

A Correlation Study Analysing the Affect of Corruption on Economic Growth in India

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ABSTRACT

Economic growth is an essential phenomenon for a nation as the economic growth level determines the standard of living of the people of that country and is considered a fair proxy for the human development indicators. As Per The Latest Corruption Perception Index (Cpi) Which Is Released In January 2022, India Has Ranked 85th Out Of The 180 Countries Which Were Included In The Index One of the ideologies known to affect the degree of economic growth in a nation is corruption. The link between corruption and economic growth and reviews academic literature focusing on different effects of corruption on economic performance. Following this, taken India's example as a case study. To support the arguments regarding the negative impact of corruption on economic growth, we have conducted empirical research by implementing a correlation study. We have employed the statistics of the Corruption Perception Index (CPI), Gross Domestic Product (GDP), GDP Growth Rate and Foreign Direct Investments (FDI) for the investigation. Hence, the paper is an attempt to examine the empirical relation between corruption and economic growth.

Keywords: Corruption, Corruption Perception Index, Economic growth, India (Bharat).

INTRODUCTION

Corruption: Dishonest, Immoral behaviour Corruption is a form of dishonesty or a criminal offense which is undertaken by a person or an organization which is entrusted with a position of authority, in order to acquire illicit benefits or abuse power for one's personal gain....

Economic growth an increase in the amount of goods and services produced per head of the population over a period of time.

"He believes that creativity holds the key to economic growth"

"For decades, corruption has been popularly known to damage the integrity of democracy. It acts as a hindrance to economic development in developing countries and dismantles the social fabric. The World Bank defines corruption as "the abuse of public office for private gains", and on a similar note, Transparency International states, "corruption is the abuse of entrusted power for private gain. According to Zakiuddin and Haque (2002), corruption cannot be regarded as a separate and independent entity that can be destroyed in isolation. They argue that "corruption is a complex set of processes involving human behaviour and many other variables, some of which are difficult to recognise or measure."

Due to focus on international business by international initiatives like Organisation for Economic Co-operation and Development (OECD) Anti-Bribery Convention, United Nations Convention for Anti-Corruption (UNCAC), Inter-American Convention Against Corruption (IACAC), Organisation of American States (OAS) and Council of Europe (CE), 'corruption' may be treated simply as 'bribery'. However, bribery is merely an example of corruption, which is a broader terminology than bribery (Otusanya, O. 2011). It is important to note that corruption goes beyond being merely recognised as a financial exchange or an under-the-table transaction. It adversely affects the culture, politics, and economy, including the state's public, private and individual lives (Akindele, 2005; Kunicova', 2006; Sikka, 2008)."

Role of Economic Growth

"Among the various consequences of corruption, we have chosen to study its relationship with economic growth in India. Economic growth is a rise in the production of economic goods and services, in comparison of one period from another. It is measured in real (adjusted for inflation) or nominal terms

and represented by the Gross Domestic Product (GDP) of a nation. Such emphasis on the impact of corruption on economic growth arises from the fact that corruption causes considerable losses to government revenue. As a result of this, investment in the economy falls, expenditure spent on development sectors like education and healthcare shrink, causing damage to both economic growth and development. On the other hand, it has a detrimental impact on the economy to the degree where it is ascertained that corruption causes more distortion than taxation (Rose-Ackerman 1996)."

"we try to devise an empirical relationship between corruption and economic growth in India through a correlation study. In the final section, we derive conclusions and state the scope for further research in the field".

LITERATURE REVIEW

"Corruption In India: - Corruption is widespread in India. India has been ranked 94th out of 176 countries in Transparency International's 2012 corruption perception index (CPI). Corruption has taken the role of a pervasive aspect of Indian Politics and Bureaucracy. The economy of India was under socialist. Inspired policies for an entire generation from the 1950s until the 1980s. The economy was shackled by extensive regulation protectionism and public ownership, leading to pervasive corruption and slow growth. Since 1991, economic liberalization in India has reduced red type and bureaucracy, supported the transition towards a market economy and transformed the economy with high growth rate. However, although the Indian economy has become the 4th largest in the world, the growth has been uneven across social and economic groups and poverty is still on issue. Endemic and deep-rooted corruption is a major factor for most social and political ills. It is a serious threat not just to sustainable economic growth, but also to the socio- political fabric of the country. In Indian civilization, corruption have caused maximum suffering to the humankind. In ancient Indian history the great Indian philosopher Kautilya says "just as it is not possible, not to taste honey or poison put on the surface of the tongue, so it is not possible for the government servant dealing with money not to taste it in however small a quantity." On the difficulties of corruption detection Kautilya says "just as a fish moving under water cannot possibly be found out either as drinking or not drinking water, so government servant employed in the government works cannot be found out taking money." Corruption In India After the independence corruption is widespread in Indian bureaucratic and political system fill lust small point to apex. According to an international report, the much amount of Indian black money deposited in Tax Heaven Foreign banks, if which is come out in India. Then the annual budget of India can be made without tax lies to next 30 years. It is surmised that the is how much widespread in present India after independence probably that high profile scandal was the jeep scam in 1948, when jeeps were required for the army operation in Kashmir. Other notable scandals include the Mudgal case (1951) , Mundra case (1957 - 58), Malviya - Sirajuddin Scandal (1963). The governing climate in those days can be gauged from the many observations. A.D. Gorwala committee, set up to suggest ways to improve the system of governance. The Santhanam committee (1962) examine the problem of corruption observed in 1964 that "there is widespread impression that failure of integrity is not uncommon among ministers and that some ministers, who have held office during the last sixteen years have enriched themselves illegitimately, obtained good jobs for their sons and relations through nepotism and have reaped other advantages inconsistent with any notion of purity in public life." In later years corruption will be gradually widespread in Indian society and no effective measures have yet been installed that curb the menace. The lokpal bill could not be passed in last decades, it speaks for the utter lack of political will in the country. In recent years so many major scandals involving high level public officials have shaken the Indian public services. These scandals suggest corruption has become a pervasive aspect of Indian political and bureaucratic system. Some of them major scams are following - 1 Coal Allotment Scam (Cost - 186000 Crores) 2 2 G Spectrum Scam (Cost - 176000 Crores) 3 Commonwealth Games (CWG) Scam (Cost - 70000 Crores) 4 Mega black money laundering Scam (Cost - 70000 Crores) 5 Adarsh Housing Scam (Cost - 18978 Crores) 6 Stamp Paper Scam (Cost - 20000 Crores) 7 Boforce Scam (Cost - 400 Million) Fodder Scam (Cost - 950 Crores) 9 Hawala Scam (Cost - 8000 Crores) 10 Satyam Scam (Cost - 14000 Crores) 11 Stock Market Scam (Cost - 3500 Crores) 12 Madhu Koda Scam (Cost - 4000 Crores) NATURE OF CORRUPTION:- Under the Indian constitution, the government consists of three branches : the legislative, the executive and the judiciary with clear mandate for independent functioning of each branch. For the good governance it is compulsory that each of these units must function with integrity and efficiency. The legislators are elected representatives of the peoples and responsible for making laws. The executive branch consisting of ministers, bureaucrats and whole government machinery, which is responsible for the implementation of laws made up by legislative assemblies. The judiciary, acts as an impartial watchdog to see if the people are governed as per the law. It lacks the power to frame any law, it can only interpret the laws passed by the law makers under the constitutional framework and give its verdicts. But when corruption invades, governance

begins to degrade implying loss of integrity and efficiency both. Now – a – days corruption is widespread in every segment of Indian government system and politics. The behaviour of India legislators both at the union and in the state leaves a lot to be desired. Every time they act motivated by personal gain. Corruption in the assemblies as seen from this perspective implies floor crossing, case for vote taking money or other benefits to ask questions, framing rules under the influence of big corporate houses at the cost of common people. Criminalization of politics is yet another fact of corruption in the current parliament. These are over a quarter MPs with criminal records. Many with serious charges against them. It also highlights an area where electoral reforms are urgently needed so that criminals don't enter in the parliament or state assemblies. In the executive branch, ministers are placed at top of the hierarchy. They are responsible for the making policies for the public because the public trust on them and elected by votes to making government. In recent analysis we seen that the level of corruption in ministers is highest. 2 G spectrum scam, coal allotment scam, commonwealth games scam, fodder scam etc. are the best examples of it. In Indian parliamentary system, the responsibility of execution of the policies making by government at ground level is taking hand over to the bureaucracy. But the report card of the Indian bureaucracy is also not very flattering.

Bureaucratic corruption in India thrives on red tape, complicated procedures and discretionary power. Governance in India is characterized by the lack of transparency in rules. Complicated procedures and a bureaucracy that enjoys broad discretionary power. According to a recent analysis of reports of bribery demands Corruption in India: “

In India conducted by trace international was published in January 2009, 90% demand for bribe came from government officials of which over 65% for avoiding harassment, 50% bribery was for timely delivery of services to which the individuals were already entitled, about 10% were meant to provide any advantage. Bureaucratic corruption pervades the Indian administration system with widespread practices of bribery, nepotism and misuse of official positions and resources. Independence of the judiciary is guaranteed by constitution of India. But corruption is also rampant in Indian courts. According to Transparency International, judicial corruption in India is attributable to factors such as “delays in the disposal of cases, shortage of judges, and complex procedure, all of which exacerbated by a preponderance of new laws.” Almost 3% respondents in India consider the judiciary to be corrupt. Causes Of Corruption in India: - Corruption is a global phenomenon and it is omnipotent. It has progressively increased and is now rampant in our society. Corruption in India has wings, not wheels. As the nation grows, the corrupt also grow to invent new methods of cheating the government and public. The cause of corruption is many and complex. The following are some other causes of corruption: - Emergence of a political elite which believes in interest oriented rather than nation oriented programmes and policies. Artificial scarcity created by people with malevolent intention wrecks the fabrics of the economy. Corruption is caused as well as increased because of the change in the value system and ethical qualities of men who administer. The old ideals of morality, services and honesty are regarded as anachronistic. Tolerance of people towards corruption, complete lack of intense public outcry against corruption and the absence of a strong public forum to oppose corruption allow corruption to reign over people. Vast size of population coupled with widespread illiteracy and the poor economic infrastructure led to endemic corruption in public life. In a highly inflationary economy, low salaries of government officials compel them to resort to corruption. Graduates from Indian institutes of management with no experience draw a far handsome salary than what government secretaries draw. Complex laws and procedures deter common people from seeking help from the government. Elution time is a time when corruption is at its peak. Big industrialists fund politicians to meet high cost of election and ultimately to seek personal favour. Bribery to politicians buys influences and bribery by politicians buys votes. In order to get elected, politicians bribe poor, illiterate people. Consequence Of Corruption: - Corruption is as much a moral as a development issues. It can distort entire decision-making processes on investment project and other commercial transactions, and the very social and political fabric of societies. In India corruption is like a cancer for society. It is destroying Indian economic, democratic and political system. Corruption reduces public revenue and increases public spending. It thus, contributes to larger fiscal deficits, making it more difficult for the government to run a sound fiscal policy. Corruption is likely to increase income inequality because it allows well positioned individuals to take advantage of the government activity at the cost of the rest of the population. Corruption distorts markets and the allocation of resources because it reduces the ability of the government to impose necessary regulatory controls and inspection to correct for market failures. It acts as an arbitrary tax and reduces the fundamental role of the government, legitimacy of the market economy and increase poverty. India is the largest democratic country of the world. According to the fundamental corrupt of democracy Indian constitution provides that no taxation can be charged without permission of legislature. The money yield by the taxation process is the precious wealth of public. But black money is generated through corruption. Its black money is like oxygen for the

corruption. According to an international report the much more amount of black money deposited in the foreign banks. If it money will be taken reverse in India than all the foreign debt can be removed and after the much will be keep out that about 20000/- rupees gain by every Indian or if all the black money will be taken reverse than the budget of India can be made without any tax for next 30 years. This black money is destroying our democratic system. Politically, corruption increase injustice and disregard for rule or law. Basic human right and freedom comes under threat. as key judicial decisions are based on the extent of corrupt bribes given to court officials rather than on the innocence or guilt of the parties concerned. Police investigations and arrests may be based on Corruption in India

political victimization or personal vendettas rather than on solid legal grounds. Commenting on the socio – political consequence of corruption the supreme court of India observed that corruption in a civilized society was a disease like cancer. If not detected in time it was sure to turn the polity malignant leading to “disastrous consequences.” Remedial Measures (Cure) To Combat Corruption: - Corruption is a cancer, which every Indian must strike to cure. Many new leaders declare their determination to eradicate corruption but soon they themselves become corrupt and start amassing huge wealth. Many people become materialistic and money oriented, there is no importance of ethics and morals in business dealing. This is because these kinds of people have no moral accountability to anybody or about society or nation. There are many myths about corruption which have to be exploded if we really want to combat it: - Public awareness is must to combat corruption in India, for this it should be must to improve our education system because education is the best mean to understand fundamental rights and Right – Wrong conversation. Corruption can be remed if people can understand and start to believe the value of ethics and morality in their life. People will start to believe that their life is accountable if they really start to believe in God, in oneness of God and if they really start to live life on the way which God has chosen for mankind. Foolproof laws should be made so that there is no room for discretion for politicians and bureaucrats. The role of the politician should be minimized. Application of the evolved policies should be left in the hands of an independent commission or authority in each area of public interest. The decision of the commission or authority should be challenged only in the courts. Cooperation of the people has to be obtained for successfully containing corruption. People should have a right to recall the elected representatives if they see them becoming indifferent to the electorate. Funding of elections is at the core of political corruption. Electoral reforms are crucial in this regard. Several reforms like state funding of election expenses for candidates, strict enforcement of statutory requirements like holding in-party elections, making political parties get their accounts audited regularly and filing income-tax returns, denying persons with criminal records a chance to contest elections, should be brought in. Responsiveness, accountability and transparency are a must for a clean system. Bureaucracy, the backbone of good governance, should be made more citizen-friendly, accountable, ethical and transparent. More and more courts should be opened for speedy and inexpensive justice so that cases don't linger in courts for years and justice is delivered on time. Local bodies, independent of the government, like Lok pals, Lok adalats and vigilance commissions should be formed to provide speedy justice with low expenses. The Strongest lokpal is must to remed corruption in India. With the help of the Right to Information Act, citizens should be empowered to ask for information related to public services, etc. and this information should be made available to general public as and when required. Such stringent actions against corrupt officials will certainly have a deterrent impact. The nature of the influence of corruption on economic growth and development has been a matter of debate in the past. Meon & Sekkat (2005) discuss both sides of the coin, in effect, the 'grease the wheels' hypothesis and the 'sand the wheels' hypothesis. While the former hypothesis supports that corruption has a positive effect on economic performance, the latter argues in favour of the contrary. The "grease the wheels" hypothesis put forward by Leff (1964), Huntington (1968) and Leys (1965) suggest that corruption may be beneficial in a world where optimality conditions are not fulfilled because of the distortions caused by ill-functioning institutions. The argument is that an inefficient bureaucracy constitutes an impediment to investment that some "speed" or "grease" money may help circumvent. Since corruption works out only for the most efficient players in the market, scholars believe that it may lead to the compulsory exit of inefficient firms, resulting in a more efficient economy. On the other hand, the "sand the wheels" hypothesis refers to the negative impact of corruption on economic growth and development. Meon & Sekkat also examine whether growth and investment increase or decrease with corruption when the quality of governance is low. They state that factors like 'a weak rule of law, an inefficient government and political violence' lead to worsening of the negative effect of corruption on investment. Moreover, it is observed that even when one controls investment, in nations with a weak rule of law and an inefficient government, corruption slows down economic growth.

To enhance the understanding of corruption, it is necessary to study its causes. Mauro (1997) discusses corrupt public practices and analyses the various causes of corruption using empirical studies. He has

argued that most public corruption incidents can be traced to government intervention in the economy. Trade restrictions, government subsidies, price controls, multiple exchange rate practices and foreign exchange allocation schemes, low wages in the civil service, natural resource endowments, and sociological factors are the primary policy-related sources of corruption mentioned by Mauro. He further discusses the consequences of corruption such as lowering investment and retarding growth to a significant extent; misallocation of talent; reduced effectiveness of aid flows through fund diversion; loss of tax revenue; adverse budgetary consequences; lower quality of infrastructure and public services; and distorting the composition of government expenditure.

Such adverse ramifications of corruption have led us to focus on the obstructive nature of corruption for an economy. This argument is supported by Mauro (1995) as he specifies that corruption is negatively and significantly associated with an investment, consistent with the line of thought that corruption lowers the private marginal product of capital. He finds that a one-standard-deviation improvement in the bureaucratic efficiency (corruption) index is significantly associated with an increase in the 1960-85 average investment rate by 4.1 percent of GDP, and the annual growth rate of GDP increases by a total of over a half percentage point. On a similar note, Blackburn et al. (2006) also predict the relationship between corruption and development to be negative. Others such as Shleifer and Vishny (1993) and Drury et al. (2006) also argue in favour of the view that corruption is detrimental to economic growth.

Shleifer and Vishny (1993) state two reasons as to why corruption is detrimental to economic development. The first reason is the weakness of the central government, which allows various governmental agencies and bureaucracies to impose independent bribes on private agents seeking complementary permits from these agents. When the entry of these agencies into regulation is free, the cumulative burden of bribes on private agents goes up to infinity. This point is illustrated using the foreign investment scenario in post-communist Russia. Due to the presence of multiple agencies at multiple levels, a foreigner has to pay a bribe at every step. The apparent result was a deficient level of foreign investment in Russia. Drury et al. (2006) have put forth the same case as they explain the negative effect of corruption on economic growth both as a tax on productivity and a market distortion employing the example of the systematic corruption in post-Communist Russia and the loss of investment. The second reason relates to the necessary secrecy of corruption. The demands of secrecy tend to shift a country's investments away from productive projects, into potentially useless projects, in case the latter project offers easier and better secret corruption opportunities. Further, this demand for secrecy may also cause leaders of a country to maintain monopolies, prevent entry, and discourage innovation. These types of distortions are what make corruption harmful to economic development. To better understand the challenge of corruption, Shleifer and Vishny (1993) devised a model to elaborate on the two corruption cases in society. It is the simplest model of one government-produced good. It is assumed that the good is homogenous, and there is a demand curve $D(p)$ from the private agents. The government sells this good via an official, who has the opportunity to restrict the quantity of the government-produced good. The official can restrict supply without any risk of detection or punishment from above (a monopolist). The economists further develop the model by defining the official government price for this good as 'p' and the cost of producing a good as immaterial. There are two different cases concerning the marginal cost to the official: 'Corruption with theft' and 'Corruption without theft'. In the case of 'Corruption without theft', the official turns over the official price of the goods to the government; therefore, the marginal cost is 'p' to the official. The total price along with the bribe is consistently more than the government price. Whereas in the case of 'Corruption with theft', the official does not turn over anything to the government, therefore the marginal cost to the official is zero. The total price might be below the government price as well. The analysis suggests that the spread of corruption is owed to the competition both between the officials and between the consumers.

"Besides the arguments mentioned above presented, the Issues Paper on Corruption and Economic Growth (2013) by the World Bank acts as a foundation for this study as it makes use of the correlation between the control of corruption (CC) indicator and per capita GDP at PPP to understand the link between the two. It finds that the correlation between the two indicators is high (correlation coefficient: 0.77), and the inter-country variation in CC "explains" some 64 per cent of the per capita GDP variation. An improvement in the CC indicator by one standard deviation is associated with an increase of some 11000 \$ in GDP pc (in 2011 prices). On the other hand, the correlation between the CC indicator and the medium-term growth rates of output is found to be weak, which may be attributed to the fact that poorer countries (higher levels of perceived corruption) on average experience higher growth rates of output than the more prosperous countries, as per the convergence hypothesis. "

Corruption in Bharat

“India is the world's fifth-largest economy by nominal GDP and the third-largest economy in terms of Purchasing Power Parity (PPP). Even as it continues to make strides on the growth front, it continues to be plagued by the persistent problem of corruption. These acts of corruption vary from petty bribes to grand scams, often in the news. As per the latest Corruption Perception Index (2019), India is ranked 80 out of 180 countries. India scored 41 out of 100. Though an improvement over the years, these numbers are still a cause of worry for the Indian economy.

Corruption in India can be attributed to several factors such as excessive regulations, elaborate tax and licensing systems, opaque bureaucracy, monopoly of government-controlled institutions, people with discretionary powers and more. In recent times, several significant scams involving high-level public officials have been reported. For instance, one of the most significant scams in India was the Coal Allotment Scam (Cost-186000 Crores), wherein the Government of India was accused of inefficiently allocating the coal blocks during 2004-09. Another major scam in the nation was the Commonwealth Games (CWG) Scam (Cost-70000 Crores). In this case, it was reported that only half the amount allotted was spent as expenditure on Indian sportspersons and Suresh Kalmadi was accused of offering Swiss Timings a contract at inflated rates (Rs. 141 Crore), which was unnecessarily high by Rs. 95 Crore. Other incidents are the 2 G Spectrum Scam, Mega black money laundering Scam, Adarsh Housing Scam, Stamp Paper Scam, Bofors Scam, Fodder Scam, Hawala Scam, Satyam Scam, Stock Market Scam and Madhu Koda Scam. In India, every year, a significant portion of the population resorts to tax evasion. This, in turn, leads to a massive loss of revenue for the government. The State of Tax Justice (2020) report stated that India showed a loss of \$10.3 billion in taxes due to global tax abuse, which is 0.41 % of the three trillion-dollar GDP. Of this, over \$10 billion is lost to tax abuse by multinational corporations (MNCs) and \$200 million to tax evasion by private individuals.

Consequently, the amount lost is equivalent to 44.70 per cent of the health expenditure and 10.68 percent of the spending on education. The exact amount can also be used in paying salaries of 4,230,656 nurses annually. India accounts for 0.1% of global offshore wealth, which is \$11.3 billion or 0.4 % of GDP. The report further states that India is most vulnerable to illegal financial flows in the form of outward foreign direct investments and mentions

Mauritius (23.6%), Singapore (17.2%), and Netherlands (11.2%) as the country's most responsible for this vulnerability. In the light of this report, corruption seems to be inflicting severe harm to the Indian economy. We further discuss the sectors that report the maximum incidents of this menace.”

Some sector 's corruption in Bharat

“Transparency International India (TII) conducts The India Corruption Survey annually. In 2019, 190,000 responses were recorded from over 81,000 citizens in 20 states. According to the survey, 51 % of people paid bribes, directly or indirectly, which is a reduced percentage compared to 2018 (56%). Delhi, West Bengal, Goa, Gujarat, Kerala, Haryana, and Odisha were the states where citizens reported low instances of corruption. On the other hand, the states Uttar Pradesh, Telangana, Rajasthan, Karnataka, Bihar, Jharkhand, Tamil Nadu and Punjab reported higher instances of corruption.

In an analysis of corruption in various authorities/departments, property registration & land issues became the most significant authority where citizens had to pay a bribe, with 26% citizens voting for it. Among the other departments, 19% said police, 13% said Municipal Corporation, 3% said electricity board, 13% said transport office, 8% said tax department, 5% said water department, whereas 13% said they paid a bribe to other authorities. Even in the judicial system, there exists rampant corruption, especially at the lower court levels. These involve the payment of bribes in exchange for favourable court decisions.

Widespread corruption along with an already existing problem of resource shortages affect the efficiency of the judiciary adversely. While the current backlog of cases runs into millions, enforcing a contract takes way longer (1420 days) than it should as per the regional average. The factor that destroys the business environment is that the court system is not considered a barrier by businesses as settling disputes efficiently and challenging laws and regulations is considered run of the mill”.

Methodology and Research Data

“Given the literature backdrop, we aim at analyzing the link between corruption and economic growth in the case of India. We have employed the tools of scatterplots and correlation for this purpose. While scatter plots are used to observe relationships between variables, Correlation is a statistic that measures the degree to which two variables move with each other. If the relationship turns out to be linear, it will be reflected in the correlation coefficient values. Even if there exists a non-linear relationship, a

scatterplot is a helpful tool to capture the relationship. We have used STATA, statistical software, for our empirical analysis”.

“In our analysis, we have used the data of the Corruption Perception Index (CPI), Gross Domestic Product (GDP), the growth rate of Gross Domestic Product (GDP GROWTH) and Foreign Direct Investment (FDI in billion dollars) for the period 1995-2021 for India.”

“The Corruption Perception Index (CPI) is an annual index published by Transparency International since 1995. The index ranks countries by their discerned levels of public sector corruption, determined by expert assessments and opinion surveys. The data for GDP (at constant 2010 US\$), GDP Growth Rate (annual %) and FDI (in billion \$) is compiled from the World Bank Database. Source: World Bank for GDP growth rate (annual %) and Transparency International for CPI India “

Analysis

“The scatterplots of CPI with GDP (at constant 2010 US\$) and that of CPI with FDI (FDI in billion dollars) for India revealed that there seems to exist a positive relationship between the two measures, respectively. CPI is moderately correlated with both GDP (0.5243) and FDI (0.5038). On the other hand, the correlation study between CPI and GDP growth rate in India denotes no appreciable linear correlation. The 'positive' relationship signifies that an upward movement in the Corruption Perception Index leads to a movement in the same direction by the GDP and FDI. It must be noted that a rise in the CPI means a decline in the level of corruption in the country. Thus, according to the Indian data, an improvement in India's CPI would translate into a positive change in its GDP and FDI “.

CONCLUSION

“As per the previous section, it can be concluded that corruption has a negative impact on economic growth. This can be supported by our findings of the correlation study conducted for India, wherein:

- CPI is positively and moderately correlated with GDP.
- CPI is positively and moderately correlated with FDI.
- There exists no appreciable linear correlation between CPI and the growth rate of GDP.

In this paper, we have analysed the impact of corruption on India's economic growth, complemented by the review of previous studies and surveys in this sphere of research.”

Future suggestion

“A limitation faced during this study is the lack of availability of CPI data in the long run, as it was first published in 1995. These shortcomings make room for improvement by further research. Our research findings can be further refined by using econometric techniques, like running a time series regression across a dataset (Table A, Appendix)”.

Year	CP I	GDP (constant 2010 US\$)	GDP GROWTH (annual %)	FDI(in billion \$)
1995	35	6.50E+11	7.57449184	2.14362811
1996	46	6.99E+11	7.549522249	2.426057022
1997	45	7.28E+11	4.049820849	3.577330042
1998	66	7.73E+11	6.184415821	2.634651658
1999	72	8.41E+11	8.845755561	2.168591054
2000	69	8.73E+11	3.840991157	3.584217307
2001	71	9.15E+11	4.823966264	5.128093562
2002	71	9.50E+11	3.803975321	5.208967106
2003	83	1.03E+12	7.860381476	3.681984671
2004	90	1.11E+12	7.922936613	5.42925099
2005	88	1.19E+12	7.923430621	7.269407226
2006	70	1.29E+12	8.060732573	20.02911927
2007	72	1.39E+12	7.660815065	25.22774089
2008	85	1.43E+12	3.08669806	43.40627708
2009	84	1.54E+12	7.861888833	35.58137293
2010	87	1.68E+12	8.497584702	27.39688503
2011	95	1.76E+12	5.241344743	36.4986546
2012	94	1.86E+12	5.456358951	23.99568501
2013	94	1.98E+12	6.386106401	28.15303127
2014	85	2.13E+12	7.410227605	34.57664369
2015	76	2.29E+12	7.996253444	44.00949213
2016	79	2.48E+12	8.256305844	44.45857155
2017	81	2.66E+12	7.043820855	39.96609136
2018	78	2.82E+12	6.119586841	42.11745074
2019	80	2.94E+12	4.180727625	50.60532735
2020	82	1.00E+12	3.180656325	41.70346786

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