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# RESEARCH ARTICLE

# A Cross-Sectional Data Analysis on the Different Economic Determinants of Corruption in the Asia-Pacific Region in the Year 2018

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#### **ABSTRACT**

Corruption is a prevalent issue that leads to different detrimental effects on a country's society, economy, and overall image. Given that this problem hinders a nation's ability to develop and grow, the study aims to determine the different Economic Determinants of Corruption in the Asia-Pacific region in the year 2018, with the specified dependent variable being the Corruption Perceptions Index and the independent variables being the Consumer Price Index, Index of Economic Freedom, GDP Growth rate, Inflation rate, and Wage. Furthermore, the paper will also study the relationship of these variables with one another among the 30 different Asia-Pacific countries to be included in this research. In order to obtain the results required, the Ordinary Least Squares or otherwise known as the OLS method, was utilized in the regression of the data. It was found that the Index of Economic Freedom and GDP Growth rate both resulted in having a significant relationship with the constant, corruption. However, the Consumer Price Index, Inflation rate, and Wage do not possess this and were found to be insignificant in regards to corruption. With all that being said, it may be concluded that corruption, despite being a difficult matter to address, maybe alleviated once the different economic determinants affecting this issue can be identified, such as the Index of Economic Freedom, and the GDP Growth rate.

# **KEYWORDS**

Corruption, Corruption Perceptions Index, Consumer Price Index, Index of Economic Freedom, GDP Growth rate, Inflation rate, Wage

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#### 1. Introduction

## 1.1 Background of the Study

Corruption is generally identified to be the deviation of decision-making of individuals with public power in exchange for private gain (Corruptie.org). It is a recurring problem that is present in many countries despite how well developed they might be. As a result of numerous corrupt government systems that exist in various nations, it is regarded to be one of the most prevalent issues that greatly affect the world at present. Nonetheless, it is important to take into consideration that the severity of this problem heavily varies on the numerous factors surrounding it per country. Transparency International possesses an index known as the Corruption Perceptions Index (CPI) which measures the intensity of a nation's perceived levels of corruption through ranking countries based on a score of 0; implying severe corruption to 100; implying little to no corruption. Furthermore, it is crucial to note that during the year 2018, more than 50% of the countries ranked by the CPI were scored below 50, indicating that the majority of nations in the world are undoubtedly experiencing corruption.

From a global perspective, one of the key concerns that needs to be addressed is corruption. However, in order for this to become feasible, it is important to first determine the different variables that contribute to a country's corruption. Many studies have indicated that a nation's economic conditions play a major role in the prevalence of corruption. According to a study by Pande R. (2012), in Ukraine, consumption levels are similar for both public employees and their private sector counterparts, despite the public laborers earning about 30% lower. The reason why these employees are paid lower by the government is in order to balance

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the money they gain in bribes. As a result, the economic efficiency losses, and it may indicate that corruption could be associated with economic growth. According to Ahmad et al, (2012), corruption does hinder economic development through specific channels such as reduced domestic and foreign investments, inefficient allocation of government expenditure, and manipulation through bribe-taking opportunities. Furthermore, in comparison to developing countries and well-developed countries, corruption is considered to be more evident in nations that are currently developing. Moreover, the evidence from their paper suggests that corruption exists not only on the microeconomic level, but also from the macroeconomic perspective. It was stated that the Gross Domestic Product was affected by corruption due to foreign investments being hindered. As a result, these factors have a detrimental impact on the overall image of the country and obstruct development and growth opportunities.

Corruption has long been seen to be quite difficult to address. However, in order to discover a desirable solution to this issue, the study will investigate the various correlations between different economic variables towards corruption. Analyzing a set of countries with more or less comparable economic systems is an ideal method to arrive at a solution to the aforementioned problem. The study will concentrate on a limited number of countries, namely those in the Asia-Pacific since the majority of Asia-Pacific countries are considered to be developing countries, where the predominance of corruption is regarded to be more rampant and prominent. Given the data provided by Transparency International in their 2018 Corruption Perceptions Index, it was found that a majority of countries possess a score of less than 50, which indicates that they are deemed to be corrupt. Furthermore, the score of the Asia-Pacific region is fairly low, bearing an average of only 44, which indicates that they are perceived to be quite corrupt in comparison to the other regions in the index.

With all that being said, given the standing of the Asia-Pacific region, the study aims to determine, examine and understand the causes and effects of corruption on these nations' economies, as well as to identify the relationship between the Corruption Perceptions Index in regards to different economic determinants in the region of Asia-Pacific. Furthermore, the study intends to better understand each country's perceived level of corruption in order to identify solutions to this widespread issue and to assist other countries in doing so.

#### 1.2 Statement of the Problem

According to the Corruption Perceptions Index, the average score of the Asia-Pacific region stands at under 50, which indicates that it is leaning towards corruption. It is without a doubt that there are a variety of reasons behind this such as the current economic status of the country. The different variables that contribute to corruption in the Asia-Pacific region may more or less have common factors amongst the different nations in this region given that they possess similar economic structures. Corruption is indeed a prevalent issue that needs to be addressed. Therefore, this paper aims to answer the following main question:

"What are the different economic determinants that affect the Corruption Perceptions Index of the Asia-Pacific region and how is it possible to further improve the score of their Corruption Perceptions Index?"

# 1.3 Objectives

The study aims to determine the different Economic Determinants of Corruption in the Asia-Pacific region in the year of 2018, with the specified dependent variable being the Corruption Perceptions Index and the independent variables being the Consumer Price Index, Index of Economic Freedom, GDP Growth rate, Inflation rate, and Wage. Therefore, through this study, the researchers would be able to answer the following questions:

- 1. What economic determinants are considered to be statistically significant to the Corruption Perceptions Index?
- 2. What are the effects of the different independent variables on the Corruption Perceptions Index?
- 3. What suitable recommendations could be given in order to alleviate the issue of the prevalence of corruption in the Asia-Pacific region?

#### 1.4 Formulation of the Hypothesis

Null Hypothesis (Ho1): The consumer price index did not significantly affect corruption in the Asia-Pacific region.

Alternative Hypothesis (Ha1): The consumer price index significantly affects corruption in the Asia-Pacific region.

Null Hypothesis (Ho2): The index of economic freedom did not significantly affect corruption in the Asia-Pacific region.

Alternative Hypothesis (Ha2): The index of economic freedom significantly affects corruption in the Asia-Pacific region.

Null Hypothesis (Ho3): The GDP growth rate did not significantly affect corruption in the Asia-Pacific region.

Alternative Hypothesis (Ha3): The GDP growth rate significantly affects corruption in the Asia-Pacific region.

Null Hypothesis (Ho4): The inflation rate did not significantly affect corruption in the Asia-Pacific region.

Alternative Hypothesis (Ha4): The inflation rate significantly affects corruption in the Asia-Pacific region.

Null Hypothesis (Ho5): The wage did not significantly affect corruption in the Asia-Pacific region.

Alternative Hypothesis (Ha5): The wage significantly affects corruption in the Asia-Pacific region.

#### 1.5 Scope and Limitations

Given that the data that will be utilized in the study is composed of different variables that were recorded in a single year, a cross-sectional analysis will be implemented for this research. Moreover, the reason why the year 2018 will be used is due to how the study would desire to solely focus on a year wherein the COVID - 19 pandemic was not a given economic factor contributing towards a country's corruption. It was without a doubt that corruption was already quite prevalent throughout the world prior to the COVID - 19 pandemic and considering that, at present, many nations are already finding their own solutions for the ongoing crisis that the virus had caused; the resolution for their corruption is yet to be identified. Furthermore, 2018 is the year to be used, since this year would aid in providing the researchers with the utmost accurate and lenient data that the Asia-Pacific region, among others, have provided on their respective database.

The study will focus on the corruption perceptions of the different countries under the Asia-Pacific region. Analyzing a region wherein the majority of countries under it are considered to be developing, where the predominance of corruption is regarded to be more rampant and prominent is an ideal method to provide a solution to the main issue of the study. Moreover, the level of intensity of a country's corruption will be measured through the report given by Transparency International, an organization that assesses the corruption level of a country within a year. The Corruption Perceptions Index will be the dependent variable of the study, the data for which was taken from the report of Transparency International of the year 2018. The Corruption Perceptions Index (CPI) is identified to be an index ranking countries based on their perceived levels of corruption from a score of 0-100. There are also 5 independent variables that are to be used and tested in the study, specifically, (1) Consumer Price Index (2) Index of Economic Freedom, (3) GDP Growth rate, (4) Inflation rate, and (5) Wage. All of which are data that are gathered, collected, and analyzed through the selected countries of the study.

# 1.6 Significance of the Study

Corruption in different sectors of a nation can have a variety of negative consequences for its country. In addition, it leads to public uncertainty towards their government, uneconomical allocation of government expenditure and disparities among sectors. The issue of corruption could be alleviated by determining major economic variables that have an impact on it, such as the consumer price index, the index of economic freedom, GDP growth rate, inflation rate, and wage as well as implementing suitable economic policies that may benefit it. Promoting this would also help the Asia-Pacific region achieve better national development and aid towards other countries by setting an example in the fight against corruption in their own nation. The study can be generally used as a resource towards finding possible solutions to corruption. Furthermore, the paper will be useful to policy makers with regard to developing creditable policies that will aid in the stabilization of the economy and the alleviation of corruption.

In addition, the study possesses an objective with respect to raising awareness and endowing knowledge regarding corruption, informing what detrimental effects it may lead to, and to understand the different economic factors that constitute towards this problem.

- Government The study benefits the government since it is able to identify different determinants of corruption. This will aid the government through allowing them to achieve better economical and national development by alleviating this prevalent problem.
- Countries The study will be beneficial for countries in the Asia-Pacific region as it would provide insight on what are the
  possible solutions to corruption. The study will suggest recommendations in regards to creating policies that will aid in
  the combat against this issue.
- Information The study will benefit the different citizens of the Asia-Pacific region as the study provides knowledge and aids in raising awareness regarding corruption, the economic factors that contribute to it, and the negative effects that it leads to.
- Researchers The study benefits future researchers as it contributes insight and information regarding corruption. It will also serve as a foundation for their future improvements and recommendations regarding this issue.

#### 2. Related Literature

#### 2.1.1 Corruption

**Transparency International (2018)**, an organization whose main endeavor is to provide assistance in alleviating the prevalent issue of corruption, has utilized the Corruption Perceptions Index or otherwise known as the CPI, in order to identify the intensity of corruption per nation. In order to determine this, the CPI makes use of a ranking system that analyzes 180 countries based on their perceived levels of government corruption through ranking them based on a score of 0-100, with 0 being severely corrupt and 100 being little to no corruption. Transparency International states that various sources from different organizations such as the World Bank were utilized in order to determine what the perceived level of corruption per country was. The figure below shows the data on the 2018 Corruption Perceptions Index:

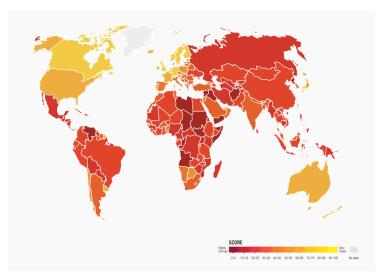


Figure 1. World map of the 2018 Corruption Perceptions Index taken from Transparency International (2021).

According to Transparency International in their 2018 Corruption Perceptions Index, they indicated that "most regions / countries are failing to make serious inroads against corruption". Compared to the previous year's CPI of 2017, it was discovered that in spite of the fact that Asia-Pacific had a higher score than the majority of the poor performing countries, the public sector still persisted in being a grave issue towards corruption. Regardless of that being said, this remains the problem for 2018 and the given data from the CPI, it even indicates that there would be a decline for the following year 2018 (Blakely, T. et al., 2019). This is further backed up by the actual report of the 2018 Corruption Perceptions Index taken from Transparency International (2018). In this exposition, it was summarized that the results of the 2018 CPI generated a familiar yet unfortunate outcome. The total average score of all the countries was considered to be quite low being only 43, while more than two-thirds of the regions had a score below 50. In addition to that, the most offsetting issue that the 2018 CPI had observed was that the majority of countries evaluated in their report had made little to no progress whatsoever in past years.

One out of every three Respondents in a study conducted by Pring (2016) entitled; People and Corruption: Europe and Central Asia; indicated that Corruption is considered to be one of the biggest issues that they face in their own respective countries. More than half of the citizens included in this paper admitted that they perceive their own governments to be considered corrupt due to how these administrations struggle in the fight against corruption. It is also important to take into consideration that the private sector is not exempt as over a quarter of the respondents stated that business executives, politicians and public officials are considered to be highly corrupt among others. Furthermore, it was summarized that the main cause why a majority of people do not raise the issue of corruption is because of the fear of the consequences that would result in doing so.

In the 2021 study entitled "Political governance, corruption perceptions index, and national dynamic energy efficiency" several authors such as Lu, M. & Kweh, Q. (2021), states that financial openness, economic and political freedoms would lead to a decrease in the negative effect of corruption in terms of economic growth. Furthermore, another author mentioned that corruption has various negative effects on economic growth in countries due to the different detrimental decisions that their government makes. (d'Agostino, G. et al., 2016)

In a report through the Global Corruption Barometer (2021) focused on Asia, it was identified that an estimate of three-quarters of the total respondents considered that corruption persists to be a significant issue in their nation, with about 19% people that bribe upon utilizing public services in the year of 2020. According to Transparency International (2021), this is estimated to be

somewhere around 836 million individuals. It was also concluded in this report that there are 2 major instances wherein corruption in their respective countries became prevalent. The first was with personal connections. The data in the report centered throughout Asia indicated that 22% of the respondents who accessed public services made use of their different connections. The second instance was with the election periods. It was stated that about one in every seven individuals had been offered different bribes in return for votes in terms of regional or local elections.

## 2.1.2 Consumer Price Index

The Consumer Price Index is defined to be a particular type of measure towards the average change across time in urban consumers' prices for a market basket of different goods and services. The Consumer Price Index market basket is based on precise spending data that was provided by different individuals in regards to what they had genuinely purchased. Moreover, according to the U.S. Bureau Labor of Statistics (2021), the Consumer Price Index has 3 main uses, specifically the following; an economic indicator; the CPI (Index) is generally considered to be a measure of inflation and it is sometimes utilized as a gauge of government economic policy. A deflator of other economic theories, different statistics of economics is adjusted regarding the change in price through the use of the CPI (Index); that are then translated into inflation-free dollars. A means of adjusting dollar values; the CPI (Index) is frequently used in order to accommodate consumer income wages and the provision of cost of living adjustments to their income. Therefore indicating that the Consumer Price Index may have a relationship regarding a particular country's corruption.

In consideration of the offsetting increased cost of exchange rates that may lead to corruption due to an increase in prices, the producer prices are considered to be higher than what the consumer prices possess in a majority of Asian economies as stated by Jongwanich, J. et al., (2016). This indicates that the exchange rate pass-through has a tendency to be much more prevalent / higher in economies with a more acquiescent exchange rate. One of the primary reasons why this occurs according to Jongwanich is due to the different changes in consideration of the firm pricing strategies.

The Consumer Price Index is a representation of the purchases of all commodities and services by a given population for their personal consumption. All expenditure items located here are divided amongst more than 200 classifications such as but not limited to food, beverages, apparel, housing, transportation, etc. The CPI (Index) also includes different taxes that are linked to the pricing of certain goods and services (U.S. Bureau Labor of Statistics, 2021). In addition, this indicates that corruption may take place in consideration of the CPI (Index) as it is purchasing power. In a 2018 study conducted by Cogoljevíc, D. et al., (2018), entitled: Analyzing of consumer price index influence on inflation by multiple linear regressions.", they state that inflation is to be considered one of the most crucial indicators for an economy and their markets. Moreover, the consumer price index according to the results from multiple regressions from their work, indicates that it has a relationship with inflation. This implies that since inflation has a correlation with corruption Özşahin, S., & Üçler, G. (2017), the consumer price index may also serve to be a determinant of the prevalent issue of corruption.

According to Geanina, M. (2020), the Consumer Price Index (CPI) is a significant macroeconomic phenomenon that is determined every year and measures the value advancement of a fixed bushel of labor and products utilized by a normal family consistently. The National Institute of Statistics decides the arrangement of this bushel and furthermore its weight in the complete costs. In addition to this, in the study entitled "Effects of International Tourism Revenue, Trade Openness, Formation of Physical Capital, and Consumer Price Index on Indonesia's Gross Domestic Product" the authors Prayogo, A. & Haryanto, T. (2020) indicates that the Consumer Price Index does have a significant effect on Indonesia's Gross Domestic Product as their relationship creates contrast with one another.

# 2.1.3 Index of Economic Freedom

Economic Freedom is defined as the fundamental right of every person to govern their own property and labor as individuals in an economically free society. They are given opportunities to work, create, consume, and invest as they see fit (Heritage Foundation 2021). The Index of Economic Freedom is composed of 12 quantitative and qualitative factors that are grouped with one another in order to determine how free an economy of a particular nation is. These variables are as follows; Property rights, Judicial effectiveness, Government integrity, Tax burden, Government spending, Fiscal health, Business, Labor, Monetary, Trade, Investment and Financial freedom. The figures below show the data on the 2018 Index of economic freedom of the Asia-Pacific region, along with the quantitative and qualitative factors that contribute to this:

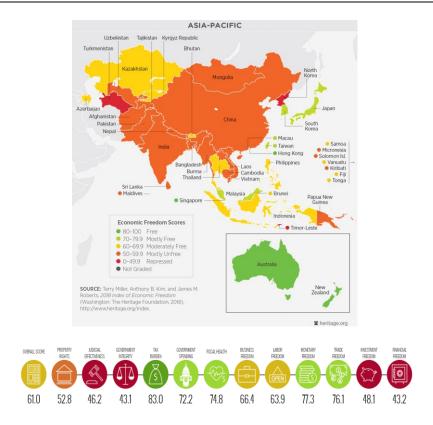


Figure 2. Asia-Pacific regional map of the 2018 Index of Economic Freedom taken from Heritage Foundation (2021).

The Economic opportunity of a nation is estimated in rate, where 0% is distinguished to be the most curbed and 100% is the freest. According to defilement, nations with higher levels of monetary opportunity ordinarily have a lower debasement rate and the other way around. Besides, financial opportunity may likewise be characterized as one's entitlement to control his/her property and individual capacities (work, creation, utilization, speculation) (Miller et al., 2019).

Blau (2017) claims that monetary opportunity decreases administrative vulnerability and would advance deregulation on the lookout. With these consolidated close by, a more prominent accentuation on property rights would propose the probability of market slumps diminishing. This suggests that financial opportunity ought to be viewed as certain for both financial productivity and strength. A more significant level of monetary opportunity largely led to a more noteworthy rivalry among various countries, subsequently prompting a lower inflation rate and a more steady macroeconomic local area. Bjornskov, C. (2016) stated the impact of economic freedom on crisis risk and estimates the effects on the duration, peak-to-trough GDP and recovery times of 212 crises across 175 countries over the period 1993–2010. Therefore, this study suggests that economic freedom is strongly associated with smaller peak-to-trough ratios and a shorter recovery time.

According to a research paper entitled; "Economic growth and corruption in emerging markets: Does economic freedom matter?" by Malanski, L. & Póvoa, A. (2021), they conducted a study with an aim to determine the different impacts of corruption on economic growth at various degrees of economic freedom. The results indicated that through numerous regressions of their data, economic freedom was said to be a mediator regarding the conjunction between economic growth and corruption. Furthermore, corruption was said to be more detrimental to nations that have better economic freedom in both regions of Asia and Latin America.

Llorente & Cuenca (2016) claim that for a viable goal against defilement, it is fundamental to have a solid institutional mechanical assembly, a strong legitimate body, and a flat out and completely thought out political will. Solely after solid financial foundations are set up, decreasing defilement would most likely improve development possibilities, and the advantages of debasement will reduce as monetary opportunity improves. While crosscountry relapses of monetary opportunity and defilement bring in line with the overarching view, that debasement is decreased by an expansion in financial opportunity, this may conceal heterogeneity at sectoral level, especially in the degree and nature of government mediation.

#### 2.1.4 GDP Growth Rate

The Gross Domestic Product or otherwise known as the GDP is defined as the overall value of the market of an economy of all their finished goods and services produced in a particular period of time. There are numerous arguments stating that as an economy continues to grow and enhance its GDP, it further develops into a means to combat different issues that a nation may experience such as corruption or environmental degradation (Apergis, N. & Garcia, C. 2019).

Cieślik, A. & Goczek, L. (2018) states that the lower the corruption, may contribute towards the GDP's per capita growth rate. In addition to their statement, the authors also explained in their study that the abuse of government authorities will not only lead to consequences such as misallocation of goods and resources, it will eventually lead to an increase in the burden of the economy.

A recent cross-country study by Gründler, K. & Potrafke, N. (2019) also confirms that corruption significantly hinders economic growth. Previous studies on the corruption-growth nexus used cross-sectional and panel data. Scholars regressed economic growth on three prominent corruption measures: the International Country Risk Guide (ICRG) index, the World Governance Indicators (WGI) and Transparency International's Corruption Perceptions Index (CPI). The CPI is often considered to be an especially suitable measure for corruption, because the ICRG index measures investment risk of corruption rather than corruption per se, and the WGI's "Control of Corruption" sub-component has been criticized for several methodological issues (Qu, et al., 2019).

According to d'Agostino, G. et al., (2016) corruption was negatively correlated with economic growth in Africa, that corruption was hardly associated with economic growth. However, according to Huang, C. (2016) in South Korea, found that corruption and economic growth were positively correlated, contradicting the study in Africa showing that there is no association between the two variables. Another paper however further backs up the idea of d'Agostino; in the study entitled; "The corruption–growth relationship: does the political regime matter?" (Saha, S. & Sen, K. 2020), a contributor named Ang (2020), indicates that China being an autocratic country despite experiencing positively high rates of economic growth is still experiencing high rates of corruption as well.

The relationship between corruption, economic growth and financial development was analyzed in a study conducted by Song, C., et al (2020). The results from the data suggest that economic growth or referred to in their study as GDP, corruption and financial development does possess somewhat of a long-term relationship with one another in their sample of different developing nations. Furthermore, the paper indicates that in light of overall development, better economic growth paves the way allowing it to improve whereas corruption mitigates it.

## 2.1.5 Inflation Rate

Inflation rate is generally defined as the increase of the rate of prices over a given period of time Oner, C. (2018). Moreover, inflation is considered to be more or less an overall measure of an increase in prices or an increase in the cost of living of a particular nation; however, it may be narrowed down to more specific measurements. Given these different situations, inflation still would refer to how much more costly a particular set of goods and/or services has become over a given period of time.

As per Ben Ali, M. and Saha, S. (2016) there is a connection among debasement and inflation in non-industrial nations. In the years 2000 - 2012 information was dissected by Ben Ali and Saha for 100 nations and found that nations with a powerless institutional construction that experience signs of corruption would in general utilize seigniorage as a kind of revenue and the development of cash supply expanded expansion rates through different channels. Consequently, this proposed that there was in reality a positive connection between the two factors which are debasement and inflation rates.

According to Özşahin, S. and Üçler, G. (2017), in their study entitled; "The Consequences of Corruption on Inflation in Developing Countries", they state that there is indeed a noticeable correlation between corruption and inflation. The relationship between corruption and inflation for 20 countries over different time periods was explored in this study. According to the results, it indicates that high corruption resulted in an increase in inflation rates and that there was an unidirectional causal relationship between the two variables.

Ibarra, R. & Trupkin, D. (2016) have rethought the impacts of inflation edge on monetary development in 138 nations utilizing a broad, smooth change relapse model. The model considers an intermediary for institutional attributes. The outcomes uncovered a 4.5% inflation edge of created nations and 19.1% for creating ones. Moreover, The utilization of intermediaries addressing organizations permits a superior comprehension of the expansion development nexus in these sorts of economies.

It was identified and agreed upon that as the level of corruption increased, so did the rate of inflation. As a result, there is a positive correlation between corruption and inflation rate. There also persists to be a significant relationship between the changes of these

two variables. Furthermore, high inflation is an issue since it diminishes an individual's income since it is generally known that when inflation is high, the prices of goods rise and as a result, people's purchasing power then decreases. (Özşahin, S. & Üçler, G. 2017).

In the study entitled; "Non-linear Effects of Inflation on Economic Growth in the Democratic Republic of the Congo" according to Yemba, B. & Kitenge, E. (2020) this study aims to estimate the turning point in the relationship between inflation and economic growth. In the Democratic Republic of Congo, inflation rates lower than 17.2% would drive economic growth, but any value beyond that threshold will harm the economic growth of the republic of congo.

#### 2.1.6 Wage

According to Manoj Kumar, the price paid to labor for its contribution to the process of production is called wages. A particular study found that when there are higher wages in the public sector, it becomes associated with lower corruption. According to An, W. and Kweon, Y. (2017) they state that an increase in the wage imposed by a particular country's government would result in a decrease towards their corruption. This observation was apparent in countries that were not part of the OECD.

In addition to this, a study by Benito, B., et al (2017), was conducted in order to to know the impact of wages on corruption. The data of their paper consisted of 358 Spanish municipalities,4 it was found that there is a connection between these two variables and that politicians, regardless of the fact that the wages that they receive are quite high compared to the majority of the employed population, still choose to take part in unlawful and corrupt actions.

This idea is further backed up by a paper made by Biltagy, M. & Taha, M. (2018), that focuses on the topic of if people are to accept bribes in consideration of the current level of corruption their country experiences and their level of income. It was found that the participants of the study, despite having diversified wages, did not indicate a significant difference when it came to accepting the bribe being offered to them. Therefore suggesting that no matter the amount that they are paid by their employer, people will still continue to accept bribes as it provides them with extra money.

However, countries which are considered to be corrupt have difficulty in regards to supporting workers that have potential in their respective fields. This would then result in an unfavorable environment for the working market. Moreover, this suggests that countries that are able to pay higher wages and would have better administrations in terms of the work market, are considered to significantly lower the different consequences that corruption has. (Cooray, A. & Schneider, F. 2016).

#### 2.2 Synthesis

There are various economic variables that may be considered in determining Corruption. One variable that may be further delved into is the GDP growth which in general, measures the economic growth. According to d'Agostino, G. et al., (2016) corruption was negatively correlated with economic growth in Africa, and that corruption was hardly associated with any economic growth whatsoever. However in a majority of regions, this is revealed to be erroneous. The case in South Korea, in fact, would indicate that both corruption and economic growth were positively correlated (Huang, C. 2016) therefore contradicting the study in Africa showing that there is no association between the two variables. Therefore, the study provides information that indicates that there may be a number of other factors other than corruption that would lead to a negative effect towards a country's economic growth.

However, in relation to the Asia-Pacific region, with China being an autocratic country, the nation is still experiencing positively high rates of economic growth, but they are also confronting high rates of corruption (Ang, 2020). Another economic variable that has a significant impact on the study is the topic of inflation rates. Özşahin, S., & Üçler, G. (2017) indicate that inflation can hinder the development of an economy by the inefficient allocation of government expenditures. As a result, people then resort to illegal activities such as bribery in order to have more profit in regard to their consumption behavior. In addition, a study conducted by Paldam, M. observed the cross country pattern of corruption through the use of different variables such as the GDP, Inflation rate, and Index of Economic Freedom. Results from the paper suggest that the major determinant of corruption is the GDP per capita. Furthermore, when inflation is considered to be high, it would lead to despotic reallocations of wealth and if there is little freedom in an economy, it would more or less result in high corruption in that particular nation.

The paper paves the way to link and assume that these variables may have a relationship to the determinant of the study, corruption. With all that being said, the main focus of the paper would be to analyze and determine the different Economic Determinants of Corruption in the Asia-Pacific region in the Year 2018.

# 2.3 Theoretical Framework

## 2.3.1 Rent-Seeking Theory

According to Tullock (1967) and (1993); Krueger (1994), the method of expending resources in order to influence public policy outcomes is called rent-seeking. The resources expended make no social product and subsequently are viewed as a social waste.

Each political decision has a distributional impact, and members in political business sectors have inclinations about these impacts and about open strategy results. Thus, these people will exhaust assets to impact these results. Regularly, people will arrange themselves into particular vested parties to work on their capacity to influence distributional results.

Therefore, this theory suggests that rent-seeking signifies that at certain times, government officials search out a way of creating welfare assistance for themselves by acquiring an advantage. In relation to corruption, rather than wealth creation, the government would acquire monetary benefits from others by contending the place or environment where the economic activity took place, for instance; tax collection, where the public authority might manhandle the income they attain from residents for their individual use. To lay it out plainly, rent-seeking signifies that sometimes government officials search out a way of creating welfare assistance for themselves by acquiring an advantage.

#### 2.3.2 Collective Action Theory

The Collective Action theory hypothesis emerged as an alternative explanation as to the reason why systemic corruption still is rampant in spite of laws preventing it. Furthermore it also describes why corruption resists various other anti-corruption efforts in certain countries. The Collective Action theory goes beyond traditional principal-agent relationships and heavily emphasizes the importance of factors such as trust and how people perceive the conduct of others. Persson, A. et al., (2013) see systemic corruption as an aggregate issue since individuals rationalize their own behavior based upon the perceptions of what others will do given the same situation.

According to (Marquette, H. and Peiffer, C. 2015), they state that when corruption turns into an accepted practice, the majority of people begin to see it essentially as the way of finishing things despite being aware of the negative consequences this brings. Moreover, they engage in corrupt actions as they believe that "it doesn't make sense to be the only honest person in a corrupt system" Therefore this theory suggests that not all individuals are corrupt in nature. However, due to the system being corrupt, people perceive the act of corruption to be acceptable as they believe that "it doesn't make sense to be the only honest person in a corrupt system".

#### 2.3.3 Game Theory

The Game Theory is another belief that explains the pervasiveness of corruption in the public sector. This theory derives from economic literature and aims to explain the reason as to why public officials consider unlawful methods. In particular, Macrae (1982) claims that corruption is an inherent and often deeply ingrained aspect of a rational calculus and a process by which individuals make decisions. Under this theory, individuals are confronted with a prisoner's dilemma, wherein it suggests a contradiction between the rationality of a single person or a group. If a particular individual declines in the participation of unlawful acts, it leads that person to worry heavily regarding their disadvantage, since the others who are placed in the same situation would have a different preference.

Given this, all individuals obtain some sort of benefit which, nonetheless, is regarded to be less than the benefit that they would have acquired if they refused to engage in corrupt practices. For instance, in the area of public procurement, wherein contributors of corruption are comprised of private sector actors that are unfamiliar with the acts that may be done by others, the concern of being dominated by competitors committing unlawful acts would result in encouraging even companies that are virtuous to engage in corrupt acts. Therefore, this theory suggests that, due to the fear of being surpassed by others, people will result in committing corrupt actions in order to acquire more benefits for themselves.

## 2.4 Conceptual Framework

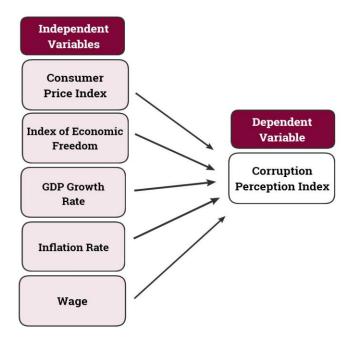


Figure 2. Conceptual Framework

The figure above presents the Conceptual Framework to be utilized in the study. Upon further observation, the conceptual framework showcases the 5 main independent variables specifically, the Consumer Price Index, Index of Economic Freedom, GDP Growth rate, Inflation rate, and Wage and its effects and relationship to the dependent variable defined to be the Corruption Perceptions Index.

# 3. Design and Methodology

# 3.1 Research Design

The main objective of this study is to determine which economic factors contribute towards the Corruption Perceptions Index of the Asia-Pacific region. Furthermore, it also aims to define the relationship of the different independent variables, specifically; the Consumer Price Index, Index of Economic Freedom, GDP Growth rate, Inflation rate, and Wage, with the dependent variable being the Corruption Perceptions Index.

Therefore, a **correlational quantitative research design** was utilized in order to identify the relationships of the different variables in this study. The reason why is due to how the quantitative correlational research design is a particular technique that aids the researchers in establishing a relationship between two or more types of connected variables.

In this type of research design, the relationships amongst the variables are to be analyzed and interpreted in order to successfully recognize the different trends and patterns from the data to be examined. The results, observations and relationships of the different variables of the paper are to only be studied.

# 3.2 Sampling Technique

## 3.2.1 Datasources

VARIABLE	LABEL	SOURCE
Corruption Perceptions Index	CPI	Transparency International
Consumer Price Index	CPIINDEX	World Bank
Index of Economic Freedom	FREEDOM	Herritage
GDP Growth Rate	GDP	World Bank
Inflation Rate	INFLATION	World Bank
Wage	WAGE	World Bank

Table 1. Data Sources

# 3.3 Variables

# 3.3.1 Dependent Variable

- **Corruption Perceptions Index (CPI)** - The Corruption Perceptions Index (CPI) measures the perceived level of corruption of a nation's public sector through ranking them from 0 (severely corrupt) to 100 (not corrupt).

# 3.3.2 Independent Variables

- **Consumer Price Index (CPIINDEX)** The Consumer Price Index (CPIINDEX) measures the average change of prices overtime that are purchased by different consumers for a market basket of goods and services.
- **Index of Economic Freedom (FREEDOM)** The Index of Economic Freedom (FREEDOM) measures the level of economic freedom in a country through the overall score of the following; Property rights, Judicial effectiveness, Government integrity, Tax burden, Government spending, Fiscal health, Business, Labor, Monetary, Trade, Investment, and Financial freedom.
- **GDP Growth Rate (GDP)** The GDP Growth Rate (GDP) measures the change in a given country's economic output through the comparison of different periods in order to determine the economic growth.
- **Inflation Rate (INFLATION)** The Inflation Rate (INFLATION) measures the change in the prices of different goods through the comparison of different periods in order to determine the increase of their price over time.
- **Wage (WAGE)** The Wage (WAGE) measures the total percent of the working population who holds jobs defined as paid employment jobs.

#### 3.4 A-Priori Expectations

The A-priori Expectations is identified to be the instance wherein a particular set of specific principles are presumed to be valid (Pettinger, T. 2012). In consideration of the dependent variable corruption, since the data is based on the CPI, a lower score (0) would indicate severe corruption, while a higher score (100) would refer to little to no corruption. This signifies that when there is a negative relationship with an independent variable when it increases, it suggests that there is a decrease in the CPI score, while a positive relationship with an independent variable when it increases would lead to an increase in the CPI score. The A-priori Expectations of the study are shown in the given table below. Furthermore, the regression analysis in the following sections of the paper will aid the researchers in determining coherence of the given A-priori expectations through analyzing the results of the dependent variable to the different independent variables of the study.

INDEPENDENT VARIABLE	EXPECTED RELATIONSHIP	REASON
Consumer Price Index	Negative	An increase in the Consumer Price Index indicates an increase in the average change of urban consumers' prices for goods and services. This results in an increase in corruption since consumers' would most likely consider unlawful methods to satisfy their wants and needs.
Index of Economic Freedom	Positive	An increase in the score of a country's Index of Economic Freedom indicates an increase in the fundamental right to control one's labor, consumption, investment, and property. This results in a decrease in corruption since the country is less constrained and there persists to be a healthier economy and society.
GDP Growth Rate	Positive	An increase in the GDP Growth Rate of a country indicates an increase in the overall development of the economy. This results in a decrease in corruption since it is generally known that the economy of that specific country is moving forward and resources are being allocated efficiently all throughout.
Inflation Rate	Negative	An increase in the Inflation Rate indicates an increase in the prices of goods and services being offered by that country. This results in an increase in corruption since there is less purchasing power which then may result in consumers' considering unlawful acts in order to continue their standard of living.
Wage	Positive	An increase in Wage indicates an increase in the total percent of the working population who have jobs that are considered as payed employment labor. This results in a decrease in corruption since more employed people would mean more opportunities to earn money and less illegal acts in order to sustain one's necessities.

Table 2. A-Priori Expectations

#### 3.5 Econometric Model

With the A-Priori expectations, the econometric model is now given by:

$$corruption = \beta_{0} - \beta_{1} \underbrace{CPIINDEX}_{1} + \beta_{2} FREEDOM + \beta_{3} GDP + \beta_{4} INFLATION + \beta_{5} WAGE + \mu_{1}$$

The results from the regression to be performed through E-Views would aid in determining the coherence of the a-priori expectations to the study. The residual term,  $\mu$ i, is included as it is one of the most crucial components in the model since it explains the other variables that would affect corruption which is not included in the econometric model.

# 3.6 Instrumentation

# 3.6.1 Overall Test of Significance

The overall test of significance is one of the vital testing techniques in a regression model since it helps to determine if the different regressors that are utilized are to be considered significant or insignificant in relation to the regressand. Furthermore, the overall test of significance will aid in determining the relationship of the different variables with one another. Moreover, the study would utilize the 5% level of significance which indicates that if a p-value of an independent variable is almost or extremely near 0, the null hypothesis is to be rejected indicating that the model is significant.

# 3.6.2 Test of Multicollinearity

Multicollinearity is identified to be a critical assumption in the regression model. It occurs when independent variables in a given model are correlated with one another (Frost, J. 2017). From the term independent variables, correlation should not exist in the model as the variables must be independent. In the section of testing and analyzing the results, a high degree of correlation between variables can exhibit complications to the model, indicating the presence of multicollinearity and violating the assumption.

#### 3.6.3 Goodness of Fit

The goodness of fit or otherwise known as the  $R^2$  is a test that determines whether the sample data is representative of the data found in the actual population and if there is any bias (Kenton, W. 2021). The discrepancy between actual values and those expected of the model in a normal distribution instance is determined by this test. Furthermore, the explanatory power of the model is measured, ranging from the values of 0 to 1. If the value of  $R^2$  is closer to 1, the model's explanatory power is greater.

# 3.6.4 Test of Heteroscedasticity

Heteroscedasticity occurs when the standard deviations of a variable are considered to be non constant when measured over different values of an independent variable or when compared to previous time periods (Hayes, A. 2020). It is considered that the data should be homoscedastistic, since it indicates that the variance of the errors is constant. Moreover, having the presence of heteroscedasticity suggests that the results of the model have biased coefficients.

In order to test for Heteroscedasticity in the model, the Breusch-Pagan-Godfrey Test will be utilized in order to identify if the results suggest any signs of heteroscedasticity or if it is homoscedastistic. The chi-square is utilized in this test and along with the 5% level of significance to be used in the study, when the p-value of the Breusch-Pagan Test is less than 0.05, this would indicate that the null hypothesis is to be rejected and heteroscedasticity is present in the model. Therefore, it would require certain measures in order to correct this.

# 3.6.5 Test of Misspecification

Misspecification occurs when the model that is regressed in general has an error. To put it in another approach, it does not account for everything that should be accounted for. Misspecified models may contain skewed coefficients and error terms as well as biased estimations of the parameter. Thus, when misspecification is present, the overall reliability of the model is then put at risk.

In order to test for Misspecification in the model, the Regression Specification Error Test or otherwise known as Ramsey's Reset Test will be utilized in order to identify if the results suggest any signs of misspecifications. Moreover, in consideration of the 5% level of significance to be used in the study, when the p-value of the Regression Specification Error Test is less than 0.05, this would indicate that the null hypothesis is to be rejected and misspecification is present in the model. Therefore, it would require certain measures in order to correct this.

# 3.7 Data Collection Procedure

The data to be utilized in the study was collected through various platforms that contain the information needed in order to perform the regression. The Corruptions Perceptions Index was taken from Transparency International, while the Consumer Price Index, GDP Growth rate, Inflation rate, and Wage was taken from the World Bank and the Index of Economic Freedom came from the Heritage Foundation. It is also crucial to consider that all the 30 Asia-Pacific countries or observations of the study are collected in the year 2018.

#### 3.8 Statistical Treatment of Data

In order to attain the relationship of the different independent variables towards the dependent variable; corruption perceptions index, the aforementioned dataset was regressed and examined through the use of the OLS method or otherwise known as the Ordinary Least Squares in E-Views. All things considered, in order to determine the relationship of the different variables with one another and to formulate the econometric model of the study, the OLS method would be applied in doing so. The paper will test for different assumptions under the classical regression linear model such as the overall test of significance, multicollinearity, goodness of fit, heteroscedasticity, and misspecification.

Furthermore, the study will utilize a 5% level of significance or a 95% confidence interval. This indicates that if there is a regressor with a p-value less than 0.05, it becomes statistically significant and results in rejecting the null hypothesis. However, if there is a regressor with a p-value greater than 0.05, it becomes statistically insignificant, thus accepting the null hypothesis.

# 4: Results and Discussion

# 4.1 Regression of Data

Through the use of E-Views, the following results of the regression using the ordinary least squares method or otherwise known as the OLS are as follows:

VARIABLE	COEFFICIENT	ST	TD. ERROR	T - STATISTIO	C PROB.
C (CPI)	- 57.42960		24.14372	- 2.378656	0.0257
CPIINDEX	0.164582		0.120840	1.361987	0.1859
FREEDOM	1.207761		0.251820	4.796133	0.0001
GDP	- 1.862836		0.804414	- 2.315769	0.0294
INFLATION	0.150712	ı	0.985660	0.152905	0.8798
WAGE	0.211369	0.130666		1.617623	0.1188
R - squared	0.797114	Mean deper		ndent var	45.40000
Adjusted R - squared	0.754846	0.754846 S.D. depend		dent var	19.68651
S.E. of regression	9.747380	9.747380 Akaike info		o criterion	7.568731
Sum squared resid	2280.274 Schwa		Schwarz cı	riterion	7.848970
Log likelihood	-107.5310 Hann		Hannan-Qı	ıinn criterion	7.658382
F - statistic	18.85863 Durbin-Wat		tson stat.	1.055163	
Prob(F - statistic)	0.000000				

Given the results of the regression, it showed that the constant (CPI), FREEDOM, and GDP all resulted in having a p-value less than the 5% level of significance which indicates that the aforementioned 3 variables are considered to be statistically significant. Therefore, at the 95% confidence interval, the null hypothesis for these variables are to be rejected. However, the remaining variables, specifically the CPIINDEX, INFLATION, and WAGE all resulted in having p-values above the 5% level of significance which

indicates these variables are statistically insignificant, therefore at the 95% confidence interval, the alternative hypothesis for the aforementioned variables are to be rejected. Furthermore, the  $R^2$  is 0.797114 and the p value is 0.000000 and is nearing 0 which indicates that given the 5% level of significance the model is considered to be significant.

With the given regression results, the researchers can now determine the coefficients to empirically establish the relationship between the dependent variables and the independent variable corruption, as well as to determine the level of significance of the variables. Given the regression results, the econometric model is now given by:

$$corruption = -57.42960 + 0.164582(CPIINDEX) + 1.207761(FREEDOM)$$
  
-  $1.862836(GDP) + 0.150712(INFLATION) + 0.211369(WAGE)$ 

The constant of the model resulted in a p-value of 0.0257 which indicates that at the 95% confidence interval, corruption is indeed considered to be significant. Furthermore, the coefficient of the constant stands at -57.42960 which suggests that the average level of corruption in the Asia-Pacific region is at -57.42960. As a result, it is assumed that corruption is considered to be evident in the countries of Asia-Pacific

Given the different values of the aforementioned regressors, the consistency of which in regards to be a-priori expectations will now be verified in the table below:

#### 4.2 Interpretation of the Data

INDEPENDENT VARIABLE	INTERPRETATION
Consumer Price Index	The Consumer Price Index is not significant. A reason behind this may be derived from how the average change of prices overtime that are purchased by different consumers may differ from country to country. One nation may have a high score on their CPI with a high CPI Index while the other may also have a high score on their CPI, however would have a low CPI Index.
Index of Economic Freedom	For every unit increase in the score of a country's Index of Economic Freedom, would result in an increase in the score of the Corruption Perceptions Index by 1.207761. This indicates that since a country is more economically free, there exists to be an overall better society and as a result, individuals in the Asia-Pacific region are allowed for more opportunities to work, create, consume, and invest as they see fit which lessens the prevalence of corruption. Furthermore, the results are in line with the given a-priori expectations.
GDP Growth Rate	For every unit increase in a country's GDP Growth Rate, would result in a decrease in the score of the Corruption Perceptions Index by 1.862836. This implies that both GDP growth rate and corruption have an inverse relationship with one another. Therefore it is not in line with the given apriori expectations. An explanation behind this may be derived from Ang (2020) wherein she indicates that China, despite experiencing positively high rates of economic growth, is still experiencing high rates of corruption as well. Therefore suggesting that in the Asia-Pacific region, as their GDP growth rate increases, it results in an increase in corruption.
Inflation Rate	The Inflation Rate is not significant. A reason behind this may be due to how in the Asia-Pacific region, the inflation rate heavily varies. According to studies, it was stated that as inflation rate increases, corruption in turn will also increase. However according to the data, there are some countries with a high CPI score that also have a high rate of inflation.
Wage	Wage is not significant. A reason behind this may be derived from how in the Asia-Pacific region, wage heavily varies. According to studies, it was stated that as there are higher wages, there is lower corruption. However, according to Biltagy, M. & Taha, M., the results from their paper suggest that most people will still continue to accept bribes and take part in these corrupt acts despite the level of income that they earn, may it be high or low.

# 4.3 Overall Test of Significance

OVERALL TEST OF SIGNIFICANCE	DF	VALUE	PROBABILITY
ANOVA F - test	(5, 174)	258.6114	0.0000

The results from the Analysis of Variance or otherwise known as the ANOVA test indicate that with the  $R^2$  being 0.797114 and the p-value of the aforementioned immensely nearing the value of 0, then at the 95% confidence interval, the null is to be rejected and the alternative hypothesis is to be accepted. Therefore suggesting that the model is considered to be indeed significant.

# 4.4 Test of Multicollinearity

VARIABLE	VIF
С	NA
Consumer Price Index (CPIINDEX)	2.492880
Index of Economic Freedom (FREEDOM)	2.684366
GDP Growth Rate (GDP)	1.321447
Inflation Rate (INFLATION)	1.293942
Wage (WAGE)	2.963419

The results from the Variance Inflation Factors (VIF) test indicate that there are no values that exceed the limit of 10. Therefore, implying that the presence of multicollinearity is presumed to be not probable in the model. Given the results from the test, it implies that the variables are not connected with one another, further suggesting that no corrective measures are required in regards to multicollinearity.

# 4.5 Goodness of Fit

The results from the regression through the use of E-Views, indicated that the  $R^2$  of the model possesses a value of 0.797114. This indicates that 79.7114% is the explanatory power of the given model. Furthermore, since it is nearing the value of 1, it has a good fit. However, since the model utilized more than a single independent variable, the adjusted  $R^2$  would be more suitable in measuring the goodness of fit. The results for the adjusted  $R^2$  yielded a value of 0.754846 which implies that the model has an explanatory power of 75.4846% of the variance of corruption.

# 4.6 Test of Heteroscedasticity

BREUSCH - PAGAN - GODFREY TEST	VALUE		VALUE
F - Statistic	1.510294	Prob. F (5, 24)	0.2238
Obs* R - squared	7.180143	Prob. Chi - Square (5)	0.2076
Scaled explained SS	4.553968	Prob. Chi - Square (5)	0.4727

The results from the Breusch-Pagan-Godfrey (BPG) test indicate that all the p-values are greater than the 5% level of significance. Therefore, implying that the model is considered to be homoscedastic. Moreover, at the 95% confidence interval, the null is to be rejected and the alternative hypothesis is to be accepted, further suggesting that no corrective measures are required in regards to heteroscedasticity.

# 4.7 Test of Misspecification

RAMSEY RESET TEST	VALUE	DF	PROBABILITY
t - Statistic	0.285486	23	0.7778
F - Statistic	0.081502	(1, 23)	0.7778
Likelihood Ratio	0.106120	1	0.7446

The results from the Ramsey RESET Test indicate that the p-values for the t-statistic, F-statistic and the Likelihood Ratio are as follows: 0.7778, 0.7778 and 0.7446. This implies that they are all greater than 0.05, suggesting that at the 95% confidence interval, the null is to be rejected and the alternative hypothesis is to be accepted. Therefore, indicating that the model does not possess a misspecification error.

#### 5. Conclusion

In a time as uncertain as the present, given that the issue of COVID-19 still persists to be rampant, many countries throughout the world are already finding their own solution in response to the pandemic. However, the solution in regards to alleviating the predominant issue of corruption in their own nation is still yet to be identified. The study nonetheless was able to determine two significant factors that influence the prevalence of corruption in countries in the Asia-Pacific region. The Index of Economic Freedom, and GDP Growth rate are the two variables that have a significant relationship with corruption in the region of Asia-Pacific since these resulted in having p-values that are statistically significant given the 95% confidence interval. The model constructed was also tested for different assumptions under the ordinary least squares and has passed all the given violations, implying that the model is considered to be significant. With all that being said, the resulting recommendations of the study may be considered as a reference for the governments of the countries under the Asia-Pacific region in order to aid them in alleviating the issue of corruption as well as to become a future base for researchers who will attempt to conduct a similar study surrounding the topic

#### 5.2 Recommendations

#### 5.2.1 Improve Economic Freedom

The freedom of an economy heavily derives from various factors of which are the following; rule of law, government size, regulatory efficiency and open markets. If these factors are considered to be poor in a given country, it would indicate high economic restrictions, and as a result, an increase in corruption. According to the findings of the study, economic freedom has a significant positive relationship with corruption. This suggests that in order to reduce corruption and unlawful acts, Asia-Pacific countries must promote economic freedom all throughout their economies through various methods such as assisting open markets, encouraging positive regulations for businesses and laborers, properly allocating the government expenditure and creating laws that fully support an individual's rights.

#### 5.2.2 Monitor People with Political Power and Connections

According to the results of the regression, it was identified that the GDP growth rate has a significant negative relationship with corruption since as this variable increases, the CPI score decreases, suggesting an increase in corruption. A possible explanation for this occurrence can be referred to the case of China wherein their economy is considered to be one of the most powerful. However, corruption is still quite rampant in China due to politically connected people having freedom to meticulously invest, resulting in politicians to further ascend their overall image in an unlawful manner. In order to lessen corruption in the countries of the Asia-Pacific region that have high economic growth, it is recommended to monitor people who possess heavy political influence as they would be able to abuse it for their private gain. This may be executed by the government through the act of delegating individuals who would oversee the actions being committed by these people. Furthermore, they may regularly report their conduct in order to inform their government regarding their behavior and if there are any offenses being committed that may lead to an increase in corruption

#### **5.2.3 Contractionary Fiscal Policy**

In addition to the GDP growth rate, a particular policy that may be looked into in order to significantly lessen the total economic activity of a particular country is through the use of a contractionary fiscal policy. Governments of countries under the Asia-Pacific region may make use of this in an effort to decrease the total amount of their spending or increase the revenue of tax. This results in two major incidents that would lead to slower economic activity. Lowered government spending would indicate that less goods and services will be obtained by the institution and more revenue of tax indicates that individuals are more inclined to spend less. According to the results of the study, since the GDP growth rate has a significant negative relationship with corruption, the application of the contractionary fiscal policy in countries in the Asia-Pacific region will ultimately result in less corruption for that said region.

# **5.2.4 Contractionary Monetary Policy**

In order to reduce corruption and inflation, and increase the purchasing power of consumers', the contractionary monetary policy is recommended to be implemented by the central banks of Asia-Pacific countries. The purpose of the contractionary monetary policy is to lessen an economy's money supply by lowering bond prices and rising interest rates (Kramer, L. 2021). Given this, people would be inclined to spend less since those who are in possession of money would prefer to save it when money is considered to be scarce. This then results in lowering the rates of inflation through reducing the speed of an economy's growth which ultimately aids in alleviating corruption.

# **5.2.4 Recommendations for Future Researchers**

The study took into account five determinants of corruption in the Asia-Pacific region. Of these five determinants, two were considered to have a significant relationship with corruption. Of the five, the consumer price index, inflation rate, and wage was found to be insignificant, therefore, it is recommended for future researchers to rerun the test in a different setting with other factors that may affect corruption in order to identify if this variable is still insignificant. As a result of the limited resources of the researchers, the study only took into account a single year in the Asia-Pacific region; it is suggested to obtain more observations, consider a wider sampling population, and obtain more data in regards to the years in order to gather more information regarding the overall topic of corruption.

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