SECTOR SPECIFIC AID INFLOW, INSTITUTIONAL QUALITY AND HUMAN DEVELOPMENT IN SELECTED DEVELOPING COUNTRIES

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INTRODUCTION

Human development is a concept brought to the attention of the United Nations Development Programme in the 1990s. Human development is a procedure of escalating human proficiencies that transmute human beings to a favorable comfort zone. The core of the human development release is to go beyond gross domestic product (GDP) to a wider meaning of human abilities (Wu et al., 2014). It can be measured by three magnitudes of human development, the constituents of which are lengthy and vigorous life (gauged by life expectancy), educational achievement (indicated by adult literacy and gross enrolment), and an attired quality of life (gauged by GNI purchasing power parity) (UNDP, 2014). Human Development Index is one of the most widely used measures for measuring well-being (HDI). It is published annually and used to make comparisons based on income, health, and education by United Nations. Human development implies expanding people’s choices, improving their abilities, and improving their opportunities. It serves as both a means and an end. Economic growth and income gains are tools for promoting human development, but they are not the end in and of themselves. This is especially true because it is the affluence of the public, not the wealth of the economies that is valuable to people (Human Development Report, 2014). Human development is "a procedure of broadening publics’ choices"; the choices allow people to be well educated, to be healthy and live longer, to have a relatively decent living standard, along with political freedom, different aspects of self-respect, and other guaranteed human rights (UNDP, 1997).

Aid can improve the welfare of human beings by increasing confident public expenses, associating the general community concentration forecasts. Their procedural method lack of regulation for endogeneity, and this might result in prejudiced consequences. Thus, more investigation is essential (Gomane et al., 2005). Recently, the quantity of aid augmented meaningfully in reality from US$ 127.3 billion in 2010 to 134.8 billion in 2013. A Theoretical investigation of the apparent connection between aid and human development is pretty straightforward. The process by which aid leads to human development is more complicated. Bourguignon and Sundberg (2007) highlight the problem in a more inclusive way. The results of development are determined by states’ policies. Aid disturbs the pronouncements of officials throughout conditionality. As previously stated, this conditionality is frequently forced without awareness of the recipient country's ground realities and goals. Consequently, aid and its conditionality result in policies that prioritize state goals such as health, education, and general well-being, implying that aid hardly affects human development.

It has been shown that high growth rates do not always imply high developmental levels. The cause for this is many other constraints to development, like environmental degradation, poverty, institutional flaws, and persistent inequality. Because they lack the resources to establish a sustainable future, developing countries are particularly vulnerable. To increase their wealth, they require support from developed countries. Foreign aid has a critical role in this regard. Foreign aid is a major foremost effective tool used in the war in contradiction of poverty. At the moment, that armament is underused and gravely focused on. There is deficient aid, and an excessive amount of what’s delivered is inadequately related to human development.

Aid inflow has been considered significant for improved human development in developing economies. For this, we have analyzed how sector specific aid inflows and institutional quality affect human development by using panel data from 18 developing economies between 2002 and 2018. We have used a single equation linear model generalized method of moments (GMM) to examine the relationship between dependent and independent variables. The data has been taken from World Development Indicators, World Bank, and Organization for Economic Cooperation and Development. The result showed that aid and institutional quality were positively and significantly linked with the human development index. More aid was justified if stronger economic, political, and institutional governance could be secured in the receiving nations and the requirement for institutional improvements to make aid an influential instrument for human development in the concerned economies. The study suggests for more proper allocation of aid commitments among these countries for high growth and development. There should be a stable economic and political environment and high trade with other countries.

Sector specific aid inflow has been considered significant for improved human development in developing economies. For this, we have analyzed how sector specific aid inflows and institutional quality affect human development by using panel data from 18 developing economies between 2002 and 2018. We have used a single equation linear model generalized method of moments (GMM) to examine the relationship between dependent and independent variables. The data has been taken from World Development Indicators, World Bank, and Organization for Economic Cooperation and Development. The result showed that aid and institutional quality were positively and significantly linked with the human development index. More aid was justified if stronger economic, political, and institutional governance could be secured in the receiving nations and the requirement for institutional improvements to make aid an influential instrument for human development in the concerned economies. The study suggests for more proper allocation of aid commitments among these countries for high growth and development. There should be a stable economic and political environment and high trade with other countries.
typically related to official development assistance, which successfully may be a subgroup of the official development funding, and normally targeted to the poorest countries (Wolfensohn, 1998). Overseas aid is decreasing gradually. Developed nations have expunged aid finances by 8.4%, taking care of real value and inflation. A few years ago, the administrations of the 22 economies that have a place in the OECD gave about EUR 66 billion, which is about 0.28% of the gross domestic product of the 22 benefactor nations of the association (The Missionary International Services Agency, 2008).

Current investigation in institutional economics has risen as experimental to crop outline examining those residual variances. High institutional quality has contended as a monetary procedure imputus by incentivizing monetary actions like consumption and investment, refining efficacy, assigning resources more competently, protecting property rights, and supporting freedom of choice. It has been originated to reinforce the financial process impact of trade openness as better institutional quality will generally quicken the advantages of exchange like specialization and economies. Nevertheless, rising economies are less similar, and exchange focal points may set aside some effort to arise. This has enhanced the importance of the effect of institutional quality development on the monetary process influence of trade openness in developing nations. Theoretically, foreign aid needs a foothold to stimulate social and economic development in unindustrialized countries through an influx of cash provided by extra prosperous, advanced countries. This aid then stimulates the economic process by constructing infrastructure, trading new technology and concepts, strengthening fundamental social abilities, including education, health, and political systems, offering humanitarian assistance during crises, and revitalizing the financial system after critical economic shocks. But, the direct link between foreign aid and economic development has been emotionally debated, and after numerous years of research, the consequences continue to be satisfying and ambiguous (Castrillo, 2011).

This study shows that the word economy changes too rapidly. So, in today's world, every country must struggle very hard to maintain growth and improve its economy. So, it is important to analyze those factors which are accelerating the productivity output of the country. We have used panel data and applied the GMM model, which shows the relationship between sector specific aid inflow and institutional quality on human development in selected developing economies. A lot of work has been done on how foreign aid affects economic growth in different economies. However, few studies have been observed emphasizing the role of sector specific aid flows/commitments toward the South Asian region and emerging nations. Considering the important role of sector specific aid inflows and institutional quality in development, we are doing this study in developing economies. As an aid for the education sector and the health sector is of significant importance in developing countries to boost the structure of the economy, therefore, it is necessary to find out whether these sectors' specific aid commitments have improved the development or not? The study aims to provide the policy direction of policymakers by using macroeconomic analysis in order to extract the consequences of sector specific aid and institutional quality.

A lot of available literature studies the sector specific aid inflow and institutional quality on human development in selected developing economies. Many of these researches consider institutional quality and other variables as well. This section reviews existing literature regarding the impact of sector specific aid inflow and institutional quality on human development. By using panel data from Asian countries, Gillani et al. (2022) highlighted the role of aid for the education sector on human development in Asian countries. The GMM results found that aid commitment to education along with institutional quality improved the human development of selected Asian economies. Barbier & Burgess (2020) estimated institutional quality, governance, and progress toward the SDGs. They compared estimates of net welfare changes reflecting progress on the 17 Sustainable Development Goals from 2000-2018 to two institutional quality and governance indicators over the same period. They found that the welfare benefit component of the SDGs was associated with institutional quality and was highly associated with lower country risk. Ali et al. (2020) examined the role of foreign aid along with institutional quality for human development. To investigate the validity of the hypothesis, the authors have drawn panel data from 65 developing countries. The findings suggested that institutional reforms were needed to make aid and influence human development in underdeveloped economies.

Stryzhak (2019) investigated the link between human development and the quality of the institutional environment. The author has used the ways of correlation analysis. For 2017, the study analyzed 214 countries and territories. The findings of the correlation study demonstrated that HDI and WGI had a strong direct relationship. Nguyen (2018) explored the effects of institutional quality on economic processes for twenty nine developing states over the 2002-2015 period by utilizing the System Generalized Method of Moments assessors. Findings showed a positive influence of institutional quality on the economic process. Asongu and Nnanna (2019) diagnosed the literature on reinventing foreign aid by determining whether or not development aid can support inclusive human development. The empirical evidence is based on data from 53 African countries from 2005 to 2012. The authors have used the Generalized Method of Moments: The findings showed that foreign aid boosted inclusive human development in the short term, but it had the opposite effect in the long run.

Yildirim and Gokalp (2015) investigated the link between institutions and the overall macroeconomic performance of developing countries by using panel data from 2000-2011. Variables like government spending, judiciary independence, civil freedoms, transfers and subsidizations, the black-market exchange rate, mutual trading and military instruction, and political stability were seen to have a negative effect on the overall macroeconomic performances in developing countries. Filipidis and Katraklidis (2015) examined the role of human development and institution quality in economic growth. They used data from 1985 to 2008 for 52 (fifty-two) developing countries. The results showed that First, institutional quality was able to describe the international dissimilarities inside the degree of banking zone development; secondly, economic institutions and human development were extraordinarily significant for banking zone development; thirdly, the legitimate system is the leading measurement of economic institutions fourthly, the collective improvements of economic institutions depend further separate of institutional reforms.

Young and Sheehan (2014) examined how foreign aid influenced institutional quality. They used the panel data of 116 countries from 1970-2010, and the findings showed that aid inflow
deteriorated political and financial institutions and found a noteworthy positive association between institutions and growth rate. Ahmad and Qayyum (2013) estimated how foreign aid affected the governance of developing Asian economies. The author used annual data from 1984 to 2010. The outcomes showed that aid in an environment of conflicts declined institutional quality. The study found that aid stimulates corruption, which implied that on every occasion, if government officers were in a position to impel foreign aid, they might, from corruption and, as a result, weaken governance.

Kathave and Mallik (2012) estimated the interaction of aid volatility and per capita economic growth, considering institutional performance. They used the Generalized Method of Moments (GMM) on panel information from seventy-eight countries between 1984-2004. Findings show an inverse relationship between aid volatility and rural population growth and that each square measure was obsessed with institutional quality for higher performance. Chowdhury and Das (2011) used data from 1976 to 2008, along with country-specific time series along with panel cointegration techniques for their analysis. The results showed that aid had enhanced growth in South Asian economies. Asiama and Quartey (2009) investigated how foreign aid influenced human development by means of data from 39 SSA countries, and they used the GMM technique. The finding showed that aggregate bilateral aid flows had not decreased poverty directly and welfare variables concerning with sub-region.

Khan and Ahmed (2007) examined how aid promoted the economic process may be a debatable issue and remained disturbed at each hypothetical and practical level. They used empirical analysis that relied on the ARDL cointegration approach. They examined the aid-growth link at the combination and levels for 1972-2006. The results showed a negative and insignificant effect of aid on the expansion at the combination and at the disaggregate level. Karras (2006) used annual data from 1960 to 1997 from seventy one aid-getting emerging nations. The findings showed that foreign aid affected economic growth positively. Gomane et al. (2005) investigated the impact of aid on government expenditure and a mixture of human development welfare and HDI for information from thirty-eight countries. The results showed that aid upgraded the human development of receiver countries affecting the low-financial countries strongly.

As the world economy has been changing very speedily. Now a day, almost all countries are trying to enhance growth and human development. So, considering this, we have analyzed major variables improving growth and development. In this study, we have used three measurements of institutional quality: voice and accountability, political stability and absence of violence, and government effectiveness. In previous studies, economists have used different proxies of institutional quality. For specific aid, two sectors, health and education commitments, are used in this study.

Much work has been noticed on how foreign aid affected the growth of various nations. Few studies focus on the role of sector specific aid flows toward developing economies. Focusing on the major role of aid commitments in enhancing development in emerging economies, we have conducted a study on developing economies. Aid for the education and health sector seems to be affecting the development index of these economies. The purpose of the current research is to identify and determine the effect of sector specific aid inflow and institutional quality on human development in developing countries.

**METHODOLOGY**

**Data Sources and Variable Description**

Human Development: HD is gauged by Human Development Index, which is in proportion published by the World Bank. Regarding its dimension, it associates three scopes as an amalgamated degree, specifically, a life expectancy at birth, means and expected years of schooling, and finally, GNI per capita. Institutional quality: It is a complete notion capturing law, individual rights, and high-quality government regulation and services. It is constructed from three variables, available from the World Bank website. While selecting variables, we have followed the related literature. Easterly and Levine (2003) and, more recently, Fabro and Aixalà (2013) all use the World Bank Global Governance Indicators. Such quality comprises given dimensions such as political stability and absence of violence, government effectiveness, and voice and accountability in our research.

Sectoral Aid: We obtain commitments for sectoral aid to education and health using the Aid Data Code. We "scaled" sectoral aid as a share of real GDP.

Gross Domestic Product (GDP): The gross domestic product is the market value of all final services and goods produced within nations in a specific period. The annual growth rate of GDP per capita is mostly determined by the stability of the local currency. The aggregates are calculated entirely in constant 2010 US dollars. GNP per capita is divided by the population at the midpoint of the year. GDP is taken in constant 2010 US dollars and collected from the world development indicator (WDI).

Official Development Assistance (ODA): Other variable is official development aid as a percentage of GNI. However, we have used ODA as a share of GNI from the World Bank database. It is expected that the aid coefficient to have a positive sign and be statistically significant (OECD, 2012).

Trade Openness: Trade openness indicates a country’s position in the world trade market, production volume, and dependence on imported goods. In our case, it is peroxidized by the sum of imports and export as a share of GDP. The data has been collected from (WDI).

**Model**

In this section, data sources and models have been explained. To estimate the relationship of sector-specific aid inflow and institutional quality on human development, we used secondary data for the period of 2002 to 2018. The study is being conducted in 18 selected developing countries such as Bangladesh, China, India, Indonesia, Iran, Jordan, Kenya, Malaysia, Namibia, Pakistan, Peru, Philippines, Sri Lanka, Sudan, Tanzania, Uganda, Zambia, Zimbabwe, and Indonesia. Data used in this study is micro panel data, i.e., (N>T, cross sections > time period). The data is secondary in nature and collected from World Development Indicators (WDI), UNDP online data set, OECD statistics, and HDRO calculations, UNESCO Institute for Statistics (2020), United Nations Statistics Division (2020b), World Bank (2020a) International Country Risk Guide and IMF (2020).

A single equation linear model was evaluated by applying the Generalized Method of Moments (GMM) technique. Huang and Quiabia (2015) have proved it an influential method to estimate such a model. It may apply lagged values of the observed factors as instruments. It also solves the problem of weak tools with weak element structures. Arellano and Bond (2011) and Blundell and Bond (1998) introduced the generalized method of moments model. Hansen, in 1982 first recognized GMM for estimating parameters of statistical models.
The econometrics model for the study is given as:

\[ \text{HD} = \beta_0 + \beta_1 \text{LOGEDU} + \beta_2 \text{LOGH} + \beta_3 \text{LOGDGP} + \beta_4 \text{IQ INDEX} + \beta_5 \text{TO} + \epsilon \]  

(1)

HDI = Human Development Index (dependent variable).

LOGEDU = Number of commitments to the education sector by DAC member countries (US$).

LOGH = Number of commitments to the health sector by DAC member countries (US$).

LOGDGP = Gross domestic product (constant).

IQ = Institutional quality index (Political stability and Absence of violence, Government effectiveness, Voice and accountability %).

TO = Trade openness (exports + imports as percentage of GDP).

ODA = Net official development assistance received (% of GNI).

There is a positive and significant relationship between HDI and commitment to education. The value of the coefficient is 0.01, which turned out to be significant at a 1% level of significance, and the coefficient having a positive sign means that every 1% increase in education will lead to a 0.01 unit increase in HDI. Our findings are supported by previous research that shows a positive relationship between education aid and growth (Maruta et al., 2017). The result shows a positive link between HDI and IQ index. The value of the coefficient is 0.07, which turned out to be significant, and the coefficient having a positive sign means that every one percent increase in IQ index will lead to a 0.01 unit increase in HDI. The findings are supported by the direct relationship between HDI and WGI by Stryzak (2019).

HDI and commitments to health are positively associated. The value of the coefficient is 0.01, which turned out to be significant at a 1% level of significance, and the coefficient having a positive sign means that every one percent increase in health will lead to a 0.01 unit increase in HDI. These findings are also supported by previous research that shows a positive link between education aid and growth (Maruta et al., 2017). Results also show that HDI and GDP are associated positively. The value of the coefficient is 0.28, which turned out to be significant at a 1% level of significance, and the coefficient having a positive sign means that every one percent increase in GDP will lead to a 0.28 unit increase in HDI. The study result is supported by Taqi et al. (2021). The result also shows a positive link between HDI and ODA. The value of the coefficient is 0.01, which turned out to be significant at a 1% level of significance, and the coefficient having a positive sign means that every one percent increase in GDP will lead to a 0.003 unit increase in HDI. These findings are supported by previous research that shows a positive link between HDI and trade openness. The finding supported by trade openness has affected negatively (% of GDP) the growth in economies that provide low-worth goods and be contingent on imports.

RESULTS AND DISCUSSION

In this section we show the descriptive statistics and GMM results of the study. In Table 1, we can see the descriptive statistics of the variable for HDI developing nations. The mean value for HDI is 0.615709, 0.473992 for IQ INDEX, 1.822723 for LOGEDU, 4.921379 for LOGH, 2.921496 for ODA 62.42807 for TO.

Moreover, HDI, LOGEDU, and LGDP are normally skewed and kurtosis statistics show LOGGDP and LOGEDU variables are normally distributed as their value is smaller than 3. Jarque-Bera statistics highlight the difference between the skewness and the kurtosis is normally distributed through probability values of HDI, LOGH, LOGDGP, IQ INDEX, TO, and ODA are noteworthy, which reveals that the distribution is not normal for the LOGEDU variable, but all additional factors are normally distributed. The results obtained from GMM are highlighted in Table 2. R squared and Adjusted R squared are 0.97 and 0.97, respectively, indicating that 97% of the variation in the HDI is explained by explanatory factors.

<table>
<thead>
<tr>
<th>Statistics</th>
<th>HDI</th>
<th>IQ_INDEX</th>
<th>LOGEDU</th>
<th>LOGGDP</th>
<th>LOGH</th>
<th>ODA</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.615709</td>
<td>0.473992</td>
<td>1.822723</td>
<td>4.921379</td>
<td>1.377945</td>
<td>2.921496</td>
<td>62.42807</td>
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<td>Median</td>
<td>0.600500</td>
<td>0.500000</td>
<td>1.802171</td>
<td>4.723945</td>
<td>1.559957</td>
<td>1.455310</td>
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<td>Maximum</td>
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<td>0.666667</td>
<td>2.949374</td>
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<td>2.547078</td>
<td>20.05101</td>
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<td>0.690442</td>
<td>2.659737</td>
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<td>Std. Dev.</td>
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<td>0.121456</td>
<td>0.463071</td>
<td>1.331012</td>
<td>0.798911</td>
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<td>0.178150</td>
<td>0.638398</td>
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<td>Kurtosis</td>
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<td>0.000030</td>
<td>0.000000</td>
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<td>Sum</td>
<td>188.4070</td>
<td>145.0417</td>
<td>555.7532</td>
<td>1505.942</td>
<td>421.6511</td>
<td>893.9797</td>
<td>1910.299</td>
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<td>Sum Sq. Dev.</td>
<td>4.364635</td>
<td>4.499234</td>
<td>65.40263</td>
<td>540.3358</td>
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<td>3781.269</td>
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<th>Variables</th>
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<td>IQ_INDEX</td>
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CONCLUSIONS AND POLICY IMPLICATIONS

In this study, we have examined how sector specific aid inflows and institutional quality have influenced human development in specific developing countries. We have applied a single equation linear model generalized method of the moment (GMM) approach for 18 developing countries between 2002 and 2018. Current research is an effort to explore the link between the HDI and other variables such as sector-specific aid (health and education aid), institutional quality index, gross domestic product, official development assistance, and trade openness for a panel of 18 developing countries. More specifically, findings highlight that sector-specific aid and intuitional quality are positively linked with increased per capita income, health, and education indices of HDI. It is suggested that aid must be properly assigned to sectors that helpfully endorse human development for realizing anticipated outcomes.

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