

ACCOUNTABILITY AND TRANSPARENCY COMBAT AGAINST CORRUPTION PANEL DATA ANALYSIS

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Abstract:

According to the World Economic Forum's Global Shapers Survey, the weightage of government accountability, transparency, and corruption is 22.7% among the world's most serious problems, ranking as the sixth-highest problem globally. The objective of the study is to analyse how we can fight against corruption through the role of accountability, transparency of government policy makers, judicial independence, and the strength of investor protection. The study is based on 20 developing countries worldwide, and the results show that an increase in accountability, transparency of government policymakers, judicial independence, and the strength of investor protection will decrease corruption. Data has been collected from the Global Competitiveness Index historical dataset, the World Economic Forum, and the WDI from 2007 to 2021. The Fully Modified Least Squares method has been used in this analysis. Findings indicate that Accountability, Transparency, judicial independence, and the strength of investor protection have played a vital role in reducing corruption.

Keywords: Corruption, Accountability, Transparency, Judicial independence, FMOLS

1. Introduction:

Accountability and transparency have been getting attention in the present world. Transparency International has focused on eliminating corruption at its roots, and this index has shed light on the issue of corruption in international economies by providing reports and rankings. Corruption is a central issue, and it has now become a key part of the international political agenda. The UN, World Bank, European Union, and Organization for Economic Cooperation and Development have prioritized transparency and the fight against corruption (Andersson & Heywood, 2009). Policy makers and experts are highlighting the importance of transparency to curb corruption and making reforms to monitor the private and public organizations to ensure a transparent environment. The greater the transparency and accountability, the greater the chances of limiting corruption (Bauhr & Grimes, 2014). The World Bank has made some strategies to reduce corruption. It has improved the auditing and management system, maintaining the level of transparency to combat corruption (Brusca et al., 2018). Globally, corruption has become a significant concern and an issue of global governance, but Transparency International has played a vital role in combating and eliminating corruption, making it a global agenda (Wang & Rosenau, 2001). In addition to transparency, voice, and accountability, government effectiveness, the rule of law, judicial independence, political stability, and other factors also play a vital role in combating corruption. All these factors are gaining importance in Africa as a means to combat corruption. Policies have been established at various levels to ensure the practical implications of these policies against corruption (Asongu, 2013). Transparency is considered an effective tool in preventing and controlling corruption. It enhances competition and efficiency in the economy. Transparency International has conducted an analysis using a case study of Argentina and Colombia, and the results show that transparency and accountability play a crucial role in

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combating corruption. Reforms have been implemented for the public procurement process and the privatization of the public sector, which play a crucial role in combating corruption within the economy (Boehm & Olaya, 2006). Corruption is not individual corruption. Now, it has become a global issue, and the fight against corruption is a worldwide effort. Cultural and technological practice of accounting has been introduced and utilized, utilizing the academic research of anticorruption organizations like the World Bank, UN, IMF, OECD, the International Chamber of Commerce, the Organization of American States, the Council of Europe, and Transparency International to strengthen the level of accountancy and to push down the level of corruption. All these organizations play a role in fighting against corruption (Everett et al., 2006; Everett et al., 2007). Both rich and emerging countries are plagued by corruption, which is a significant obstacle to economic development, hindering the government's efficiency and effectiveness. Information and advancements in communication levels help in recognizing corruption in different sectors, which ultimately leads to a transformation in infrastructure to more transparent systems and strengthens accountability. This step helps in controlling and combating corruption, making this revolution and transformation globally more acceptable (Holzner, 2007). E-government is also a measure that has been used in the modern era to promote transparency and accountability in the fight against corruption. It is a strong administration that keeps citizens in touch with the government through various services, making things clear at the grassroots level. Different policies and transformations are part of government strategies aimed at combating corruption (Kim et al., 2009). Some developing countries are rich in natural resources. However, instead of having rich natural resources, they are unable to perform and make a strong economic stand, largely due to a lack of transparency and accountability, resulting from their poor socio-economic development performance. Transparency and accountability are not sufficient if there is a gap in creating effective policies that align with the area's potential (Kolstad & Wiig, 2009). Some studies suggest that enhancing the effectiveness and transparency of political institutions, while maintaining accountability within them, can help combat corruption. Information and knowledge alone are not enough to eradicate corruption; policies and strategies for transparency and accountability are also necessary to combat it (Lindstedt & Naurin, 2010). The outcomes of this study will be essential for strategists to consider economic variables within specific parameters. It will guide policymakers towards establishing policies to enhance and strengthen transparency and accountability in the fight against corruption.

1.2 Objectives of Study:

This study covers the following objectives:

- To analyze the role of transparency, Accountability, judicial independence, and the Strength of investor protection in Corruption in different economies.
- To find out the impact of the quality of education, population density, domestic market index, and trade openness as control variables on corruption.
- To explain policy implications by considering the statistical significance of results about corruption and its impact on the economy.

1.3 Research Questions:

The researcher has developed the following research questions according to the statement of the problem:

Q1. How do transparency, Accountability, judicial independence, and the Strength of investor protection play a role in reducing corruption?

Q2. Do the quality of education, population density, domestic market index, and trade openness have any impact on corruption?

Q3. Do the policies help in maintaining transparency and accountability and reducing corruption?

1.4 Research Hypotheses:

Researchers based on these research questions developed the following hypothesis:

- **H1:** Improvement in transparency, Accountability, judicial independence, and the Strength of investor protection plays a role in reducing corruption.
- **H2:** Reduction in corruption will improve the economic environment in the developing countries.

This study will provide an empirical examination of the effects of all the mentioned variables on corruption. It will also clarify the role of economic policies and factors that significantly contribute to reducing corruption.

2. Literature Review:

Monitoring of government activities is only possible through transparency and accountability, and for this purpose, governments are making policies and taking initiatives through media, information, and communication. The accuracy of information ensures transparency, which in turn helps combat corruption (Bertot et al., 2012).

Currently, many governments are working to promote transparency and accountability in order to reduce corruption. It is an information and communication era, and it has increased the awareness for transparency and accountability, which ultimately reduces corruption in societies (Bertot et al., 2010).

Klitgaard (1999) explores that transparency and accountability are key factors in controlling corruption. Weak transparency and accountability create gaps that facilitate corruption and render the government less effective. Awareness of corruption in public makes things more transparent and improves the government process.

Some studies indicate that corruption has become a global and pervasive issue, prevailing in all countries, regardless of their environment. Lack of transparency, accountability, and institutional weakness, as well as the judicial system's shortcomings, contribute to corruption in the economy, which is a significant hurdle to the economy's progress, growth, and development (Myint, 2000).

Accountability plays a crucial role in the management of public and private institutions, as well as in democratic economies; it is an essential part of effective strategies. The government has strengthened its existing institutions and developed new ones to control corruption in the public sector, thereby enhancing the level of accountability and improving the infrastructure of the government and public sector (Iyoha & Oyerinde, 2010).

In developing countries, corruption has been analysed in various sectors to maintain transparency and foster growth. Strategies are implemented to combat corruption in developing countries through transparency, accountability, the publication of laws, regulations, and judicial decisions, formal audits, and the creation of public awareness through education. Political pressure, the media, and foreign aid agencies also play their roles in maintaining transparency and accountability (Spector, 2005).

The role of Transparency International cannot be neglected in combating corruption globally through its involvement in the international agenda, field programs, lobbying efforts, and the publication of the Corruption Perceptions Index. It also illustrates the significant impact that corruption can have on the economic development of a specific economy (Bukovansky, 2006).

There is no doubt that transparency plays a vital role in eliminating corruption from an economy, but only transparent information is not enough for this. Accountability and education are also

necessary for this purpose. Development policy and reforms also play a role in empowering people to respond to available information about corruption (Lindstedt & Naurin, 2006).

It has been analysed that transparency and accountability enable the public to participate in and be involved in decision-making, thereby enhancing the strength of public institutions, governance, and the rule of law, which ultimately eliminates corruption from the roots of the economy (Lawal, 2007).

Transparency International has exposed corrupt government departments, demonstrating that a lack of transparency and limited access to government institutions by citizens and the media facilitate corruption. This gap between the public and the department creates an opportunity for the department to hide its corruption, which is the reason for the lack of transparency and accountability (Bhatnagar, 2003).

The studies show that the efforts of law and enforcement departments cannot be denied in curbing corruption. Judicial independence, the police, and public prosecution play a role in designing strategies for accountability and transparency, which will help combat corruption (Fijnaut & Huberts, 2002).

In the case of Brazil, it has been explored that Brazilian investors take advantage through unethical risk techniques, and ethical behavior is much important for a transparent relationship between seller and buyer. Ethics and integrity play their role in transparency to reduce corruption and improve the company's image in Brazil (Halter et al., 2009).

The importance of transparency and accountability has gained significant global prominence, particularly in developing economies. In the case of Uganda's Education system, it has been observed that disclosed information strategies and policies have a significant impact on reducing corruption. By enhancing clarity, transparency, and accountability, significant effects were achieved in combating corruption (Hubbard, 2007).

Public participation is essential in promoting transparency and reducing corruption. It has been analyzed that if social and public accountability are directly involved in the mechanism to monitor the activities of officials, there will be a significant reduction in corruption through public administration (Schatz, 2013).

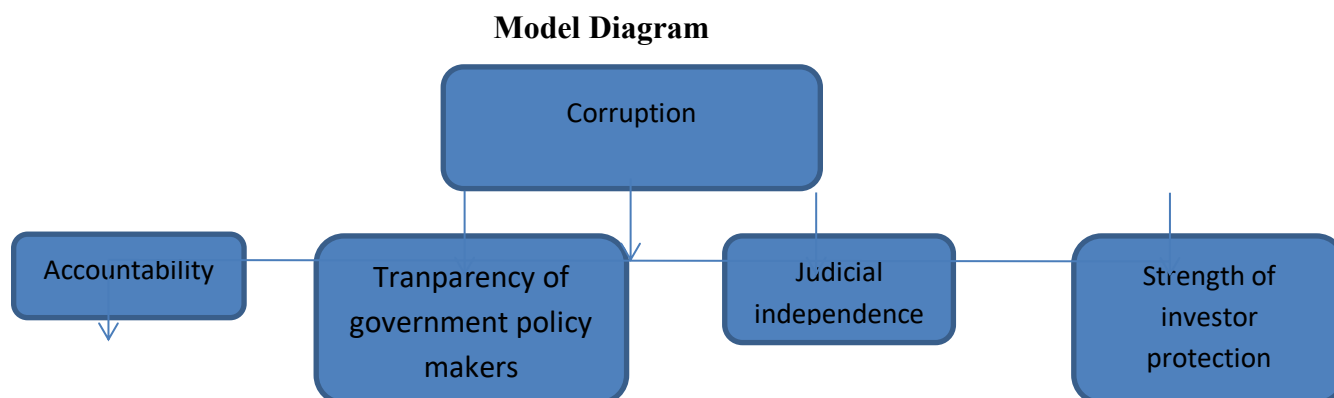
A lack of development and growth may have several reasons. However, corruption is one of the factors that seriously affects education, health, infrastructure, services, industry, and agriculture, and reduces the process of progress and growth in the economy, ultimately resulting in income inequality and poverty in the country (Shah & Schacter, 2004).

3. Methodology:

3.1 Data Source:

In this part, the data on these variables —accountability, Transparency, judicial independence, and the strength of investor protection —have played a vital role in reducing corruption. Data has been collected from the Global Competitiveness Index historical dataset, the World Economic Forum, and the WDI from 2007 to 2021.

3.2 Methodological framework:



The relationship among Corruption, Accountability, Transparency, judicial independence, and the strength of investor protection can be explained by the following equation.

$$\begin{aligned}
 CORR &= \beta_1 + \beta_2 ACC + \beta_3 ACCSq + \beta_4 QOE + \beta_5 POP + \beta_6 MKTI + \beta_7 TO + e \\
 CORR &= \beta_1 + \beta_2 TGPM + \beta_3 TGPM Sq + \beta_4 QOE + \beta_5 POP + \beta_6 MKTI + \beta_7 TO + e \\
 CORR &= \beta_1 + \beta_2 JI + \beta_3 JISq + \beta_4 QOE + \beta_5 POP + \beta_6 MKTI + \beta_7 TO + e \\
 CORR &= \beta_1 + \beta_2 SOIP + \beta_3 SOIP Sq + \beta_4 QOE + \beta_5 POP + \beta_6 MKTI + \beta_7 TO + e
 \end{aligned}$$

Where

CORR= Corruption

ACC= Accountability

TDPM= Transparency of government policy makers

JI= Judicial independence

SOIP= Strength of investor protection

QOE= Quality of Education

POP=Population Density

MKTI= Domestic Market Size Index

TO= Trade openness

3.3 Estimation Methods:

These steps have preceded the estimation. The Fully Modified Least Squares method has been used to explore this panel data analysis. FMOLS with pooled estimation have been used for all these variables, which show the significance level for all variables with respect to Corruption and for supporting participation.

4. Results and Interpretations:

A fully modified least squares model has been used to explain the relationship between corruption and macroeconomic variables. All these variables are significant at 5% level of significance. Data from 20 countries have been analysed for the period from 2007 to 2021, which spans 10 years, revealing a negative relationship between accountability, Transparency, judicial independence, and the strength of investor protection and corruption. Other control variables, such as the quality of education, population density, domestic market size index, and trade openness, also exhibit a negative relationship with corruption.

FMOLS model findings: Corruption Relation with Macroeconomic Variables
Table 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ACC	-0.661944	0.285354	-2.31973	0.02150
ACC*ACC	0.070893	0.031755	2.232505	0.02690
QOE	-0.044982	0.024829	-1.81168	0.07180
LOG(POP)	-0.83651	0.122755	-6.81447	0.0000
MKTI	-0.081229	0.026971	-3.01168	0.0030
LOG(TO)	-0.309512	0.038083	-8.12728	0.0000
R-squared	0.899303	Mean dependent var		2.1511
Adjusted R-squared	0.884835	S.D. dependent var		0.68336
S.E. of regression	0.231903	Sum squared resid		9.35757
Long-run variance	0.00408			

In Table 1, the findings show that accountability, quality of education, population density, market size index, and trade openness show a negative relationship with corruption. In contrast, the accountability square reveals a long-term relationship with corruption, indicating a positive correlation with corruption. This suggests that, over time, the accountability department, after reaching a certain level, may gain a monopoly and become self-authorizing, ultimately producing corruption rather than controlling it. All variables are significant at the 5% level. In the short run, 1% increase in Accountability will reduce corruption by 0.6619%. Quality of education will also reduce corruption, showing that 1% increase in the Quality of education will reduce corruption by .0449%. 1% increase in the population density will reduce the corruption by 0.8365%, and 1% increase in the domestic market size index will reduce the corruption by 0.081229%. 1% increase in trade openness will reduce corruption by 0.3095%.

Table 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
TGPM	-0.543576	0.13939	-3.899686	0.0001
TGPM*TGPM	0.078685	0.017574	4.477407	0.0000
QOE	-0.096786	0.026257	-3.68608	0.0003
LOG(POP)	-1.009907	0.125451	-8.05018	0.0000
MKTI	-0.087214	0.029116	-2.995458	0.0031
LOG(TO)	-0.332775	0.041038	-8.108912	0.0000
R-squared	0.900819	Mean dependent var		2.1511
Adjusted R-squared	0.886569	S.D. dependent var		0.683357
S.E. of regression	0.230152	Sum squared resid		9.216732
Long-run variance	0.004672			

In Table 2, the findings indicate that the transparency of government policymakers, quality of education, population density, market size index, and trade openness exhibit a negative relationship with corruption. In contrast, Transparency Square shows a long-term relationship with corruption, which is a positive relationship with corruption, showing that in the long run, the transparency

department, after a certain level, will gain a monopoly and be authorized in itself, which will produce corruption instead of controlling it. In the short run, 1% increase in Transparency will reduce corruption by 0.5435%. Quality of education will also reduce corruption, showing that 1% increase in the Quality of education will reduce corruption by .0967%. 1% increase in the population density will reduce the corruption by 100%, 1% increase in the domestic market size index will reduce the corruption by .0872%. 1% increase in trade openness will reduce corruption by 0.3327%.

Table 3

Variable	Coefficient	Std. Error	t-Statistic	Prob.
JI	-0.450347	0.070547	-6.383648	0.0000
JI*JI	0.058467	0.009787	5.973761	0.0000
QOE	-0.06737	0.02124	-3.171852	0.0018
LOG(POP)	-1.085991	0.096243	-11.28383	0.0000
MKTI	-0.091325	0.022095	-4.133354	0.0001
LOG(TO)	-0.286548	0.031463	-9.107489	0.0000
R-squared	0.900411	Mean dependent var		2.1511
Adjusted R-squared	0.886103	S.D. dependent var		0.683357
S.E. of regression	0.230624	Sum squared resid		9.254609
Long-run variance	0.002765			

In Table 3, the findings show that Judicial independence, quality of education, population density, market size index, and trade openness exhibit a negative relationship with corruption. In contrast, the judicial independence square shows a long-term relationship with corruption, indicating a positive correlation with corruption. This suggests that, in the long run, judicial independence departments, after a certain level, may gain a monopoly and become self-authorizing, which can lead to corruption rather than control it. In the short run, 1% increase in judicial independence will reduce corruption by 0.4503%. Quality of education will also reduce corruption, showing that 1% increase in the Quality of education will reduce corruption by .0673%. 1% increase in the population density will reduce the corruption by 1.0859%, 1% increase in the domestic market size index will reduce the corruption by .091325%. A 1% increase in trade openness will reduce corruption by 0.2865%.

Table 4

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SOIP	-0.13132	0.062861	-2.089048	0.0383
SOIP*SOIP	0.007145	0.00538	1.328124	0.1861
QOE	-0.09221	0.030119	-3.06155	0.0026
LOG(POP)	-0.788722	0.148626	-5.306742	0.0000
MKTI	-0.125624	0.033311	-3.77119	0.0002
LOG(TO)	-0.186016	0.050508	-3.682883	0.0003
R-squared	0.899341	Mean dependent var		2.125333

Adjusted R-squared	0.883	S.D. dependent var	0.701861
S.E. of regression	0.240073	Sum squared resid	8.875789
Long-run variance	0.005829		

In Table 4, the findings indicate that the strength of investor protection, the quality of education, population density, market size index, and trade openness exhibit a negative relationship with corruption. In contrast, the strength of investor protection squares shows a long-term relationship with corruption, which is a positive relationship with corruption, showing that in the long run, the strength of the investor protection department after a certain level will get a monopoly and be authorised in itself, which will produce corruption instead of controlling it. In the short run, 1% increase in the strength of investor protection will reduce corruption by .1313%. Quality of education will also reduce corruption, showing that 1% increase in the Quality of education will reduce corruption by .092%. 1% increase in the population density will reduce the corruption by 0.7887%, 1% increase in the domestic market size index will reduce the corruption by 0.1256%. 1% increase in trade openness will reduce corruption by 0.1860%.

5. Conclusions and policy recommendations:

Corruption has become a global issue, with a particular focus in developing countries. To combat corruption, transparency and accountability are considered primary tools for achieving this goal. International anti-corruption organizations, including the World Bank, UN, IMF, OECD, the International Chamber of Commerce, the Organization of American States, the Council of Europe, and Transparency International, are developing policies and taking steps to eliminate corruption at the grassroots level in developing economies. This paper contributes to the development of policies aimed at combating corruption through transparency, accountability, judicial independence, and robust investor protection. In this study, data from 20 developing economies were analyzed from 2007 to 2021, and the results show that an increase in accountability, transparency, judicial independence, and the strength of investor protection contributes to a reduction in corruption. In addition to some control variables, the quality of education, population density, domestic market size index, and trade openness also contribute to reducing corruption in 20 developing countries.

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