

## The Impact of Corruption on the Development of the Quality of Human Life in Southeast Asia

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### Abstract

*This study aims to conduct an empirical analysis related to the impact of corruption on a country's economy in enhancing the development of the quality of human life in Southeast Asia in the 2012-2018 period. The model used in this study is panel data (pooled data) that combines cross-section data and time series. Corruption in this study is illustrated by the Corruption Perception Index (CPI) value, which means that the higher the level of corruption, the lower the CPI value, and the lower the level of corruption, the higher the CPI value. The results showed that the Corruption Perception Index (CPI) had a positive and significant effect on the development of the quality of human life both directly and through economic conditions. Thus the lower corruption level in a country, the higher the development of the quality of human life. Therefore, it needs more effort to improve the economy and efforts to reduce the number of corruption so that human development in Southeast Asia.*

### Keywords

corruption; HDI; economic; GNI



### I. Introduction

Southeast Asia is an area on the southeastern continent of Asia. This area includes Indochina and the Malay Peninsula and several surrounding islands. Economic conditions in Southeast Asia have not been fully good, it can be seen from World Bank data related to world economic classification. In Southeast Asia, only two countries are classified as High Income, two are classified as Upper-middle income, and seven are classified as Lower-middle income based on GNI per capita (Atlas method).

In terms of developing the quality of human life in Southeast Asia according to the United Nations Development Program (UNDP) data, namely Human Development Index (HDI), only three countries in Southeast Asia are in the Very High category, three countries are in the high category and five countries are in the medium category.

In addition to economic problems and the development of the quality of human life, the problem of corruption is also still a major problem in Southeast Asia. According to data from Transparency International, which is the Data Corruption Perception Index (CPI). From the CPI data, it is known that only one country in Southeast Asia has a high CPI score, thus other countries in Southeast Asia are still far from countries that are clean from corruption.

Transparency International (2020) says corruption erodes trust, weakens democracy, impedes economic development, and worsens inequality, poverty, social division, and environmental crises. Subandoro and Amir (2017) state that corruption and Government Expenditure affect human development. So that in addition to increasing government spending, efforts to reduce the number of corruption are needed in increasing human development in a country. Alfada (2019) says corruption hampers the economic development, research results from Mauro (1995), Guillaumemeeon & Sekkat (2005),

Nawatmi (2014), Dzhumashev (2014), also show corruption affects the economy of a country.

Based on these conditions, this study aims to conduct an empirical analysis to determine the impact of corruption on a country's economy in improving the development of the quality of human life in Southeast Asia in the 2012-2018 time period. The results of this study are expected to provide useful input to the government as a policymaker in its efforts to improve the quality of human life.

## II. Review of Literature

### 2.1 Economic Classification

The World Bank classifies the world economy into four groups namely High income, Upper-middle income, Lower-middle income, and Low income. The classification is based on Gross National Income (GNI) per capita (current US \$) which is calculated using the Atlas Method with the respective value limits as follows.

**Table 1.** World economic calcifications based on World Bank data

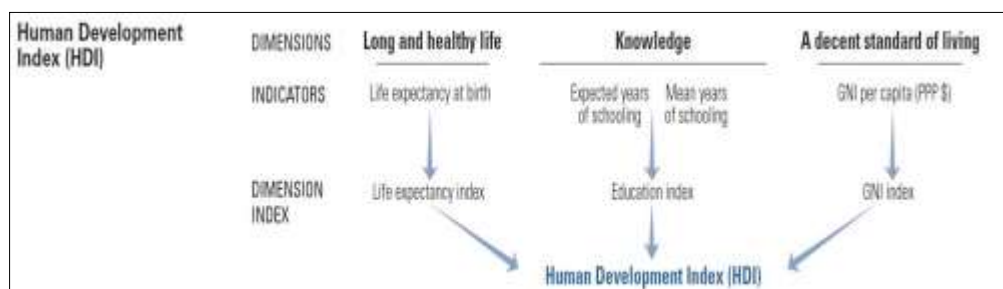
No	Classification	GNI per capita (current US\$)
1	Low income (L)	$\leq 1,025$
2	Lower-middle income (LM)	1,026-3,995
3	Upper-middle income (UM)	3,996-12,375
4	High income (H)	$> 12,375$

*Source: World Bank, 2020*

Income grouping uses GNI per capita (in US dollars, converted from local currencies using the Atlas method) because countries follow the same methodology used by the World Bank when determining operational lending policy. Although it is understood that GNI per capita does not fully encapsulate a country's level of development or measure welfare, per capita GNI has proven to be a useful and easily available indicator that correlates closely with other non-financial measures of quality of life, such as life expectancy at birth, mortality children, and school enrollment rates.

### 2.2 Human Development Index (HDI)

UNDP measured human development namely the Human Development Index (HDI) in the form of a summary measure of average achievement in the main dimensions of human development related to a long and healthy life, extensive knowledge, and decent living standards. HDI can also be used to question national policy choices, how countries with the same level of GNI per capita can end up with different human development outcomes. The following is an illustration of the HDI dimension.



**Figure 1.** Dimensions of the Human Development Index (HDI)

**Source:** UNDP, 2020

## 2.3 Corruption

Corruption is a specific criminal act which is regulated outside of the Criminal Code, Corruption is a criminal act which involves bribery manipulation and acts against the law that are detrimental or can harm the country's finances or the country's economy, detrimental to the welfare or interests of the people / general. Acts that are detrimental to the country's finances or economy are corruption in the material field, while corruption in the political field can be realized in the form of manipulating the vote by bribery, coercion intimidation and or interference that affects the freedom of choice to vote-commercialize in the legislative body or in administrative decisions in the field of implementation government. (Zulyadi, 2020).

There are 2 legal subjects in a criminal act of corruption, namely: (1) a person, that is, everyone means that the subject is a suspect of corruption. If you pay attention to the subject of corruption in Article 1 UUPTPK includes every person, civil servant, state administrators, and corporations (legal entities and non-legal entities). The purpose of every person in the UUPTPK is to include anyone, whether his position is a civil servant or a state official, but the element of each person defined in Article 1 number 3 only determines for individuals or corporations. (2) Corporations as Actors and those who can be held liable for criminal acts of corruption committed by their management (Purba and Syahrin 2019).

Transparency International defines corruption as an abuse of power entrusted for personal gain. Aidt (2003) states that corruption is a phenomenon that is difficult to define precisely and comprehensively. This is due to differences in judgment/perceptions of corruption that exist in each community group. Transparency International conducts an assessment of corruption in a country in the form of Corruption Perception Index (CPI) starting from Score 0 which means very corrupt and score 100 which means very clean.

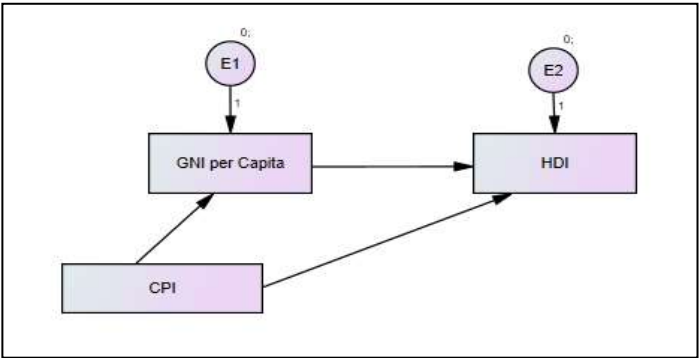
Regarding the impact of corruption on the economy some experts are trying to research it. In this study there are two opinions of experts who are opposing each other, those who support the Grease the Wheel Hypothesis (GWH) and those who support the Sand the wheel Hypothesis (SWH). GWH states that corruption can function as a lubricant (oil) for the economy or can have a positive impact on the economy while SWH on the contrary, corruption harms the economy.

From the GWH and SWH debates, many of the results of previous studies agree with SWH that corruption is bad for the economy. Among them Mauro (1995), Guillaumemeon & Sekkat (2005), Nawatmi (2014), Dzhumashev (2014), Alfada (2019). Subandoro and Amir (2018) stated that corruption affects human development and efforts to reduce the number of corruption are very necessary for increasing human development in a country. Shleifer and Vishny (1993), Mauro (1998) states that corruption creates a

misallocation of resources. Corruption in the form of embezzlement, bribery, and extortion can cause poor quality infrastructure in a corrupt country. Even Mauro (1998) states that corruption can reduce government spending in the education sector.

### III. Research Methods

The model used in this study is to use panel data (pooled data) that combines cross-section data and time series. The variable used in this study is the CPI as an independent variable obtained from International Transparency Data, GNI per capita (current US \$) as a moderating variable obtained from the World Bank which is calculated using the Atlas Method, and HDI as an independent variable obtained from UNDP. The relationship between variables using the Path Analysis Model (Path Analysis) as follows.



**Figure 2.** Relationships between Variables

The two regression equations and correlations in Figure 2 can be written in the form of an equation as follows:

$$Y^{1/3} = \alpha_0 + \alpha_1 X + \varepsilon \dots\dots\dots(1)$$

$$Z = \beta_0 + \beta_1 X + \beta_2 Y^{1/3} + \varepsilon \dots\dots\dots(2)$$

Where:

i = data cross section

t = time series data

X = Corruption Perception Index (CPI)

Y = Gross National Income (GNI) per capita (current US \$)

Z = Human Development Index (HDI)

$\varepsilon$  = disturbance error

Hypothesis:

1. Direct Effects (Direct Effect)
  - a. CPI has a positive and significant effect on the development of the quality of human life (HDI) in Southeast Asia.
  - b. GNI per Capita has a positive and significant effect on the development of the quality of human life (HDI) in Southeast Asia.
  - c. CPI has a positive and significant effect on GNI per capita in Southeast Asia.
2. Indirect effect (Indirect Effect)
 

CPI indirectly has a positive and significant effect on the development of the quality of human life (HDI) through GNI per Capita in Southeast Asia

## IV. Results and Discussion

### 4.1 General Description

In 2018 economic data, quality of life development, and corruption in Southeast Asia are as follows.

**Table 2.** Economic classification, HDI, and CPI in Southeast Asia in 2018

No	Country	Economic Classification	GNI per Capita (Current US\$)	HDI (0-1)	CPI (0-100)
1	Singapore	High income	58.770,00	0,935	85
2	Brunei Darussalam	High income	29.660,00	0,845	63
3	Malaysia	Upper-middle income	10.590,00	0,804	47
4	Thailand	Upper-middle income	6.610,00	0,765	36
5	Indonesia	Lower-middle income	3.840,00	0,707	38
6	Philippines	Lower-middle income	3.830,00	0,712	36
7	Lao PDR	Lower-middle income	2.450,00	0,604	29
8	Vietnam	Lower-middle income	2.360,00	0,693	33
9	Timor-Leste	Lower-middle income	1.810,00	0,626	35
10	Cambodia	Lower-middle income	1.390,00	0,581	20
11	Myanmar	Lower-middle income	1.310,00	0,584	29

*Source: World Bank, UNDP and Transparency International, 2019*

From these data, it is known that a country with a high CPI score has high HDI and GNI values. Vice versa for a country with a low CPI score has low HDI and GNI values as well.

### 4.2 Statistic Analysis

#### a. Testing the Hypothesis of Direct Effect

Testing is done on 3 proposed hypotheses. Hypothesis testing is done by using the t-Value with a significance level of 0.05. The t-value in the AMOS 23 program is the Critical Ratio (C.R.) value in Regression Weights: (Group number 1 - Default model). If the Critical Ratio (C.R.)  $\geq 1.967$  or the probability value (P)  $\leq 0.05$  then H0 is rejected (research hypothesis is accepted). Regression Weights Value: (Group number 1 - Default model) results of processing by AMOS 23 in the following table:

**Table 3.** Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
GNI per Capita	<---	CPI	,473	,016	28,789	***	
HDI	<---	GNI per Capita	,005	,002	3,005	,003	
HDI	<---	CPI	,004	,001	4,479	***	

**Table 4.** Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
GNI per Capita	,916
HDI	,896

Square multiple correlations show the effective contribution of the dependent variable to the independent variable. From Table 3 above, it is known that the effective contribution of Corruption (CPI) to GNI per Capita is 0.916 (91.60%), while the effective contribution of Corruption (CPI) and GNI per Capita to the Human Development Index (HDI) is (89, 60%). The results of testing the entire hypothesis proposed in this study are as follows.

1. Table 3. Shows that the t-Value or C.R. of  $4.479 \geq 1.967$  or a P-value of  $*** \leq 0.05$ , then accept H1, so it can be concluded that CPI directly has a positive and significant effect on the Human Development Index (HDI) in Southeast Asia. Thus the lower the level of corruption in a country, the development of the quality of human life will be high. Conversely, the higher the level of corruption in a country, the lower the level of development of the quality of human life.
2. Hypothesis 2, Table 3. Shows that the t-Value or C.R. of  $3.005 \geq 1.967$  or P-value of  $0.003 \leq 0.05$ , then accept H1, so it can be concluded that GNI per capita has a positive and significant effect on HDI in Southeast Asia. This means that the better the economic condition of a country which is reflected by the amount of GNI per capita, the higher the development of the quality of human life.
3. Hypothesis 3, Table 3. Shows that the t-Value or C.R. of  $28,789 \geq 1,967$  or a P-value of  $*** \leq 0.05$ , then accept H1, so it can be concluded that the CPI has a positive and significant effect on increasing GNI per capita in Southeast Asia. Thus the higher the CPI value which indicates the low level of corruption in a country, the country has a high GNI per Capita value so that it reflects well the economic conditions.

#### b. Hypothesis Testing Indirect Effect

Sobel test is a test to find out whether a relationship through a mediating variable is significantly capable as a mediator in that relationship. In this research, corruption indirectly has a significant effect on the development of the quality of human life (HDI) through GNI per Capita in Southeast Asia. The results are as follows.

$$Z = \frac{ab}{\sqrt{(b^2 SE_a^2 + (a^2 SE_b^2))}}$$

$$Z = \frac{0,473 \times 0,005}{\sqrt{(0,005^2 \times 0,016^2 + (0,473^2 \times 0,02^2)}}$$

$$Z = 2,491$$

From the calculation of the Sobel test above, z value  $2.491 > 1.96$  with a significance level of 5%. It proves that GNI per capita can mediate the relationship of the influence of CPI on the development of quality of human life (HDI).



## V. Conclusion

This study aims to conduct an empirical analysis to determine the impact of corruption on a country's economy in enhancing human development in Southeast Asia in the 2012-2018 time period. This study used a moderation regression model to analyze panel data in eleven countries in Southeast Asia in 2012-2018. The development of the quality of human life is proxied by the HDI score issued by UNDP, the economy proxied by GNI per Capita published by the World Bank and corruption is proxied by the CPI score issued by Transparency International. The results showed that the CPI had a positive and significant effect on the development of the quality of human life both directly and through economic conditions (GNI per Capita). In addition, economic improvement has a positive and significant effect on human development.

To improve the development of the quality of human life, a country's economic progress must be obtained first. It is not easy if a country still has a lot of corruption, therefore it is suggested a commitment of the government in dealing with the problem of corruption in a country so that economic activity can run well. Thus the development of the quality of human life can improve even better than the current conditions.

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