

Impact of Foreign Aid on Economic Growth in South Asian Countries

Sobia Jalil

sobiajalil31@gmail.com

MPhil Scholar, Department of Economics, Qurtaba University of Science and Information Technology, Peshawar,
Khyber Pakhtunkhwa, Pakistan.

Urooj Bibi

uroojbibi724@gmail.com

Department of Economics, Women University Swabi, Khyber Pakhtunkhwa, Pakistan.

Abdullah Shah

abdullah.shah@salu.edu.pk

Department of Public Administration,
Shah Abdul Latif University Khairpur, Sindh, Pakistan.

Muhammad Ali

muhaqiq.ali@gmail.com

MA Development Studies (IPED), International Institute of Social Studies (ISS), Erasmus University Rotterdam, the
Netherlands.

Dr. Imtiaz Ahmad

imtiazmingora@gmail.com

Assistant Professor, Department of Journalism and Mass Communication, University of Malakand, Lower Dir,
Chakdara, Khyber Pakhtunkhwa.

Corresponding Author: * Sobia Jalil sobiajalil31@gmail.com

Received: 13-05-2025	Revised: 26-06-2025	Accepted: 11-07-2025	Published: 07-08-2025
-----------------------------	----------------------------	-----------------------------	------------------------------

ABSTRACT

The main aim of the study is to analyze the impacts of the foreign aid on the economic development of South Asian countries. This study used the panel data for the South Asian countries namely; Bangladesh, Bhutan, India, Sri Lanka, Nepal, Pakistan, and Bangladesh, from 1990 to 2024 and used the PMG system for assessment and found that in the long run (LR), that the labour force participation (LFP), gross capital formation (GCF), secondary school enrolment, official development assistant (ODA), and inflation rate (CPI) have expectant and remarkable effect on GDP per capita (GDPpc). However, the official exchange rate has adverse and remarkable effect on GDPpc. Furthermore, in the short run (SR), that the labour force participation, secondary school enrolment, and ODA have insignificant effect on GDP per capita. However, the GCF has positive and remarkable effect on GDPpc. The inflation rate and official exchange rate have negative and remarkable effect on GDPpc. Therefore, this study settled that foreign aid is more helpful for economic development of South Asian Countries. Based on the findings, this research advocated that governments accept foreign help but utilize it wisely, particularly for developmental projects such as dam construction to boost water resources, education, communication-networks, and so on.

Keywords: Aid; exchange rate; economic growth; capital formation; PMG; South Asian Countries.

INTRODUCTION

Foreign assistance, often known as ODA, is thought to be a crucial source of foreign funding for accelerating GDPpc (Duru *et al.*, 2020). According to Durbarray (1998), international aid originated in the post WW-II era framework for postwar renovation of Europe through the infusion of financial resources. Early research demonstrated that ODA stimulates GDPpc in inheritor nations by increasing GCF (Trinh, 2014). Besides, Collodel (2011) noted that "the supply of ODA inflows functions as a catalyst to encourage GDPpc in recipient nations. Foreign aid helps to reduce the saving-investment gap (SIG) and the export-import gap (XMG) (Chenery & Bruno, 1962).

Foreign-aid has conventionally been viewed as a means of promoting economic progress in poor nations with limited access to finance. Empirically, the link between ODA and GDPpc in emerging countries has produced varied, if not disputed, results. The lack of empirical consensus has sparked a great interest in undertaking further statistical studies to determine the effectiveness of ODA in stimulating GDPpc. Some authors believe that foreign aid encourages growth (Azam & Feng, 2022). Like, some authors found that ODA has no effect on economic growth (Duru *et al.*, 2020; Tang & Bundhoo, 2017). However, some authors found that ODA has optimistic effect on GDPpc (Fazlly, 2024; Golder *et al.*, 2021; Rahnama *et al.*, 2017). However, some authors found that ODA has negative effect on GDPpc (Adebayo & Kalmaz, 2020; Chomen *et al.*, 2024; Rao *et al.*, 2020; Shah *et al.*, 2022; Yiew & Lau, 2018). The disagreements among the scholars about the effect of ODA on GDPpc on one side. Furthermore, there are very few studies available in case of South Asian Countries with updated data and estimation techniques. This study is different with existing studies because it's used the unique combination of variables and updated panel data for the South Asian countries namely; Bangladesh, Nepal, India, Pakistan, Sri Lanka, and Bhutan from 1990 to 2024 and used the PMG/ Panel ARDL techniques to estimate the model. Furthermore, this study will be more implication for developing countries and empirically exploring the impact of ODA on GDPpc that whether the foreign aid is beneficial for South Asian Countries. This study will also contribute in the existing literature and also sightsee that to quantify the role of ODA in the GDPpc in the case of South Asian Countries. Therefore, this study is conducted to investigate the effect of foreign aid on economic development of South Asian Countries to reduce the ambiguity and gives the updated empirical evidence.

LITERATURE REVIEW

Theoretical Literature

A plethora of methodologies and hypotheses to explain the success of help has flourished beyond academic and political lines. These ideas attempted to provide a systematic explanation of the differences on both sides regarding the usefulness of help (Duru *et al.*, 2020). The two-gap model (2-GM) of Chenery (1967) and Chenery and Strout (1968), and the endogenous growth models (EGM) would work together to build the theoretical foundation for this investigation. The 2-GM would provide a significant hypothetical enhancement for studying the ODA-GDPpc nexus. According to Tadesse (2011), the Harrod-Domar (H-D) growth model (HDGM) was the first and best-known of 2-GM. Yet, in the 1960s, Chenery and Strout enhanced the original Harrod-Domar theory with their two-gap model. The two-gap model, sought to explain the role of ODA in a recipient nation's growth process. As a result, the two-gap model was designed to study how a poor, sluggish country may transform into a developed economy with sustained economic development (Chenery, 1967; Chenery & Strout, 1968).

The model presents the theoretical rationale for providing ODA to promote GDPpc. According to Chenery (1967) and Chenery and Strout (1968), foreign help supplements scarce resources by closing the SIG, XMG, and improving the aid recipient nation's capital-absorptive capacity. The 1st gap is the bond between investment to achieve a required GDPpc and obtainable savings, while the 2nd gap is among

foreign exchange rates and import requirements for a fixed-level of manufacturing (Todaro & Smith, 2009). These gaps are classified as either a SIG or XMG. According to Sahoo (2016), all economic theories and growth models view capital as a fundamental component of increased GDPpc. The bulk of emerging countries have poor savings and investment rates. As a result, they are classified as SIG countries. In this view, ODA accelerates economic growth by complementing local savings and investment. As a result, ODA are necessary to close the current deficit (savings gap or XMG), allowing countries to develop faster than their internal resources would else allow. Yet, in the nonappearance of ODA, most economies would experience weaker economic development and wasteful use of local resources.

Some scholars criticized the two-gap model's assumptions. The notion argued that investment was the only way to stimulate economic development. However, education, R&D (research and development) are also important drivers of GDPpc (Harms & Lutz, 2004). Besides, the model assumed that the recipient government would invest all ODA. ODA is fungible, much like other sorts of cash transfers. It may be used for any purpose; thus, it cannot be assumed to be just for investment. They believed that the recipient country would invest a portion of the assistance money and spend the rest on government consumption (Duru *et al.*, 2020). Additionally, Harms and Lutz (2004) documented that in actuality, aid accessibility is an enticement for corrupt regimes to purposely decrease their GCF efforts so that they may get a constant supply of assistance money from donors. Easterly (1999) also referred to it as a 'dead model'. Despite these criticisms, Devarajan *et al.* (1999) defended the 2-GM, stating that "it is a see-through and supple outline for exploratory, the aid necessities of attaining the poverty-goal". In practically all of the World Bank's surveys on ODA and GDPpc, the 2-GM remained the dominant theoretical assumption for understanding the relationship between the two. Also, Ahmed (2014) and Tadesse (2011) noted that the 2-GM had long been utilized as the mainstream paradigm for explaining help. Policymakers used it frequently. EGM were created by Romer (1986), Barro and Sala-i-Martin (1995), Lucas (1988), Romer (1990), and Grossman and Helpman (1993). Lucas (1988) discovered that human capital formation occurs endogenously in order to promote economic growth. Romer (1990) identified technological advancement as an endogenous driver of GDPpc. This model was created to address the flaws in Solow-Swan's neoclassical economic growth model. Furthermore, Solow (1956) demonstrated that LR GDPpc is driven by factors (HK investment) within an economy, particularly those that create high-tech acquaintance.

Countries would benefit from growing HK and investing in R&D. This approach can help to create economies of scale. Furthermore, EGM broadened the scope of neoclassical-economic development models by incorporating technological development. The primary distinction between neoclassical and EGM is that neoclassical growth models assumed that technological progressions were exogenous to an economic-system, whereas endogenous growth models if canals over which technological-advancement could outcome principally in the form of innovations (Artelaris *et al.*, 2006). According to this concept, endogenous variables boost an economy's LR rate of economic growth rather than external forces, as explained in neoclassical growth theories. Additionally, the EGM looked at production-functions that show growing returns. In emerging economies, the finances required to invest in HK, R&D, and innovation are inadequate. Internal capital can only provide a portion of these economies' investment requirements (Duru *et al.*, 2020). According to Morrissey (2001), they rely on ODA help to increase capital since it creates research thoughts, technical expertise, administrative skills, and foreign help at a lower interest rate. Furthermore, Morrissey and Nelson (1998) believe that economic influences in the EGM, such as GCF and HK and technology that caused in GDPpc, can provide an clarification for the Asian countries' miracle, to employ complementary-hypothesis.

Empirical Literature

Tang and Bundhoo (2017) investigated the link between ODA, and the GDPpc of Sub-Saharan Africa's 10 largest receivers of international aid over a period from 1990-2012. They discovered that help did not have a major influence on economic growth. They do, however, test the 2-GM, which holds that fODA boosts economic development through investment and imports. However, Rahnama et al. (2017) investigated the association between ODA and GDPpc in LIDCs and HIDCs using GMM methods in a dynamic context. They discover that foreign help boosts growth in high-income developing nations while slowing growth in low-income developing countries. However, Yiew and Lau (2018) conduct an empirical study of the role and impression of ODA on economic development, using ninety-five (95) developing countries and show a U-shaped association between ODA and GDPpc. ODA initially has a disadvantageous influence on a country's economy, but it eventually helps favorably to economic progress.

Mahembe and Odhiambo (2019) investigated the causal link between ODA, poverty, and GDPpc in 82 developing countries from 1981-2013. Using newly developed dynamic panel data estimate techniques and the panel VECM test. They discovered a uni-directional causal link between economic development and foreign help, as well as between poverty and ODA in the SR. In the LR, they discovered that ODA tends to meet to its LR equilibrium track in retort to variations in GDPpc, that GDPpc drive ODA. Rao et al. (2020) inspected the link between ODA, FDI, and GDPpc in Asia from 1980 to 2016. They discovered that, whereas ODA is harmfully linked with both FDI and growth. Furthermore, government financial aid is crucial in all empirical estimates, since it is positively related with both FDI flows and growth. However, Duru et al. (2020) inspected the link between ODA and economic development in Nigeria from 1984-2017, using the ARDL approach for estimate. Their findings demonstrated that ODA did not help to Nigeria's economic progress. Similarly, Adebayo and Kalmaz (2020) examine the nexus between GDPpc and ODA, utilizing the ARDL techniques for estimations, and data from 1980-2018. They found that ODA has an adverse link with GDPpc in Nigeria. However, Golder et al. (2021) examine the impact of ODA on the country's GDPpc using yearly data from 1989-2018. The ARDL model is used to fulfil the study aim. They discovered that ODA had a favorable link with GDPpc in Bangladesh.

Azam and Feng (2022) investigated the effects of ODA on GDPpc in underdeveloped nations. From 1985-2018, we utilized both OLS and robust least squares (RLS) estimators to analyze data for 37 developing nations with low, lower, and higher middle incomes. They found that ODA tended to boost GDPpc in the overall, but they break down the sample into different socio-economic levels. They also discovered that while exports contribute to GDPpc in low-income, international aid and FDI play a very limited influence. Foreign aid and direct investment help lower-middle-income nations expand their economies. FDI helps higher middle-income nations build their economies, whereas ODA has little advantageous influence on economic growth.

Furthermore, Shah et al. (2022) use panel data from 2000-2019 to evaluate and analyze the influence of ODA on GDPpc in six South Asian countries and pooled OLS for estimations. The empirical findings show that ODA and population have an adverse and substantial influence on Asian nations' economic success, whereas GCF has a positive and significant effect. However, Asaleye et al. (2023) use a NARDL and VECM to study the asymmetry and shock effects of ODA on Nigerian economy and employment. The findings indicate that optimistic and adverse shocks in aggregate help improve and diminish GDPpc in LR, respectively, but hostile shocks lower GDPpc in near term. Similarly, constructive shocks diminish employment in LR and adverse shocks to ODA diminish and enhance employment, in SR. However, Tefera and Odhiambo (2024) studied whether assistance sources matter in understanding the aid-growth causal connection in Africa, between 2000 and 2017. To account for omitted variable bias, used in a multivariate scenario, with investment and consumption serving as critical conditioning factors. They

discovered a SR bi-directional causal bond between assistance and growth for total aid (TA) and traditional donor aid (TDA) proxies, but not for NTDA in either direction. In the LR, the study discovered uni-directional causation between growth and assistance.

Fazlly (2024) investigated the influence of ODA on Afghanistan's GDPpc from 1980 to 2021 and used ARDL methods for estimating. They discovered that net government development aid had a substantial positive correlation with GDPpc. However, Chomen et al. (2024) used the PMG estimate approach to inspect the effects of ODA and remittances on economic development in a sample of 31 African nations between 1980-2019. Their findings show that, in the SR, remittances and ODA both have an adverse influence on economic development, although the effect is negligible. In the LR, however, remittances have an optimistic and considerable impact on GDPpc, whereas ODA has a favorable but negligible effect on continental GDPpc. Yet, Gebresilassie et al. (2024) examined the inspiration of ODA on Ethiopian GDPpc using data from 1974-2017 and the ARDL technique was used for estimating. The model's results showed that ODA had a detrimental influence on GDPpc. Similarly, Choi and Kim (2024) looked at how FDI and ODA affect developing nations' GDPpc. The authors employ a 2SLS estimator to examine panel data from 93 countries between 1981 and 2020. They discovered that FDI inflows tend to boost GDPpc in both the entire sample nations and within each group of countries. Furthermore, only low-income developing nations benefit significantly from ODA in terms of per capita GDP growth. Their findings suggest that ODA appears to be especially essential for low-income developing nations.

METHODOLOGY

Research Nature and Sources of Data Collection

The current research work is investigating the impact of ODA on the GDPpc of South Asian countries. This implies that the research work is quantitative.

This research work is attempting to analyze the impacts of the foreign aid on the economic development of South Asian countries. A secondary data would be used for the analysis. The data would be collected from World Development Indicators (2025), Bangladesh, Nepal, India, Pakistan, Bhutan, and Sri Lanka, from 1990 to 2024.

Table 1: Variables Details

S. No	Variables	Measurement	Symbol
1	GDPpc growth (annual %)	Percentage (%age)	GDPpc _{it}
2	LFP rate, total (% of total population ages 15-64)	Percentage	LFP _{it}
3	GCF (% of GDP)	Percentage	GCF _{it}
4	School enrollment, secondary (% gross)	Percentage	SSE _{it}
5	Net ODA received (% of GNI)	Percentage	ODA _{it}
6	Inflation, consumer prices (annual %)	Percentage	CPI _{it}
7	OER (LCU per US\$, period average)	Rate	OER _{it}

Source: World Development Indicators (2025)

Model Specification

This study used the flowing modified model, also used Fatima (2014), Albiman (2016) and Khomba and Trew (2019).

$$GDPpc = f(LFP, GCF, HK, ODA, CPI, OER).....(1)$$

$$GDPpc_{it} = \beta_0 + \beta_1 LFP_{it} + \beta_2 GCF_{it} + \beta_3 SSE_{it} + \beta_4 ODA_{it} + \beta_5 CPI_{it} + \beta_6 OER_{it} + \mu_{it}.....(2)$$

Econometrics Techniques

Pooled Mean Group/Panel ARDL Approach

Based on the data behaviour PMG/ Panel ARDL cointegration approach was initiated by Pesaran *et al.* (1997), applied to assess the LR as well as SR influence.

$$\begin{aligned} \Delta GDPpc_{it} = & \beta_{0t} + \phi_i GDPpc_{i,t-1} + \beta_1 LFP_{it} + \beta_2 GCF_{it} + \beta_3 SSE_{it} + \beta_4 ODA_{it} + \beta_5 CPI_{it} + \beta_6 OER_{it} \\ & + \sum_{i=1}^n \gamma_{ij} \Delta GDPpc_{it} + \sum_{i=0}^n \vartheta_{1j} \Delta LFP_{it} + \sum_{i=0}^n \vartheta_{2j} \Delta GCF_{it} + \sum_{i=0}^n \vartheta_{3j} \Delta LSSE_{it} \\ & + \sum_{i=0}^n \vartheta_{4j} \Delta ODA_{it} + \sum_{i=0}^n \vartheta_{5j} \Delta CPI_{it} + \sum_{i=0}^n \vartheta_{6j} \Delta OER_{it} + \mu_{it} \end{aligned}$$

..... (3)

RESULTS AND DISCUSSION

Summary of Descriptive Statistics

The output indicated that the series official exchange rate has the highest mean value and the GDP per capita has the lowest mean value. Similarly, the series official exchange rate has the highest standard deviation value and the GDP per capita has the lowest standard deviation value. Furthermore, the correlation coefficient indicated that all the variables positive has correlation with GDP per capita except inflation rate and official exchange rate has negative correlation with GDP per capita in table 4.1.

Table 2: Descriptive statistics and correlation Matrix

	GDPpc_{it}	LFP_{it}	GCF_{it}	SSE_{it}	ODA_{it}	CPI_{it}	OER_{it}
Mean	3.569	56.881	29.892	54.429	3.854	7.749	76.389
Median	3.768	57.843	27.421	51.418	1.701	7.010	66.415
Maximum	14.763	72.041	69.449	96.132	30.581	49.721	327.507
Minimum	-10.823	41.790	13.000	11.212	-0.269	-0.429	17.504
Std. Dev.	3.030	8.465	12.437	24.507	5.336	5.049	47.832
Skewness	-0.919	-0.079	1.264	0.028	2.817	3.664	2.537
Kurtosis	6.719	2.462	4.400	1.850	12.227	27.146	11.789
GDPpc_{it}	1						
LFP_{it}	0.2585	1					
GCF_{it}	0.2909	0.5345	1				
SSE_{it}	0.1288	0.0732	0.3116	1			
ODA_{it}	0.0931	0.3476	0.3593	-0.2699	1		
CPI_{it}	-0.2445	-0.0618	-0.1931	-0.0124	0.0450	1	
OER_{it}	-0.2792	-0.2178	-0.1503	0.4405	-0.3251	0.3330	1

Unit Root Test Results

Table 2 presents the LLC test results, which shows that GDPpc, GCF, ODA and CPI are stationary at level (1(0)), although LFP, SSE and OER are stationary at 1st difference (1(1)). Therefore, in this case the panel ARDL/PMG technique is more appropriate for estimation.

Table 3: Levin, Lin & Chu t^* Test Results

Variables	At Level		At 1 st Difference		Decision
	LLC statistics	p-value	LLC statistics	p-value	
GDPpc_{it}	-3.69891*	0.0001	----	---	1(0)
LFP_{it}	-0.29791	0.3829	-3.70588*	0.0001	1(1)
GCF_{it}	-2.35132*	0.0094	----	---	1(0)
SSE_{it}	-0.49846	0.3091	-4.53175*	0.0000	1(1)
ODA_{it}	-5.81488*	0.0000	----	---	1(0)
CPI_{it}	-3.08549*	0.0010	----	---	1(0)
OER_{it}	2.45758	0.9930	-5.42600*	0.0000	1(1)

Note: *, ** and *** indicated the substantial level at 1, 5 and 10%.

Regression Results

Table 3 offerings the panel ARDL/PMG techniques results, which demonstrations in the long run, that the LFP has hopeful and remarkable effect on GDPpc. A % expansion in the LFP will surge GDPpc by 0.08 percent. Likewise, the gross capital formation has optimistic and remarkable effect on GDPpc. A % upsurge in the gross capital formation will increase GDP per capita by 0.12% (also found by Ishfaq et al. 2024; Asghar et al. 2024; Sibte-e-Ali et al. 2018). Likewise, the SSE has confident and remarkable effect on GDPpc. A % upsurge in the SSE will surge GDPpc by 0.10%. Similarly, the official development assistant (ODA) has confident and remarkable effect on GDPpc. A % increase in the ODA will surge GDPpc by 0.27%. The results are in line with (Fazlly, 2024; Golder *et al.*, 2021; Rahnama *et al.*, 2017) while contradict with (Adebayo & Kalmaz, 2020; Chomen *et al.*, 2024; Rao *et al.*, 2020; Shah *et al.*, 2022; Yiew & Lau, 2018). However, some authors found that ODA has no consequence on economic growth (Duru *et al.*, 2020; Tang & Bundhoo, 2017). Similarly, the inflation rate has optimistic and remarkable consequence on GDPpc. A % expansion in the CPI will surge GDPpc by 0.58%. Likewise, the OER has adverse and noteworthy effect on GDP per capita. A unit depreciation in the OER will decrease GDPpc by 0.04%.

Table 4: PMG Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
Long Run (LR) Equation				
LFP_{it}	0.0842*	0.0116	7.2588	0.0000
GCF_{it}	0.1215*	0.0253	4.8093	0.0000
SSE_{it}	0.0950*	0.0186	5.0959	0.0000
ODA_{it}	0.2738*	0.0548	4.9992	0.0000
CPI_{it}	0.5841*	0.0630	9.2656	0.0000
OER_{it}	-0.0413*	0.0156	-2.6530	0.0098
Short Run (SR) Equation				
ECT_{it}	-0.6380**	0.2902	-2.1989	0.0311
D(LFP_{it})	1.9841	1.4284	1.3890	0.1691
D(GCF_{it})	0.3032*	0.0917	3.3066	0.0015
D(SSE_{it})	-0.0854	0.1400	-0.6103	0.5436
D(ODA_{it})	0.6521	1.2422	0.5249	0.6012
D(CPI_{it})	-0.6869*	0.2419	-2.8396	0.0058
D(OER_{it})	-0.2544***	0.1432	-1.7764	0.0798
Kao Residual Cointegration Test		H₀: No cointegration		
ADF		t-Stat	Prob.	
		-5.7323*	0.0000	

Note: *, ** and *** designated the substantial level at 1, 5 and 10%.

In the SR, that the LFP has inconsequential effect on GDPpc. Yet, the gross capital formation has confident and remarkable effect on GDPpc. A % expansion in the gross capital formation will upsurge GDPpc by 0.30%. However, the secondary school enrolment has insignificant effect on GDPpc. Similarly, the official development assistant (ODA) has insignificant effect on GDPpc. Yet, the CPI has harmful and remarkable consequence on GDPpc. A % expansion in the CPI will decrease GDPpc by 0.69%. Likewise, OER has negative and remarkable effect on GDPpc. A unit depreciation in the OER will decrease GDPpc by 0.25%. Moreover, the Kao Residual Cointegration test outcomes designated reject H_0 . Besides, the ECT outcome demonstrations that there are 64% speed of convergence.

CONCLUSION AND RECOMMENDATIONS

The main aims of the study to analyze the impacts of the foreign aid on the economic development of South Asian countries. This study used the panel data for the South Asian countries namely; Bangladesh, Nepal, India, Pakistan, Bhutan, and Sri Lanka, from 1990 to 2024. Furthermore, this study used the PMG/ Panel ARDL techniques to analyze the coefficients for the whole panel and found that in the LR, that the LFP, GCF, secondary school enrolment, official development assistant (ODA), and CPI have optimistic and noteworthy effect on GDPpc. However, the official exchange rate has adverse and noteworthy effect on GDPpc. Furthermore, in short run (SR), that the labour force participation, secondary school enrolment, and official development assistant (ODA) have insignificant effect on GDP per capita. However, the GCF has confident and remarkable effect on GDPpc. However, the CPI and OER have harmful and substantial consequence on GDPpc. Therefore, this study concluded that ODA is more beneficial for GDPpc of South Asian Countries in the long run.

This study underscores the long-term significance of foreign aid in enhancing economic growth across South Asian countries. Policymakers should focus on channeling official development assistance (ODA) toward productive sectors such as infrastructure, education, and capital formation to maximize developmental returns. Prioritizing transparent and accountable aid management can ensure the funds are effectively utilized rather than lost to inefficiencies or corruption. Additionally, improving domestic savings and investment mechanisms alongside aid inflows may further amplify growth effects, particularly through capital formation and human capital development.

However, the study has several limitations. First, it relies solely on macro-level panel data, which may mask country-specific dynamics and microeconomic factors. Second, the analysis is constrained to selected variables, excluding other potentially influential determinants such as institutional quality or political stability. Third, the use of the PMG/Panel ARDL method assumes homogeneity in long-run relationships, which might not hold for all countries in the sample. Future research could incorporate broader datasets, alternative estimation methods, and qualitative insights to capture a more nuanced understanding of the aid-growth nexus.

REFERENCES

- Adebayo, T. S., & Kalmaz, D. B. (2020). Ongoing debate between foreign aid and economic growth in Nigeria: a wavelet analysis. *Social Science Quarterly*, 101(5), 2032-2051.
- Ahmed, Z. S. (2014). *The effect of foreign aid on economic growth: A cross section study on aid to Sub-Saharan Africa*. (Bachelor Unpublished Bachelor of Economics). Institution of Social Sciences, Sodertorns University,
- Albiman, M. (2016). What are the impact of foreign aid to the economic growth? Time series analysis with new evidence from Tanzania, ' *Business and Economics Journal*, 7(3), 1-7.

- Artelaris, P., Arvanitidis, P., & Petrakos, G. (2006). Theoretical and methodological study on dynamic growth regions and factors explaining their growth performance. *Economic and Social Research Institute (ESRI)*, 1-66.
- Asaleye, A. J., Ojo, A. P., & Olagunju, O. E. (2023). Asymmetric and shock effects of foreign AID on economic growth and employment generation. *Research in Globalization*, 6, 100123.
- Asghar, M. M., Tanzeel, M., Ullah, S., & Hussain, S. (2024). Analyzing the economic impact of construction sector in Pakistan. *Zakariya Journal of Social Science*, 3(1), 21-34.
- Azam, M., & Feng, Y. (2022). Does foreign aid stimulate economic growth in developing countries? Further evidence in both aggregate and disaggregated samples. *Quality & Quantity*, 56(2), 533-556.
- Barro, R., & Sala-i-Martin, X. (1995). *Economic Growth*, New York, McGrawHill. Cho, YJ (1986). *Inefficiencies from financial liberalization in the absence of well-functioning equity*.
- Chenery, H. B. (1967). Foreign Assistance and Economic Development. In J. H. Adler (Ed.), *Capital Movements and Economic Development* (pp. 268-292).
- Chenery, H. B., & Bruno, M. (1962). Development Alternatives in an Open Economy: The Case of Israel. *The Economic Journal*, 72(285), 79-103.
- Chenery, H. B., & Strout, A. M. (1968). Foreign Assistance and Economic Development: Reply. *The American Economic Review*, 58(4), 912-916. Retrieved from <http://www.jstor.org/stable/1815546>
- Choi, Y.-J., & Kim, S.-N. (2024). Do foreign direct investment and foreign aid accelerate economic growth in developing countries? *International Journal of Development Issues*, 23(2), 348-357.
- Chomen, D. A., Danquah, R., & Chen, F. (2024). The short-run and long-run impacts of foreign aid and remittances on economic growth: Evidence from African countries. *The Journal of International Trade & Economic Development*, 33(4), 644-664.
- Collodel, A. G. P. (2011). *Evaluation of the impact of foreign aid on growth and development*. University of South Africa (South Africa), Retrieved from <https://www.proquest.com/openview/1600ed8579294d889b1c96f584527a04/1?pq-origsite=gscholar&cbl=2026366&diss=y>
- Devarajan, S., Dollar, D. R., Holmgren, T., Tsikata, Y. M., Kasekende, L., Atingi-Ego, M., . . . Guillaumont Jeanneney, S. (1999). Aid and Reform in Africa: Lessons from Ten Case Studies. *Development Research Group, the World Bank*. doi:http://www-wds.worldbank.org/servlet/WDSContentServer/IW3P/IB/2001/05/11/000094946_01042606340663/Rendered/PDF/multi0page.pdf
- Durbarry, R. (1998). *The impact of foreign aid on growth and savings in developing countries*. University of Nottingham, Retrieved from <https://eprints.nottingham.ac.uk/id/eprint/13187>
- Duru, I. U., Okafor, B. O., Eze, M. A., & Ebenyi, G. O. (2020). Foreign aid and economic growth: Empirical evidence from Nigeria. *Growth*, 7(1), 35-50.
- Easterly, W. (1999). The ghost of financing gap: testing the growth model used in the international financial institutions. *Journal of Development Economics*, 60(2), 423-438.
- Fatima, F. (2014). Foreign Aid and Economic Growth. Available at SSRN 2407348.

- Fazlly, S. K. (2024). Foreign aid and economic growth: An econometric study of Afghanistan. *Journal of Indonesian Applied Economics*, 12(1), 46-54.
- Gebresilassie, B. A., Legesse, T., & Gebre, G. G. (2024). Impact of Foreign Aid on Economic Growth in Ethiopia. *Journal of the Knowledge Economy*, 15(2), 5288-5306.
- Golder, U., Sheikh, M. I., & Sultana, F. (2021). The relationship between foreign aid and economic growth: Empirical evidence from Bangladesh. *Journal of Asian Finance, Economics and Business*, 8(4), 0625–0633.
- Grossman, G. M., & Helpman, E. (1993). *Innovation and growth in the global economy*: MIT press.
- Harms, P., & Lutz, M. (2004). The macroeconomic effects of foreign aid: a survey. *University of St. Gallen Economics Discussion Paper*(2004-11).
- Ishfaq, M., Rasool, A., Asghar, M. M., Karim, S., & Ahmad, R. (2024). Impact of Natural, Physical and Human Capital Formation on Economic Growth in Pakistan: An ARDL Analysis. *Journal of Asian Development Studies*, 13(3), 222-233.
- Khomba, D. C., & Trew, A. (2019). Aid and growth in Malawi. *School of Economics and Finance*(Discussion Paper No. 1612), 1-49.
- Lucas, R. E. (1988). On the mechanics of economic development. *Journal of Monetary Economics*, 22(1), 3-42.
- Mahembe, E., & Odhiambo, N. M. (2019). Foreign aid, poverty and economic growth in developing countries: A dynamic panel data causality analysis. *Cogent Economics & Finance*, 7(1), 1626321.
- Morrissey, O. (2001). Does aid increase growth? *Progress in Development Studies*, 1(1), 37-50.
- Morrissey, O., & Nelson, D. (1998). East Asian economic performance: miracle or just a pleasant surprise? *World Economy*, 21(7), 855-879.
- Pesaran, M. H., Shin, Y., & Smith, R. P. (1997). Pooled estimation of long-run relationships in dynamic heterogeneous panels. *University of Cambridge. Department of Applied Economics*.
- Rahnama, M., Fawaz, F., & Gittings, K. (2017). The effects of foreign aid on economic growth in developing countries. *The Journal of Developing Areas*, 51(3), 153-171.
- Rao, D. T., Sethi, N., Dash, D. P., & Bhujabal, P. (2020). Foreign Aid, FDI and Economic Growth in South-East Asia and South Asia. *Global Business Review*, 24(1), 31-47.
- Romer, P. M. (1986). Increasing returns and long-run growth. *Journal of political economy*, 94(5), 1002-1037.
- Romer, P. M. (1990). Endogenous technological change. *Journal of political economy*, 98(5, Part 2), S71-S102.
- Sahoo, K. (2016). *Foreign aid and economic development: Empirical evidence from select South Asian Economies*. (PhD). National Institute of Technology Rourkela, Retrieved from <https://core.ac.uk/download/pdf/80148669.pdf>
- Shah, B. N., Bhuyan, M. I., Salam, R., & Sungsik, K. (2022). Foreign Aid and Economic Growth in South Asian Countries. *Emerging Economy Studies*, 8(1), 41-51.

- Sibt-e-Ali, M., Chaudhary, I. S., & Farooq, F. (2018). Impact of Human and Social Capital on Economic Development in Pakistan: Empirical Evidence from Primary Data Analysis. *Journal of Accounting and Finance in Emerging Economies*, 4(1), 39-46.
- Solow, R. M. (1956). A contribution to the theory of economic growth. *The Quarterly Journal of Economics*, 70(1), 65-94.
- Tadesse, T. (2011). Foreign aid and economic growth in Ethiopia: A cointegration analysis. *The economic research guardian*, 1(2), 88-108.
- Tang, K.-B., & Bundhoo, D. (2017). Foreign Aid and Economic Growth in Developing Countries: Evidence from Sub-Saharan Africa. *Theoretical Economics Letters*, Vol.07No.05, 19. doi:10.4236/tel.2017.75099
- Tefera, M. G., & Odhiambo, N. M. (2024). Foreign aid and economic growth nexus in Africa: Evidence from low-income countries. *International Social Science Journal*, 74(251), 137-162.
- Todaro, M., & Smith, S. (2009). Economic Development (10th [upd.] ed. ed.). Harlow: Addison-Wesley.
- Trinh, T. (2014). *Foreign aid and economic growth: The impact of aid on determinants of growth-The case of Vietnam*. (Master's thesis). Retrieved from <https://urn.fi/URN:NBN:fi:aalto-201503061962>
- World Development Indicators. (2025). World Development Indicators (WDI), The World Bank, Retrieved from <https://databank.worldbank.org/source/world-development-indicators>.
- Yiew, T.-H., & Lau, E. (2018). Does foreign aid contribute to or impeded economic growth? *Journal of International Studies* (2071-8330), 11(3), 21-30.