

Original Article

# Inclusive Finance and Multidimensional Poverty Reduction in ASEAN: The Role of Financial Institution and Market Access

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Received Date: 24 May 2026

Revised Date: 08 June 2026

Accepted Date: 14 June 2026

Published Date: 18 June 2026

**Abstract:** This study examines the role of financial development in reducing multidimensional poverty in selected ASEAN countries with low to moderate levels of financial development, namely Indonesia, Malaysia, Thailand, the Philippines, Vietnam, Laos, Cambodia, Timor-Leste, and Myanmar. Using panel data from 2010 to 2024, this research analyzes several dimensions of financial development, including the Financial Inclusion Index, Financial Institution Access Index, and Financial Market Access Index, alongside GDP as a macroeconomic control variable. Multidimensional poverty is measured using the Multidimensional Poverty Index, Headcount Ratio, Income Poverty Gap, and Income Headcount Ratio. The Generalized Method of Moments is employed to address potential endogeneity, dynamic effects, and heterogeneity across countries. The findings indicate that access to financial institutions significantly reduces multidimensional poverty in both the short and long run, while broader financial inclusion has a significant effect only in the long run. In contrast, financial market access does not show a significant poverty-reducing effect. The results suggest that inclusive and institution-based financial development is more effective than market-oriented financial expansion in addressing structural poverty in ASEAN.

**Keywords:** Financial Inclusion, Financial Development, Financial Institution Access, Multidimensional Poverty, ASEAN Economies.

## I. INTRODUCTION

Global poverty measurement has evolved from an income-based approach to a multidimensional approach that encompasses multiple dimensions. The Multidimensional Poverty Index (MPI) introduced by Alkire & Santos (2010) is the main reference in identifying various dimensions of deprivation, including health, education, and living standards. This means that the multidimensional approach not only captures poverty in terms of income but also through service and economic opportunity access (Alkire et al., 2020; Benevenuto & Caulfield, 2020; Beech et al., 2021).

According to this paradigm shift, modern literature seeks financial development as one of the drivers for curtailing multidimensional poverty (Demirgüç-Kunt et al., 2020; Sahay et al., 2020). It is assumed that opening access to inclusive financial services can increase individual capabilities in the planning of consumption, investing in education and health sectors, as well as reducing vulnerability to economic shocks. However, there is a gap because there is still a treatment of financial development as a whole, without dissecting the specific roles of its various dimensions, such as access to financial institutions compared to access to financial markets (World Bank, 2022a).

Theoretical and empirical views show that inclusive financial development, especially in rural areas, can boost economic growth and improve income distribution through the “trickle-down effect” mechanism (Beck et al., 2007). On the other hand, limitations in financial development increase economic and social disparities between regions, thus hampering poverty alleviation (Leyshon & Thrift, 1995; Kempson & Whyley, 1999). In addition, several studies have noted that inclusive finance has different impacts on poor groups; the greatest benefits are obtained by low-poverty families, while its effects on very poor families are less significant (Kondo et al., 2008; Khaki & Sangmi, 2017).

On the other hand, empirical evidence shows mixed results. Various studies that received wide recognition have proved that the proof of inclusive financial sector development led to a reduction of multidimensional poverty, making it more pronounced among the productive age population living in rural areas (Yang & Fu, 2019). For instance, the relationship between financial development and what causes poverty is not always straightforward, as with some dimensions of financial sector expansion, indeed worsens income inequality and thus increases poverty (de Haan et al., 2022). Previous studies also indicate that improved financial inclusion of parents is associated with a reduction in multidimensional child poverty, primarily through improvements in housing quality and, to a lesser extent, health and education (Koomson et al., 2023). In contrast, financial crises can mean catastrophic setbacks for progress in poverty reduction; gains made at great cost may be wiped out. Similarly, financial crises were linked to an increase of 10% in extreme poverty levels and a decrease of 17.72% in the government budget allocation for the education sector (Antoniades et al., 2019) among low-income countries.



In the case of ASEAN, this phenomenon can be seen, given that even though on aggregate the multidimensional poverty is continuing on a declining trend, inequality between regions and social groups remains high (ASEAN Secretariat 2023). Laos, Cambodia, Myanmar and Timor-Leste all lag badly behind in financial inclusion and poverty reduction versus Malaysia and Thailand (ADB, 2023; OECD, 2022). This condition implies that the inclusive dimension of financial development is on the same footing as social and economic inequality.

Moreover, the ongoing uncertainty in the global economy post-COVID-19 reinforces the need to deeply understand how finance impacts multidimensional poverty. In many ASEAN economies, the health and economic crises have deepened existing financial vulnerabilities while also showing how a robust and inclusive financial infrastructure can underpin citizens' welfare (IMF, 2023; World Bank, 2022b).

Reviewed by these issues, the objective of this study is to find out how financial development affects multidimensional poverty dynamics in low & medium finance developing ASEAN countries during 2010–2024. Through the provision of recent empirical evidence on how different aspects of financial development, both with respect to access to financial institutions and access to financial markets, affect our various measures of multidimensional poverty, this study helps fill a significant gap in the literature.

## II. LITERATURE REVIEW

### A) *Financial Development and Economic Growth*

Financial development and economic growth are closely related, where financial intermediation serves to drive economic growth by increasing returns on invested capital (Greenwood & Jovanovic, 1989). This relationship has the potential to produce various equilibrium conditions, where less developed financial markets tend to limit the use of specialized and productive technologies, while developed markets support specialization and increased productivity (Saint-Paul, 1992). The process of financial sector development is characterized by the growth in the number of financial institutions and the increase in financial assets relative to Gross National Product (GNP), which is driven by the increasing demand for financial services as the economy develops (Patrick, 1966).

In addition, financial integration between countries with different levels of financial market development can contribute to global imbalances, where more developed markets tend to accumulate foreign liabilities in the long term (Mendoza et al., 2009). This process also has an impact on the distribution of wealth, with the potential to widen the gap between the rich and the poor during the transition phase towards a developed economy (Greenwood & Jovanovic, 1989).

### B) *Financial Development, Economic Growth, and Multidimensional Poverty*

Beck et al. (2007) assert that financial sector development not only accelerates aggregate economic growth but also specifically improves the welfare of the poor and reduces income inequality. This study finds that about 40% of the long-run impact of financial development on income growth in the bottom quintile comes from reduced inequality, while 60% comes from increased economic growth in general (Beck et al., 2007).

Using cross-country data and dynamic panel estimates, they show that financial development (measured by private credit to GDP) is negatively related to growth in the Gini coefficient and positively affects the growth of the income share of the poorest quintile. That is, finance not only accelerates growth but also distributes the benefits of growth to the lower-income group. This finding remains consistent even after controlling for variables such as education, inflation, trade openness, and average income growth.

Furthermore, the study shows that financial development is also correlated with a reduction in absolute poverty (people living on less than \$1 a day), and about half of the poverty reduction effect comes from reduced inequality (Beck et al., 2007). Thus, they emphasize the importance of financial sector reform as an alternative poverty alleviation policy that does not involve direct redistribution, but is still effective in reducing inequality and improving the welfare of the poor.

## III. METHOD

### A) *Data*

This study uses secondary data in the form of panel data, which combines time series data (2010–2024) and cross-sections from 9 countries in Southeast Asia. Indonesia, Malaysia, Thailand, the Philippines, Vietnam and briefer mentions of Laos, Cambodia, timor leste and Myanmar. The choice of panel data is mainly to circumvent the shortcomings of one-dimensional data, which allows for a multidimensional approach to observing variables from the perspective of countries and periods separately. The period of the research was determined according to the availability of data on multidimensional poverty, but is also in line with the start date of elimination programs for multidimensional poverty via the first goal in the Sustainable Development Goals (SDGs) of 2015. To ensure validity and enhance reliability in the data used, all of the data were drawn from official sources, namely: the World Bank and the International Monetary Fund (IMF). This also enables research to explore more precisely differences in terms of income, economic strength and development hurdles faced by developing countries.

**B) Model Specifications**

This study aims to analyze the relationship between financial development and multidimensional poverty. Based on the World Bank’s identification, financial development is measured through four main indicators, namely financial depth, access to financial services, financial system efficiency, and financial stability. The concept of this study is designed in an economic model that functions to simplify the relationship between observed empirical phenomena and the underlying theoretical framework. The following is the economic model built in this study.

Model 1:

$$MPI_{i,t} = f(FII_{1,i,t}, FIAI_{2,i,t}, FMAI_{3,i,t}, GDP_{4,i,t}) \tag{1}$$

Model 2

$$HCR_{i,t} = f(FII_{1,i,t}, FIAI_{2,i,t}, FMAI_{3,i,t}, GDP_{4,i,t}) \tag{2}$$

Model 3

$$IPG_{i,t} = f(FII_{1,i,t}, FIAI_{2,i,t}, FMAI_{3,i,t}, GDP_{4,i,t}) \tag{3}$$

Model 4

$$IHCR_{i,t} = f(FII_{1,i,t}, FIAI_{2,i,t}, FMAI_{3,i,t}, GDP_{4,i,t}) \tag{4}$$

After obtaining the economic model, the equations are transformed into an econometric model, so that the following econometric equations are obtained:

Model 1

$$MPI_{i,t} = \alpha_0 + \beta_1 FII_{1,i,t} + \beta_2 FIAI_{2,i,t} + \beta_3 FMAI_{3,i,t} + \beta_4 GDP_{4,i,t} + \varepsilon_{i,t} \tag{5}$$

Model 2

$$HCR_{i,t} = \alpha_0 + \beta_1 FII_{1,i,t} + \beta_2 FIAI_{2,i,t} + \beta_3 FMAI_{3,i,t} + \beta_4 GDP_{4,i,t} + \varepsilon_{i,t} \tag{6}$$

Model 3

$$IPG_{i,t} = \alpha_0 + \beta_1 FII_{1,i,t} + \beta_2 FIAI_{2,i,t} + \beta_3 FMAI_{3,i,t} + \beta_4 GDP_{4,i,t} + \varepsilon_{i,t} \tag{7}$$

Model 4

$$IHCR_{i,t} = \alpha_0 + \beta_1 FII_{1,i,t} + \beta_2 FIAI_{2,i,t} + \beta_3 FMAI_{3,i,t} + \beta_4 GDP_{4,i,t} + \varepsilon_{i,t} \tag{8}$$

In this study, multidimensional poverty is measured using the Multidimensional Poverty Index (MPI), Headcount Ratio (HCR), Income Poverty Gap (IPG), and Income Headcount Ratio (IHCR). This study also combines financial development indicators such as the Financial Inclusion Index (FII), Financial Institution Access Index (FIAI), Financial Market Access Index (FMAI), and Gross Domestic Product (GDP).

**IV. RESULTS AND DISCUSSION**

This section presents the results of descriptive analysis of the main variables used in the study. Descriptive statistics describe the data characteristics, such as mean, max, and min. standard deviation, number of observations, etc. The variables Multidimensional Poverty Index (MPI), Headcount Ratio (HCR), Income Poverty Gap (IPG), Income Headcount Ratio (IHCR): Financial Inclusion Index (FII); Financial Institution Access Index (FIAI); Financial Market Access Index (FMAI), and Gross Domestic Product (GDP) show different levels of variation as shown in Table 1. These values result from the diversity of socio-economic conditions existing among the regions that are the units of analysis of this study.

**Table 1: Statistical Descriptive**

Variable	MPI	HCR	IPG	IHCR	FII	FIAI	FMAI	GDP
Mean	12.83131	14.10667	4.578519	12.53926	8.09526	0.239754	0.2207997	4.449095
Maks	69.6	69.2	23.2	42.2	11.57966	0.647521	0.5851049	31.72574
Min	-1.02	-2.84e-14	0	0	0	0.0183585	0	-20.58424
Std. Dev	16.93238	16.10215	5.558174	9.743049	3.266728	0.1675129	0.2025226	5.746703
Obs.	135	135	135	135	135	135	135	135

Table 1 presents descriptive statistics of the variables used in this study. All variables have the same number of observations, namely 135 observations. In general, the average value of MPI is 12.83 with a standard deviation of 16.93, which indicates that the data variation is quite large, and the standard deviation exceeds the average value. This value indicates the existence of inequality in the level of multidimensional poverty between observation units. A similar pattern is also seen in HCR, with an average of 14.11 and a standard deviation of 16.10, reinforcing the existence of a wide distribution of data in the proportion of the poor population according to the headcount definition. In IPG and IHCR, the averages are 4.58 and 12.54, respectively, with standard deviations of 5.56 and 9.74. The standard deviation values that are close to or smaller than the average in these two indicators indicate that the data variation is relatively moderate compared to MPI and HCR.

The FII variable shows an average of 8.10 with a standard deviation of 3.27, which means that the distribution of access to financial inclusion is more concentrated around the average value. FIAI and FMAI have relatively low averages (0.24 and 0.22, respectively) with small standard deviations (0.17 and 0.20), indicating a tight data distribution and relatively small inequality in terms of access to financial institutions and financial markets. Meanwhile, the GDP variable has an average of 4.45 and a standard deviation of 5.75. A standard deviation larger than the average indicates high variation in the level of economic output across observations, which may reflect significant differences in the level of economic development.

**A) Estimation Results**

Before estimating the model, the first step that needs to be done is to ensure that the data used is stationary. Stationary data is important to avoid spurious regression, which can cause the research conclusion to be invalid. Therefore, a stationarity test was conducted on all variables used, both at the level and at the first difference, with a significance level of 5%. The results of the stationarity test are presented in Table 2.

**Table 2: Stationarity Test Results**

Variable	Level	1 <sup>st</sup> Difference
	P-Value	P-Value
MPI	0.7263	0.0424*
HCR	0.6283	0.0098*
IPG	0.3145	0.0193*
IHCR	0.5298	0.0304*
FII	0.6814	1.0000
FIAI	0.0053*	0.0000*
FMAI	0.6856	0.0023*
GDP	0.0000*	0.0000*

*Note: \*) stationary at 5% level*

Based on the results of the stationarity test, the MPI, HCR, IPG, IHCR, FII, and FMAI variables are not stationary at the level because they have a p-value above 0.05. However, after differencing once, these variables become stationary, as indicated by a p-value below 0.05. In contrast, the FIAI and GDP variables have shown stationary properties at the level with p-values of 0.0053 and 0.0000, respectively. This condition indicates that the two variables do not require further transformation to achieve stationarity.

But it is important to note that the FII variable stays non-stationary after one differencing with a p-value of 1.0000. We find that this is a sign of non-stationarity in these variables and thus require different treatment, whether through some further transformation or an alternative approach. In general, the outputs from this stationarity test show that the majority of variables fulfil the conditions to be analysed in their first differences, so that the econometric model, which will be set out, can provide estimates on sound foundations based on it.

Results and Discussion 3.1 System GMM Model 1 Estimation of Determinants of Short- And Long-Term Indices Tables 3 show the estimation results of our system GMM model on short- and long-term determinants, which potentially drive the MPI respectively. The Wald test results indicate the goodness of fit (Wald chi-square = 5813.83, Prob - > Chi2 = 0.0000), meaning that the independent variables affected MPI as a joint effect at 5% significant level.

**Table 3: Estimation Results of System GMM Model 1 in the Short Term and Long Term**

Variable	Short Term				Long Term			
	Coefficient	Robust Std. Err.	Z-statistic	P> z	Coefficient	Std. Err.	Z-statistic	P> z
MPI	0.6350466	0.2462774	2.58	0.010*				
FII	-1.604539	1.364097	-1.18	0.239	-4.396558	1.173406	-3.75	0.000*
FIAI	-21.09754	9.580634	-2.20	0.028*	-57.80887	21.09638	-2.74	0.006*
FMAI	9.205027	6.976168	1.32	0.187	25.22247	27.96609	0.90	0.367
GDP	0.0603749	0.0290185	2.08	0.037*	0.1654318	0.0491068	3.37	0.001*
Wald chi2					5813.83			
Prob > chi2					0.0000			

*Note: Statistical significance at the \*) 5% level*

In the short term, several variables were found to have a significant effect on MPI. The financial institution access index (FIAI) variable has a negative and significant effect on MPI, with a coefficient of -21.0975 (p-value = 0.028), indicating that an increase in FIAI decreases the level of MPI. In other words, improvements in FIAI contribute to a decrease in multidimensional poverty in the short term. In addition, GDP has a significant positive effect on MPI, with a coefficient of 0.0604 (p-value =

0.037). However, the positive effect of GDP on MPI needs to be analyzed further, because theoretically an increase in GDP is usually associated with a decrease in poverty; this result may indicate an unequal distribution of economic growth. The financial inclusion index (FII) and financial market access index (FMAI) variables do not show a significant effect on MPI in the short term because the p-value is above 0.05.

In the long term, the estimation results show that the financial inclusion index (FII) has a negative and significant effect on MPI with a coefficient of -4.3966 (p-value = 0.000), indicating that an increase in FII substantially reduces the level of multidimensional poverty in the long term. FIAI also has a negative and significant effect on MPI with a coefficient of -57.8087 (p-value = 0.006), strengthening the short-term results that increasing access to financial institutions plays an important role in reducing poverty. Meanwhile, GDP in the long term shows a positive and significant effect on MPI with a coefficient of 0.1654 (p-value = 0.001). In the short term, these results indicate that economic growth has not been fully distributed in reducing multidimensional poverty. The FMAI variable still has no significant effect on MPI in the long term.

**Table 4: First Difference GMM Model 2 Estimation Results in the Short and Long Term**

Variable	Short Term				Long Term			
	Coefficient	Robust Std. Err.	Z-statistic	P> z	Coefficient	Std. Err.	Z-statistic	P> z
HCR	0.4382454	0.2799956	1.57	0.118				
FII	-2112796	0.2771914	-0.76	0.446	-1.067761	1.189417	-0.90	0.369
FIAI	-40.38831	29.32991	-1.38	0.169	-8.943672	27.54969	-0.32	0.745
FMAI	-7.058774	32.38284	-0.22	0.827	-3.138359	23.02835	-0.14	0.892
GDP	0.120495	0.0288715	4.17	0.000*	0.5317094	0.6018618	0.88	0.377
Wald chi2	34.66							
Prob > chi2	0.0000							

Note: Statistical significance at the \*) 5% level

Table 4 presents the results of the First Difference GMM model estimation to analyze the effect of the financial inclusion index (FII), financial institution access index (FIAI), financial market access index (FMAI), and gross domestic product (GDP) on the headcount ratio (HCR), both in the short and long term. In the short term, the only variable that has a statistically significant effect on the poverty rate (HCR) is GDP. The coefficient of 0.120495 with a p-value of 0.000 (<0.05) indicates that an increase in GDP is positively and significantly associated with HCR. This result indicates that in the short term, an increase in GDP is actually followed by an increase in the poverty ratio, which may reflect the unequal distribution of the benefits of economic growth.

In the long term, none of the independent variables have a significant effect on HCR. The coefficients for FII, FIAI, and FMAI remain negative, but with high p-values (0.369, 0.745, and 0.892, respectively), indicating no statistical evidence supporting the long-term effect of financial inclusion on poverty reduction. Similarly, GDP has a positive coefficient of 0.5317094, but is not statistically significant (p = 0.377). Meanwhile, the Wald chi-square value of 34.66 with a probability of 0.0000 indicates that the overall model is significant and able to explain variations in the dependent variable.

**Table 5: First Difference GMM Model 3 Estimation Results in the Short and Long Term**

Variable	Short Term				Long Term			
	Coefficient	Robust Std. Err.	Z-statistic	P> z	Coefficient	Std. Err.	Z-statistic	P> z
IPG	0.5945185	0.2255094	2.64	0.008*				
FII	0.1154159	0.1635634	0.71	0.480	-3.21601	.3448833	-0.93	0.351
FIAI	-16.86206	14.79613	-1.14	0.254	-3.404242	7.7678	-0.44	0.661
FMAI	-1.266006	10.06385	-0.13	0.900	-3.622652	6.613367	-0.05	0.956
GDP	0.0190112	0.0119716	1.59	0.112	0.1267184	0.1704785	0.74	0.457
Wald chi2	334.00							
Prob > chi2	0.0000							

Note: Statistical significance at the \*) 5% level

Table 5 presents the results of the Generalized Method of Moments (GMM) model estimation with the first difference approach to analyze the effect of the financial inclusion index and macroeconomic variables on the income poverty gap (IPG) in the short and long term. In the short term, only the IPG variable is statistically significant at the 5% significance level, with a coefficient value of 0.5945 and a probability value of 0.008. This indicates a poverty persistence effect: an increase in the IPG in the previous period significantly increases the IPG in the current period. Meanwhile, other independent variables such as the Financial Inclusion Index (FII), Financial Institution Access Index (FIAI), Financial Market Access Index (FMAI), and GDP do

not show statistical significance in the short term ( $P > |z| > 0.05$ ), although the direction of the FII and GDP coefficients is positive, while FIAI and FMAI are negative.

In the long term, no independent variables are statistically significant to the IPG. The probability values of all variables are greater than 0.05, indicating that the long-term effects of financial inclusion and GDP on the poverty income gap are not strong enough to be statistically distinguished from zero. The coefficients of FII and GDP show negative and positive directions, respectively, but are not significant, indicating that the long-run contribution of financial inclusion to poverty reduction is still not empirically confirmed in this model.

**Table 6: First Difference GMM Model 4 Estimation Results in the Short and Long Term**

Variable	Short Term				Long Term			
	Coefficient	Robust Std. Err.	Z-statistic	P> z	Coefficient	Std. Err.	Z-statistic	P> z
IHCR	0.6065206	0.2642818	2.29	0.022*				
FII	0.126188	0.169688	0.74	0.457	-0.6959551	0.7765532	-0.90	0.370
FIAI	-22.17835	19.67202	-1.13	0.260	-11.14722	17.61384	-0.63	0.527
FMAI	40.59153	26.28735	1.54	0.123	10.97826	14.72825	0.75	0.456
GDP	0.0702708	0.0105649	6.65	0.000*	0.3450406	0.3824039	0.90	0.367
Wald chi2	58.73							
Prob > chi2	0.0000							

*Note: Statistical significance at the \*) 5% level*

Based on the estimation results, presented in Table 6, using the First Difference Generalized Method of Moments (GMM) model, this study found that the influence of financial development indicators and economic growth on the income headcount ratio (IHCR) as a proxy for poverty showed differences between the short and long term. In the short term, IHCR has a coefficient of 0.6065 and is statistically significant at the 5% level ( $p\text{-value} = 0.022$ ), indicating persistence or dependence of current poverty on previous conditions. This indicates that the poverty rate is sustainable over time. Meanwhile, the variables Financial Inclusion Index (FII), Financial Institution Access Index (FIAI), and Financial Market Access Index (FMAI) showed an insignificant effect on IHCR, each with a  $p\text{-value}$  of 0.457; 0.260; and 0.123. Although FII and FMAI show positive coefficients, and FIAI is negative, statistically, all three are not strong enough to explain the decline in poverty in the short term. Interestingly, Gross Domestic Product (GDP) shows a positive coefficient of 0.0703 and is significant at the 1% level ( $p\text{-value} = 0.000$ ), which actually indicates that short-term economic growth is positively correlated with poverty levels. This can be interpreted as a phenomenon of growth without equity, where economic growth has not been evenly felt by all levels of society.

In the long term, there are no variables that have a significant effect on IHCR. The coefficients of FII, FIAI, and FMAI are -0.6959; -11.1472; and 10.9783, respectively, with high  $p\text{-values}$ , indicating that financial development indicators have not been able to provide a real long-term impact in reducing poverty. Likewise, GDP has a coefficient of 0.3454 but with a  $p\text{-value}$  of 0.367, which means it is not statistically significant. This model is also proven to be statistically significant overall, as indicated by the Wald chi-square value of 58.73 and a  $p\text{-value}$  of 0.0000.

**B) Discussion**

The estimation results of this study indicate that the relationship between financial development, economic growth, and multidimensional poverty in the ASEAN region is complex and not entirely linear. In the short term, access to financial institutions (Financial Institution Access Index/FIAI) is shown to have a negative and significant effect on the multidimensional poverty index (MPI), while in the long term, both FIAI and the general financial inclusion index (FII) show a significant negative effect on the MPI. This finding is in line with research by Beck et al. (2007) and Yang & Fu (2019), which emphasize that strengthening the financial sector, especially in terms of access to formal financial institutions, plays an important role in reducing multidimensional poverty. Access to formal financial services reduces the likelihood of falling into poverty and increases the chances of escaping it (Bettin et al., 2023). It also contributes to income convergence over time, particularly benefiting low-income households (Ibrahim & Aliero, 2020).

The variable of access to financial markets (Financial Market Access Index/FMAI) did not show a significant effect on multidimensional poverty in all models, both in the short and long term. This finding supports the opinion of Kondo et al. (2008) and Khaki & Sangmi (2017), who stated that the benefits of financial markets have not been reached by poor households, especially in rural and low-income areas. This is due to the complexity of financial products in the capital market that do not meet the basic needs of the poor, as well as the lack of literacy and trust in the formal financial system in this segment.

One of the most interesting results of this study is the finding that GDP has a significant positive relationship with various poverty indicators (MPI, HCR, IHCR) in the short term. This finding contradicts conventional economic growth theory which

states that increasing economic output should reduce poverty levels. On the contrary, this result indicates the phenomenon of growth without equity, namely when economic growth benefits high-income groups more without having a significant impact on the poor (de Haan et al., 2022; Antoniadou et al., 2019). This condition is also consistent with the view of Leyshon & Thrift (1995), who emphasized that the expansion of the financial sector without distributive justice can increase economic inequality. In some ASEAN countries, the economy is growing though the formal and urban sectors are increasingly capturing economic benefits while poor (marginalized) groups in remote areas fall further behind.

The statistical significance of the lags term in the GMM model suggests a persistence effect of poverty that reinforces the hypotheses about the structural and chronic nature of poverty. This indicates that people, or households facing poverty in one period, are highly likely to be poor in the next period. This is consistent with the results reported by Koomson et al (2023). A set of configurations with family financial resilience at the core as an important ingredient for breaking intergenerational poverty. However, this model also indicates that in the long term, most financial indicators are not strong enough to explain poverty reduction if not accompanied by more specific policies that focus on vulnerable groups.

## V. CONCLUSION

This study highlights the complexity of the relationship between financial development and multidimensional poverty in the ASEAN region. Although several indicators of financial inclusion, especially access to financial institutions (FIAI), show significant effects on poverty reduction in the short and long term, these findings do not necessarily indicate the total effectiveness of existing financial strategies. On the contrary, not all dimensions of financial development have significant impacts, and in some cases, economic growth (GDP) is positively correlated with poverty increases, a phenomenon that indicates “growth without equity”.

These results show that macroeconomic development and financial sector expansion have not touched the structural roots of poverty. The absence of significant long-term effects of many financial indicators, especially on the headcount ratio (HCR) and income poverty gap (IPG), indicates that generic financial policies that do not directly target vulnerable groups have the potential to fail to reduce persistent poverty. Furthermore, the findings on poverty persistence also suggest that poverty alleviation efforts must not only be proactive but also intergenerational.

Thus, this research challenges the classical assumption that a growing financial sector will automatically have a positive impact on the poor. Going forward, a financial development approach is needed that is not only spatially and sectorally inclusive but also socially just, by targeting the roots of structural vulnerability, such as low financial literacy, geographic isolation, and digital inequality, as part of policy design.

The findings of this study show that the eradication of poverty cannot depend on economic growth or expansion of financial services only, but instead should be directly targeted at socio-economic beneficiaries with such strategies as extended access to microfinance, capitalisation and reforming local accounts establishment and provision, alongside a reduction in policy impacts. Hence, these results are consistent with the pro-poor financial deepening narrative in our literature that tends to argue for financial instruments focused on enhancing the social mobility of the most vulnerable groups (Demirgüç-Kunt et al, 2003). (2020) and Sahay et al. (2020).

## VI. REFERENCES

- [1] S. Alkire and M. E. Santos, *Acute Multidimensional Poverty: A New Index for Developing Countries*. 2010.
- [2] S. Alkire, U. Kanagaratnam, and N. Suppa, “The Global Multidimensional Poverty Index (MPI),” *Pak. Dev. Rev.*, no. 4, pp. 287–299, 2020.
- [3] R. Benevenuto and B. Caulfield, “Measuring access to urban centres in rural Northeast Brazil: A spatial accessibility poverty index,” *J. Transp. Geogr.*, vol. 82, no. January 2019, 2020, doi: 10.1016/j.jtrangeo.2019.102553.
- [4] B. M. Beech, C. Ford, R. J. Thorpe, M. A. Bruce, and K. C. Norris, “Poverty, Racism, and the Public Health Crisis in America,” *Front. Public Heal.*, vol. 9, no. September, pp. 1–9, 2021, doi: 10.3389/fpubh.2021.699049.
- [5] A. Demirgüç-Kunt, L. Klapper, D. Singer, S. Ansar, and J. Hess, “The Global Findex Database 2017: Measuring Financial Inclusion and Opportunities to Expand Access to and Use of Financial Services,” *World Bank Econ. Rev.*, vol. 34, no. 0, pp. S2–S8, 2020, doi: 10.1093/wber/lhz013.
- [6] R. Sahay, A. Allmen, Ulric Eriksson von Lahreche, P. Khera, S. Ogawa, M. Bazarbash, and K. Beaton, *The Promise of Fintech; Financial Inclusion in the Post COVID-19 Era*, no. 20. 2020. [Online]. Available: [https://econpapers.repec.org/paper/imfifmfdps/2020\\_2f009.htm%0D](https://econpapers.repec.org/paper/imfifmfdps/2020_2f009.htm%0D)
- [7] World Bank, *A World Bank Group Flagship Report FINANCE FOR AN EQUITABLE RECOVERY*. 2022.
- [8] T. Beck, A. Demirgüç-Kunt, and R. Levine, “Finance, inequality and the poor,” *J. Econ. Growth*, vol. 12, no. 1, pp. 27–49, 2007, doi: 10.1007/s10887-007-9010-6.
- [9] A. Leyshon and N. Thrift, “Geographies of Financial Exclusion: Financial Abandonment in Britain and the United States,” *Trans. Inst. Br. Geogr.*, vol. 20, no. 3, p. 312, 1995, doi: 10.2307/622654.
- [10] E. Kempson and C. Whyley, “Kept Out or Opted Out? Understanding and Combating Financial Exclusion,” *Univ. Bristol Policy Press*, p. 56, 1999.
- [11] T. Kondo, A. Orbeta, C. D. Jr., and C. Infantado, “Impact of Microfinance on Rural Households in the Philippines,” *World Dev.*, vol. 36, no. 11, pp. 2440–2455, 2008, doi: 10.1016/j.worlddev.2008.04.004.
- [12] A. R. Khaki and M. U. D. Sangmi, “Does access to finance alleviate poverty? A case study of SGSY beneficiaries in Kashmir Valley,” *Int. J. Soc. Econ.*, vol. 44, no. 8, pp. 1032–1045, 2017, doi: 10.1108/IJSE-10-2015-0277.
- [13] Y. Yang and C. Fu, “Inclusive financial development and multidimensional poverty reduction: An empirical assessment from rural China,” *Sustain.*, vol. 11, no. 7, 2019, doi: 10.3390/su11071900.

- [14] J. de Haan, R. Pleninger, and J. E. Sturm, "Does Financial Development Reduce the Poverty Gap?," *Soc. Indic. Res.*, vol. 161, no. 1, pp. 1–27, 2022, doi: 10.1007/s11205-021-02705-8.
- [15] I. Koomson, R. E. Kofinti, and E. Laryea, "Financial Inclusion and Multidimensional Child Poverty," pp. 1–24, 2023.
- [16] A. Antoniadis, I. Widiarto, and A. S. Antonarakis, "Financial crises and the attainment of the SDGs: an adjusted multidimensional poverty approach," *Sustain. Sci.*, vol. 15, no. 6, pp. 1683–1698, 2019, doi: 10.1007/s11625-019-00771-z.
- [17] ASEAN Secretariat, "ASEAN Key figures 2023," vol. 6, no. December, 2023.
- [18] ADB, "Asian Development Outlook (ADO) December 2023: Growth Upbeat, Price Pressures Easing," no. DECEMBER 2023, pp. 1–13, 2023.
- [19] OECD, *Economic Outlook for Southeast Asia, China and India 2022*. 2022.
- [20] IMF, *Regional Economic Outlook, Asia and Pacific, October 2023*. 2023. doi: 10.5089/9798400253591.086.
- [21] World Bank, *Poverty and Shared Prosperity 2022: Correcting Course*, vol. 24, no. 5. Washington, DC, 2022.
- [22] J. Greenwood and B. Jovanovic, "Financial Development, Growth, and the Distribution of Income," *J. Polit. Econ.*, vol. 98, no. 5, pp. 1076–1107, 1989.
- [23] G. Saint-Paul, "Technological choice, financial markets and economic development," *Eur. Econ. Rev.*, vol. 36, no. 4, pp. 763–781, 1992, doi: 10.1016/0014-2921(92)90056-3.
- [24] H. T. Patrick, "Growth Financial Development in Underdeveloped Countries," *Journals Uchicago*, pp. 174–189, 1966.
- [25] E. G. Mendoza, V. Quadrini, and J. V. Ríos-Rull, "Financial integration, financial development, and global imbalances," *J. Polit. Econ.*, vol. 117, no. 3, pp. 371–416, 2009, doi: 10.1086/599706.
- [26] G. Bettin, C. Pigini, and A. Zazzaro, "Lifting You up or Dragging You Down? The Role of Financial Inclusion in Poverty Transitions Among Italian Households," *Rev. Income Wealth*, vol. 69, no. 3, pp. 606–639, 2023, doi: 10.1111/roiw.12588.
- [27] S. S. Ibrahim and H. M. Aliero, "Testing the impact of financial inclusion on income convergence: Empirical evidence from Nigeria," *African Dev. Rev.*, vol. 32, no. 1, pp. 42–54, 2020, doi: 10.1111/1467-8268.12413.
- [28] R. Sahay et al., "Financial Inclusion: Can It Meet Multiple Macroeconomic Goals? Monetary," 2015.