CORRUPTION-ECONOMIC GROWTH IN EIGHT EMERGING ASIAN ECONOMIES

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CORRUPTION-ECONOMIC GROWTH IN EIGHT EMERGING ASIAN ECONOMIES

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LIST OF ABBREVIATIONS

2SLS	Two-Stage Least Squares
ARDL	Autoregressive Distributed lags
ADF	Augmented Dickey-Fuller
BQ	Bureaucratic Quality
CCI	Control of Corruption Index
CPI	Corruption Perception Index
CCP	Chinese Communist Party
FE	Fixed Effects
GDP	Gross Domestic Product
HC	Human Capital
ICRG	International Countries Risk Guide
IDA	International Development Association
IMF	International Monetary Fund
IT	International Trade
LM	Langrage Multiplier
LO	Law and Order
MACC	Malaysian Anti-Corruption Commission
MDGs	Millennium Development Goals
MCB	Malaysian Corruption Barometer
NAB	National Accountability Bureau
NGOs	Non-Governmental Organizations
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least squares

PI	Private Investment
PS	Political Stability
PUR	Penal Unit Root
POLS	Pooled Ordinary Least Squares
PRS	Political Risk Service
R&D	Research and Development
RE	Random Effect
SECP	Securities and Exchange Commission of Pakistan
TFP	Total Factor Productivity
TI	Transparency International
VECM	Vector Error Correction Models
VAR	Vector Autoregressive
WGI	World Governance Indicators
WDI	World Development Indicators
WB	World Bank
WEF	World Economic Forum
WTO	World Trade Organization

KORUPSI-PERTUMBUHAN EKONOMI DI LAPAN EKONOMI NEGARA ASIA YANG SEDANG BERKEMBANG

ABSTRAK

Penyelidikan ini adalah usaha untuk mencari kesan langsung dan tidak langsung rasuah terhadap pertumbuhan ekonomi dengan saiz sampel lapan negara di Asia iaitu Bangladesh, Cina, India, Indonesia, Malaysia, Pakistan, Sri Lanka, dan Thailand. Bagi kesan tidak langsung, penyelidikan ini menggunakan enam petunjuk ekonomi iaitu melalui pelaburan swasta, modal insan, undang-undang dan perintah, kualiti birokrasi, perdagangan antarabangsa, dan kestabilan politik. Untuk pencapaian objektif, penyelidikan ini menggunakan model Teknik Newey West Standart Error untuk kawalan masalah autokorelasi dan heterokedastisitas. Hasil penyelidikan mengesahkan bahawa rasuah mendapati kesan buruk kepada pertumbuhan ekonomi melalui pelaburan swasta, modal insan, perdagangan antarabangsa, dan kestabilan politik. Selain itu, anggaran keputusan juga mengesahkan bahawa selagi tahap rasuah menurun, kualiti birokrasi semakin meningkat tetapi penambahbaikan birokrasi memberi kesan negative kepada pertumbuhan ekonomi. Kedua, melalui undang-undang dan perintah, penyelidikan ini telah mengesahkan bahawa apabila rasuah semakin berkurang, keadaan undang-undang dan perintah akan bertambah baik yang akhirnya memberi kesan positif bagi kadar pertumbuhan. Seterusnya, penyelidikan ini telah meneroka hubungan jangka panjang (sebab-musabab) antara rasuah dan enam petunjuk ekonomi kerana rasuah merupakan cabaran jangka panjang yang memerlukan beberapa dekad untuk menjadikan negara bebas rasuah dan penyelidikan ini lebih berminat untuk mengetahui jangka hayat kesan rasuah terhadap petunjuk

ekonomi. Keputusan anggaran mengesahkan bahawa terdapat kaitan jangka panjang dan juga jangka pendek daripada rasuah kepada modal insan. Apabila penyelidikan ini telah menyemak sebab-musabab individu untuk rasuah dan modal insan, ia mengesahkan bahawa sebab-musabab ini hanya ketara secara statistik dalam kes Cina, India, Malaysia, dan Pakistan. Keputusan anggaran mengesahkan bahawa terdapat sebab-musabab jangka panjang dan jangka pendek daripada rasuah kepada pelaburan swasta. Walau bagaimanapun, penyelidikan ini juga menyemak sebab-musabab negara pada segi individu untuk rasuah dan modan insan, ia mengesahkan bahawa sebab-musabab ini hanya ketara secara statistik dalam kes Bangladesh, Cina, India, Indonesia, Malaysia, dan Thailand. Lebih-lebih lagi, anggaran keputusan mengesahkan bahawa hanya terdapat sebab-musabab jangka pendek daripada rasuah kepada kestabilan politik.

CORRUPTION-ECONOMIC GROWTH IN EIGHT EMERGING ASIAN ECONOMIES

ABSTRACT

This research is an attempt to find the direct and indirect impact of corruption on economic growth with the sample size of eight Asian countries namely Bangladesh, China, India, Indonesia, Malaysia, Pakistan, Sri-Lanka, and Thailand. For the indirect impact, this research has used six economic indicators namely through private investment, human capital, law and order, bureaucratic quality, international trade, and political stability. To achieve this objective, this research has used the Newey West Standard Error technique to handle the autocorrelation and heteroscedasticity problem in the model. The results of this research have confirmed corruption has an adverse impact on economic growth through private investment, human capital, international trade, and political stability. Moreover, the estimated results have also confirmed that as corruption level is decreasing the quality of bureaucracy is also increasing but that improvement in bureaucracy has a negative impact on economic growth. Secondly, through the law-and-order, this research has confirmed that as corruption is decreasing, the law-and-order situation is improving which ultimately has a positive impact on the growth rate. Furthermore, this research has explored the long-run relationship (causality) between corruption and these six economic indicators because corruption is a long-run challenge it needs decades to make the country corruption-free and this research is more interested to know the longevity of impact of corruption on these economic indicators. The estimated results confirmed that there is long-run as well as short-run causality from corruption to human capital. When this research has checked

the individual country-wise causality for corruption and human capital, it confirms that this causality is only statistically significant in the case of China, India, Malaysia, and Pakistan. The estimated results confirmed that there is long-run as well as short-run causality from corruption to private investment. However, this research also check the individual country-wise causality for corruption and human capital, it confirms that this causality is only statistically significant in the case of Bangladesh, China, India, Indonesia, Malaysia, and Thailand. Moreover, estimated results confirmed that there only short-run causality from corruption to political stability.

CHAPTER 1

INTRODUCTION

1.1 Importance of Government

Imagine a world without rules; nothing is illegal and immoral. Everyone is free to do whatever they wish. It sounds like utopia, but Apperley (1999) states that according to Orbell and Rutherford (1973), this imaginary world with no rules is solitary, poor, nasty, brutish, and short. For instance, we have an abundance of freedom but have no security. The Strong will be dominant over the weak, and there will be no place for the weak. He argued that it was a period of human history when people were living in a state of nature. The transition in their life setup occurred because their dependency on each other increased. When they admitted that they could not survive if they stayed alone. Based on this dependency, the concept of trade of goods and services grew among the people emerge. It was only possible within a secured and peaceful environment. For those reasons which were relatively more secure and peaceful, were enjoying the better trade of goods and services. According to Hobbes, this secured and peaceful environment became possible when a third party took the responsibility of that which is known as "Government". It was the responsibility of a government that can provide security and justice (Bertram, 2010).

Although, in the beginning, the core responsibility of the government was to provide security, peace, and justice. Its role becomes more challenging and complex when the needs of society change, and they need the government's intervention not only in providing security and justice. Hence, the amendment in its role and responsibility became the need of time (Haddad, 2003). But this role and responsibility of government is an unsettled topic because today some countries prefer more freedom

(capitalist society) and some countries prefer more government involvement (socialist society), some countries are moving towards nationalization and others are moving more towards privatization (Acemoglu & Robinson, 2012). Because of that, throughout history, various economists, historians, and political scientists have been actively engaged in defining the role of government.

In the earlier days of the Industrial Revolution, capitalism rose, which in turn, caused an unequal distribution of wealth and workers were exploited. Capitalists were taking unfair advantage of works because there was an asymmetry in the power relationship between laborers and capitalists (Dahms, 1995). In that situation, Karl Marx and Riedrich Engels, in their work "The Communist Manifesto" called upon the government to protect the rights of the workers, including the right to the transfer of private property to the government and a transition from capitalism to socialism. According to Karl Marx and Riedrich Engels, the government should have a monopoly in agriculture as well as the industrial sector, but the government can rent its land and earn income from that rent, allowing the government to redistribute that money to provide security, justice, infrastructure, and public schools (Dahms, 1995).

On the other hand, Adam Smith (1723-1790), the founder of "classical economics", suggested that markets should be independent of the government because the economy is self-correcting and self-adjusting. Even if there is any negative shock in the economy, it can adjust by itself, He called this mechanism "the invisible hand" in his book "The Wealth of Nations" (Grampp, 2000). But this argument failed in the Great Depression of the 1930s because many businesses failed, and the economy was performing at less than its potential. Another school of thought emerged by economist John Maynard Keynes. Under these conditions, Keynes believed that government and

monetary leaders should intervene to help the economy; otherwise, the economy would remain in a liquidity trap (Friedman & Schwartz, 2008).

According to Bromley (2018) and Acemoglu & Robinson (2008), government intervention in economic activities is only fruitful when it is in the right direction, such as creating incentives, certainty, and providing justice and security, Otherwise government intervention may have an adverse impact and hurt economic progress when they start ignoring the overall welfare of the economy but to start benefiting themselves. Kaufmann (1997); Boycko, Shleifer and Vishny, (1995); Boycko, Shleifer and Vishny (1996); have defined this act as corruption.

Moreover, Acemoglu and Robinson (2012) argued that it is not important whether the government intervenes in the economy or not, but it depends on the quality of governance. That determines whether they have created inclusive or extractive economic institutions for the betterment of society. Inclusive economic institutions encourage the majority of the population to contribute to economic activities. Such institutions promote competition and entry for new businesses and remove barriers for new participants. Inclusive economic institutions cannot be established without inclusive political institutions, in which political power is not concentrated only on a limited number of people but is spread across the overall population. On the other hand, extractive institutions are designed to benefit a select few, which creates the problem of "rent-seeking," and according to the definition provided by the World Bank, this act is known as corruption.

Hence, the main objective of this study is to explore that those economic and political indicators that are highly influenced by corruption namely private investment, international trade, human capital, political stability, bureaucratic quality, and “law

and order. Because this research is an attempt to provide anti-corruption policy based on the estimated results for eight Asian economies.

1.1.1 Corruption

Most economists and political scientists, such as Kaufmann (1997), Boycko et al. (1996), Bai et al. (2013), Lui et al. (2016), and Bai et al. (2013), define corruption as the misuse of public office for private benefits. According to this definition, corruption is an act that can take place when government officers (including politicians and bureaucrats) break the formal rules to gain private benefit. This benefit could be in the form of bribery or political advantage (Nye, 1967). Therefore, corruption is an exchange between public officials and private individuals when private individuals are strong enough to force public officials to break formal rules. This is known as "Redistributive Corruption" or "Feudalization." When public officials are strong enough to force private individuals to gain personal benefit, this is known as "extractive corruption" (Amundsen, 1999). Furthermore, Amundsen (1999) stated that redistributive corruption can be classified into political corruption and bureaucratic corruption. According to Ventelou (2002), politicians, ministers, and policymakers can not only violate the formal rules but also create the formal rules to benefit themselves. On the other hand, Niskanen (1971) argued that after making any policy, bureaucrats are responsible for the implementation of those policies. When they misuse their power for their benefit, that misuse could be whether they violate the formal rules or don’t implement those policies. This is known as "bureaucratic corruption."

1.1.2 Corruption and Economic Growth

Corruption is a broader concept, and it has varying impacts on different factors. Sometimes it's a criminal act, but sometimes it's just an unethical and immoral act, but this research is an attempt to explore its impact on economic growth. Although there is mutual consent in the literature, the quality of governance is the key factor that determines the growth of an economy (Acemoglu and Robinson, 2012). But some systematic reviews have suggested that there is no final agreement on determining the quality of governance (Woodruff, 2006). Levels of corruption, rule of law, and regulatory quality are frequently used indicators of governance quality in previous literature (Tebaldi & Elmslie, 2008). Some economists (Hodge et al., 2009; Mo, 2001a; Pellegrini & Gerlagh, 2004) have suggested corruption as the most suitable proxy for quality of governance. High corruption levels are responsible for the lower quality of governance and vice versa (Tebaldi & Elmslie, 2008).

Previous empirical studies have also confirmed that corruption has a negative impact on economic growth (Ahmad & Arjumand, 2016; Barberis, Boycko, Shleifer, & Tsukanova, 1996; Koyuncu, Ozturkler, & Yilmaz, 2010; Paolo Mauro, 2004; Murphy et al., 1990). On the other hand, Leff (1964), Leys (1965), and Huntington (1968) argued that corruption accelerates economic growth. But corruption itself is a multifaceted social, political, and economic phenomenon, and most of the studies (Lui, Radii, & Dobromirov, 2016a; Murphy et al., 1990; Shleifer, 1993) have used the Corruption Perception Index (CPI) as a proxy for corruption. That reflects the overall corruption level of an economy, and they failed to provide an appropriate policy suggestion because combating overall corruption is a long-term challenge. Hence, it is important to identify which indicator is more affected by corruption and make policy suggestions accordingly. (Pellegrini & Gerlagh, 2004).

1.1.3 Impact of Corruption on Economic Growth through different Economic and Political Indicators.

Some indicators have a positive influence on economic growth, such as private investment. It creates job opportunities, increases government revenue, and increases the gross domestic product of a country. But corruption has a negative impact on private investment, which ultimately reduces the growth rate (Mauro, 1995). Similarly, human capital boosts productive activities, but when resources are diverted to corruption and rent-seeking, productive activities fall over time (Murphy et al., 1990).According to Hodge et al., (2011); Mo, (2001); Pellegrini, (2011); Pellegrini & Gerlagh, (2004), corruption increases concentration towards human capital, which ultimately decreases the growth rate.

Moreover, the third important economic indicator is international trade, which has a positive impact on the growth rate, but corruption through rent-seeking interferes in policy making, which discourages trade openness, which in turn reduces the growth rate (Hodge et al., 2011; Pellegrini, 2011b; Pellegrini & Gerlagh, 2004). Similarly, political stability reduces uncertainty over the protection of property rights, which in turn increases productivity and investment. But rent-seeking and corruption bolster political instability (Mo, 2001; Hodge et al., 2011; Pellegrini, 2011b; Pellegrini & Gerlagh, 2004), which ultimately reduces the growth rate. Hence, Mo (2001); Hodge et al., (2011); Pellegrini, (2011); Pellegrini & Gerlagh, (2004) have tried to convince us that corruption has a negative impact on economic growth when this research tests them through direct regression. Furthermore, they highlighted four important indicators namely private investment, human capital, trade openness, and political stability, and stated that these indicators have a positive impact on growth rate but have a negative relationship with corruption. Meaning that as corruption increases these

economic indicators deceases, in turn, slow down the growth rate as shown in the figure 1.1.

However, law and order and bureaucratic quality are also important indicators in the field of public economics and have a significant impact on economic growth (Lee and Won, 2016; Evans and Rauch, 1999; Farazmand, 2009; Hormats, 1989; and Dinov and Man, 2013). On the other hand, law and order and bureaucratic quality depend on the level of corruption in a country. As corruption levels increase, law and order and bureaucratic quality decrease (Azeez, 2015; Faisal & Jafri, 2017; Mainwaring et al., 2001). But these variables are not used to find the indirect impact of corruption on economic growth and are not used as channels to check the indirect impact of corruption on growth rate.

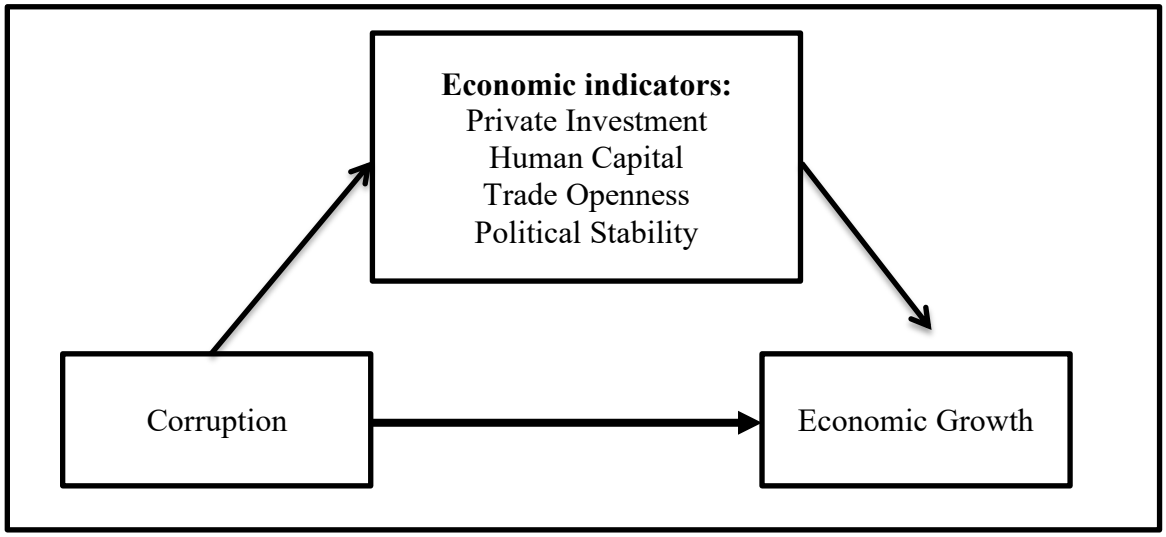

Figure 1.1: Direct and Indirect Impact of Corruption on Economic Growth

Source: Adopted from Mo (2001); Hodge et al., (2011); Pellegrini (2011); and Pellegrini & Gerlagh (2004)

1.2 Corruption Data

The measurement of corruption is based on actual incidence or perception and relies on a decided definition of corruption itself. Over the last four decades, there has been a huge demand for a universal and single understanding of the idea of corruption, which could be capable of spanning cultural, religious, and international borders (Graycar et al., 2013). In the late 1980s, corruption was most frequently understood as misuse of public offices for personal benefit which has been used in collecting data for the last three decades by different organizations as well as by individual scholars (Graycar et al., 2013). In the past, corruption data has been constructed in three ways which are discussed below.

1.2.1 Data from Investigated Reports

Corruption data can be generated by collecting information from newspapers or investigating reports. Because corruption is a white-collar crime, most countries have anti-corruption agencies who investigate different corruption cases and they publish that information in their reports or through newspapers. (Man-wai, 2009).

1.2.2 Corruption Perception Index (CPI) and Control of Corruption

Calculating the actual level of corruption in any country raises concerns about the validity and dependability of its nature.The most possible option is when national agencies collect the data on the incidence of corruption, but it cannot be assured that reported incidences of corruption are the total amount of corruption. Because corruption is an illegal, unethical, and immoral act that occurs secretly, it is not possible to find the actual quantity of corruption in a country. When the actual corruption level cannot be determined directly, then perceptions of corruption become the best way to know the corruption level in a country. This is the reason more and more organizations are participating in providing corruption perception indices, which is creating a spillover effect on research on corruption (Graycar et al., 2013).

Subjective data (perception data) of corruption is available in two forms, such as corruption perception index (CPI) and control of corruption index (CCI), and table 1.1 highlights which organizations provide CCI and which organizations provide CPI. CPI and CCI have conceptual and methodological differences. Because the questionnaire or CPI is constructed in a way to measure and provide subjective data about the overall perception of corruption within the country (Lambsdorff, 2007), On the other hand, the CCI questionnaire is constructed in a way to provide the reduction in corruption level in a particular country, meaning that CCI highlights how much

corruption has been reduced from the previous year in a particular country. The most frequently used CCI in previous empirical studies is the CCI of the World Governance Index. Secondly, the objective of CPI is to provide information about the level of corruption in a country (Transparency International, 2012). The objective of CCI is to provide an instrument to establish more effective instruments for quality of governance (The World Bank, 2017).

CPI and CCI have differences in strategies of data collection, in which CPI includes the perception of residents as well as non-resident panels of experts from business executives and NGOs. On the other hand, CCI includes public sector organizations, NGOs, and commercial business information (Malito, 2014). CPI and CCI also have differences in methodology. CCI adopts an Unobserved Component Model (UCM). In equation (1.1), corruption (Yij) is considered as a linear function of unobserved corruption (C), in a country (i), and an error term () (D Kaufmann et al., 2006).

$$Y_ij = \alpha_j + \beta_j (C_i + \varepsilon_{ij} \quad (1.1)$$

Where, *Y* is the observed score of corruption in a country *i,* which depends on the value of unobserved corruption *C* in country *i,* and an error term ε. α and β are the parameters to rescale the data from each source into the standard unit which a particular organization is using. World Governance Indicators standardize it (corruption value) between -2.5 to 2.5 and can be converted into percentile rank from 0 to 100 as used by Transparency International.

On another hand, CPI has employed a two-step standardization method which is based on the technique of matching percentiles and applying a beta transformation (Lambsdorff, 2007). According to this technique, the largest value of CPI will reflect

a low corruption level and the lowest value of CPI will reflect a high level of corruption.

Moreover, there is a difference in the selection of respondents in CPI and CCI. CPI includes both the perception of residents as well as non-residents when they want to estimate corruption in a particular country. On the other hand, CCI only includes public sector organizations, NGOs, and commercial business information, which are the residents of that country (Malito, 2014).

Different organizations (such as the International Country Risk Guide, Transparency International (TI), the World Governance Indicators, Global Competitiveness Reports, and Peter Neumann Corruption Index) publish the perception of public sector corruption. The objective of that data is to highlight an extensive perception of corruption in a country. Researchers have used perception data on corruption to gain a better understanding of corruption levels in a country, which can then be compared to other countries (Graycar et al., 2013).The perception of corruption is based on surveys conducted by international businesspeople, expatriates, risk analysts, and residents. Individuals are asked about their perceptions of the quality of services provided by public officials (Mocan, 2004).

There are six indices of corruption that have been commonly used in previous empirical studies, namely: International Countries Risk Guide (ICRG), Transparency International (TI), Global Competitiveness Reports, World Bank, World Governance Corruption Index, and Enterprise Surveys Woodruff (2006). The Transparency International (TI) Corruption Index is the most frequently used among all those CPIs, as mentioned in chapter three, because it provides free annual data for 140 countries from 1995 onwards. On the other hand, the ICRG Corruption Index is more suitable

for long-run relationships because it provides the annual data of corruption in 140 countries from 1984 onwards.

1.2.2(a) International Countries Risk Guide (ICRG) corruption index

The Political Risk Service (PRS) was established in 1980. PRS annually releases a dataset with the name International Countries Risk Guide (ICRG) which contains different forms of risks, namely political risks, economic risks, and financial risks in 140 countries. Each category contains different indices of risk, which are displayed in figure 1.2. An ICRG dataset (including a corruption index) is available from 1984 onwards for 140 countries. ICRG collects the data for these indices through surveys by asking questions related to the risks they are facing in their countries in doing business activities. ICRG converts information into risk points, ranking it from zero to six. Zero means high corruption and six means low corruption (PRS, 2012).

The ICRG risk indicators are shown in Figure 1.2 according to the group that they fall under. The information is published by the ICRG under three different headings: political risks, economic risks, and financial risks. These indices are referred to as risk indices since they are representative of the degree of risk that exists in a certain nation. For example, the ranking of a country's government stability, which falls under the heading of political risk and is shown in figure 1.2, ranges from zero to twelve. If a nation's ranking is very near to zero, it indicates that the likelihood of that country's government being stable is low. Conversely, if a country's ranking is relatively close to twelve, it indicates that the government of that country is more stable. So, according to ICRG, this is how each and every other index should be interpreted (PRS, 2012).

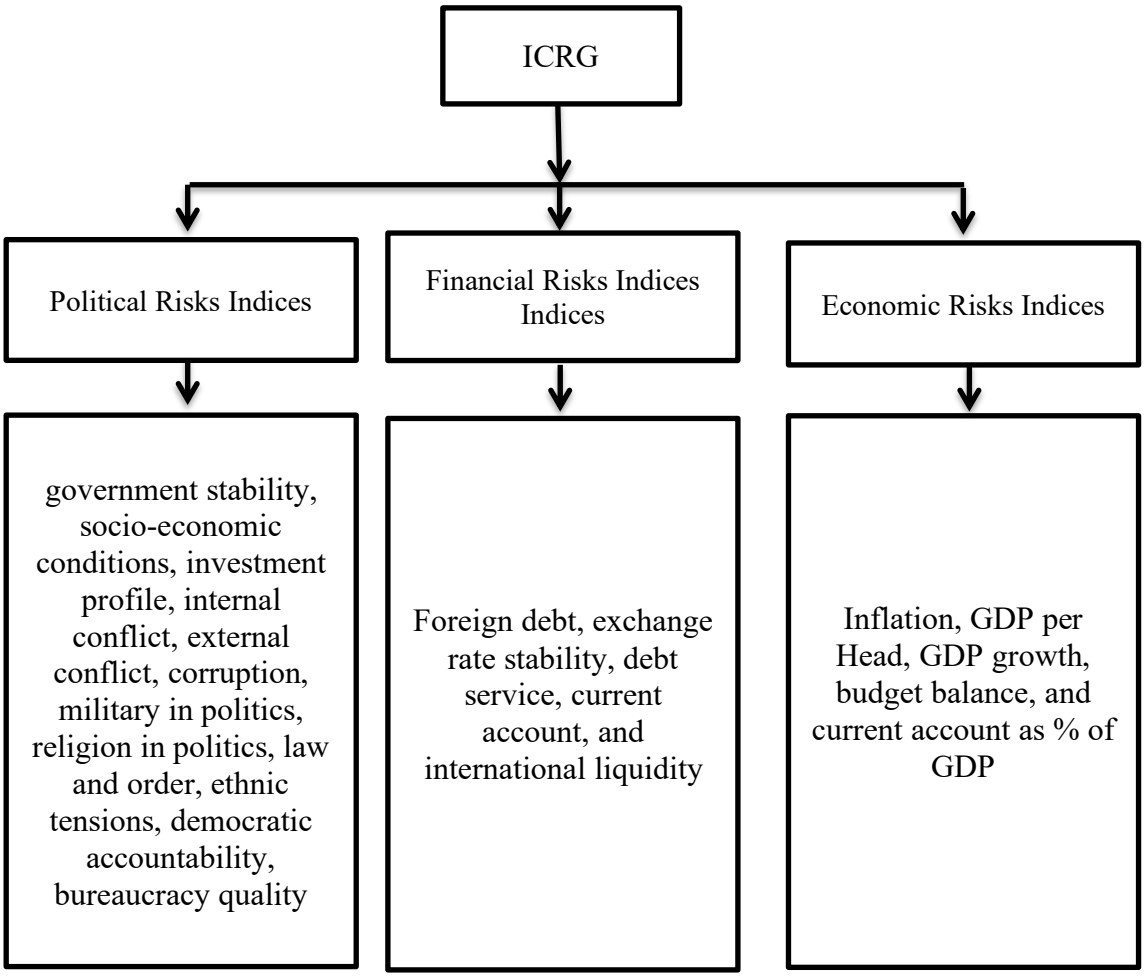

Figure 1.2: List of Indices published by International Countries Risk Guide (ICRG)

Source: PRS annual report (2012)

1.2.2(b) Transparency International corruption index

Transparency International is a non-profit and non-governmental organization. It was established on June 15, 1993 in Berlin (Germany) by Peter Eigen with the cooperation of the World Bank. Transparency International (TI) works with governments, businesses, and different international organizations to develop effective programs to combat corruption. TI annually releases the corruption index from 1995 onwards for 180 countries and territories. Transparency International collects the data based on how corrupt the public sector of a country is in the perception of civilians. They, like TI, want to know how much power public officials are abusing for private gain.Are there transparent procedures for business activities and is there a clear use of public funds? Is there abuse of public resources? Is there an independent judiciary and can it use its power to try government officers for abuses? After that, TI converts this questionnaire into points and TI uses a scale of zero to hundred by using the two-step standardization method, which is based on the technique of matching percentiles, where zero means highly corrupt and hundred means very clean (Transparency, 2018).

1.2.2(c) Global Competitiveness Reports corruption index

The “Global Competitiveness Reports", also known as the World Economic Forum (WEF), was established in 1971 as a non-profit organization in Geneva, Switzerland. In the beginning, it provided data on variables related to macroeconomics which were based on the “Growth Development Index” of Jeffrey Sachs. This forum was established by Professor Schwab. In the beginning, it was called the European Management Forum. Later on, it caught global attention, so in 1987 it was renamed the World Economic Forum. This forum makes every effort to demonstrate all of the options for the highest levels of transparency and accountability in the governance

system.Since 2004, the World Economic Forum has published an annual data set called the Global Competitiveness Report, which includes various variables such as a corruption index.It was developed by Xavier Sala-i-Martin and Elsa V. Artadi for Weforum (2018). The Global Competitiveness Report divides its data into six sections, namely institutions, infrastructure, health and education goods, market efficiency, technological readiness, and business sophistication. Among those pillars, corruption is included in institutions. It follows the methodology of Transparency International for its corruption perception index (Brende, 2014). In 2018, the Global Competitiveness Report provided a corruption index for 142 countries, which is ranked between one and seven. If any country receives one point, it means that it is highly corrupt. Similarly, if any country receives seven points, it means that it is less corrupt (Weforum, 2018).

1.2.2(d) CPIA Transparency Control of Corruption

This corruption index is provided by the International Development Association (IDA) which is part of the World Bank Group. The objective of IDA is to help countries in dealing with the challenges they face in achieving Millennium Development Goals (MDGs). With the collaboration of The World Bank, IDA publish an annual report of Country Policy and Institutional Assessment (CPIA). IDA assesses a country's performance against the set of sixteen groups which are clustered in four areas: economic management, structural policies, policies for social inclusion and equity, and public sector management and institutions. The CPIA corruption index provides the data of 60 countries from 2005 onwards and it ranks from zero to six. Zero means highly corrupt and six means less corrupt. This corruption index rank

transparency, accountability, and corruption in public offices. It covers most of the African countries (World Bank, 2019).

1.2.2(e) Peter Neumann corruption index

Peter Neumann is the one responsible for constructing this corruption index. He worked as a journalist for the German periodical Impulse, which is dedicated to business. He conducted 10 interviews on average each European nation, all of which were assured to be held in the strictest confidence, and the majority of the nations having commercial ties to Germany. Because of these interviews, he was able to construct a corruption index that is exclusive to European countries. Peter Neumann was the publisher of a German magazine that came out monthly. His inquiry was geared on determining the percentage of dealings that included bribes or other forms of illegal compensation. The Peter Neumann Corruption Index was devised with the intention of fostering an atmosphere of trust among European nations in order to facilitate free commerce without the accompanying anxiety. From 1995 till 2005, it could be purchased (Ahmad, 2001; and Javorcik & Wei, 2009).

1.2.2(f) The Global Economy Control of Corruption

It is well known that The Global Economy provides more than 300 economic indicators to help researchers, scholars, investors, and entrepreneurs make informed decisions. It does so with the assistance of organizations such as the United Nations, the International Monetary Fund (IMF), and the World Economic Forum in order to compile the statistics. Recently, it has added a corruption index to its data collection, which now has information for 96 nations spanning from 1996 to 2016. It ranges from a -2.5, which denotes very corrupt, to a 2.5. (less corrupt). This index takes into account

both minor and major instances of corrupt behavior, reflecting people's opinions of the extent to which public officials engage in corrupt practices for their own personal benefit. The Global Economy relied only on corrupt practices in the public sector in the outset, but it has now expanded to encompass private companies and individuals who take advantage of their positions in public service for their own financial benefit (Global Economy, 2018).

1.2.2(g) Which Corruption Perception Index can be used?

Ahmad (2001) carried a research that compared and analyzed the majority of the different corruption indexes. His key goal in doing the research was to demonstrate that the outcomes of using various corruption indices are not only comparable to one another but also remain stable over time. In order to accomplish this goal, he began by presenting the rank correlation coefficients for each of the indices. Later on, he regressed these indices on the same set of explanatory factors for a common set of twenty nations. This was done using regression analysis. The results of his research demonstrated that these indicators have a strong relationship with one another and are consistent over time. According to him, researchers are free to apply any corruption index from among these indices since the findings obtained by each index will be comparable.

Table 1.1: Corruption perception index (CPI) and control of corruption index (CCI)

Corruption Perception Index (CPI)	**Control of Corruption Index (CCI)**
Transparency International (TI) International Countries Risk Guide Global Competitiveness Reports Peter Neumann corruption index	World Governance CPIA Transparency

Source: Constructed by author

There are six corruption perception indices which are frequently used in previous studies, as shown in table 1.1. These indices are ranked in table 1.1 according to their frequency of use in empirical studies. Transparency International is the most frequently used in the previous empirical studies under the category of CPI, the World Governance Index of Corruption is the most frequently used in the previous empirical studies under the category of CCI, and the International Country Risk Guide is second in CPI (June et al., 2008; Rohwer, 2009).

According to Graycar et al. (2013), providing a suitable ranking of any country for its corruption level in the initial year was a challenge for organizations that provide a corruption perception index because they neither have the mean value nor standard deviations of previous years. Hence, they have to compare one country with other countries in the world in order to rank them. Hence, it takes time to give proper rank to any country, meaning that the longer the time period, the more suitable rank will be given to any country. As shown in table 1.2, the international country risk guide has the longest time period when compared to other corruption indices; Transparency International (TI) is second, and the World Governance Index is third.

However, the choice of an appropriate corruption index is dependent on the nature of the research, and this study uses panel data from eight Asian developing countries, so it has less cross-sectional data.So, longer (time series) data will be suitable for this research. Moreover, not all indices provide the data of our selected countries, such as the Peter Neumann corruption index and the CPIA Transparency Index. According to Ahmad (2001), researchers can use any corruption index but CPI doesn’t change each year. Hence, ICRG has a comparative advantage in providing

longer data. Thus, this research will use the ICRG corruption index in exploring its relationship with economic growth.

Table 1.2: Corruption Indices and Number of Countries/Territories they cover with Time Period

Corruption Indices	Number of Countries/Territories	Time Period
International Countries Risk Guide	180	1984-2020
Transparency International (TI)	180	1995-2020
Global Competitiveness Reports	142	2004-2020
Peter Neumann corruption index	26	1995-2005
CPIA Transparency	60	2005-2020
World Governance Index	205	1996-2020

Sources: Global Economy (2018)); Ahmad (2001); and Javorcik & Wei (2009); Weforum (2018); Transparency (2020); and PRS (2020).

1.3 Problem Statement

There is an emerging trend of using the Corruption Perception Index (CPI) for time series or cross-sectional analysis in the field of development and political economics. Various corruption indices (e.g., Transparency International) have highlighted that countries which are highly developed, such as Denmark, Norway, and Ireland, are less affected by corruption, but countries that are less developed are on average more affected by corruption, such as Syria, Yemen, and Sudan. This correlation points towards an adverse relationship between corruption and the development of a country.

Although corruption by nature is broader concept because is multifaceted and combating overall corruption is long-run challenge. As a result, an alternative is

required, and this is an attempt to investigate possible options for reducing the impact of corruption on growth rate.To achieve this objective, it's required to identify important economic and political indicators which have a significant role in accelerating the growth rate of an economy. As such, in the beginning, this research has highlighted some important indicators for economic growth, namely political stability, education, private investment, international trade, quality of bureaucracy, and law and order. Although these indicators have a positive influence on the growth rate, it is unclear whether these indicators have any relationship with corruption or not. Furthermore, another question arises if there is a relationship between these indicators and corruption, and whether this relationship has any negative influence on the speed of growth or not.

Hence, in a nutshell, the first thing is to find the impact of corruption on the growth rate and then the impact of these economic and political indicators (namely political stability, education, private investment, international trade, quality of bureaucracy, and law and order) on economic growth. Later on, this research will identify the impact of corruption on these indicators and the impact of these affected (or not affected) indicators on the growth rate.

As discussed, corruption is a long-term challenge and its impact could also be for a longer period of time. Hence, only knowing the impact of corruption on economic growth will not provide the clear picture for better policy suggestions. Hence, We also need to explore the long-term relationship between corruption and these indicators.

1.4 The Rationale for selecting eight Asian Countries

ASEAN countries are some of the fastest-growing economies in the world, and in the last few years, there has been a big rise in foreign direct investment and regional integration. However, even though there has been a lot of economic growth in the region, long-term development is being slowed down by poor governance, most notably in the form of autocratic governments, low accountability, and highly politicized public sectors. Many countries have made big changes to their legal systems in the last few years, as well as seen a rise in the number of people being prosecuted. Results from the Global Corruption Barometer (GCB), which is conducted by Transparency International, show that people have less faith in governments and government institutions, as well as in their ability to fight corruption. These countries have also been fragile in the reported levels of bribes paid. Gaps remain in the anti-corruption agencies that aren't well-funded or independent, the high level of state capture, and the lack of protection for whistle-blowers (Mathew et al., 2020). This research has selected Indonesia, Malaysia, and Thailand for this reason to explore whether the public's lack of trust in the public service is causing the unsustainable growth rate.

Secondly, according to Acemoglu, Johnson, and Robinson (2012), the quality of current institutions depends on the previous institutions of a country, and previous institutions depend on whether that country was a colony of another country or not. Moreover, whether that country was conquered for exploitation or not, Most previous empirical studies, such as Fredriksson and Svensson (2003), Dridi (2013), Pellegrini (2011), Pellegrini & Gerlagh (2004), and Tebaldi & Elmslie (2008), have also used legal origin as a proxy for the current state of institutions.And selected countries such as Bangladesh, India, Pakistan, and Sri Lanka were colonies of the United Kingdom.

Even though China's economic and political footprint has grown so quickly, many South Asian and Southeast Asian countries, even those with well-established civil society institutions, have had a hard time figuring out what that means for them. Hance said China is regionally highly integrated with these regions, especially in trade and foreign direct investment. Meaning that their current institutions are not totally independent of China's involvement (Brattberg and Feigenbaum, 2020). As a result, this study cannot exclude China from the analysis and must include three ASEAN and four South Asian countries (Bangladesh, India, Pakistan, and Sri Lanka).Indonesia, Malaysia, and Thailand).

1.5 Research Questions

This research will try to explore answers to the following research questions.

1. Does corruption impact economic growth in South/Southeast Asian economies?
2. Does corruption impact economic growth through six indicators namely private investment, international trade, human capital, political stability, bureaucratic quality, and "law and order?
3. Is there causality between corruption and these six economic and political indicators?
4. How long there is causal relationship between corruption and these economic and political indicators?

1.6 Research Objectives

Proceeding from the above research questions, the following are the objectives of this research.

1. To explore the impact of corruption on economic growth in South/Southeast Asian economies.
2. To examine the impact of corruption on economic growth through six economic indicators namely private investment, international trade, human capital, political stability, bureaucratic quality, and “law and order.
3. To assess causality between corruption and six economic and political indicators.
4. To estimate how long there is causal relationship between corruption and these economic and political indicators.

1.7` Significance of this Research

This research aims to explore the relationship between corruption and economic growth through six economic indicators, namely political stability, bureaucratic quality, human capital, “law and order”, international trade, and private investment. Furthermore, this study will estimate the causality as well as reverse causality between corruption and those channels. There is significance in achieving these objectives that are summarized as:

1. Today, most developed countries are less corrupt than less developed countries, and less developed countries are facing a high level of corruption. Selected eight Asian countries, namely Bangladesh, China, India, Indonesia, Malaysia, Pakistan, Sri-Lanka, and Thailand, gained independence more than fifty years ago, but they are still underdeveloped due to that research is an attempt to confirm whether it is because of corruption.
2. Combating corruption is a long-term challenge. To restrict corruption to interfering in economic activities, we need to explore which economic factor

(indicator) is affected more. And the government can only concentrate on selected areas to reduce the impact of corruption on economic growth. To the best of my knowledge, the previous four channels (political stability, human capital, international trade, and private investment) have been used to explore the indirect effect of corruption on economic growth. This study will include those four channels as well as introduce two new channels, namely bureaucratic quality and “law and order." This research will be an attempt to get the attention of the governments of these eight countries because there is a significant contribution between these two indicators in the growth rate of an economy and we need to make sure there is no impact of corruption on them.

3. There are two schools of thought when there is concern about the relationship between corruption and economic growth. One school of thought believes that corruption has a positive impact on economic growth and the other is against it. This research will confirm which school of thought is valid in the case of the selected eight countries.

1.8 Organization of the research

The proposal of this research is divided into four chapters which are briefly discussed below:

Chapter 1 gives the background of this research and the introduction of corruption and its types. Furthermore, it discusses different sources of corruption data. Moreover, problem statements, research objectives, research questions, the rationale for selecting eight Asian countries, and the significance and contribution of this research are also presented in this chapter.