ABSTRACT

Previous studies have primarily focused on issues related to income inequality, aiming to identify the underlying causes and urging swift action to mitigate such disparities. In this context, the current article expands upon existing literature by introducing the influence of corruption and institutional quality. This study contributes to the existing knowledge by investigating the interplay between institutional quality, corruption, and income inequality within SAARC countries spanning 2000 to 2021, sourced from World Governance Indicators, Transparency International, Global Consumption and Income Project, and World Development Indicators. After analysing the properties of data, FMOLS analytical approach employed. The empirical analysis validates the enduring effects of the examined factors on income inequality over the long term. The findings indicate that institutional quality exerts a notable and favorable influence in reducing income inequality. Conversely, corruption, the combined impact of corruption and institutional quality substantially and adversely affect income inequality. Addressing the imperative of ensuring an equitable income distribution across the SAARC economies necessitates implementing comprehensive strategies to foster enduring institutional quality and effectively manage corruption. Study's conceptual and empirical advancements carry significant implications for policy formulation within this region. They offer valuable insights for the region's endeavors to ameliorate income inequality. This study underscores the importance of measures to enhance institutional quality and combat corruption within SAARC countries. Such measures should be strategically designed to tackle income distribution challenges and promote greater equity.

INTRODUCTION

Income inequality is a significant concern for economists and policymakers worldwide. It refers to the uneven distribution of income within a population, often accompanied by wealth inequality. When resources in the economy are unequally distributed among its residents and the flow of resources continue to grow from poor to rich, such situation is described as income inequality (Staff 2009). Recent evidence suggests that countries with high economic growth rates have experienced an increase in income inequality. Institutional processes have been identified as a contributing factor to rising income inequality, as they can lead to corruption, political clientelism, and other irregularities that undermine property rights. Poor institutional quality has been found to have a detrimental effect on income distribution. Institutions, as defined by Chong and Calderón (2000), encompass the norms, legal and political frameworks, and cultural factors that shape economic activity within a nation. Healthy institutions are associated with economic development and a more equitable distribution of income. Countries with higher levels of institutional quality, such as Denmark, Sweden, and New Zealand, tend to have more equal income distributions. Conversely, countries with higher levels of corruption and lower institutional quality, such as Bangladesh, India, and Pakistan, exhibit greater income inequality. Corruption has direct and indirect impacts on economic and governance aspects, magnifying the existing inequalities (Sanjeev et al., 1998). The issue of corruption gained attention in the mid-1990s when international donor institutions and researchers focused on measuring corruption cross-country. Corruption is viewed as an indicator of other governance failures, and it hampers economic growth and financial performance in South Asian countries. Political instability, poor institutional quality, and governance crises are key factors hindering further improvement in economic growth and performance in the region. As societies prosper, expectations for better government services, rule of law, accountability, transparency, and welfare improvements increase. Rising income and wealth inequality pose significant challenges for governments globally. In developing economies, public expenditure is prioritized over taxation mechanisms due to the small size of tax revenues and the perceived low quality of governance and institutions. In cases where there is a presence of strong institutional quality, characterized by minimal corruption and significant political competition, public expenditure can contribute to the advancement of a more equitable society. In the context of the SAARC countries, poor governance, political instability, income inequality, and corruption are prevalent issues. It is crucial to study these issues to identify effective solutions. This paper aims to analyze institutional quality, income inequality, corruption,
government effectiveness, and political stability in the SAARC countries. Historical context reveals that many of these countries were colonized by the British Empire, and the institutional frameworks inherited from the colonial period continue to shape their governance systems. India held a significant place among the colonies of the British Empire. The gradual establishment of control by the British East India Company occurred over various regions of the Indian subcontinent starting from the mid-18th century (Bayly, 1990). Subsequently, after the Indian Rebellion of 1857, direct British rule, known as the British Raj, was implemented across the entire Indian subcontinent until India finally gained independence in 1947 (Gilmartin, 1998).

Pakistan was also established after the partition of British India in 1947, comprising two regions: East Pakistan (now Bangladesh) and West Pakistan (now Pakistan). Both East and West Pakistan were part of the colonial administration of British India until they gained independence (Talbot, 1998).

Formerly known as East Pakistan, Bangladesh emerged after the partition of British India in 1947. It remained under the colonial administration of Pakistan until it achieved independence through the Bangladesh Liberation War in 1971 (Raghavan, 2013).

Previously known as Ceylon, Sri Lanka was one of the colonies of the British Empire. The British gradually gained control over various parts of Sri Lanka through treaties with local rulers, establishing colonial rule. Sri Lanka remained under British colonial administration until it gained independence in 1948 (Wickramasinghe, 2006).

The aim of the study is to analyze the impact of corruption and institutional quality on income inequality by using the panel data of 2000-2021 for SAARC countries. This study contributes to the burgeoning literature on institutions in two ways. First, our study finds that institutional quality helps to reduce income inequality. In this article, we consider two types of institutional quality: institutional quality (simple mean of six governance indicators), and institutional quality with corruption impact (interaction term). Second, the level of corruption is also an important factor for income distribution. More corruption has a positive impact on income inequality.

The structure of the paper is outlined as follows: Section 2 offers an extensive examination of the existing body of literature pertaining to the subject. Moving on to Section 3, we intricately explain the empirical model while also tackling any potential data-related issues. Section 4 showcases the empirical findings, which are comprehensively analyzed in Section 5. The paper concludes with final remarks presented in Section 6.

LITERATURE REVIEW

Batabyal and Chowdhury (2015) examined corruption, financial development, and income inequality in 30 Commonwealth countries from 1995 to 2008. Using OLS and IV estimation techniques, they found that high corruption levels in Commonwealth countries hinder the benefits of financial development. Financial development positively affects income inequality in all countries, with a stronger impact in low- and middle-income countries when corruption levels are high. The study suggests implementing integrated policies that tackle corruption and promote financial development to effectively reduce income inequality.

N. P. R. Deyshappriya (2017) conducted a study on income inequality across 33 Asian nations spanning the period from 1990 to 2013. Through the application of dynamic panel data analysis, the study revealed an inverse U-shaped correlation between GDP and inequality, a phenomenon known as the Kuznets curve. The research identified several factors that contributed to the reduction of inequality, encompassing Official Development Assistance (ODA), education, and participation in the labor force. Conversely, inflation, political risk, terms of trade, and unemployment were identified as factors that heightened inequality. Initial GDP growth favored the middle class and richest groups, but further growth favored middle-income and poor groups. The study recommended sustained economic growth, improved education and employment access, price stability, and political stability to reduce income inequality in Asia.

Chowdhury et al. (2018) investigated the connections between entrepreneurship, corruption, and income distribution in low- and middle-income countries in South and East Asia from 2004 to 2012. The study employed ordinary least squares analysis. The findings revealed that entrepreneurship has a positive impact on reducing income inequality, but the type of entrepreneurship also matters. Moreover, the level of corruption in a country plays a significant role. The study suggested that countries with lower corruption levels are more effective in reducing inequality through entrepreneurial activities.

Brei (2018) investigated the connection between financial structure and income inequality using panel data from 97 economies spanning 1989 to 2012. The study found a non-monotonic relationship, where an increase in finance initially reduces income inequality. However, beyond a certain point, expanding market-based financing leads to a rise in inequality, while expanding finance through bank lending does not. These findings align with existing literature suggesting that deeper financial systems aid in reducing poverty and inequality in developing countries. They also align with recent evidence of increasing inequality in financially advanced economies.

Saechmai (2019) investigated the association between government external debt, corruption, and ECNG in five ASEAN countries. Using secondary data from 1990 to 2015, variables such as external debt stock, gross capital formation, GDP, interest on external debt, exports, and corruption were considered. The study revealed negative consequences for the economy resulting from increasing debt, emphasizing the importance of addressing this issue through alternative capital investment sources. The study recommended efficient management of public resources to mitigate challenges like high servicing costs, corruption,
and capital flight. Strategies such as promoting economic openness, easing import restrictions, and boosting valuable exports were also suggested.

Law & Soon (2020) conducted a study that examined how institutional quality influences the connection between inflation and income inequality. The research employed a two-step system using the Generalized Method of Moments with unbalanced panel data encompassing the years 1987 to 2014. This dataset included 65 countries, both developed and developing. The study's findings indicated that higher levels of inflation exacerbate income inequality, whereas enhanced institutional quality contributes to a reduction in income inequality. Furthermore, the study unveiled that the impact of inflation is moderated by better institutional quality, suggesting the presence of a mediating effect. Additionally, the research highlighted that both inflation and institutional quality have incremental effects in diminishing income inequality. Drawing from these outcomes, policymakers are advised to prioritize the enhancement of institutional quality. This improvement holds a dual role in influencing income inequality – directly and indirectly by interacting with inflation.

Daud (2020) conducted a study that delved into the role played by institutional quality in the correlation between external debt and economic growth. The study adopted a dynamic threshold specification approach using panel data encompassing 53 countries. This dataset covered the time span from 2005 to 2016. The estimation process employed the System Generalized Method of Moments. The study’s findings illuminated that external debt exerts a negative impact on a nation's economic growth, while institutional quality yields a positive influence on growth. Moreover, the research revealed that the extent of external debt's impact on economic growth hinges on the quality of institutions. Particularly noteworthy is the fact that when external debt reaches high levels, the effect of institutional quality on growth becomes relatively insignificant. In light of these outcomes, the study's conclusion underscores the persistence of the detrimental effect of external debt on a country's economic growth.

Asamoah (2021) conducted a study that investigated the presence of a threshold effect in the relationship between institutional quality and income inequality. This inquiry was carried out utilizing a dynamic panel threshold model. The study's focus encompassed a panel of both developing and advanced countries, spanning the period from 1995 to 2017. The outcomes of the study unveiled varying impacts: i) When assessed through the World Governance Indicators, advanced countries displayed a quadratic effect, while developing nations consistently demonstrated a negative effect. This finding implies that enhanced institutional quality leads to a reduction in income inequality in developing countries. ii) Using a measure derived from the International Country Risk Guide, the study identified an inverted U-shaped correlation between institutions and income inequality in both advanced and developing countries. Interestingly, the threshold value for this relationship was higher in developing economies. The study's results remained robust even when accounting for measurement and endogeneity concerns. These findings carry significant policy implications, offering valuable guidance for addressing income inequality within developing economies.

Paulo Diogo Amaro Nunes de Sousa Rego (2021) investigated the impact of corruption on income inequality and regional variations. Using panel data from 108 countries over 1996-2017, the study found that controlling corruption was associated with increased income inequality in Asian and Eastern European countries, while Western European and Latin American countries saw lower inequality with corruption control. Additionally, democratic political regimes were found to improve corruption control.

Biglaiser and McGauvran (2021) studied the effects of debt restructurings on income distribution in 71 developing countries from 1986 to 2016. They found that debt restructurings led to reduced social spending and lower taxes, exacerbating income inequality. The results remained robust across various model specifications, shedding light on the negative impact on the less well-off following debt restructurings.

Obiero and Topuz (2021) examined the impact of internal and public debt on income inequality in Kenya from 1970 to 2018 using the ARDL model. They found that both internal and public debt contribute to income inequality in the long term. Internal debt has a one-way causal relationship with income inequality, while no such relationship was observed for public debt. The study recommended using non-debt financing methods to address income inequality in Kenya, as debt financing is not favorable for the less privileged.

Bon's (2022) research focusing on advanced economies delved into how institutional quality influences the relationship between public debt and income inequality. The study utilized data spanning the timeframe of 2002 to 2020, encompassing 30 advanced economies. The research methodology comprised the utilization of both the system-GMM and PMG estimator techniques. The study’s findings illuminated intriguing dynamics: Individually, both public debt and institutional quality exhibited the potential to alleviate income inequality. However, the interaction between these two factors, as indicated by their combined effect, paradoxically intensified the existing inequality. Furthermore, the study unearthed the influential roles played by economic growth and unemployment in shaping income inequality, both factors contributing to its exacerbation. Conversely, the presence of education emerged as a countering force, actively contributing to the reduction of income inequality. The study underscores the critical need to derive actionable policy implications. It highlights the potential of harnessing the intertwined influences of public debt and institutional quality as a strategic avenue to effectively address the intricate challenge of income inequality.
Kunawotor et al. (2020) undertaken a study that delved into influence of institutional quality on income inequality in the African context. They employed a dynamic two-step difference GMM approach to analyze data spanning the years 1990 to 2017. The study’s outcomes revealed intriguing patterns: While the overall impact of institutions on income inequality across Africa lacked statistical significance, distinct indicators of institutional quality, notably the control of corruption and stringent adherence to the rule of law, demonstrated a notable capacity to reduce income inequality significantly. In contrast, other indicators such as GE, VAC, RQ, and PS failed to exhibit statistically significant effects on income inequality. The study underscored the importance of prioritizing measures aimed at curbing corruption and establishing robust rule of law systems as pivotal factors in fostering a more balanced distribution of income across Africa.

Berisha et al. (2023) examined the differential impact of inflation on income inequality across various levels of inequality in the US states. Using a quarterly dataset from 1990:Q1 to 2017:Q2, the study employed a panel quantile regression model with fixed effects. The results showed a negative contemporaneous effect of inflation on inequality, which was more pronounced at higher levels of income inequality. However, over a one-year period, higher inflation rates only increased income inequality when it was initially low.

Abbas et al., (2023) examined how well institutions function, the level of education, and corruption in lower middle-income countries. Study discovered that if institutions work better, there is less corruption. Furthermore, they found that having a higher level of education in institutional could lead to increase the corruption. This study highlights the crucial importance of dealing with corruption, particularly within the education system.

METHODOLOGY
Data has been gathered from various sources, namely the World Governance Indicators, Transparency International, Global Consumption and Income Project, and World Development Indicators. The data spans from 2000 to 2021 and includes British Colonized countries such as Bangladesh, India, Pakistan, and Sri Lanka. Income inequality is measured using the Gini Index, while corruption is assessed using the corruption perception index, with higher values indicating increased corruption. The mean of six governance indicators is utilized as a measure of institutional quality (Ismail and Amjad, 2022). The study incorporated an interaction term to examine the influence of poor institutional quality. This interaction term was created by combining corruption and institutional quality. Inflation was approximated using the GDP deflator. Government effectiveness and political stability were employed to assess the impact of the government and political stability on the economy.

Model Specification
In the era of globalization, panel data studies often face challenges related to residual interdependence and the omission of common factors, leading to cross-sectional dependence. To address this issue, the analysis begins with a cross-sectional dependency test. This examination serves the purpose of ascertaining whether latent factors and disturbances embedded within the error term contribute to significant cross-sectional interdependence in models applied to panel data. Such interdependence can potentially yield misleading and erroneous outcomes. The null hypothesis for this test postulates the absence of cross-sectional interdependence, whereas the alternative hypothesis suggests its presence. Additionally, unit root tests are administered to establish the integration status of the variables, as the existence of unit roots can lead to problematic results. To ensure the robustness of the findings, the Pesaran-CIPS unit root tests are employed for validation.

Prior to conducting the econometric model estimation, a crucial step involves identifying the long-term relationships among the considered variables. This goal is achieved through the utilization of diverse cointegration tests, encompassing the Pedroni test (Pedroni, 1999), the combined cointegration test devised by Maddala (Maddala and Wu, 1999), and the Kao residual test (Mouellil, 2021). The cointegration regression analysis utilizes the FMOLS method to assess long-term sensitivities. The FMOLS approach proves beneficial in mitigating concerns related to autocorrelation and endogeneity (Marimuthu et al., 2021). In terms of unbiased estimations, both FMOLS and DOLS demonstrate superiority over ordinary least squares (OLS) (Akbar et al., 2021a, b; Marimuthu et al., 2021; Zhong, et al., 2022). The objective of the study is to examine the relationship among income inequality, corruption, and institutional quality for countries in the SAARC. The study employs a specific functional form for the analysis.

**INCINQ_t = (CORR_t, IQ, IQ CORR_t, IQ, INF_t, GE_t, PS_t) (1)**

**Econometric Model**

INCINQ_t = δ_i + λ_i + β1 CORR_t + β2 IQ CORR_t + β3 IQ_t + β4 INF_t + β5 GE_t + β6 PS_t + μ_t (2)

In the provided equation, “i” represents a specific SAARC country, and “t” denotes the time period. Within this model, λi and δi represent the trends and country-specific effects, while β1 to β6 indicate the magnitude of impact for corruption, institutional quality, the interaction between institutional quality and corruption, inflation, government effectiveness, and political stability, respectively.

RESULTS AND DISCUSSIONS

Descriptive Statistics
Table 1 displays descriptive statistics and a correlation matrix of the variables included in the study. The statistical properties of the variables align with their suitability for

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panel data estimation. Furthermore, the presence of low correlation among the independent variables helps alleviate the problem of multicollinearity.

Cross-Sectional Dependence Tests
Table 2 displays the results of the cross-sectional dependence tests, showing a probability value of 0.6325. This value exceeds the significance threshold of 0.05. Based on this p-value, study can finalize that there is not enough substantiated proof to reject the null hypothesis. This null hypothesis proposes the lack of cross-sectional dependence.

Results of Panel Cointegration and Long Run Estimates
Following the completion of the unit root test, the subsequent stage involves investigating the existence of a prolonged relationship using cointegration tests. Three distinct cointegration tests were deployed: the Pedroni panel cointegration test, the Fisher-Johanson combined cointegration test, and the Kao residual cointegration test. The Pedroni panel cointegration test, established in 1999 and further refined in 2004, encompasses seven statistical metrics that aid in identifying enduring relationships among the variables. These metrics encompass panel ADF statistics, panel v statistics, panel PP statistics, panel rho statistics, as well as three group statistics: rho, ADF, and PP. The outcomes of the Pedroni panel cointegration test are illustrated in Table 4. The decision to reject the null hypothesis, which posits no cointegration, is contingent upon the majority of the statistical measures attaining significance levels of 1%, 5%, or 10%. The results validate the presence of a long-term association within the SAARC panel encompassing income inequality, corruption, institutional quality, institutional quality coupled with corruption, inflation, government effectiveness, and political stability. The p-values and t-statistics presented in the table indicate that six of the seven statistical metrics hold significance.

Table 1: Description of Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>INCINQ</th>
<th>CORR</th>
<th>IQ_CORR</th>
<th>IQ</th>
<th>INF</th>
<th>GE</th>
<th>PS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.452</td>
<td>2.734</td>
<td>-1.376</td>
<td>-0.762</td>
<td>7.710</td>
<td>-0.383</td>
<td>-1.316</td>
</tr>
<tr>
<td>Median</td>
<td>0.431</td>
<td>2.600</td>
<td>-3.212</td>
<td>-1.334</td>
<td>6.219</td>
<td>-0.391</td>
<td>-1.25</td>
</tr>
<tr>
<td>Maximum</td>
<td>0.571</td>
<td>4.000</td>
<td>8.766</td>
<td>2.369</td>
<td>38.512</td>
<td>0.405</td>
<td>0.090</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.394</td>
<td>0.400</td>
<td>-5.557</td>
<td>-2.409</td>
<td>1.921</td>
<td>-0.937</td>
<td>-2.810</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.051</td>
<td>0.761</td>
<td>4.167</td>
<td>1.3689</td>
<td>5.761</td>
<td>0.3458</td>
<td>0.668</td>
</tr>
<tr>
<td>Observations</td>
<td>88</td>
<td>88</td>
<td>88</td>
<td>88</td>
<td>88</td>
<td>88</td>
<td>88</td>
</tr>
</tbody>
</table>

Table 2: Cross-Sectional Dependence Tests

<table>
<thead>
<tr>
<th>Test</th>
<th>Statistic</th>
<th>d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breusch-Pagan LM</td>
<td>29.21791</td>
<td>6</td>
<td>0.0001</td>
</tr>
<tr>
<td>Pesaran scaled LM</td>
<td>6.702432</td>
<td></td>
<td>0.0000</td>
</tr>
<tr>
<td>Pesaran CD</td>
<td>0.434406</td>
<td></td>
<td>0.6640</td>
</tr>
</tbody>
</table>

Table 3: Cross-Sectional Dependence Unit Root Test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pesaran-CIPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORR</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>GE</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>INCINQ</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>INF</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>IQ</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>IQ_CORR</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>PS</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

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relationships encompassing all the variables. In essence, all three tests concur, collectively affirming a sustained connection among the variables.

**Results Fully Modified OLS**

Upon verifying the existence of enduring relationships among all variables, the analysis progresses to the cointegration regression analysis stage. It's crucial to underline that the cointegration test's sole objective is to confirm the presence of a prolonged relationship. In order to investigate the interplay and causal flow within the SAARC panel, this study opted for the utilization of the FMOLS technique. The outcomes, as depicted in Table 6, demonstrate that within the SAARC economies, institutional quality exerts an adverse influence on income inequality, yielding a negative impact (Zehra et al., 2021; Cheah, 2021; Náplava, 2020; Mehmet, 2017; Borja, 2018). Based on the findings, it can be inferred that a 1 unit increase in institutional quality will lead to a decrease in income inequality by 0.027%.

The results of the FMOLS analysis reveal a significant positive relationship between poor institutional quality and income inequality. This implies that a 1 unit increase in corrupted institutions leads to a 0.07% increase in income inequality, according to the findings. In 2003, Sonin presented a dynamic model that suggests how low-quality institutions can lead to the negative impact of inequality on economic growth. The core idea is that such institutions tend to favor the wealthy through wasteful redistribution, which hampers the overall growth process. In a similar vein, Chong and Gradstein (2004) proposed a mechanism linking low institutional quality to the intensity of rent-seeking behavior derived from public assets like technological knowledge or natural resources. Sonin's theoretical model demonstrates that in societies without strong democratic governance, where there is both political and wealth inequality, the rich and politically influential individuals tend to manipulate institutions for their own benefit, engaging in rent-seeking activities. This behavior not only leads to inefficient allocation of resources but also results in slower economic growth and increased inequality.

In contrast, the analysis demonstrates a positive and significant association with corruption (Bayar and Aytemiz, 2019; Gupta, Davoodi, and Alonso-Terme, 2002; Policardo et al., 2019; Dwiputri, I. N., Arsyad, L., & Pradiptyo, R., 2018). This suggests that a 1 unit increase in corruption leads to a 0.019% increase in income inequality, according to the findings.

Government effectiveness, in contrast, exhibits a negative and statistically insignificant influence on income inequality. The findings suggest that a 1 unit increase in government effectiveness is associated with a negligible decrease of 0.004% in income inequality, although this result is not statistically significant. Political stability shows a significant negative relationship with income inequality. The analysis reveals that a 1 unit increase in political stability is associated with a decrease of 0.022% in income inequality. On the other hand, inflation has a significant positive impact on income inequality. The findings indicate that a 1 unit increase in inflation leads to a 0.00065% increase in income inequality, according to the results.

### Table 4: Pedroni Panel Cointegration Test Result

<table>
<thead>
<tr>
<th>With Dimension</th>
<th>Statistic</th>
<th>Prob.</th>
<th>Statistic</th>
<th>Prob.</th>
<th>Between Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel v-Statistic</td>
<td>0.3</td>
<td>0.382</td>
<td>1.194</td>
<td>0.116</td>
<td>Group rho-Statistic</td>
</tr>
<tr>
<td>Panel rho-Statistic</td>
<td>0.999</td>
<td>0.159</td>
<td>-2.112</td>
<td>0.017</td>
<td>Group PP-Statistic</td>
</tr>
<tr>
<td>Panel PP-Statistic</td>
<td>-5.499</td>
<td>0</td>
<td>-4.958</td>
<td>0</td>
<td>Group ADF-Statistic</td>
</tr>
<tr>
<td>Panel ADF-Statistic</td>
<td>-3.175</td>
<td>0</td>
<td>-1.588</td>
<td>0.056</td>
<td></td>
</tr>
</tbody>
</table>

### Table 5: Fisher and Johanson Combined Cointegration and Kao Residual Cointegration Results

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No cointegration: null hypothesis</td>
<td>None</td>
<td>57.02</td>
<td>0</td>
<td>42.57</td>
<td>0</td>
</tr>
<tr>
<td>At most 1</td>
<td>30.3</td>
<td>0.0002</td>
<td>22.57</td>
<td>0.004</td>
<td></td>
</tr>
<tr>
<td>At most 2</td>
<td>22.3</td>
<td>0.004</td>
<td>22.3</td>
<td>0.004</td>
<td></td>
</tr>
<tr>
<td>Fisher Stat.* (from max-eigen test)</td>
<td>Reject criteria: p&lt;0.05</td>
<td>-7.382701 (0.000)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The present study aimed to investigate the relationship between institutional quality, corruption, and income inequality in SAARC countries from 2000 to 2021. The researchers used several statistical methods, including the Padroni cointegration test, Kao cointegration, and Fisher test, after employing the FMOLS approach. The empirical analysis conducted in the study confirmed that the examined factors had long-term effects on income inequality in the SAARC countries. The results indicated the following: Institutional quality: It was found to have a significant negative impact on income inequality. This suggests that countries with better institutional quality tend to experience lower levels of income inequality. Corruption: The study found that corruption had a significant positive impact on income inequality. This implies that higher levels of corruption in a country are associated with increased income inequality. Institutional quality and corruption combined: When considering the effect of corruption along with institutional quality, the study found a significant positive impact on income inequality. This suggests that the presence of corruption can counteract the potential benefits of good institutional quality in reducing income inequality. The study highlights the importance of IQ in reducing income inequality in SAARC countries. It also underscores the detrimental impact of corruption on income distribution. Moreover, the findings indicate that even countries with good IQ may not effectively address income inequality if corruption remains prevalent.

CONCLUSION
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RECOMMENDATION
Strengthen Institutional Quality
Policymakers should focus on improving institutional quality within the SAARC economies. This involves enhancing the efficiency, transparency, and accountability of public institutions, as well as ensuring the rule of law and protection of property rights. Strong institutions can help promote equitable economic growth and reduce income inequality.

Fight Corruption
The positive relationship between corruption and income inequality suggests that addressing corruption should be a priority. Implementing effective anti-corruption measures, such as promoting transparency, enforcing strict penalties for corrupt practices, and establishing independent oversight bodies, can help reduce rent-seeking behaviour and create a more equitable distribution of resources and opportunities.

REFERENCE


