






MULTIDISCIPLINARY SCIENTIFIC RESEARCH

BJMSR VOL 9 NO 1 (2024) P-ISSN 2687-850X E-ISSN 2687-8518

Available online at <https://www.cribfb.com>
 Journal homepage: <https://www.cribfb.com/journal/index.php/BJMSR>
 Published by CRIBFB, USA

THE FINANCIAL DEVELOPMENT, INSTITUTIONS, AND POVERTY REDUCTION: EMPIRICAL EVIDENCE FROM SOUTH ASIAN COUNTRIES 



 Shamim Ara Labony ^(a)  Md. Shariful Haque ^(b)  Farzana Rahman ^(c)  A. M. Shahabuddin ^(d)  Tania Sultana ^(e)

^(a) Research Fellow, Center for Research on Islamic Management and Business, Bangladesh; E-mail: shamimaralabony@gmail.com

^(b) Associate Professor, Department of Economics & Banking, International Islamic University Chittagong, Bangladesh; E-mail: sharif@iiuc.ac.bd

^(c) Research Associate, Center for Research on Islamic Management and Business, Bangladesh; E-mail: munnifarzana19@gmail.com

^(d) Associate Professor, Department of Business Administration, International Islamic University Chittagong, Bangladesh; E-mail: ams_iiuc@yahoo.com

^(e) Lecturer, Department of Business Administration, International Islamic University Chittagong, Bangladesh; E-mail: tania@iiuc.ac.bd

ARTICLE INFO

Article History:

Received: 6th February 2024

Reviewed & Revised: 6th February

to 22nd April 2024

Accepted: 23rd April 2024

Published: 1st May 2024

Keywords:

Financial Development, Institutions Quality, Poverty, South Asia, Fixed Effects, Random Effects, Hausman Test

JEL Classification Codes:

O16, I32, O53, C23

Peer-Review Model:

External peer-review was done through double-blind method.

ABSTRACT

Fighting poverty is one of the most critical targets of development plans and initiatives. In the pursuit of lasting growth, emerging nations now face the most challenging issue of eliminating poverty, which remains one of the most significant challenges addressing humanity nowadays. The study explores the relationships between the institutional quality, financial development, and poverty-fighting initiatives of South Asian states. It goes beyond the potential bias in earlier studies caused by omitting variables by considering the impact of the interaction between the financial sector and institutional framework. The fixed effects models with STATA15 are employed in this study from 2000 to 2019. This study's analysis uses panel data and secondary sources to conduct the inquiry with a sample of 7 South Asian economies such as Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka. This comprehensive compilation of annual data was done with consultation from the International Monetary Fund (IMF) and the World Bank Development Indicators (WDI). The study results show that a 1% increase in financial development is associated with a 39.88% decrease in poverty, which is statistically significant and favourable. It also reveals that institutional quality plays a vital role in poverty reduction in South Asia, with a 1% increase in institutional quality leading to a 2.61% increase in poverty. Besides, a 1% increase in GDP per capita growth correlates with a 0.12% decrease in poverty. The study's findings provide significant insights into poverty reduction by considering the relationship between institutional challenges and financial development through a flexible, functional structure in South Asian countries.

© 2024 by the authors. Licensee CRIBFB, U.S.A. This open-access article is distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

INTRODUCTION

Institutions and financial development are essential to economic growth and alleviating poverty in emerging or developing nations. According to Milgrom et al. (1990), institutions are the boundaries people have established to govern social interaction or are the community's norms. In contemporary academic investigations on economic growth, the significance of financial development and institutions being separate and essential elements of economic growth is frequently stressed. The poverty reduction strategy will be prioritized in emerging nations over the growth model. This is because while economic progress fosters growth, the conditions of the impoverished are not necessarily improved by it (Abraham & Ahmed, 2011). Appiah-Otoo and Song (2021) state that financial development has the following effects on poverty. First, financial development reduces information asymmetry and high borrowing costs, facilitating credit for the impoverished. To increase access to financial services, create jobs, raise household incomes, and reduce poverty, financial development also assists people in need in launching microenterprises using their borrowed or savings capital. In summary, financial development promotes trade facilitation, corporate control, risk management, innovation, and resource allocation for investment projects, all of which indirectly positively impact poverty (trickle-down theory).

¹Corresponding author: ORCID ID: 0000-0003-3215-3143

© 2024 by the authors. Hosting by CRIBFB. Peer review under the responsibility of CRIBFB, U.S.A. <https://doi.org/10.46281/bjmsr.v9i1.2207>

To cite this article: Labony, S. A., Haque, M. S., Rahman, F., Shahabuddin, A. M., & Sultana, T. (2024). THE FINANCIAL DEVELOPMENT, INSTITUTIONS, AND POVERTY REDUCTION: EMPIRICAL EVIDENCE FROM SOUTH ASIAN COUNTRIES. *Bangladesh Journal of Multidisciplinary Scientific Research*, 9(1), 32-41. <https://doi.org/10.46281/bjmsr.v9i1.2207>

South Asia's poverty rate decreased significantly from 94.60% to 82.20% between 2002 and 2019. Over the given period, there has been a notable decline of 12.40 percent. However, a counterargument claims that the wealthy and powerful gain the most from changes to the financial system. Concerns about how financial development would primarily benefit affluent individuals or institutions arise from this point of view. The differing perspectives presented by Lee et al. (2020) reflect the ongoing debate over the benefits of financial growth for distributing capital and its capacity to improve the lives of those who are economically disadvantaged in society. The emergence of risky social groupings, disputes, stigmatization, low living standards, financial difficulties, lack of freedom, anxiety about the future, unemployment, inadequate education, and bad diet are all linked to this sharp increase in poverty (Appiah-Otoo & Song, 2021). Because of this, governments still consider it extremely important to end poverty in all its forms (Acheampong et al., 2021).

The study examines the connections between South Asian states' efforts to combat poverty and their institutional quality and financial development. For this purpose, panel data and secondary sources from 2000 to 2019 are used to investigate a sample of seven South Asian economies using fixed-effects models with STATA15.

The study is organized methodically. Section 2 offers an overview of recent academic research on the subject. Section 3 explains the econometric techniques and describes the data sources used. Section 5 offers a comprehensive discussion of the study's findings, while Section 4 presents the study's analysis and outcomes. Section 5 provides a succinct overview of the findings and policy suggestions and acknowledges future research.

LITERATURE REVIEW

The countries in the South Asian continent have made significant progress in the last ten years in developing their financial systems compared to other regions. However, there is still much room for improvement. On the other hand, in many South Asian countries, financial progress has stagnated since the early 1980s. From the perspective of the depth of its financial markets and institutional improvement, the region lags, except in its middle-income nations. Financial development has been highly beneficial to the impressment and deployment of financial capital or resources, the execution of growth-promoting and stabilization regulations, and all of these processes (Sahay et al., 2015). To accelerate the financial development of South Asian nations, robust institutional and legal frameworks, effective corporate governance, and increased information transparency are necessary. In order to create an atmosphere that encourages the financial industry's growth, it is necessary to reinforce legal frameworks, protect the interests of minority shareholders, uphold contract enforcement, and preserve judicial independence. To help close the gap with the targeted benchmark, regional financial development strategies can also be brought into compliance with international standards.

Poverty is defined as not having enough money to live a decent life, which also includes having access to poor food, shelter, and healthcare, as well as being unemployed and marginalized in society. There is a link between economic progress and the objective of eradicating poverty, even though it does not guarantee it (Donou-Adonsou & Sylwester, 2016). One element that leads to inequality is uneven development, which is also a byproduct of development. Financial development is considered a direct or indirect tool in the battle against poverty because it removes market flaws that prohibit individuals in need of assistance from receiving credit (Jalilian & Kirkpatrick, 2002). Policies that boost financial development and enhance the financial services accessible to the underprivileged can positively impact their income and eventually contribute to eradicating poverty. Keho (2017) found evidence of a long-lasting link between financial development, economic progress, and poverty eradication in several African countries. The impact of Pakistan's financial growth on poverty reduction initiatives was examined by Ayinde and Yinusa (2016), who found that consumption per capita, a measure of poverty, was impacted. Nonetheless, poverty and domestic bank holdings had no appreciable long-term relationship. Chakroun et al. (2020) discovered that augmenting the accessibility of funds and deposit alternatives had diminished poverty in emerging countries, as opposed to loans. In addition, Appiah-Otoo et al. (2022) stated that although finance has a favourable impact on reducing poverty, this effect is mitigated by poor institutional quality. Furthermore, Aracil et al. (2022) found that institutional deterioration in developing nations fails to stimulate economic performance and poverty reduction.

Distributing resources and fostering economic progress depends heavily on the financial industry. Innovations, improvements to current establishments, and modifications to organizational structures that lessen information asymmetry, promote competition, raise market completeness, and cut transaction costs are all included in financial development (Graff, 2003). Economic growth is the fruit of its promotion of efficient use of resources, productivity, and investment. According to Greenwood et al. (2013), market size has less effect on economic growth than banking sector efficiency and competitiveness. Advances in human rights and political rights magnify the benefits of South Asia's economic expansion. Mohammadi-Sartang et al. (2023) examined 469 companies stated on the Tehran Stock Exchange and explored a robust as well as favourable relationship between financial market returns as well as governance indicators; specifically, ownership concentration and board size hurt stock returns, while institutional ownership, ownership structure, and board independence have a positive influence. Remarkably, institutional systems in developed countries are relatively stable and seldom alter. That being said, the rapid expansion of some highly economizing states has resulted in a rapid transformation of South Asian institutions. Emerging countries' fast-paced development phase makes institutional quality crucial to promoting positive outcomes from their budding finance sector. Different states have different financial and institutional development levels, and these differences correlate with minimum institutional quality standards (Law et al., 2013).

A deficiency exists in the existing literature about studies that evaluate the relationship and influence among financial development, institutional quality, and poverty mitigation in South Asian countries. In this field, there is a significant research vacuum that the current study aims to close. Through analysing the association between financial development, institutional quality, and poverty reduction in South Asian countries, this study focuses on filling this research gap and enhancing our understanding of the intricate dynamics of reducing poverty in the region.

The following are the hypotheses that this study takes into account.

H₁: Poverty is negatively impacted by financial development

H₂: Institutional quality has a negative influence on poverty

H₃: Economic development and poverty are negatively correlated

H₄: Inflation has an adverse association with poverty

H₅: There is a negative link between trade openness and poverty

This study's conceptual framework is provided below in Figure 1.

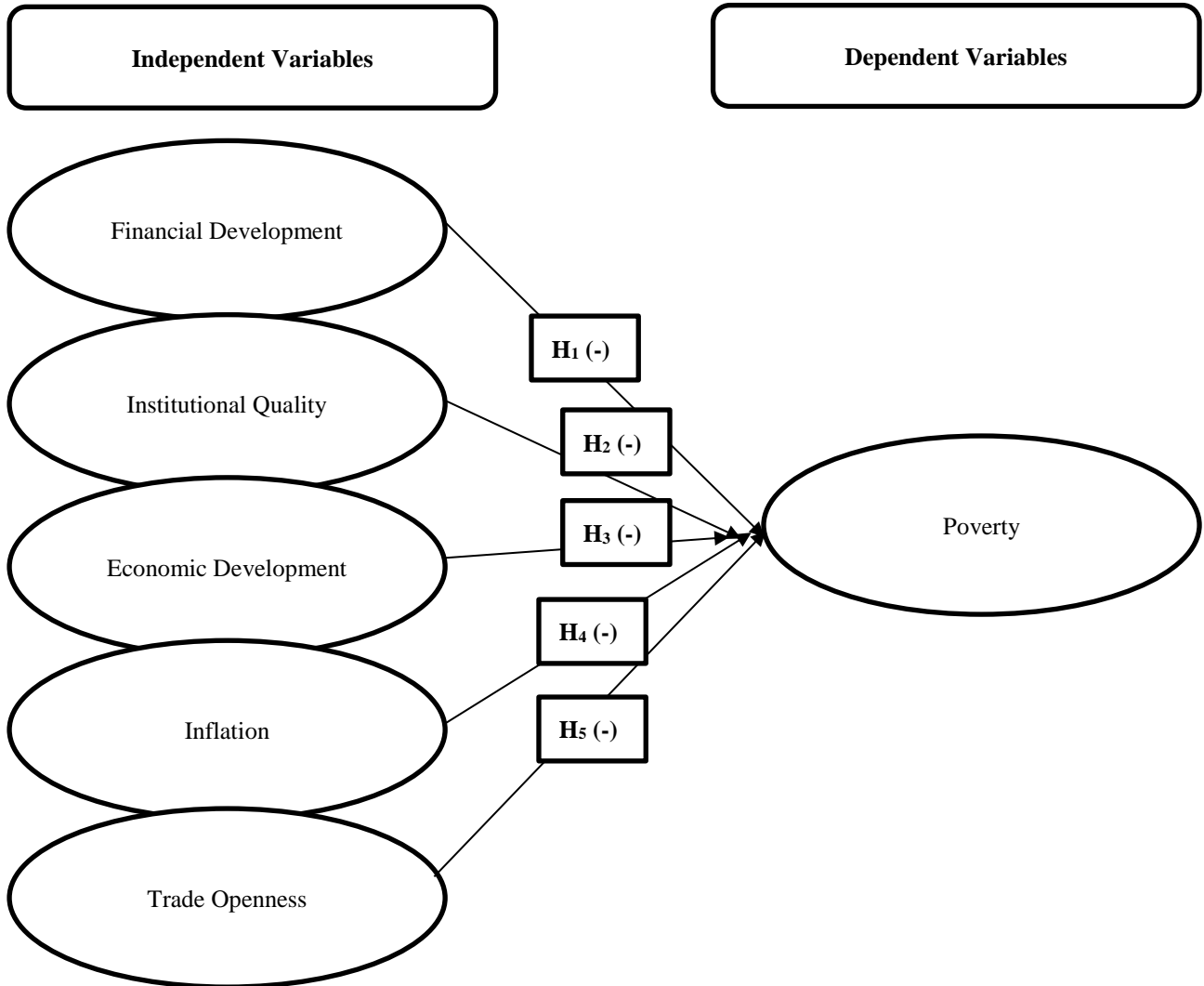


Figure 1. Conceptual Framework

MATERIALS AND METHODS

The sample was selected considering data availability and includes seven South Asian economies. The economies covered include those of Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka; taken as a whole, they show a range of economic conditions in the South Asian region. This research uses a meticulously balanced panel dataset that spans seven countries and is monitored for two decades. The World Bank Development Indicators (WDI) and the International Monetary Fund (IMF) were consulted for this meticulous compilation of annual data spanning 2000 through 2019. The variables that are taken into consideration are divided into the categories of independent and dependent. The independent variables are financial development (FD), institutional quality (INST), economic development (GDPPC), inflation (INF), and trade openness (TOP). Besides, the dependent variable is poverty (POV).

Model Specification

The principal purpose of this investigation is to evaluate the long-term impacts of financial development and institutions on alleviating poverty in a selected group of South Asian countries. In order to achieve these objectives, an econometric model has been empirically developed as follows:

$$POV_{it} = \beta_0 + \beta_1 FD_{it} + \beta_2 INST_{it} + \beta_3 GDPPC_{it} + \beta_4 INF_{it} + \beta_5 TOP_{it} + \varepsilon_{it}$$

Where,

- POV = Poverty
 FD = Financial development
 INST = Institutional quality
 GDPPC = GDP per capita growth
 TOP = Trade openness
 ε_{it} = error term
 i = the total number of individuals or cross-sections
 t = the number of periods

Model Selection Criterion and Methods

In contrast to cross-sectional samples and time series, the panel data model offers several advantages. In particular, when the time series for each cross-section is short, investigating panel data models with several degrees of freedom produces more consistent and dependable results Maliki and Benghalem (2019). As opposed to other data types, panel data considers individual heterogeneities. According to Semykina and Wooldridge (2010), there are many different types of panel data models, including fixed effect models, random effect models, between estimators, within estimators, dummy variable estimators, first differencing estimators, feasible generalized least squares (FGLS), feasible ordinary least squares (OLS), Monte Carlo approaches, and many others. The data set in this study was first subjected to pre-regression analysis, which included tests for residual normality, correlation analyses, and descriptive statistics analyses. The data's average, maximum, minimum, and standard deviation were investigated using descriptive statistics. Correlation analysis was employed to evaluate the link between the factors and search for any possible collinearity between the significant variables. The estimators were then tested by Samargandi et al. (2015) using the fixed and random effects models.

Fixed-Effects Model

The fixed effects model serves as a means to combine cross-sectional and time-series data, which is particularly useful when focusing on specific groups of countries. This model's intercept is presumed to represent all individual variations adequately. It allows each parameter to vary across individuals and periods. The disturbance term in this model consists of two components: a residual term that varies across time and individuals (in this context, nations) and an individual-specific effect. However, it is essential to note that the fixed effects model cannot accommodate variables that remain constant for each cross-section over time. The core idea behind fixed effects is that distinct intercepts can explain individual variations across different groups. Estimating the fixed effects model with varying intercepts among individuals often employs the dummy variable technique, termed the "Least Squares Dummy Variable approach" (LSDV). For panel data with fixed effects, the regression equation is structured accordingly:

$$Y_{it} = \alpha_i + \beta_1 X_{it} + \varepsilon_{it}$$

Here,

For $i = 1, 2, \dots, N$ and $t = 1, 2, \dots, T$

Where $N =$ the total number of individuals or cross section and $T =$ the number of periods.

The constant slope coefficient holds for every individual and instance in time. Instead of varying based on the individuals' periods, the intercept α_i fluctuates based on the country.

Random Effects Model

The error components model, also called the random effects model, is suitable for a random selection of 'N' individuals from a large population. Because the sample population was selected randomly, the intercept is presumed to reflect individual variations and should be regarded as random variables rather than fixed numbers. The random effects model incorporates a random variable denoted by μ_i and that varies across cross-sections but remains consistent over time. The disparities in intercepts are accounted for by the error terms specific to each individual or entity. One benefit of the random effects model is its capability to reduce heteroscedasticity. It employs the concepts of maximum likelihood estimation or generic least squares. Software packages for statistics sometimes offer programs for implementing models with random effects. The equation for panel data regression in the random effects model is following:

$$Y_{it} = \alpha_i + \beta_1 X_{it} + \mu_i + \varepsilon_{it}$$

Where,

$N =$ total number of individuals or cross-section

$T =$ the number of periods

e_{it} = the residual term encompassing both cross-sectional and time-series components

μ_i = the residual specific to each observation, which remains constant across all periods.

These variables are defined for $i = 1, 2, \dots, N$ and $t = 1, 2, \dots, T$.

Hausman Test

The most successful fixed effect and random effect strategies are compared using the Hausman test for the homogeneity of the Unobserved Error Component (Law & Habibullah, 2009). In light of this, the null hypothesis for the Hausman test is:

$$H_0 : \hat{\beta}_{RE} = \hat{\beta}_{FE}$$

Where the value of the coefficient indices for the explanatory factors that vary with time, but not the time variables, are denoted by $\hat{\beta}_{RE}$ and $\hat{\beta}_{FE}$.

RESULTS

Descriptive Analysis

Every variable's mean, standard deviation and other pertinent statistics are displayed to ensure a clear and accurate representation of the variables.

Table 2. The results of the descriptive analysis

Variables	No. of observation	Mean value	Standard error	Minimum value	Maximum value
POV	140	13.57429	12.35062	0	46.7
FD	140	0.2307857	0.1009742	0.07	0.49
INST	140	8.256929	1.58921	5	11.08
GDPPC	140	5.623571	3.683692	-13.1	26.1
INF	140	6.181429	3.401218	-2.8	19.6
TOP	140	73.58571	58.87852	24.7	259.9

[Note: poverty = POV, financial development = FD, institutional quality = INST, economic development = GDPPC, inflation = INF, and trade openness = TOP]
Source: Calculations by the authors using STATA15

Table 2 represents the results of descriptive analysis. The average value of poverty is 13.57, while the standard deviation value is 12.35, varying from 0 to 46.7. The minimum and maximum estimates for the financial development are 0.07 and 0.49, respectively, whereas the mean estimate is 0.23. The maximum value of institution quality is 11.08, with an average of 8.25. Economic development has a standard deviation of 3.68, with a mean value of 5.62. It ranges from -13.1 to 26.1. In addition, inflation and trade openness have average values of 6.18 and 73.58, respectively.

Correlation Analysis

A statistical technique known as correlation, part of bivariate analysis, measures the strength and direction of the relationship between two variables. The correlation coefficient ranges from +1 to -1, indicating the degree of association between the variables.

Table 3. Results of correlation analysis

	POV	FD	INST	GDPPC	INF	TOP
POV	1.0000					
FD	0.3767	1.0000				
INST	0.2913	-0.2048	1.0000			
GDPPC	-0.0360	0.0829	0.0148	1.0000		
INF	-0.0702	0.0956	-0.2402	-0.0924	1.0000	
TOP	-0.4225	-0.3947	0.1466	0.0597	-0.2509	1.0000

[Note: poverty = POV, financial development = FD, institutional quality = INST, economic development = GDPPC, inflation = INF, and trade openness = TOP]
Source: Calculations by the authors using STATA15

Table 3 depicts the results of the correlation matrix. The outcomes show a favourable association of poverty with financial development, which is 0.37. Besides, poverty and institutional quality are positively correlated with a magnitude of 0.29. In addition, economic development is negatively associated with poverty, which is -0.03. Inflation and trade openness hurt poverty, which are -0.07 and -0.4225, respectively. Thus, it is clear that poverty has a negative association with per capita economic growth, inflation, and trade openness. In contrast, poverty positively affects financial development and institutional quality.

Multicollinearity Test

In a multivariate regression analysis, multicollinearity results if two or more independent variables are linearly correlated. That means there is a direct correlation between them, which leaves the parameter coefficients unknown and inflates the standard error of the calculated coefficients.

Table 4. The results of the multicollinearity test

Particulars	Variance Inflation Factor (VIF)	1/Variance Inflation Factor (VIF)
GDPPC	1.26	0.792938
FD	1.23	0.809853
INF	1.13	0.888141
INST	1.10	0.908448
TOP	1.02	0.976620
Mean VIF	1.15	

[Note: economic development = GDPPC, financial development = FD, inflation = INF, institutional quality = INST, and trade openness = TOP]
Source: Calculations by the authors using STATA15

The mean Variance Inflation Factor (VIF) and its reciprocal can be used to determine whether multicollinearity is present (Gujarati & Porter, 2003). The data is considered free of multicollinearity issues if the mean VIF is less than 10. A VIF test was conducted for every explanatory variable in this study. The findings indicated that every VIF value was less than 10. Consequently, it is possible to use Gujarati's criterion to clearly say that these data do not exhibit the multicollinearity problem.

Normality Test

The Normality test is employed to ascertain if the residuals maintain the normal distribution. The outcomes of the normality test are displayed in Figure 2 below.

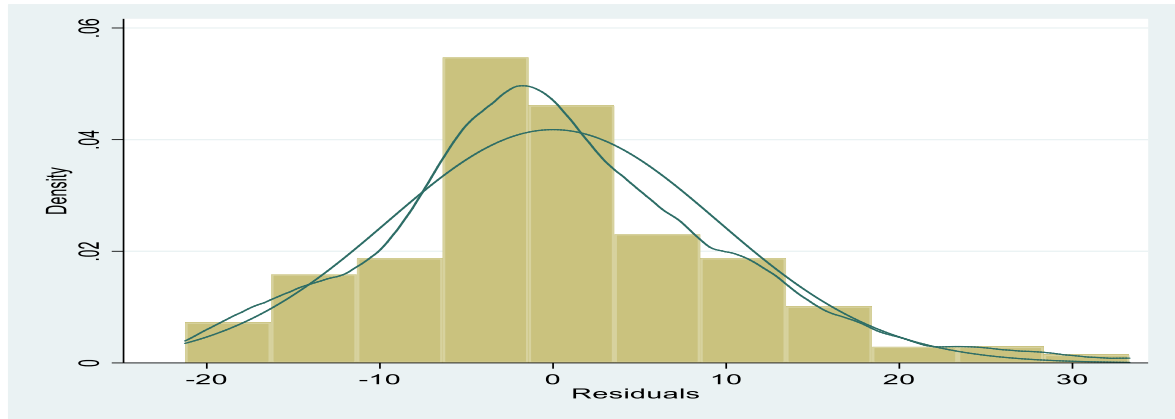


Figure 2. Outcomes of normality test
Source: STATA15

In this instance, the probability value is 0.0137, and the Jarque-Bera statistic is 8.583. The determination is made based on whether the appropriate p-value of the Jarque-Bera statistic exceeds 5%; if it does, the null hypothesis cannot be rejected; otherwise, it would be rejected. With Jarque-Bera's probability value being 0.0137, the null hypothesis is rejected at a significance level of 5%, as depicted in the preceding analysis. Consequently, the residuals of this model do not exhibit a normal distribution. However, Werdati et al. (2020) proposed that in large samples, typically consisting of more than 100 observations, the normality assumption may be relaxed, and its impact may be insignificant.

Fixed Effect Model

The study suggests that factors within the cross sections might affect or bias the predictor or outcome variables when utilizing the fixed effect (FE) estimator, necessitating its consideration. This implies an association between an entity's error term and predictor variables. The fixed effect (FE) approach removes these time-invariant properties from the equation to determine the full impact of the predictor variables. In such a model specification, ordinary least squares regression estimation typically provides the best linear unbiased estimates because, in general terms, the null hypotheses of the tests indicate the absence of fixed effects (Greene, 2008).

Table 5. The results of the fixed effect (within) regression

R – sq:		No. of observation = 140				
within = 0.2628		No. of Groups = 7				
between = 0.2316		Observation per group:				
overall = 0.0002		minimum = 20				
		average = 20.0				
		maximum = 20				
Corr (u_i, xb) = -0.5469		F (5, 128) = 9.13				
		Prob > F = 0.0000				
Dependent Variable: Poverty (POV)						
<i>Explanatory Variables</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t</i>	<i>P > t </i>	<i>[95% Confidence Interval]</i>	
FD	-39.87724	18.9237	-2.11	0.037	-77.32102	-2.433463
INST	2.610134	0.4763938	5.48	0.000	1.667507	3.55276
GDPPC	-0.1225742	0.1902936	-0.64	0.521	-0.4991026	0.2539542
INF	-0.3651488	0.2213858	-1.65	0.102	-0.8031985	0.0729008
TOP	-0.0117985	0.0407636	-0.29	0.773	-0.092463	0.0688594
-CONS	5.04034	6.70117	0.75	0.453	-8.21907	18.29975
sigma_u	12.517296					
sigma_e	7.9155184					
rho	0.71434318					
F test that all u_i = 0: F (6, 128) = 12.36			Prob > F = 0.0000			

[Note: poverty = POV, financial development = FD, institutional quality = INST, economic development = GDPPC, inflation = INF, and trade openness = TOP]
Source: Calculations by the authors using STATA15

The fixed effect regression results are shown in Table 05. Financial progress is deemed considerable at the 1% level, while institutional quality is at the 5% level. Furthermore, these variables are considered unimportant because the p-values for trade openness, inflation, and economic progress are higher than their significance level. Trade openness, inflation, financial development, and economic growth hurt poverty, demonstrating that these factors also positively impact it. Conversely, there is evidence that poverty positively correlates with institutional quality, suggesting that poverty is exacerbated by institutional quality.

Random Effect Model

In the random effects model, variations between entities are presumed to be random and unrelated to the predictor or independent variables included in the model.

Table 6. Results of the random effects of GLS regression

R – sq:		No. of observation = 140				
within = 0.1582		No. of groups = 7				
between = 0.7279		Observation per group:				
overall = 0.4027		minimum = 20				
		average = 20.0				
		maximum = 20				
Corr (u_i, x) = 0 (assumed)		Wald chi2(5) = 90.33				
		Prob > Chi2 = 0.0000				
Dependent Variable: Poverty (POV)						
<i>Explanatory Variables</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t</i>	<i>P > t </i>	<i>[95% Confidence Interval]</i>	
FD	39.47344	9.074651	4.35	0.000	21.68746	57.25943
INST	3.01142	0.5443923	5.53	0.000	1.944431	4.07841
GDPPC	-0.1876591	0.2265151	-0.83	0.407	-0.6316206	0.2563024
INF	-0.3900013	0.2572574	-1.52	0.130	-0.8942165	0.1142139
TOP	-0.0787779	0.0157278	-5.01	0.000	-0.1096037	-0.0479521
-CONS	-11.1377	6.2404	-1.78	0.074	-23.36866	1.093263
sigma_u	0					
sigma_e	7.9155184					
rho	0					

[Note: poverty = POV, financial development = FD, institutional quality = INST, economic development = GDPPC, inflation = INF, and trade openness = TOP]
Source: Calculations by the authors using STATA15

Table 06 shows the outcomes of the GLS regression's random effects. It is determined that, at the 1% level, trade openness, institutional development, and financial development are significant. Furthermore, since the p-values exceed their significance level, inflation and economic development are determined to be unimportant. Poverty is negatively impacted by economic progress, inflation, and trade openness, suggesting that these factors also have a reducing effect on poverty. Conversely, research shows that institutional quality and financial development benefit poverty, suggesting that these factors worsen poverty.

Hausman Test

The Hausman test was utilized to ascertain the most suitable and reliable model when employing panel data estimation, considering both fixed-effect and random-effect estimators. The fixed-effect estimator considers time-invariant characteristics present across multiple nations. Consequently, the study must consider the possibility that anything internal to the entity could contribute to the bias of the explanatory variables while performing the fixed-effect (FE) test.

Table 7. Results of the Hausman test

Explanatory Variables	Dependent Variable: Poverty (POV)			
	Coefficients		(b – B)	sqrt (diag (v_b – v_B))
	(b) Fe	(B) re	Difference	S.E.
FD	-39.87724	39.47344	-79.35068	16.60594
INST	2.610134	3.01142	-0.4012868	0.00
GDPPC	-0.1225742	-0.1876591	0.0650848	0.00
INF	-0.3651488	-0.3900013	0.0248525	0.00
TOP	-0.0177985	-0.0787779	0.0669794	0.0376073
Test: Ho: difference in coefficients, not systematic				
chi2 (5) = 24.18				
Prob > chi2 = 0.0002				

[Note: financial development = FD, institutional quality = INST, economic development = GDPPC, inflation = INF, and trade openness = TOP]
Source: Calculations by the authors using STATA15

Based on the available data, the chi-square test yielded a p-value of 0.0002, indicating significance below the conventional threshold of 0.05 and leading to the rejection of the null hypothesis. Thus, the fixed effect model appears appropriate. This model assumes that observed differences or relationships in the data are specific to the entities or groups being studied rather than random fluctuations.

DISCUSSIONS

In the context of certain South Asian countries, the results of the fixed effect model demonstrate that financial development (FD) and institutional quality (INST) exhibit negative and positive effects on poverty (POV), respectively. Notably, a 1% increase in financial development is associated with a 39.88% decrease in poverty, contrary to findings by Dandume (2014). Additionally, institutional quality plays a significant role in poverty in South Asia, with a 1% increase leading to a 2.61% increase in poverty. This finding aligns with assertions by Aracil et al. (2022) that institutional deterioration in developing nations fails to stimulate economic performance and, consequently, poverty reduction. Although the impact of GDP per capita growth (GDPPPC) is modest, it is pro-poor, as indicated by its opposing sign. Furthermore, a 1% increase in GDP per capita growth correlates with a 0.12% decrease in poverty. Poverty is lessened in part by the acceleration of economic growth. The findings drawn by Egena et al. (2014) align with this. Inflation (INF) and trade openness (TOP) are likewise unimportant. Trade openness benefits the poor, as evidenced by its negative value, which indicates that it reduces poverty in South Asia. This was not wholly unexpected since trade liberalization frequently lowers poverty in countries with powerful institutions, solid financial sectors, and high levels of education.

A summary of the empirical findings of this investigation is depicted in the following table 08.

Table 8. Significant findings of this study

Proposed Hypotheses	Major Findings	Support the Proposed Hypotheses or Not	Literature
H1: Poverty is negatively impacted by financial development.	Financial development has a negative and significant influence on poverty.	Supported	Opposite to the findings by Dandume (2014)
H2: Institutional quality has a negative influence on poverty.	Poverty is positively impacted by the institutional quality. Moreover, that is significant.	Not supported	Similar to assertions by Aracil et al.(2022)
H3: Economic development and poverty are negatively correlated.	The relationship between economic development with poverty is negative but insignificant.	Supported	Similar to the findings drawn by Egena et al. (2014), they align with this.
H4: Inflation has an adverse association with poverty.	There is a negative and insignificant influence of inflation on poverty.	Supported	Likewise unimportant
H5: There is a negative link between trade openness and poverty.	Poverty is negatively associated with trade openness and that is insignificant.	Supported	

Source: Synthesis of the authors

CONCLUSIONS

Increasing financial development is essential to advancing development since it offers several benefits for reducing poverty and promoting wealth. Thus, it is essential to look into the factors that influence financial development throughout the South Asian region to assess progress and mitigate poverty. This research examines how financial development influences poverty levels across several South Asian nations while also considering how the association between the financial sector and institutional framework may affect results by potentially biasing omitted variables. Through the use of fixed effects and random effects models, the study investigates these relationships. The main findings of this empirical study can be summarized as follows: Firstly, it was found that poverty is negatively influenced by advancements in financial development, economic development, inflation, and trade openness, indicating that higher financial improvement, economic development, inflation, and trade openness reduce poverty in South Asian countries, with this relationship being statistically significant. It is also evident from the estimate that poverty is significantly increased if institutional quality increases. The study's empirical findings significantly impact theoretical understanding and practical policymaking. To combat poverty effectively, policymakers should prioritize initiatives that bolster financial institutions, promote robust economic growth, and facilitate trade liberalization. Strengthening institutional frameworks can enhance the benefits of economic development for the marginalized. Policymakers should focus on reforms that strengthen governance, uphold the rule of law, and mitigate political instability. Supporting economic openness, skill training, and human capital development is crucial. Prioritizing policies that enhance labour market flexibility can facilitate resource reallocation, stimulating growth and poverty reduction. Future research should utilize multidimensional poverty indicators, expand analysis to more South Asian nations, and conduct longitudinal studies to assess policy efficacy over time. Overall, empirical data from future studies can inform evidence-based policymaking and enhance the success of poverty reduction initiatives in South Asia.

Author Contributions: Conceptualization, S.A.L, M.S.H., F.R., and A.M.S.; Methodology, S.A.L., M.S.H., and F.R.; Software, S.A.L., and M.S.H.; Validation, S.A.L., M.S.H., F.R., A.M.S., and T.S.; Formal Analysis, S.A.L, M.S.H., and F.R; Resources, S.A.L, F.R., A.M.S., and T.S.; Data Curation, S.A.L., M.S.H., A.M.S., and T.S.; Writing-Original Draft Preparation, S.A.L., M.S.H., F.R., and T.S.; Writing-Review & Editing, M.S.H., and F.R; Visualization, S.A.L., M.S.H., F.R., AM.S., and T.S.; Supervision, M.S.H., A.M.S., and T.S.; Project Administration, S.A.L.; Funding Acquisition, S.A.L., M.S.H., F.R., AM.S., and T.S. Author has read and agreed to the published version of the manuscript.

Institutional Review Board Statement: Ethical review and approval were waived for this study, due to that the research does not deal with vulnerable groups or sensitive issues.

Funding: The authors received no direct funding for this research.

Acknowledgments: Not Applicable.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to restrictions.

Conflicts of Interest: The authors declare no conflict of interest.

REFERENCES

- Acheampong, A. O., Appiah-Otoo, I., Dzor, J., & Agyemang, K. K. (2021). Remittances, financial development and poverty reduction in Sub-Saharan Africa: Implications for post-COVID-19 macroeconomic policies. *Journal of Policy Modeling*, 43(6), 1365-1387. <https://doi.org/10.1016/j.jpolmod.2021.09.005>
- Appiah-Otoo, I., Chen, X., Song, N., & Dumor, K. (2022). Financial development, institutional improvement, poverty reduction: the multiple challenges in West Africa. *Journal of Policy Modeling*, 44(6), 1296-1312. <https://doi.org/10.1016/j.jpolmod.2022.11.002>
- Appiah-Otoo, I., & Song, N. (2021). The impact of ICT on economic growth - Comparing rich and poor countries. *Telecommunications Policy*, 45(2), 102082. <https://doi.org/10.1016/j.telpol.2020.102082>
- Abraham, T. W., & Ahmed, U. A. (2011). Economic growth and human development index in Nigeria: An error correction model approach. *International Journal of Administration and Development Studies*, 2(1), 239-254.
- Aracil, E., Gómez-Bengochea, G., & Moreno-de-Tejada, O. (2022). Institutional quality and the financial inclusion-poverty alleviation link: Empirical evidence across countries. *Borsa Istanbul Review*, 22(1), 179-188. <https://doi.org/10.1016/j.bir.2021.03.006>
- Ayinde, T. O., & Yinusa, O. G. (2016). Financial development and inclusive growth in Nigeria: A threshold analysis. *Acta Universitatis Danubius. Œconomica*, 12(5), 166-189.
- Chakroun, S., Salhi, B., Ben Amar, A., & Jarboui, A. (2020). The impact of ISO 26000 social responsibility standard adoption on firm financial performance: Evidence from France. *Management Research Review*, 43(5), 545-571. <https://doi.org/10.1108/MRR-02-2019-0054>
- Dandume, M. Y. (2014). Financial sector development, economic growth and poverty reduction: New evidence from Nigeria. *Çankırı Karatekin Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 4(2), 1-20.
- Donou-Adonsou, F., & Sylwester, K. (2016). Financial development and poverty reduction in developing countries: New evidence from banks and microfinance institutions. *Review of development finance*, 6(1), 82-90. <https://doi.org/10.1016/j.rdf.2016.06.002>
- Egena, S., Ijaiya, A., Ogah, D., & Aya, V. (2014). Principal component analysis of body measurements in indigenous Nigerian chickens raised under extensive management system. *Slovak journal of animal science*, 47(2), 77-82.
- Graff, M. (2003). Financial development and economic growth in corporatist and liberal market economies. *Emerging Markets Finance and Trade*, 39(2), 47-69. <https://doi.org/10.1080/1540496X.2003.11052534>
- Greene, W. H. (2008). The econometric approach to efficiency analysis. *Measuring productive efficiency and productivity growth*, 1(1), 92-250.
- Greenwood, J., Sanchez, J. M., & Wang, C. (2013). Quantifying the impact of financial development on economic development. *Review of Economic Dynamics*, 16(1), 194-215. <https://doi.org/10.1016/j.red.2012.07.003>
- Gujarati, D., & Porter, D. (2003). Multicollinearity: What happens if the regressors are correlated? *Basic econometrics*, 11, 363.
- Jalilian, H., & Kirkpatrick, C. (2002). Financial development and poverty reduction in developing countries. *International journal of finance & economics*, 7(2), 97-108. <https://doi.org/10.1002/ijfe.179>
- Keho, Y. (2017). Financial development and poverty reduction: evidence from selected African countries. *International journal of financial research*, 8(4), 90-98. <https://doi.org/10.5430/ijfr.v8n4p90>
- Law, S. H., Azman-Saini, W., & Ibrahim, M. H. (2013). Institutional quality thresholds and the finance-growth nexus. *Journal of Banking & Finance*, 37(12), 5373-5381. <https://doi.org/10.1016/j.jbankfin.2013.03.011>
- Law, S. H., & Habibullah, M. S. (2009). The determinants of financial development: Institutions, openness and financial liberalization. *South African Journal of Economics*, 77(1), 45-58. <https://doi.org/10.1111/j.1813-6982.2009.01201.x>
- Lee, H.-Y., Tseng, H.-Y., Mao, Q., Huang, J.-B., Lu, Y.-D., Singh, M., & Yang, M.-H. (2020). Drit++: Diverse image-to-image translation via disentangled representations. *International Journal of Computer Vision*, 128, 2402-2417. <https://doi.org/10.1007/s11263-019-01284-z>
- Maliki, S., & Benghalem, A. (2019, October). Feedback effects of Entrepreneurship, Innovation, and Economic Development: Empirical evidence from selected MENA Countries. *In Proceedings of The World Conference on Management and Economics. Frankfurt*.
- Milgrom, P. R., North, D. C., & Weingast*, B. R. (1990). The role of institutions in the revival of trade: The law merchant, private judges, and the champagne fairs. *Economics & Politics*, 2(1), 1-23. <https://doi.org/10.1111/j.1468-0343.1990.tb00020.x>
- Mohammadi-Sartang, M., Babajafari, S., Kohansal, A., Rostami, H., Pourmahmoudi, A., & Sohrabi, Z. (2023). Effects of daily functional acorn cake consumption on insulin resistance in individuals with obesity or overweight and the

- metabolic syndrome: a placebo-controlled randomized clinical trial. *British Journal of Nutrition*, 129(7), 1142-1150.
- Sahay, M. R., Cihak, M., N'Diaye, M. P., Barajas, M. A., Mitra, M. S., Kyobe, M. A., ... & Yousefi, M. R. (2015). *Financial inclusion: can it meet multiple macroeconomic goals?*. International Monetary Fund.
- Samargandi, N., Fidrmuc, J., & Ghosh, S. (2015). Is the relationship between financial development and economic growth monotonic? Evidence from a sample of middle-income countries. *World development*, 68, 66-81. <https://doi.org/10.1016/j.worlddev.2014.11.010>
- Semykina, A., & Wooldridge, J. M. (2010). Estimating panel data models in the presence of endogeneity and selection. *Journal of Econometrics*, 157(2), 375–380. <https://doi.org/10.1016/j.jeconom.2010.03.039>
- Werdati, F., Darmawan, D., & Solihah, N. R. (2020). The role of remuneration contribution and social support in organizational life to build work engagement. *Journal of Islamic Economics Perspectives*, 1(2), 20-32. <https://doi.org/10.35719/jiep.v1i2.24>

Publisher's Note: CRIBFB stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



© 2024 by the authors. Licensee CRIBFB, U.S.A. This open-access article is distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

Bangladesh Journal of Multidisciplinary Scientific Research (P-ISSN 2687-850X E-ISSN 2687-8518) by CRIBFB is licensed under a Creative Commons Attribution 4.0 International License.