

The impact of OECD's Development Assistance Committee (DAC) Aid Commitments for Education on Human Development in Asian Countries and its implications for textile industry

DOI: 10.35530/IT.073.05.202184

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ABSTRACT – REZUMAT

The impact of OECD's Development Assistance Committee (DAC) Aid Commitments for Education on Human Development in Asian Countries and its implications for textile industry

Education and health are considered a cornerstone for obtaining targeted development in any society. Moreover, both sectors promote prosperity greatly. In this changeable epoch, people are thought out as the real wealth of any nation and this wealth with good human capital serves the economy very efficiently and productively. This research study aims to analyse how Development Assistance Committee (DAC) aid commitment for education along with institutional quality is effective for the human development of selected Asian economies. A panel data set over 2011–2018 is used for this analysis in Asian countries. GMM results show a significant and positive relationship between aid commitment for education and the human development of these economies. A more interesting result is that financial development seems to boost up human deployment in the selected Asian economies. The development of the textile industry is significantly influenced by education, especially considering the effects of OECD's Development Assistance Committee (DAC) Aid Commitments for education on human development in Asian countries. There is a dire need to reconsider more allocation of resources and aid to education and health to utilize these inflows at the maximum level for targeted development.

Keywords: Aid Commitment for education, financial development, industrialization, institutional quality, emerging economy, human development, textile industry, sustainable development

Impactul angajamentelor de sprijin pentru educație ale Comitetului de asistență pentru dezvoltare (CAD) al OCDE asupra dezvoltării umane în țările asiatice și implicațiile acestora pentru industria textilă

Educația și sănătatea sunt considerate piatră de temelie pentru obținerea unei dezvoltări țintite în orice societate. De asemenea, ambele sectoare de activitate promovează foarte mult prosperitatea. În această perioadă în continuă schimbare, oamenii sunt percepuți ca bogăție reală a oricărei națiuni și că această bogăție cu capital uman bun servește economia foarte eficient și productiv. Acest studiu de cercetare își propune să analizeze modul în care angajamentul de ajutor al Comitetului de Asistență pentru Dezvoltare (DAC) pentru educație, împreună cu calitatea instituțională, este eficient pentru dezvoltarea umană a anumitor economii asiatice. Pentru această analiză este utilizat un set de date de tip panel pentru perioada de eșantionare 2011–2018 privind țările selectate din Asia. Rezultatele GMM arată o relație semnificativă și pozitivă de angajament de ajutor pentru educație și dezvoltarea umană a acestor economii. Rezultatul încă și mai interesant este că dezvoltarea financiară pare să stimuleze coordonarea resurselor umane în economiile asiatice. Dezvoltarea industriei textile este influențată semnificativ de nivelul de educație, mai ales având în vedere efectele angajamentelor de ajutor pentru educație ale Comitetului de asistență pentru dezvoltare (CAD) ale OCDE asupra dezvoltării umane în țările asiatice. Există o nevoie urgentă de a reconsidera alocarea mai multor resurse și ajutoare pentru educație și sănătate pentru a utiliza aceste fluxuri financiare la nivel maxim în vederea atingerii nivelului de dezvoltare urmărit.

Cuvinte-cheie: Angajamentul de ajutor pentru educație, dezvoltare financiară, industrializare, calitate instituțională, economie emergentă, dezvoltare umană, industria textilă, dezvoltare sustenabilă

INTRODUCTION

In the fast-assimilating world, some countries hardly exclusively support their economies with their financing. These economies have to depend on other economies for financing their economies. Various international donor countries and organizations are supporting emerging economies' governments to attain their developments. So, official development

inflows of foreign aid are considered very significant for countries with low finance for achieving their desired progress. Official Development Assistance states those concessional grants are managed for the development of underdeveloped economies. Heffernan [1] investigated the linkage between textile education performance and industry partnerships and highlighted the importance of effectively driving

the textile value chain from both economic and environmental points of view based on academic requirements. Britt [2] has conducted a complex literature survey based on archives and collections related to textile education, industry and practice, while mentioning the importance of digital methods and platforms in this regard. Bullon et al. [3] suggested that the textile industry has a connection with the economic field due to the production of fibres, yarns, fabrics, clothing and textile goods both for household consumption, and technical and industrial objectives. Murzyn-Kupisz and Hołuj [4] investigated the linkage between fashion design education and sustainability and highlighted the importance of multidimensional adjustments to curricula. Moreover, Hall [5] investigated relevant aspects of labour laws, human rights, economic issues, independent union movement and factory management in the case of rapid growth and export-oriented garment industry in Cambodia for the sample period of the 1990s.

Statistics also showed the substantial increased official development assistance inflows to the underdeveloped economies, predominantly for obtaining millennium development objectives to maximum level. These are explicitly given to or allocated to the lower middle-income countries in which, Asia is the second largest region, after getting 37566 million US\$ in 2011–2012. Consequently, this massive influx of ODA has become very important for the representatives to check the significance of inflows towards the sectors. Qaiser Gillani et al. [6] suggested that funding assistance represents a very important pillar of health expenditure in less developed countries, which helps increase resource allocation in vital segments of economies. Education and health seem the cornerstone for obtaining targeted development in any society. Different from income, both sectors promote prosperity greatly in an economy. In this changeable epoch, people are thought out as the real wealth of any nation and this wealth with good human capital serves the economy very efficiently and productively.

Countries' human development is evaluated by improved social infrastructure (i.e. education and health facilities). Market developments are interlinked with the improved human capital of an economy. This matter has achieved apprehension predominantly in developing economies. Historically, a complete glance represents that the emergent Asian countries have achieved substantial rates of growth since the 1990s. However, these growth rates hardly affected human development meaningfully. The researchers and academia focused much on health and education. In Asia, rapid growth made it the fastest economically growing region in the world during the last few decades. However, despite this considerable economic growth, this region has observed poverty among people, malnourished children, incompetent health structure, and an insufficient education system and with a large segment of the population having low sanitation amenities. To provide better education

and health facilities, capital inflows become mandatory in these developing countries. As these developing economies with inadequate investment desperately require foreign aid to control their capital deficiency. Hayat et al. [7] argued that for an emerging country like Pakistan, which is a lower-middle-income economy, with a GNI per capita from USD 1036 to USD 4045, price stability is an essential factor of economic growth, while any fluctuations in inflation determine severe repercussions for the growth rate. Naeem et al. [8] suggested that Pakistan is a developing economy without rigorous environmental policies implemented for enhancing economic growth. On the other hand, Qaiser Gillani et al. [6] investigated the linkage between sustainable economic development and government health expenditure in several Asian countries, such as Bangladesh, India, Indonesia, Malaysia, Pakistan, Sri Lanka, The Philippines, Iran and China. The findings suggested that financially healthy people spend more on education, health and nutrition, while immunization, GDP per capita, trade openness, and utilization of basic water service facilities improve under-five and infant mortality in selected Asian economies. Spulbar et al. [9] consider that sustainable development determines a major influence on developing countries, due to the following representative features: environmental degradation, social inequality, demographic dynamics, high degree of poverty, poor quality education, migration, high levels of urbanization, health system deficiencies, rapid technological change and unsustainable economic growth.

Education is a fundamental investment in human capital which recompenses the economy over long periods in way of much earnings, expert worker, a great workforce and eventually affluent people with the improved living standard. Access to initial schooling is the general prerogative of the universal commonalities that government has to make available to all. Regarding underdeveloped countries, the higher part of the budget is not assigned towards education so, these countries have to depend on aid for education because of their limited administrative and financial capabilities of these countries. Consequently, this research aims to analyse the effect of DAC member countries' aid commitment for education with the role of financial development and institutional quality on human development in selected Asian economies because improved education and health, education and access to basic facilities affect human development noticeably. Economic theory explains that education and health are thought to as very important for human development as both enhance the growth of Asian economies. Furthermore, in countries having low capital, it is rather significant to make confirm whether inflows are fulfilling their purpose or not. Its improper allocation towards various unfavourable sectors will not be favourable to its overall influence on growth and development.

Jung and Yoo [10] investigated the achievements of Korea as OECD Development Assistance Committee (DAC) member and revealed that the annual growth

rate is approximately 8%, ranking first among the DAC member countries. Rudolph [11] suggested that the global envelope of development cooperation funds is established by governments and highlights what resources they intend to provide to development policy in the overall national strategy in the context of OECD-DAC members. The existing literature provides sufficient evidence regarding foreign aid and human development relationships but a small number of studies have tried to analyse an aspect of the subject to be focused on the Asia region. Thus, dissimilar to numerous further works, this study does not focus on overall aid influence but emphasizes its effectiveness for education commitment with institutional quality in Asia by using the GMM technique. As these developing countries are receiving foreign aid from donor countries to improve their education and health structure of the economy. That's why this research focuses on these countries specifically emphasizing the proper allocation of aid towards higher education for achieving human development.

Objectives of the study

The research targets to achieve a relationship between aid commitment for education and human development. The study also focuses on other determinants such as industrialization, institutional quality and financial development. Moreover, it analyses the work done in past on the subject overall and for Asia specifically.

Organization of the study

The paper is organized as follows. After giving an introduction and background, the literature review is shown in section II. Section III comprises a data source and the model specification along with the important variable discussion. The discussion of results and empirical analysis are presented in sec-

tion IV. The concluding remarks are presented in the last section

Background

The literature about the effectiveness of foreign aid concludes that aid can get its projected consequences just because of its highly targeted and more deliberately disbursement. Developing countries' education and health sectors are demanding attention to upgrade the positive effects of foreign aid for human development even in the poor world.

The following figure 1 represents Commitment for Post-Secondary Level Education.

Figure 1 shows the DAC aid commitment for the education of selected Asian economies. This aid improves the growth structure and development of these countries. During the past few years, this aid commitment tends to increase in these economies. The highest level with an increasing trend is seen in India while the lowest decreasing trend was observed in Malaysia.

Figure 2 is also very important. A high level of savings and investment increases the economy's productive capacity and sustained economic growth. High investment improves living standards by having a high income which boosts growth. These economies are facing the problem of low capital, so investment through foreign aid can play a significant role in the growth and development of concerned economies.

According to the data trend, industrialization has been increasing in selected Asian economies (except the Philippines which is showing a negative trend) and contributing to improved growth and human development. From figure 2 it can be observed that the highest increasing trend is seen in Bangladesh, while the lowest decreasing trend is observed in Sri Lanka.

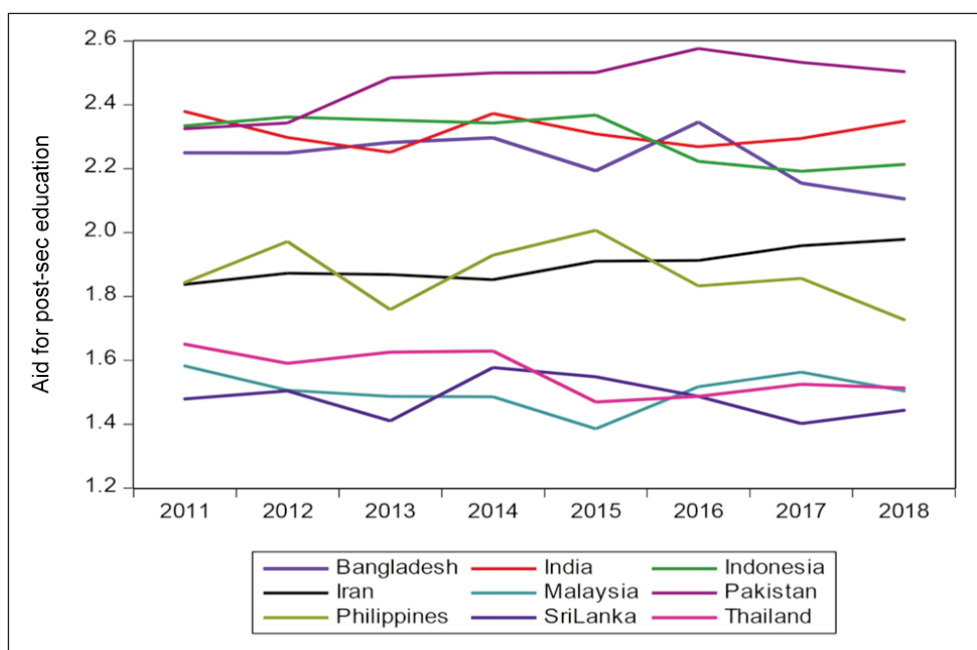


Fig. 1. Commitment for Post-Secondary Level Education

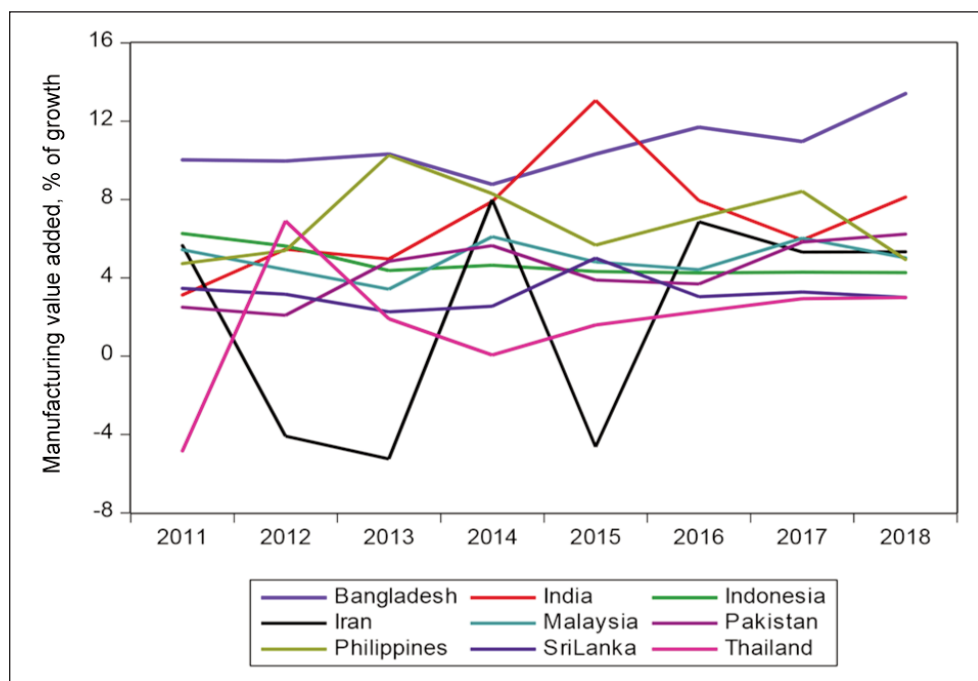


Fig. 2. Industrialization

LITERATURE REVIEW

By reviewing studies very thoroughly, we have found a positive association between foreign aid inflow and human development in definite ways. We review a succinct assessment of empirical literature to understand the issue very deeply. It can be helpful to analyse conclusions of the studies done earlier and it determines the prospectus of research being done considering literature. For instance, a pioneering approach by Schultz (1961) suggested that modern human capital theory is very important for examining the impact of education on economic growth. Feeny [12] shows that trade and structural adjustment programs affect positively the country's GDP growth rate. Aid in form of projects also enhances the performance of the country. On the other hand, Spulbar and Birau [13] also revealed certain relevant aspects regarding the impact of cybercrimes in ASEAN countries. The majority of the economies have improved their economic situations by making improvements in growth levels however, some countries are still facing socio-economic issues. For this, Lohani [14] uses data from 120 developing countries from the period of 1975–2001. Results show that social aid affects negatively the human development of the country.

Liu et al. [15] conducted an empirical research study for Pakistan and concluded that higher education systems in non-developed countries are surviving under pressure and fluctuating conditions. Moreover, Memon and Liu [16] investigated relevant aspects of higher education in Pakistan and concluded that education can provide a sustainable developmental map for worldwide economic prosperity based on labour market dynamics. Maneejuk [17] investigated the effect of higher education on economic growth in ASEAN-5 member countries, such as Thailand,

Indonesia, Malaysia, Singapore, and the Philippines, for the sample period 2000–2018. This research study concluded that higher education magnitude climbs to a level twice as strong when the enrolment rates are higher than a particular kink point.

Minouio and Reedy [18] use the aid data of developing countries from 1960 to 2000. The GMM result finds that developmental aid affects positively the economic growth of the country. Tadesse [19] show that aid has affected positively the growth of the Ethiopian economy in the long run. In addition to capital, the education sector contributes to the development of the economy as well. Asiedu [20] uses GMM and finds that aid in the primary education sector affects positively growth however post-primary education assistance sector reduces growth. Bai Gokarna et al. [21] investigated institutional effectiveness based on an empirical study on higher education universities in India and concluded that academic leadership is neither high such as campus culture nor low such as faculty involvement in decisions. Bileviciute et al. [22] have identified a significant relationship between higher education and the increasing demand for highly qualified and socially responsible labour force and employment strategies.

Aboutria [23] examines how foreign aid affects the economic growth of the Philippines by using data from 2009–2012. The result shows that FDI and ODA per capita increase the GDP growth rate. Mishra et al. [24] reveal that health, investment, export, EDRD and R&D have increased the per capita income while import and education adversely affect the per capita. However, Rahman [25] explains that health and education expenditures increase the growth of Bangladesh. Moolio et al. [26] show the impact of aid in selected ASEAN countries from 1997–2014 and find that foreign aid affects positively the growth.

Fasanya and Onakoya [27] revealed that foreign aid plays a significant role in determining the development of the country. Pickbourn and Ndikumana [28] focus on the development outcomes of foreign aid on education, health and gender equity in OECD–DCA. The GMM result shows that those countries showed a noteworthy performance having initial development conditions, with higher literacy rate, low maternal mortality and more equitable gender distribution.

A lot of studies have been made on the effects of external debt on the three main components of the HDI used independently which are health, education and living standards. Dessy and Vencatachellum [29] and Fosu [30] find the influences of external debt on governments' health sector spending and investment. Moreover, Murshed and Saleh [31], Egungwu [32] etc. investigated how external debt affects the education sector spending. However, Lora and Olivera [33], Fosu [34], Sadia and Hafiz [35], check the effect of external debt on social sector spending, predominantly health and education. Checherita-Westphal and Rother [36], Babu et al. [37], Azam et al. [38], Okokondem and Monday [39], Zaghdoudi and Hakimi [40], focused on living standards. Zaghdoudi [41] found the external debt and human development relationship for 95 developing countries during 2002–2015. He finds this relationship as non-linear.

Rahman et al. [25] show the effect of foreign aid on HDI in Bangladesh by using data from 2000–2012. It is confirmed that mortality rate under 5 and inflation decrease the quality of the human development index. Results also reveal that CO₂ emission increases HDI in India. Similarly, net ODA affects positively the HDI. However, other authors have checked the impact of the effects of foreign direct investment (FDI), foreign aid, and trade on poverty as a measure of HDI in Sub-Saharan African countries from 1990–2017. The result shows that foreign aid decreases poverty and improves human development in this way. FDI reduces poverty both in the short and long run [42–44]. However, Fowowe and Shuaibu [43] show that institutions with quality and a functioning financial system lead to an increase in the rate at which FDI decreases poverty. However, countries with improved institutions and financial systems will experience the effect of FDI on poverty quicker as compared to those countries that have no good institutions and financial systems. The FDI reduces poverty quickly in poorer countries as compared to rich countries [45].

A comprehensive literature review shows that foreign aid enhances the human development of economies. The significance of aid to different sectors cannot be avoided. To check the potential influence of foreign aid inflows on human development, the other aspects or causes should also be given importance in analysis which is recognized by the studies done earlier.

DATA AND RESEARCH METHODOLOGY

We have used a panel dataset of nine Asian economies (i.e., Bangladesh, India, Sri Lanka, Indonesia, Pakistan, Philippines, Malaysia, Thailand and Iran) from 2011 to 2018. Data has been taken from the source of the World Development Indicators database. The data for the human development index (an average achievement in three basic dimensions of human development such as long and healthy life, knowledge and a decent standard of living) is taken from HDRO calculations based on data from UNDESA [46], UNESCO institute for statistics [47], United Nations Statistics divisions [48], World bank [49] and IMF [50]. The data of political institutions is taken from worldwide governance indicators. Moreover, the data for DAC commitment for education in the Asian region is taken from OECD Creditor Reporting System. The dependent variable is Human Development Index (HDI). The other independent variables are Industrialization (manufacturing value added annual growth %), institutional quality index (voice and accountability and control of corruption), log of DAC commitment for education US Dollar, Million (LCED) and financial development index (credit to the private sector as a percentage of GDP and commercial bank deposits). For the analysis, we have used the dynamic GMM technique to check the effect of aid commitment for education by DAC member countries on the human development of Asian economies. GMM is used to avoid the endogeneity issue.

EMPIRICAL ANALYSIS

This analysis investigates the relationship between aid commitments for education and human development in selected Asian countries.

Model Specification

The model is explained as follows:

$$\text{HDI}_{it} = \beta_1 \text{INDS}_{it} + \beta_2 \text{INQI}_{it} + \beta_3 \text{LCED}_{it} + \beta_4 \text{FDIN}_{it} + \text{uit} \quad (1)$$

The above variables are the Human development index (HDI), industrialization (INDS, manufacturing value added annual growth %), institutional quality (INQI), DAC member countries' commitment for education in the Asian region (LCED) and financial development index (FDIN). The subscript *i* indicates each country and the subscript *t* describes each period in this empirical work. The term *uit* represents the error term.

DISCUSSION AND RESULTS

In this section, we empirically analyse the role of DAC commitments for the education of selected Asian countries and the role of institutions on human development by incorporating other explanatory variables such as industrialization and financial development on human development in some selected developing countries.

Table 1

SUMMARY STATISTICS					
Variables	Observation	Mean	Std .Deviation	Min	Max
HDI	71	0.6915	0.0870	0.5280	0.8040
INDS	71	5.0767	3.6602	-5.2512	13.4022
INQI	71	0.4927	0.0795	0.3542	0.6250
LCED	71	1.9586	0.3745	1.3845	2.5759
FDIN	71	61.4649	36.1995	22.6515	137.9114

Descriptive statistics

Table 1 explains the descriptive statistics of all the variables. Large differences in data are observed regarding some variables. On average, the HDI of selected countries is 0.6915%. The average commitment for education is about 1.96%. Large differences are observed in the institutional quality index having a range from 0.3542% to 0.6250%. Likewise, variations are observed in industrialization (manufacturing value added annual growth %) from 22.6515% to 137.9114%. On average, industrialization (manufacturing value added annual growth) is 5.0767% in selected Asian countries.

Empirical results and interpretations

In this section, we analyse the impact of DAC countries' commitment for education and institutional quality on the human development of selected Asian countries.

Table 2 reveals the GMM results and the dependent variable is the Human development index. The study results highlight a positive and significant relationship between DAC aid commitment for education and human development in selected Asian countries. The research also reveals that human development seemed to be increased with the financial development of these economies as well. The GMM result reveals that the coefficient of HDI (LAG1) is positive and significant. The development index is 0.7738 and it shows that one year lag in HDI makes better the HDI in selected Asian countries.

Industrialization is most important for heavy industrial production, growth and human development. The result is statistically significant. The study result shows that unit increase in industrialization increases HDI by 0.0003 units. The reason can be that industrialization enhances employment, income and living standards. The result reveals a positive coefficient of political institutions. One unit improvement in the institutional quality index increases the HDI by 0.0121 units in selected Asian countries. When institutions play a positive role, it increases employment opportunities and improves investments, per capita income, growth and development. This highlights the positive role of institutions in these countries.

The most important result is that a one percent increase in DAC commitment for education increases the human development index by 0.0403 units. The aid for education is the need of the time in these

Table 2

GMM RESULTS DEPENDENT VARIABLE: HUMAN DEVELOPMENT INDEX	
Variables	GMM Results
HDI(LAG1)	0.7738* (0.1972) [3.92]
HDI(LAG2)	0.1213 (0.2187) [0.55]
INDS	0.0003* (0.0001) [3.13]
INQI	0.0121 (0.0448) [0.27]
LCED	0.0403* (0.0061) [6.57]
FDIN	0.0002* (0.0001) [1.78]
AR(1)	-1.91 (0.056)
AR(2)	-0.10 (0.920)
Sargan Test	16.37 (0.797)

Note: Standard errors are shown in parentheses, whereas t-values are shown in square brackets, * p<0.1.

economies and it has a great effect on human development. The result is in contrast with Lohani [14] and supported by Anetor et al. [51]. The variable financial development index is found to be positive (0.0002) and statistically significant. These results show that financial development tends to improve the HDI in selected Asian countries during this time.

CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This research makes a significant contribution while discussing the relationship between aid for the education sector and human development. The prevailing literature focuses on the positive role played by aid for education with institutional quality on human development. Education and health contribute much to economic growth and development of the economy. This study focuses on the role of DAC countries'

commitment for education with improved financial development in Asian countries on their human development. Findings of the positive influence of both the variables are found by-product is found by Fowowe and Shuaibu [43], and Anetor et al. [51]. The result shows that commitment for education improves the human development index. It shows that these inflows enhance human development. Increased aid from DAC countries improves the standard of health and educational facilities which ultimately improves their human development index. Whereas, institutional quality is improved and increases the human development in these economies.

Further, the negative influence of industrialization and financial development on human development is also found in these economies. Both increase growth and development over long periods. In these countries, there should be an inclusive set of policies for stability and growth. Moreover, institutional quality leads to improves human development and this is a good indicator for the development of the economy. This institutional quality must be improved further. In addition, industrialization is contributing well toward human development. Moreover, more aid for the higher education of people must be ensured from DAC countries. Government must play a transparent and very effective role in lowering the debt burden by

making regulations and reforms in the financial sector. Countries of this region must pursue multi-pronged strategies to boost up their performance and development. Such countries must introduce different initiatives at the national and international level by launching new programmes of capacity building, improving the learning environments and student exposure. For such kind of investment, they have to rely on aid for education to keep on moving at this pace of educational development. Recent studies suggest that aid has contributed well to achieving educational targets over the past decades. The study findings open new panoramas of research in this field. It can be a contentious question for the policy-makers to seek possible and fruitful utilization usage of sector-specific aid in these economies of South Asia.

Although this study has significant contributions to the literature in the form of countries analysed as well as in the objectives of the study. However, there are a few limitations to the study. This includes the unavailability of the data for several countries beyond 2018, which put a constraint to keep the analysis up to that year. A future study may continue on this by improving the number of countries selected as well as extending the dataset to make it more extensive research following the steps of the present research.

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