Current Corruption Indices: Assessing Reliability and Relevance

Khurram Shahzad[1], Sultan Ahmad Rana[2], Waqas Shair[3], Muhammad Nadeem[4]

Abstract
Corruption manifests in various forms and casts long shadows across nearly all economic sectors. Numerous measures, commonly known as perception indices, effectively assess corruption levels across different countries. However, each corruption index has its limitations because corruption cannot be quantified precisely. A significant drawback of perception indices is that a single corrupt act, when amplified by the media, can disproportionately influence these indices, leading to an overestimation of corruption levels. Conversely, the absence of more granular, experience-based indicators often leads to an underestimation of corruption. Neither perception-based nor experience-based indicators alone can accurately capture the full extent of corruption. While each country faces its unique challenges with corruption, the averaged and standardized techniques previously used in perception indices tend to force corruption measures into a narrow range, which has resulted in minimal changes in the values of these indices over time. In this research paper, the perception indices of corruption are critically evaluated. Since developed and developing countries have distinct social, moral, cultural, and economic foundations, it is inappropriate to compare them using the same corruption barometer. This paper discusses why policymakers cannot solely rely on perception indices.
Keywords: Corruption Perception Index, Corruption, Criticism of CPI, Control of Corruption, Perception surveys, Novel Corruption Index

1. Introduction

Corruption is a complex social, economic, and political phenomenon prevalent in all countries, manifesting in various levels and forms. It is generally defined as the misuse of entrusted power and resources for personal gain (UNODC 2003; World Bank 2020). The Supreme Court of Pakistan, in a case investigated by the National Accountability Bureau (NAB), described corruption as an act intended to secure an advantage in violation of the law or the unlawful use of an official position to achieve personal benefits or gains. Corrupt practices involve a series of morally degraded, debased, or unethical actions. Corruption is a trait that cannot be measured directly, so proxies and indirect measures are employed to assess its extent.

Corruption is subject to various interpretations and manifests in multiple forms, including bribery, embezzlement, fraud, and extortion (Morris, 2011). It also presents in several types, such as petty, moderate, and grand corruption, and can be distinguished by various degrees, including the frequency of corrupt acts, the amounts involved in bribes, and the gains accrued by agents (Vargas-Hernández, 2009).

Different indicators are used to determine the actual level of corruption, and all indicators have different time and scale measurements. There are various ways to use corruption indicators as measures of corruption:

1. Some corruption indicators are perception-based (CPI, ICRG, and COC), and some others are experience-based such as the Global Corruption Barometer (GCB).
2. Single data-based indicators such as the Bribe Payers Index (BPI) and composite data-based indicators, i.e. CPI.
3. Anti-corruption indicators include the Global Integrity Index, Open Data Barometer, Public Expenditure and Financial Accountability, and World Press Freedom Index.

These indices are constructed through surveys conducted across multiple countries, based on indicators that measure perceptions of corruption. Although they measure corruption in nearly the same way for all countries, they do so at different scales. The Corruption Perception Index (CPI) is constructed using indicators from the public sector, while the Control of Corruption (COC) utilizes indicators from both the public and private sectors. However, both indices assess corruption through perception surveys.

All composite indicators capture massive amounts of data caused by a lack of objectivity. For instance, in a perception survey, a single corrupt act can disproportionately influence the overall corruption index, leading to overestimating the corruption level. Because of the perception of corruption in surveys, there exists a need for more reliability. Andersson & Heywood (2009) describe another reason: many countries have different political, social, religious, and economic states of affairs, but the exact scale treats all countries. There are problems with their indicators and construction, and statistical techniques when indicators are averaged and standardized while constructing an index and comparing it with other countries.

The primary aim of this paper is to evaluate critical perception indices, their indicators, and construction which measure corruption using the same scalar as perception and average and standardize different formal indicators

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[1] Assistant Professor, School of Economics & Finance, Minhaj University Lahore, Pakistan
[2] Independent Researcher, Pakistan
[3] Senior Lecturer, School of Economics & Finance, Minhaj University Lahore, Pakistan
[4] Lecturer school of Commerce & Accountancy, Minhaj University Lahore, Pakistan

like CPI and COC. While predominantly, this method has failed to capture each country's unique corruption landscape.

The Corruption Perception Index (CPI) is the most commonly used barometer to measure corruption levels in research studies, with the Control of Corruption (COC) and International Country Risk Guide (ICRG) also featured in some studies. These indices, however, rely heavily on perception surveys, which can be subjective and prone to biases e.g. respondents' subjective views, selection of the sample, cultural bias, availability heuristic, and halo effect. While they provide a ranking of countries worldwide, they often fail to offer a specific assessment of a country's level of corruption. This lack of reliability in perception indices underscores the need for a more robust and objective approach to measuring corruption.

Suitable anti-corruption measures can only be effectively applied when there is an absolute and reliable understanding of the level of corruption specific to a country (Johnston, 2005). However, perception indices yield results based on surveys and experts' expectations for any particular country. While experts' perceptions may be accurate for some nations, they vary globally because each nation has its own economic and social nuances that shade the landscape of corruption (Andersson & Heywood, 2009).

The second section presents the critical factors of existing corruption indices, and the third section evaluates the existing corruption perception index.

2. Gap in Existing Corruption Indices

As economists emphasize the importance of enhancing governance and anti-corruption measures, particularly in developing countries, the focus naturally shifts toward transparency, especially in governmental affairs. Scholars such as Kauffmann et al. (2010), Rohwer (2009), and Saisana & Saltelli (2012), along with organizations like Transparency International, the World Bank, and Gallup Pakistan, have raised awareness about the detrimental impacts of corruption. TI-CPI and WGI-COC often employed indices for assessing the extent of corruption in various countries. Although they offer useful insights, they have faced criticism over their measurement of corruption, methodology, bias, and the implications of their assumptions. Presented below is a concise overview of significant literature that critically evaluates existing corruption indices. A brief review of some of the studies from extant stock of literature is cited here:

2.1. Measurement of Corruption

Dalton and Esarey (2022) indicated that CPI relies on judgments made by experts and survey respondents, who may have conflicting understandings or conceptualizations of corruption that don't match the country's definition. Spyromitros and Panagiotidis (2022) explore the ongoing discussion surrounding the measurement of corruption, highlighting the strengths and weaknesses of each approach.

Uroos et al. (2022) showed that CPI focuses on perceptions of corruption rather than actual corrupt practices. Perceived and real corruption can lead to disconnect, impacting policy decisions and public trust. The indices do not consider the specific political, social, and economic contexts of countries. Lack of context can lead to inappropriate comparisons and ineffective policy recommendations. Further, corruption is influenced by political, social, and cultural factors, not just economic ones. Current indices may not fully consider these dimensions, resulting in an incomplete understanding of corruption dynamics.

According to Villarino (2021), measuring corruption poses significant challenges due to factors like conflicting perspectives and contradictory information. Despite these challenges, there is a consensus that quantification is necessary, although there is an ongoing debate about the accuracy of current methodologies in achieving this goal. Heywood (2016) stated that the CPIs often fail to distinguish different forms of corruption that exist at the local level, treating corruption as a uniform problem. This approach does not consider the regional differences within countries and the diverse effects of various corrupt practices. Heywood and Rose (2014) recommended the use of composite indices that combine perception-based data and objective measures, along with qualitative and quantitative approaches, to offer a more comprehensive understanding of corruption.

Scholl and Schermuly (2020) explored that CPI does not account for "Influence Markets," a prevalent corruption syndrome in Western democracies. This corruption involves legal means for businesses and wealthy individuals to influence political decisions in their favor, not reflected in CPI values. Moreover, CPI does not include cultural dimensions that affect corruption.

Escresa and Picci (2013) stated that the Corruption Perception Index and the Control of Corruption Indicators Index by the World Bank do not accurately measure the honesty of national institutions and other respondents. They noted that these indices are time-invariant. They also argued that different types of corruption—petty, grand, bureaucratic, and political—cannot be differentiated by these measures. They introduced new indices, the Public Administration Corruption Index (PACCI) and the Bribe Payer Corruption Index (BPCI), using corruption cases from 1998 to 2012. These new measures, which are based not on perception but on judicial statistics, are argued to be more interpretable by comparing corruption against a base of 100, reflecting the world's average benchmark.

Thompson and Shah (2005) highlighted many limitations of averaging and standardization in perception indices, noting significant standard errors in the construction of these indices. They pointed out that only after the 2002 Corruption Perception Index were three-year survey data and one-year expert data included, but not general public

surveys, leading to a biased standardization process. They advocated for a separation of variables to account for corruption differences across countries.

2.2. Methodological Critiques

Dalton and Esarey (2022) raised concerns about the methodologies used in CoC, such as the Unobserved Components Model (UCM) utilized in the CoC and BCI. It is argued that these methodologies make too many assumptions and do not adequately address systematic biases and errors.

Villarino (2021) highlighted the continuing difficulties in guaranteeing the accuracy and consistency of corruption indices. It is often observed in the literature that many critiques tend to mix up these two concepts or do not thoroughly comprehensively examine their separate consequences. There is an ongoing debate surrounding the accuracy of the CPI and CoC in measuring corruption. Critics question whether these indices truly reflect the actual levels of corruption or if they are simply based on subjective perceptions. Mungiu-Pippidi and Dadašov (2016) highlighted the limitations of corruption rankings, arguing that they lack specificity and transparency. They proposed a comprehensive approach, using the CPI as a corruption indicator, while the TI and World Bank's Control of Corruption provided subjective evaluations, making them ineffective. Critics argue that these indicators lack validity, rely on different sources, have a lagging nature, and are non-actionable, making them limited for guiding policymakers and monitoring anti-corruption policies' effectiveness.

Saisana and Saltelli (2012) discussed the advantages and disadvantages of the technique used in the 2012 Corruption Perceptions Index (CPI). Transparency International invited the Joint Research Centre (JRC) to adopt a new, more reliable method for constructing the CPI 2012. The construction of CPIs in previous years has technical areas that need improvement, as all sources estimate the same perception indicators in the public sector. Countries where fewer surveys are conducted face significant standard errors compared to those with larger surveys. A new approach is being considered to correct the formula for standard errors in small populations, which will be useful for lawmakers when comparing Transparency International scores across different countries.

Razafindrakoto and Roubaud (2010) stated that TI-CPI focuses on perceptions of corruption rather than direct measurements. Some critics suggest that various factors, such as media coverage, cultural biases, and personal experiences, can potentially shape people's perceptions.

Kaufmann et al. (2010) examined the methods and analytical problems of WGI (World Bank Governance Indicators). Two hundred countries have been captured by WGI, comprising six aspects of governance since 1996. Many variables are aggregated from different data sources, such as surveys of the private sector, public sector, NGOs, and experts worldwide. The UCM (Unobserved Component Model) technique standardizes data sources, aggregates indicators, and constructs measurement margin errors. A good measurable signal is provided by adopting this technique for good governance. These aggregate indicators are considered zero mean, variance one, and range from -2.5 to +2.5.

Rohwer (2009) argued that it is impossible to draw precise conclusions about corruption from indices such as the Corruption Perception Index (CPI) and the Control of Corruption (COC). The CPI is constructed using a simple technique of averaging and standardization, while the COC is developed through a five-step procedure using both representative and non-representative indicators. Neither index is particularly effective for measuring changes over time. Additionally, the inclusion of numerous surveys reduces objectivity and the conceptual framework fails to provide an accurate representation of corruption. According to Lambsdorff (2007), the data sources used by CPI all have the goal of measuring corruption, but the understanding of a country's corruption can be obscured by the variations in sample design and methodology between different data sources. Improving the corruption perception of one data source can have different effects on the perceived corruption of the others, due to variations across the CPI's data sources. Therefore, further research is necessary to explore the different variations and causal relationships among multiple data sources of the CPI.

2.3. Reliability and Validity

Dalton and Esarey (2022) emphasized that CPI and COC cannot be compared over time due to variations in methodology and the use of different data sources in different years. This lack of consistency creates challenges when trying to accurately monitor corruption trends within countries. Moreover, corruption indices are based on different conceptualizations of corruption, leading to discrepancies. These variations result in discrepancies when measuring the same concept, creating difficulties in comparing the results across different indices or making valid inferences from them.

Spyromitros and Panagiotidis (2022) highlighted that although there have been improvements, current corruption measures still pose challenges in terms of reliability and clarity, which can hinder accurate analysis. Villarino (2021) raised concerns about the methodologies used in current corruption indices, there exist some factors such as; sample size, the use of proxies, and underlying assumptions. The paper highlights the methodological flaws that affect the indicators' accuracy and consistency in measuring corruption across various jurisdictions over time. Additionally, it emphasizes the significance of reliability, especially when conducting longitudinal and cross-country comparative studies. Further, the reliability of current indices such as the CPI and CoC in tracking changes in corruption over time, considering possible inconsistencies in their construction and data sources.

Budsaratragoon and Jitmaneeroj (2020) claimed that the CPI makes two flawed presumptions regarding the equal significance and independence of its several data sources, as demonstrated in their multidisciplinary analysis. The levels of corruption perception relate closely to the levels of economic development so developed countries tend to have lower levels of perceived corruption compared to emerging countries. The study reveals that different data sources have varying impacts on the CPI, which challenges the notion that all sources are equally significant. This suggests that the equal weighting system employed by Transparency International might not provide an accurate representation of the actual impact of each data source on the overall index. The study highlights the interconnectedness of data sources, showing that changes in one source can impact the perceptions measured by other sources. This challenges the assumption that these sources are independent of each other. Over time, the CPI's methodology has changed, including adjustments in data sources and sample designs. These changes undermine the consistency required for reliable year-to-year comparisons, making it challenging to accurately monitor long-term trends in corruption levels.

Scholl and Schermuly (2020) indicated that reliability concerns show that CPI has observed little change from year to year. The authors averaged data from multiple years (2010, 2011, and 2012) to enhance reliability, but this may have masked real fluctuations in corruption levels. Hamilton and Hammer (2018) study analyzed various corruption indicators, focusing on their validity and reliability to determine which indicators are most relevant for measuring Sustainable Development Goal 16. They concluded that the survey-based Corruption Perceptions Index and the World Bank's Control of Corruption indicator are the most reliable measures of corruption in various countries. However, determining the most effective indicator is challenging due to variations in construction. In addition, it is important to verify subjective indicators with objective indicators, even if the objective ones are limited in scope and availability. Heywood (2016) indicated that perception-based data can introduce subjectivity and potential bias, often reflecting the perspectives of elites and business executives rather than the broader population. This has the potential to alter the accurate scope and characteristics of corruption.

Heywood (2016) claimed that the CPI has not undergone significant improvements since it was first introduced. Researcher argue that the year-to-year fluctuations often fail to accurately represent actual shifts in corruption levels, instead being attributed to statistical variations. This raises doubts about the index's value as an annual metric. Borra and Castelli (2012) examined the subjective indices used to compare corruption in public sectors across various countries, such as the Corruption Perception Index (CPI) by Transparency International. However, these perception indices do not account for the unique characteristics of economies. According to Knack (2007), concerns have been raised regarding the accuracy and reliability of CPIs over time, particularly when there are notable shifts in rankings that may not accurately represent changes in corruption levels (Knack, 2006).

2.4. Bias and Representativeness

Dalton and Esarey (2022) pointed out corruption measures can be affected by biases or random noise, leading to a potential distortion of the true corruption levels. Biases can arise from the methodologies employed, including the combination of different data sources or the use of surveys based on personal perception.

Spyromitros and Panagiotidis's (2022) study compared CPI, COC, and other corruption indices and highlighted differences between CPI and COC. CPI defines corruption in the public sector, while CoC includes both public and private sectors. The CPI data comes from reliable databases and experts, including business people, country risk analysts, residents, nonresidents, expatriates, and nationals. CoC data from experts. CPI and CoC are composite indicators. CPI uses a simple weighting method, while CoC has a complex process with drawbacks. Both indices measure corruption through perceptions. The CPI measures corruption, while the CoC calculates governance failures from corruption. Different methodologies are used to calculate statistical uncertainty in both indices. After comparing both indices researcher provided criticism on different aspects. The issue is what they measure, as corruption types and significance vary by country. Sources calculate different things. CoC seeks ineffective control, conflict of interest, and public resources appropriated for its benefit.

The World Economic Forum seeks bribes paid. Indicators have different sources, leading to varying country results. The indicators rely more on surveys of experts, professionals, and managers in multinational companies than on public surveys. The views of a large mass of people are ignored. The structure of the initial indicators prevents comparison over time for the CPI from 2012 onwards. Subjective indicators are based on general impressions about the measured quantity. Moreover, they measure perceptions as a measurement of a social and hidden phenomenon, with errors, different types of corruption, and different sources for each country. There is a lack of systematic anti-corruption reaction processes based on perceptual indicators.

Uroos et al. (2022) showed that existing corruption indices often misrepresent true corruption levels in a country. Oversimplification of complex issues can lead to misleading conclusions about the effectiveness of anti-corruption measures and governance (Shair et al., 2023). Scholl and Schermuly (2020) emphasized that CPI lacks detailed insights into various forms of corruption. The estimate is refined over time but still does not capture all types of corruption in different societies.

Charron (2016) indicated that corruption perceptions in Europe have been subject to empirical scrutiny, with critics arguing that existing indices perceptions may not accurately reflect the true extent of corruption. External factors, such as economic performance, can influence these perceptions, making them unreliable and subject to

bias. Charron (2016) conducted a comprehensive analysis and found high consistency between actual indicates reported corruption and perceptions held by citizens and experts, and minimal influence from external factors. This suggests that while current corruption measures face limitations, concerns about the accuracy and potential biases of perceptions may have been exaggerated.

Donchev and Ujhelyi (2014) highlighted that CPIs commonly collect data from business executives, analysts, and experts, which may result in a bias toward the elite. This demographic may hold distinct perspectives on corruption in comparison to the wider population. According to Andersson and Heywood (2009), perceptions of corruption can differ greatly between cultures. What may be seen as corrupt in one country may not be viewed the same way in another. These factors can affect the accuracy of CPI measurements.

2.5. Implications and Consequences

Spyromitros and Panagiotidis's (2022) study raises concerns about the extent to which policymakers effectively utilize academic research on corruption when formulating anti-corruption strategies. It suggests that there may be a gap between research findings and their practical implementation. Uroos et al. (2022) indicated that flawed indices can misguide policymakers, leading to ineffective anti-corruption strategies. More comprehensive and context-sensitive measures are needed to assess and address corruption.

Heywood (2016) indicated that using CPI scores to inform international aid and policy can lead to unintended consequences. Less affluent nations with lower scores may face challenges in obtaining the assistance they require, leading to a situation where corruption persists because of insufficient resources to enact essential changes. According to Johnston (2014), using CPIs to inform policy decisions and international aid can result in a uniform approach to anti-corruption measures that may not be effective in every situation. Kaufmann et al. (2007) described six traditions and their corresponding truths about measuring corruption from the perspectives of aid donors and recipients: First, corruption can be measured through surveys of firms and public agents, assessments of institutional features, and audits of prescribed projects. Second, objectivity can be achieved by converting qualitative data into quantitative form. Third, measurement errors can be minimized by ensuring the reliability of accurate source data. Fourth, corruption is often an indication of governance issues. Fifth, corruption is not static; it evolves so understanding its temporal dynamics is crucial for effective measurement and intervention. Last, direct measures are used to judge the accuracy level of corruption. Policymakers used it according to their needs.

2.6. Overemphasis on Cross-National Comparisons

Researcher raises concerns about the overemphasis on cross-national comparisons, arguing that while CPI and CoC show strong correlations between countries, they may not accurately capture changes within a country over time (Dalton and Esarey, 2022). This problem weakens their effectiveness in analyzing the development of corruption within a nation, and highlights the limitations of these measures in terms of tracking within-country changes, making them unsuitable for causal inference research designs such as difference-in-difference or dynamic panel models. These designs heavily rely on accurate within-country measures of corruption.

Scholl and Schermuly (2020) highlighted that the CPI does not cover legal corruption, which can greatly affect the perception and reality of corruption in different countries. The oversight limits the CPI's effectiveness in measuring corruption. The authors proposed augmenting the CPI to include legal corruption and cultural factors for a better understanding of corruption in different nations. It could help differentiate democracies more effectively.

After reviewing the literature, we found that two widely used approaches to measuring corruption; are the perception approach and the experience approach. Both approaches have pros and cons, but combining them in one index could provide a better measurement.

3. Criticism of Perception Indices

Many research papers, such as the Corruption Perception Index (CPI) by Transparency International and the Control of Corruption (COC) by the World Bank, are utilized as benchmarks for assessing corruption. They offer valuable comparisons but have limitations that may affect their suitability for specific countries like Pakistan. For instance, the CPI solely measures corruption within the public sector, while the COC assesses both public and private sectors. The CPI employs two types of perception data: surveys from independent organizations and expert assessments, with a focus strictly on the public sector. The primary questions in the CPI revolve around the misuse of public authority for private gain.

The CPI is rated on a scale from zero to ten, where zero signifies very high corruption and ten indicates minimal corruption. The index incorporates various data sources, each with its own scaling system ranging from zero to six and zero to ten. This diversity in data sources leads to inconsistencies in standardization and averaging processes, which, in turn, affects the originality and integrity of the data. As a result, different sources yield varying means and standard deviations, covering distinct subsets of countries. This methodological ambiguity and lack of clarity have been subjects of criticism, leading to calls for a more objective and clear approach in data handling and index formation (Rohwer, 2009).

To address these issues, the standardization technique previously used has been replaced with a beta transformation, applying a matching percentile approach. This new method allows for the alignment and ranking of countries based on each source's unique data distribution, confining the overall index to a standardized scale from zero to ten. Over the years, the methodologies and sources used in these indices have evolved, leading to inaccuracies and introducing biases from both survey respondents and the experts assessing various countries. These biases result in skewed perceptions and comparative assessments across different nations (Thompson & Shah, 2005).

Table 1: Sources and Indicators of Corruption Perception Index (2002-2023)

Years	No of Countries Included	No of Indicators	No of Sources
2002	102	15	10
2003	133	17	13
2004	146	18	12
2005	159	16	10
2006	163	12	9
2007	180	14	12
2008	180	13	11
2009	180	13	10
2010	178	13	10
2011	183	17	13
2012	176	13	12
2013	177	13	12
2014	175	12	11
2015	168	12	11
2016	176	13	12
2017	180	13	12
2018	180	13	12
2019	180	13	12
2020	180	13	12
2021	180	13	12
2022	180	13	12
2023	180	13	12

Source: Transparency International

According to Table 1, many countries have shown fluctuations over different years. Each country has its unique significance, including factors such as population diversity and social, cultural, and economic differences. This raises the question, "How is it possible to uniformly apply the same formula and techniques to include or exclude a new country in a phenomenon?" When a country is excluded from the Corruption Perceptions Index (CPI) for a year, its impact remains evident in the current index because it uses an average of three years of survey data. Additionally, several indicators and institutions have also shown fluctuations in the CPI. The index utilizes various perception surveys, and respondents are asked questions that may not be directly related to corruption. Consequently, the reliance on numerous surveys, complex formulas, and statistical techniques can lead to biased results or compromise objectivity, making the index suitable for global comparison but not for specific countries (Escresa & Picci, 2013).

Lack of reliability presents another issue with the CPI. As shown in Table 1 above, various countries are included across different years and multiple sources are used to construct the index. The perception surveys conducted on experts and public officials may be biased as these respondents might not provide an accurate portrayal of corruption. These respondents often rely on signals from the media and conversations with others who discuss corruption but do not directly experience it. Individuals directly involved in corrupt practices are unlikely to disclose truthful accounts. This lack of firsthand experience underpins the rationale for gathering perception data from diverse sources within the same country. The Corruption Perception Index tends to be more credible in countries with lower levels of corruption but less so in countries with higher corruption levels, such as Pakistan.

The Corruption Perception Index (CPI) and the Corruption Outcome Composite (COC) have gained significant recognition for two primary reasons. Initially, they pioneered the introduction of the quantity index of corruption, marking a notable advancement in this field. The CPI and COC first published their data outputs in 1995 and 1996, respectively, establishing themselves as early formal indicators of corruption and leaving a lasting impression in the public consciousness. Furthermore, the widespread use of large datasets and the application of sophisticated statistical techniques in these indices have bolstered their reputation. This comprehensive approach is unique to the CPI and COC, as other corruption surveys typically do not integrate both elements, positioning these indices as a benchmark in measuring corruption levels.

The methodology behind the CPI involves complex data handling, evidenced by the large standard deviations arising from frequent changes in sources and methods. The 2002 version of the CPI incorporated three years of survey data from the general public and a single year of expert assessment, a mix designed to highlight more persistent corruption scandals that might not be as apparent in shorter-term assessments. This version of the CPI also introduced two significant methodological changes: adjusting the confidence range and standardizing indicators before averaging them to minimize score variations. Such adjustments aim to provide a more stable and reliable measure of corruption over time, despite fluctuations in annual data.

In addition to these methodological innovations, the CPI employs a sophisticated two-phase "Matching of Percentile" technique to refine its scoring system. Initially, countries are ranked based on the data sources employed, followed by a comparison of scores from the previous year within the same group of countries. In the subsequent phase, a beta transformation is applied to align the scores more closely over time and across different magnitudes of corruption, which vary from petty to more severe forms. This process helps in constructing a nuanced corruption index that accurately reflects the diverse nature of corruption across various countries.

In contrast, while some estimates focus on the grand scale of corruption, others examine the frequency of corrupt acts or quantify the total amount of money involved. The Gallup International survey data provides details on the number of corrupt activities used in the construction of the Corruption Perceptions Index (CPI). Additionally, information from the Global Competitiveness Report and the International Crime Victims Survey are utilized to measure the incidence of corruption. The Asian Intelligence Issues and the World Bank's Private Sector Survey are cited as reflecting payments made due to corruption. These indicators are then compared across various samples in different countries.

For instance, in Country A, there were ten murders and 90 road accidents, while in Country B, there were 90 murders and ten road accidents. Despite having the same population size, both countries report the same death rate when a simple average is calculated without assigning different weights. This divergence in data sources results from less objective methods and biased interpretations of the extent of corruption in a specific country. The Corruption Perceptions Index (CPI), which compares the indicators of one country against another, might be misleading. This occurs because one country's data can vary due to the economic and social conditions of others. Despite the accuracy of the corruption scores, their descriptive power is limited because they amalgamate various aspects of corruption under equal weights, ignoring the multidimensional nature of corruption. Therefore, it is crucial to develop a new corruption index that benchmarks a country's corruption levels against its historical data rather than against other countries. This methodological shift is essential for a more accurate and nuanced understanding of corruption.

3.1. Novel Corruption Index

Shahzad, Rana, and Javaid (2023) have introduced a novel corruption index that enhances the measurement of corruption by resolving the shortcomings of previous indices. The proposed index is superior in the following ways:

Combination of Experience and Perception Indicators: Traditional indices, including the Transparency International Corruption Perceptions Index (TI-CPI) and the Worldwide Governance Indicators-Control of Corruption (WGI-CC), are largely dependent on perception-based data, which is subject to bias and subjective analysis. The novel index encompasses both perception and experience indicators, thereby offering a more comprehensive and balanced perspective on corruption.

Country-Specific Tailoring: A particular emphasis is placed on Pakistan in the novel index, which is specifically designed for developing countries. Traditional indices frequently fail to consider the distinctive political, cultural, and social contexts of various countries, resulting in less precise representations of corruption levels. The new index is designed to address these specific contexts, thereby rendering it more pertinent and actionable for policy formulation in developing nations.

Weighted Aggregative Methodology: The new index employs a weighted aggregative methodology that enhances the accuracy of documenting the actual levels of corruption by evaluating the relative significance of various indicators. In contrast to comparing countries against one another, which can be misleading, this method offers a more comprehensive understanding of corruption tendencies within a single country over time.

Addressing Criticisms of Current Indices: The proposed index addresses three primary criticisms of current corruption perception indices: the absence of a valid theoretical foundation, lagging governance indicators, and the non-action ability of indicators.

Perception indices are significantly influenced by the evaluations of experts, who may represent only a narrow group of people. Each country has its own unique social, economic, environmental, and cultural characteristics. Some experts are only familiar with a limited number of nations, and may not fully understand the current state of affairs in those they assess. In evaluating corruption, specialists may compare other nations to their own countries. Achieving true objectivity is challenging, and individuals are naturally inclined to favor either a government or its opposition. In professional assessments, bias may stem from either an overemphasis on certain societal traits or a misinterpretation of other countries' cultures.

4. Conclusion

Corruption manifests in two main forms in developing countries: high-level corruption in aid projects and foreign business operations, and petty corruption among customs officials or local businesses. Petty corruption, though smaller in scale, pervades all sectors and is harder to detect. The media often reports on prominent cases of corruption but overlooks these low-level instances for two reasons. Firstly, such corruption is widespread, raising the question: who will single out one offender in a crowd of many? Secondly, media outlets tend to pursue stories that attract more attention and, consequently, greater financial gain, depending on the circumstances. Resultantly, perception indicators cannot accurately portray a country's corruption; somewhat experienced indicators must be considered when measuring corruption. To measure these experience indicators, proxy variables or formula techniques are used because direct measurement is impossible and individuals are reluctant to share their experiences of corruption. By combining the above suggestions Shahzad et al. (2023) developed a novel corruption index that includes perception and experience data, customizing the index to the unique requirements of developing nations, employing a weighted aggregative methodology, and addressing significant criticisms of current measures, the novel corruption index presented in the research outperforms earlier indices. As a result, the instrument for assessing and combating corruption is more precise, relevant, and useful, especially in developing countries.

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