

IMPACT OF CORRUPTION ON ECONOMIC GROWTH THROUGH DEVELOPMENT ECONOMICS PERSPECTIVE

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1.0 Introduction

Corruption has been widely recognised as a threat to democracy for decades. It stifles economic progress in emerging nations and rips the social fabric apart. Corruption has been defined in many ways. The World Bank defines corruption as “the abuse of public power for private benefit.” Similarly, the OECD (Organisation for Economic Co-operation And Development) used a definition that covers a broad range of corrupt activities is the “abuse of public or private office for personal gain” and Transparency International (TI) defines corruption as “the misuse of entrusted power for private gain.”

It is vital to highlight that corruption is more than just a money transaction or an under-the-table transaction. It adversely affects the culture, politics, and economy, including the state's public, private and individual lives. The international initiatives like Organisation of American States (OAS), Inter-American Convention Against Corruption (IACAC), Council of Europe (CE), Anti-Bribery Convention (ABC), United Nations Convention for Anti-Corruption (UNCAC), Organisation for Economic Co-operation and Development (OECD) presented corruption as the ‘bribery’, but according to research bribery is just one type of corruption, which is a far larger concept than bribery.

There are various types of corruption in public, private, profit, non-profit sectors shown in the following:

Private Sector Corruption

Extorsion	Collusion	Insider Trading	Embezzlement	Nepotism	Gifts, Hospitality
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Public Sector Corruption

Trading in influence	Bribery	Illicit Enrichment	Trading in influence	Abuse of Functions	Favouritism
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Non-profit Sector Corruption

Check Fraud	Fictitious Vendor Schemes	Ghost employees	Funds for personal use	Kickbacks from vendors	Expense fraud
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There are many effects of corruption, but we choose to study the impact of corruption on economic growth. The economic growth depends on corruption similarly corruption depends on the economic growth of the sector. As example the economic growth measured on the basis of or represented by Gross Domestic Product (GDP) and Gross National Product (GNP). Economic growth is an increase in the production of goods and services, compared from one period of time to another (definition). The corruption causes major losses in the revenue of the government. There are two types of mindsets who believe corruption harms economic growth and the other ones who take corruption in a positive manner. In this paper, we summarise the problems regarding corruption in India, detailed analysis of previous years data and try to describe the relationship between corruption and economic growth. In the end, we mentioned the conclusion and future scope in this field of research.

The paper consists of the following eight sections. The first section is the introduction, motivation of study and objective of study. Section 2 contains literature review which describes a variety of relevant studies. Section 3 shows corruption in India, Section 4 contains analysis of corruption using GDP, FDI and CPI which shows a large figure indicating the major problem of corruption in India. Section 5 describes the data and methodology employed in the estimation. Section 6 elaborates the empirical results and analysis, section 7 printed conclusion of the study and section 8 offers some remarks for future research and the dataset used.

1.1 Motivation of Study

The increasing corruption in not only India but the whole world is a major problem which cant be ignored. The increasing number of complaints in The Directorate of

Enforcement ignite to study further in this case. From the datas of world bank and transparency international (TI) surveys we have to look into this. The mega world of corruption causes slow economic growth, less development, less investment, poor quality of education and health. On the other hand, corruption speeds up the implementation of government or public sector works.

1.2 Objective of Study

India is the third largest economy in the world. But the corruption cases in India are a cause of worry for the economic development of India. In this paper, we are trying to find the relationship between economic growth and corruption, its good or bad effects and the major cases and history of corruption. For this we have to analyse the variables like gross domestic product (GDP), gross domestic product growth rate (in annual percent), foreign direct investment (FDI) and corruption perception index (CPI). The data shows reducing corruption in India but the figure is large in number that can not be ignored.

2.0 Literature review

The 'grease the wheels' theory proposed by Leff (1964), Huntington (1968), and Leys (1965) suggest that corruption may be helpful in a society where optimality requirements are not met due to institutional distortions. The notion is that an inefficient bureaucracy is a barrier to investment that can be overcome with some "speed" or "grease" money. Because corruption benefits only the most efficient market actors, academics believe it may lead to the forced withdrawal of inefficient businesses, resulting in a more efficient economy. On the other hand, "The Sand the wheels' idea refers to corruption's detrimental influence on economic growth and development.

The 'Does Corruption Grease or Sand the Wheels of Growth?' by Pierre - Guillaume Meon and Khalid Sekkat analysed the relation between corruption, investment and growth. To analyse this they added interaction variables to the set by which we generally determine the economic growth and use to explain investment. They found that the results are in favour of "grease the wheels" and completely rejected the other "sand the wheels". They found that political violence and protest, an inefficient government, weak judiciary system give ignition to the corruption and slow down the economic growth. This results in poor governance, poor

health and education facilities. They therefore conclude that reducing corruption would be more profitable and the other factors like the GDP, FDI do not matter much in that case.

According to Méon and Weill (2010), corruption is less harmful to a less functional country and may even be related to efficiency in countries with extremely weak institutions. Huang (2016) investigates the causal link between corruption and economic growth depending on the methodology, period and data sample in 13 Asia-Pacific nations and discovers that, despite high levels of corruption, South Korea and China are advancing economically. According to Colombatto (2003), corruption in emerging nations removes the obstacles to progress by acting as "fast money" in times of political instability and institutional inefficiencies. Kato and Sato (2015) discover evidence of a "greasing the wheels" impact of corruption at the company level in India when they consider corruption drivers of firm behaviour. These studies show the effect of corruption on economic growth.

Shleifer and Vishny (1993) established a model to build on two corruption incidents in society in order to better comprehend the issue of corruption. It's the most straightforward model of a single government-produced item. The good is considered to be homogeneous, and the private agents' demand curve is $D(p)$. This good is sold by the government through an official who has the power to limit the number of government-produced goods. Without fear of being discovered or punished from above, the official can limit supplies (a monopolist). The model is further developed by the economists by identifying the official government price for this good as ' p ' and the cost of production as irrelevant. They proposed two models named "corruption with theft and corruption without theft". In the scenario of 'Corruption without Theft,' the official gives the government the official price of the items; hence, the official's marginal cost is ' p .' The overall price, including the bribe, is always more than the official price. The official does not turn over anything to the government in the instance of 'Corruption with Theft,' hence the marginal cost to the official is zero. It's possible that the final price will be lower than the government's. According to the findings, the rise of corruption is due to rivalry among authorities as well as among customers.

3.0 Corruption In India

India is the third largest economy and democracy in the world after the United States of America (USA) and China. In terms of purchasing power, India comes third and fifth largest economy in the perspective of nominal GDP. According to the Transparency International

(TI) who started a survey for corruption index in 1995, the corruption perception index CPI ranges from 27.8 to 40. In 1995 the CPI was 27.8, in the year 2000 the CPI was 28. In 2005, CPI was 29. In 2010, it was 33. 2010 onwards the CPI increases rapidly and in 2018-2019 it was at its peak i.e. 41. The increase in CPI score indicates low corruption rate in corruption.

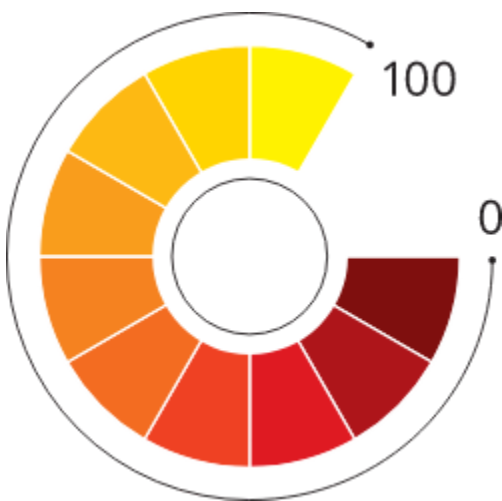
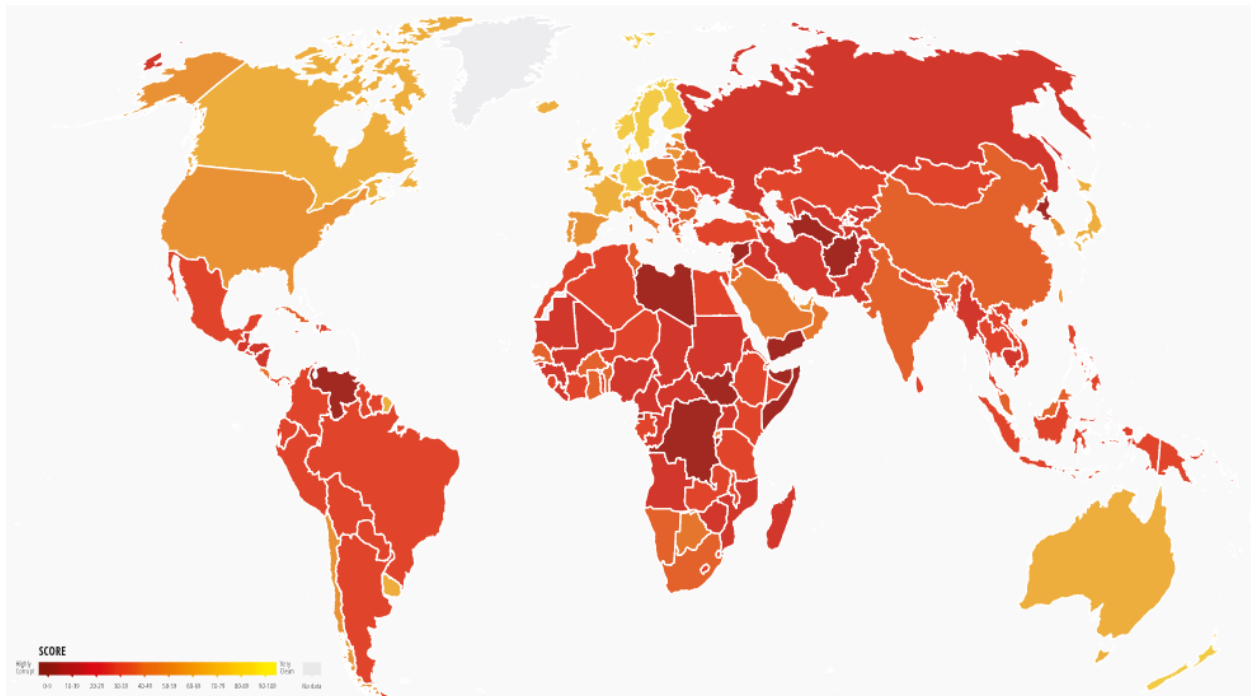
Excessive laws, complex tax and licensing systems, opaque bureaucracy, monopoly of government-controlled organisations, personnel with discretionary powers, and other factors all contribute to corruption in India. Several major frauds involving high-ranking government officials have been exposed recently. For example, the Coal Allotment Scam (Cost–186000 Crores), in which the Government of India was accused of inefficiently awarding coal blocks between 2004 and 2009, was one of the most important scandals in India.

The Commonwealth Games (CWG) Scam (Cost–70000 Crores) was another massive fraud in the country. In this instance, it was revealed that barely half of the budgeted sum was spent on Indian athletes, and Suresh Kalmadi was accused of providing Swiss Timings a contract at inflated prices (Rs. 141 crore), which was Rs. 95 crore higher than necessary. The 2 G Spectrum Scam, the Mega black money laundering Scam, the Adarsh Housing Scam, the Stamp Paper Scam, the Bofors Scam, the Fodder Scam, the Hawala Scam, the Satyam Scam, the Stock Market Scam, and the Madhu Koda Scam are among the other instances.

4.0 Analysis of corruption

The corruption perceptions index(CPI) states the index that scores countries on the perceived levels of government corruption by country (definition). The corruption perception index ranges from 0 to 100. Transparency International (TI) conducts The Corruption

Perceptions Index survey annually.



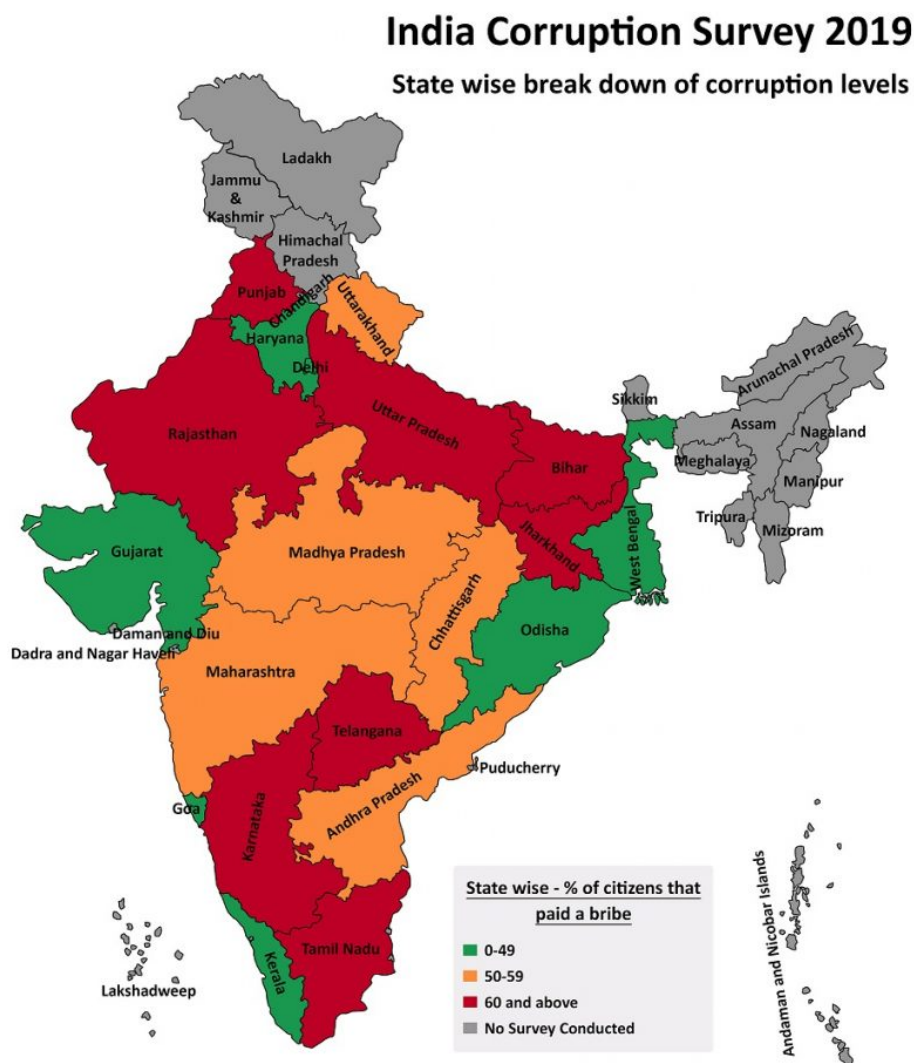
The CPI uses scale from 0 to 100

100 is very clean

0 is highly corrupt

The corruption perception index conducts surveys in 180 countries and territories and ranks them around the world on the basis of their public sector level corruption. In the year 2021, out of the 180 countries, 49 countries showed great progress in reducing corruption. On the

other hand 131 countries show no significant effect or progress in corruption. Since last ten years, the global average corruption perception index is unchanged, around 43 out of 100. 117 countries are below the score 50, 48 countries between the score 50 and 80 and 9 countries above the score 80. A lower score than 50 indicates major corruption problems in the country.

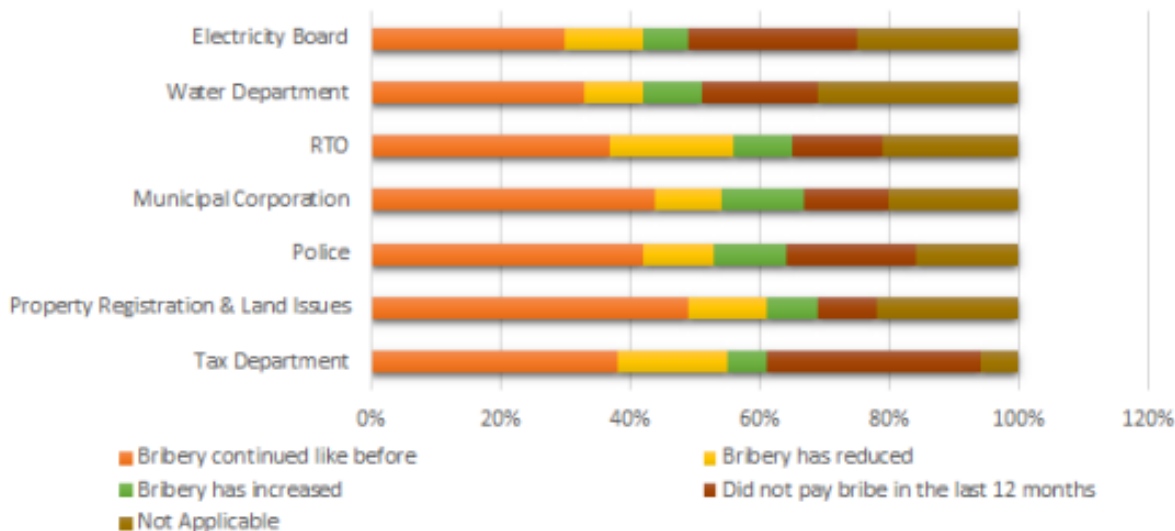


According to the annual survey of citizens who paid a bribe by Transparency International India (TII) recorded from 81,000 citizens from India in the year 2019, the states Haryana, Gujarat, Kerala, Odisha, West Bengal, Kerala have score range 0-49 which means less than 50 percent population paid a bribe which is not a big issue. The states Maharashtra, Uttarakhand, Madhya Pradesh, Chhattisgarh, Andhra Pradesh range between 50 to 59 percent.

While Punjab, Rajasthan, Uttar Pradesh, Karnataka, Uttar Pradesh, Bihar, Jharkhand had the highest bribery rate which is above 60 percent.

From the further sectoral analysis of corruption in India, the bribery growth rate has discontinued in recent years. Property registration and land issues have the highest bribery rate of corruption. In the electricity board 3 percent citizens paid a bribe. While in the water department 5 percent, in the Regional Transport Office (RTO) 13 percent, in the municipal corporation 13 percent, in the police department 19 percent and in the tax department 8 percent citizens paid a bribe. 13 percent of citizens who voted for the survey said that they paid for other authorities. In the last 12 months, the bribery in the Tax department reduced (17 percent citizens voted for this). While 12 percent said that bribery is reduced in property registration and and issues, 10 percent believe the reduction in municipal corporation department at the same time 44 percent believe in the continuity. In the regional transport office department 19 percent voted for reduction while 37 percent voted for the same and 9 percent for growth. In the Police department the rate of corruption grew by 11 percent, 42 percent voted for the same and surprisingly 20 percent did not pay a bribe. 9 percent voted for an increase in the corruption rate in the water department, 33 percent said that it has not changed, 9 percent said that it has decreased while 18 percent voted for not paying a bribe. Coming to the Electricity board commission, the citizens who voted for increase are 7%, who voted for did not pay a bribe are 26 percent, who voted for decreased are 12 percent.

SECTOR-WISE CORRUPTION ANALYSIS



The 13 percent citizens paid for other authorities which contained the education, law and judiciary system. These contain the money for donation fees, exam passing fees, exchange the orders for criminal, civil, family cases in the courts. The increasing corruption in the court with more than millions of pending cases is a major problem in this field. As per report, around 3.12 crore are pending in the different high courts and district courts which is due to shortage of employees and widespread corruption at the lower court levels. These pending cases also include cases from the education department. The donation fees and fake exam attempts results in illetral youth increasing day by day due to loose challenging laws and regulations in the judiciary system.

5.0 Research Data & Methodology

In this paper, like the literature, we are trying to find the relation between corruption and economic growth. For this, we use tools like correlation and scatter plots. The scatter plots are the graphs in which values of the two variables are plotted along two axes and this pattern of points results in any correlation pattern. While correlation means statistical measure that expresses the extent to which two variables are linearly related and it is measured using sample correlation coefficient ([definition](#)). Then the question is why we use two tools like scatter plot and correlation, if the relationship between corruption and economic growth is linear, we found this relation in correlational values. And if the relationship turns out to be non-linear, we see this in the scatter plot graph.

As we see the corruption perception index (CPI) which is the annual index published by Transparency International India (TII). In our research, we use Gross Domestic Product (GDP), its growth rate (growth rate of gross domestic product) to find the relationship between economic growth and corruption. Then from the World bank database, we collect foreign direct investment (FDI) data from the year 1995 to 2019 and the corruption perception index (CPI - from 1995). As seen above in the Analysis of Corruption, CPI ranks the countries on the basis of their corruption in the public sector and which is on the basis of voting of around 81,000 citizens and their 1,91,000 responses.

The following scatter plot shows GDP (constant 2015 US\$), GDP vs CPI (corruption perception index), GDP growth rate (annual percent) vs corruption perception index (CPI), FDI vs CPI :

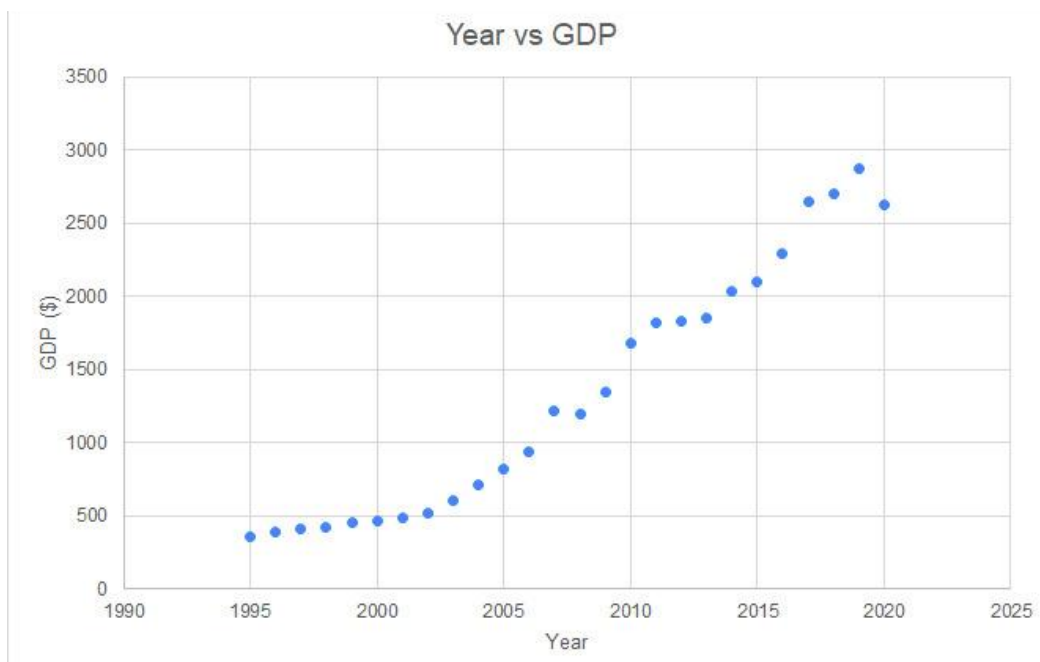


Figure : plot of GDP (at constant 2015 US\$)

Source: World Bank for GDP (at constant 2015 US\$) and Transparency International India (TII) for CPI

The following shows scatter plot for relationship between two variables GDP and CPI for India:

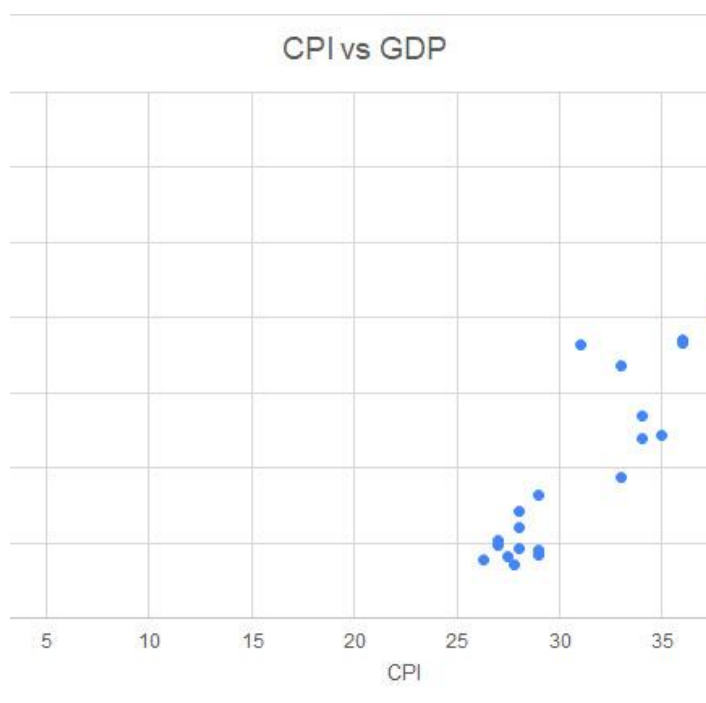


Figure: GDP vs CPI (corruption perception index)

Data Source : World Bank official website ,Transparency International survey for India

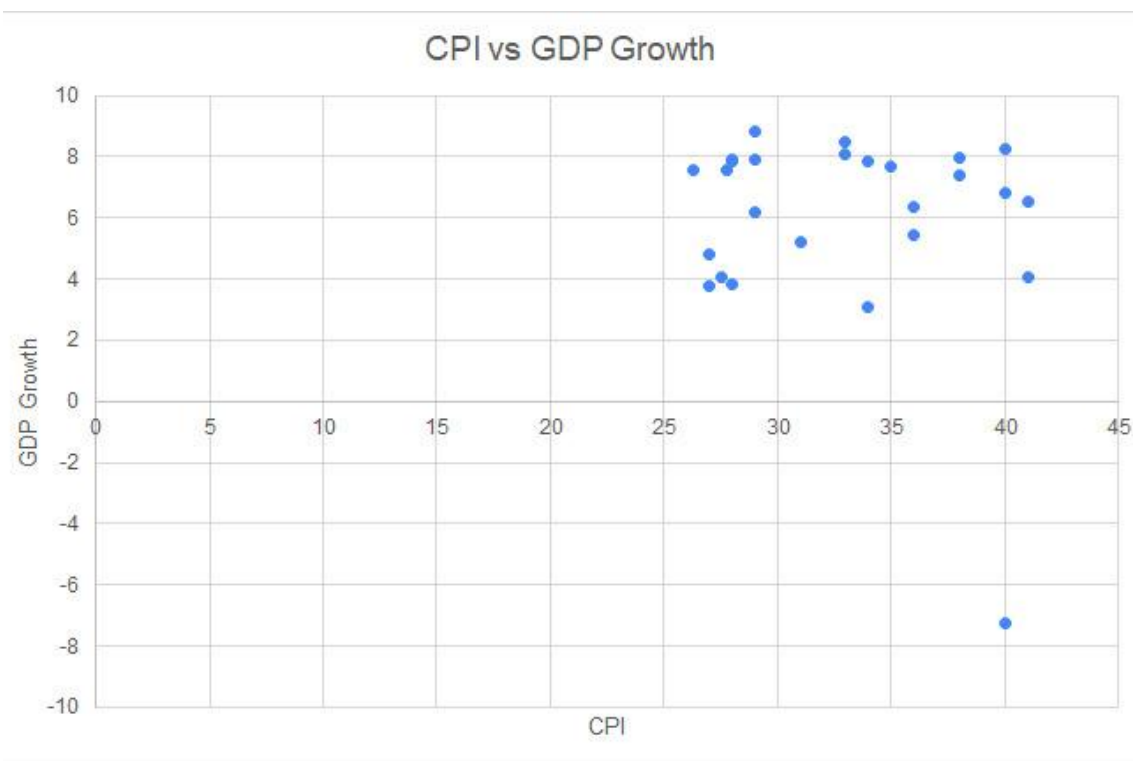


Figure : GDP growth rate (annual percent) vs corruption perception index (CPI)

Source : World bank and TII

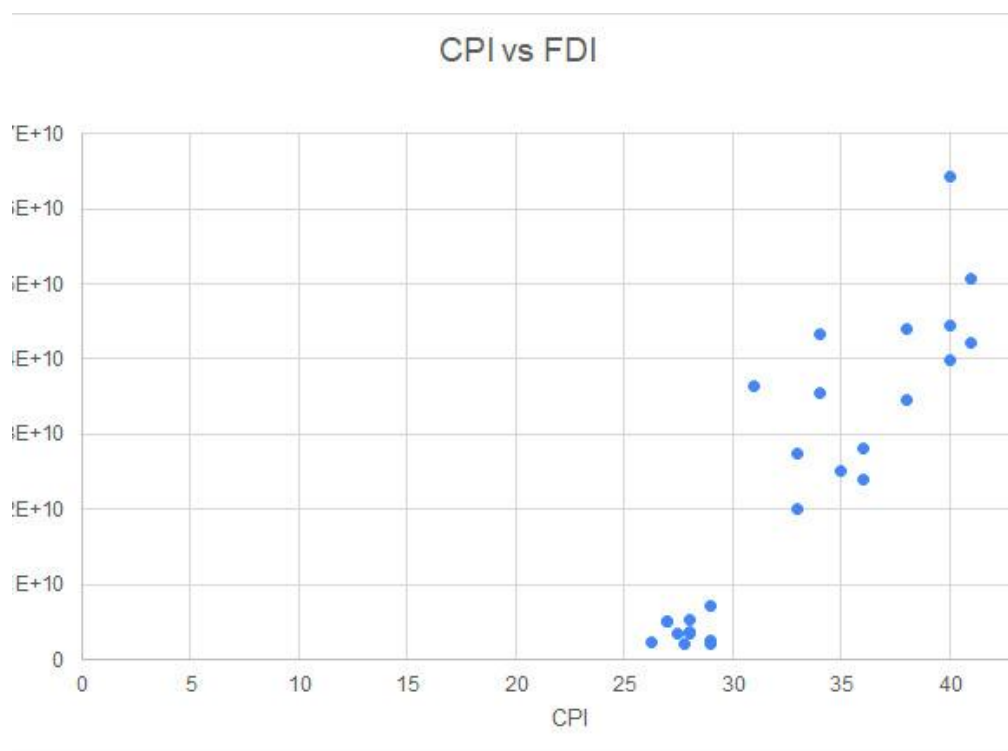


Figure : FDI vs CPI

Source : World Bank and TII

We plotted the corruption perception index against foreign direct investment, gross domestic product and growth rate of gross domestic product. The correlation coefficient for gross domestic product and corruption perception index is 0.5245, for growth rate of gross domestic product and corruption perception index is 0.0482 and for foreign direct investment and corruption perception index is 0.5038.

6.0 Analysis

The scatter plots of above variables show the relationship between the two measures. The correlation coefficient of CPI with both Gross Domestic Product and Foreign Direct Investment i.e. GDP and FDI are above 0.5 which shows a positive relationship. This positive relationship shows that the increase in the Corruption Perception Index is the same as the increase in Gross Domestic Product and Foreign Direct Investment (GDP and FDI). The higher the value of the corruption perception index means lower the corruption in the country. If we see the above data, we noted that the increase in the CPI score of India from 1995 indicates a

positive change in India's Gross Domestic Product (GDP) and Foreign Direct Investment (FDI). On the other hand, the correlation coefficient of GDP growth rate and Corruption Perception Index (CPI) is very less i.e. 0.0482 which shows not a linear relationship.

7.0 Conclusion

As we discussed earlier, corruption has a major negative or bad impact on the development of a country. It causes slow economic growth, less development, less investment, poor quality of education and health. This can be prove by the data we achieved above for India,

- Corruption Perception Index (CPI) is positive in correlation with Gross Domestic Product (GDP)
- Corruption Perception Index (CPI) is positive in correlation with Foreign Direct Investment (FDI).

Because of the low correlation coefficient of Corruption Perception Index (CPI) and Gross Domestic Product Growth Rate, there is not such a positive linear relationship.

From the previous surveys of Transparency International (TI) and world bank data and review of previous research study on this topic we analysed the effect of corruption on economic growth.

8.1 Further Research Scope

The Transparency International (TI) started a survey of CPI from the year 1995. So we do not have long year data. We need to have more data to predict the non - linear relationship between CPI and growth rate of GDP (in this case). So there is a scope for improvement in this paper. Although we have one more way to predict the relationship i.e. running a time series regression across a database which we used in econometrics.

8.2 Appendix data

Year	GDP (in billion US\$)	GDP growth %	FDI
1995	360.28	7.57449184	2143628110

1996	392.90	7.549522249	2426057022
1997	415.87	4.049820849	3577330042
1998	421.35	6.184415821	2634651658
1999	458.82	8.845755561	2168591054
2000	468.39	3.840991157	3584217307
2001	485.44	4.823966264	5128093562
2002	514.94	3.803975321	5208967106
2003	607.70	7.860381476	3681984671
2004	709.15	7.922936613	5429250990
2005	820.38	7.923430621	7269407226
2006	940.26	8.060732573	20029119267
2007	1,216.74	7.660815065	25227740887
2008	1,198.90	3.08669806	43406277076
2009	1,341.89	7.861888833	35581372930
2010	1,675.62	8.497584702	27396885034
2011	1,823.05	5.241315001	36498654598
2012	1,827.64	5.456388753	23995685014
2013	1,856.72	6.386106401	28153031270
2014	2,039.13	7.410227605	34576643694
2015	2,103.59	7.996253786	44009492130
2016	2,294.80	8.256305502	44458571546
2017	2,651.47	6.795383419	39966091359
2018	2,701.11	6.532989011	42117450737
2019	2,870.50	4.041554187	50610647354
2020	2,622.98	-7.251754782	64362364994

9.0 References

The 'grease the wheels' theory proposed by Leff (1964), Huntington (1968), and Leys (1965)

Méon and Weill (2010)

Huang (2016)

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https://www.transparency.org/en/cpi/2021?gclid=CjwKCAjwxZqSBhAHEiwASr9n9MQ_h3s30mI3Nn4zZWQ-esVwmPnKS-ITIKecxPO75cQZLVyEgKBTJBoCSLoQAvD_BwE