicy.org>)
- Svensson, J. (2005). Economic Perspectives, p-19
- Tanzi, V., Davoodi, H.R. (2000). Corruption, Growth, and Public Finance, Working Paper of the International Monetary Fund, Fiscal Affairs Department
- United Nations. (1990). Corruption in Government. New York: United Nations.
- Wei, S.J. (2000). The Review of Economics and Statistics, p- 82
- Wheeler, D., Mody, J. A. (1992). International Economics, p- 33, 57
- Wouter, E., Albert, V. (2009). Institutions and the Relation between Corruption and Economic Growth, Nijmegen Center for Economics (NiCE), Institute for Management Research, Radboud University, Nijmegen
- <http://www.rassweb.com/details-jppg/>