

# The impact of migration on multidimensional poverty in rural Vietnam: the moderating role of social assistance

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## Abstract

**Purpose** – This article examines how migration influences multidimensional poverty in Vietnam and how social assistance moderates this relationship, aiming to contribute to the limited research on the impact of migration on multidimensional poverty and the regulatory role of social assistance in this context.

**Design/methodology/approach** – This study employs a Probit model for binary variables to analyze panel data from 2,800 rural households in Vietnam. The data were retrieved from the Vietnam Household Living Standards Survey (VHLSS) from 2016 to 2018.

**Findings** – The findings indicate that the presence of migrants in a household decreases the likelihood of the household experiencing multidimensional poverty, with migration playing a role in raising household incomes and alleviating deficiencies in education, living conditions and access to information. Furthermore, the analysis reveals that when migration is accompanied by social assistance, the probability of households falling into multidimensional poverty decreases significantly, particularly in health, housing, living conditions and income.

**Originality/value** – The study contributes to the literature by providing empirical evidence on the multidimensional poverty-reducing effects of migration and the regulatory role of social assistance in enhancing these effects. The findings offer practical implications for policymakers in designing targeted interventions and strengthening social assistance programs to optimize the poverty-alleviating potential of migration in Vietnam.

**Keywords** Multidimensional poverty, Migration, Social assistance, Vietnam

**Paper type** Research article

## 1. Introduction

The conceptualization of poverty has evolved significantly from a unidimensional focus on income to a more nuanced multidimensional understanding encompassing various aspects of human deprivation (Bourguignon and Chakravarty, 2019; Grigoryan *et al.*, 2024). This paradigm shift reflects a growing recognition that poverty manifests through multiple interrelated dimensions, including education, health, living conditions and access to essential services (Robano and Smith, 2013; Ngo *et al.*, 2024). Within this evolving framework, migration is a critical factor influencing multidimensional poverty outcomes, particularly in developing nations experiencing rapid socioeconomic transformation.

Recent research has highlighted migration's potential as a poverty reduction strategy, yet its impact on multidimensional poverty remains inadequately understood (Agza *et al.*, 2021; Mahendra, 2014). This knowledge gap is particularly evident in Vietnam, where internal migration has increased substantially, with the 2019 Population and Housing Census identifying 6.4 million migrants, representing 7.3% of the total population (GSO, 2019). While previous studies have demonstrated migration's positive effect on income poverty in

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Vietnam (Nguyen *et al.*, 2015; Le and Nguyen, 2019), research examining its impact on multidimensional poverty remains limited.

This study makes three significant contributions to the existing literature. First, it advances theoretical understanding by integrating migration dynamics with social assistance frameworks in multidimensional poverty. It introduces a novel conceptual framework explaining the moderating mechanisms through which social assistance influences migration outcomes. Second, it provides methodological innovation through empirical examination of these moderating effects using panel data, offering robust evidence of the complex interplay between migration, social assistance and multidimensional poverty. Third, it generates practical insights for policymakers by identifying specific pathways through which social assistance programs can optimize the poverty-reducing potential of migration.

The Vietnamese context offers a particularly relevant setting for this investigation. The country's rapid economic transformation and comprehensive social assistance programs provide an ideal laboratory for examining how institutional support mechanisms interact with migration decisions to affect multidimensional poverty outcomes. Recent evidence suggests that social assistance programs can significantly moderate the adverse effects of various socioeconomic challenges on rural households' multidimensional poverty in Vietnam (Ngo *et al.*, 2024). Yet, their role in the migration-poverty relationship remains unexplored.

This research contributes to scholarly understanding and policy development in poverty reduction by examining two critical research questions: How does migration affect the multidimensional poverty of rural households in Vietnam, and what is the magnitude of this impact? To what extent does social assistance moderate the relationship between migration and multidimensional poverty in rural Vietnamese households?

The remainder of this paper is structured as follows. Section 2 synthesizes theoretical frameworks and empirical evidence on migration, multidimensional poverty and social assistance, developing an integrated conceptual framework. Section 3 details the methodological approach and data characteristics, emphasizing the panel data analysis strategy. Section 4 presents empirical findings, while Section 5 discusses implications and concludes with policy recommendations.

## 2. Literature review and theoretical framework

### 2.1 The evolution of migration-poverty research: from unidimensional to multidimensional perspectives

The conceptualization and measurement of poverty have undergone a profound epistemological transformation over recent decades. Sen's (1976) seminal contribution initiated a paradigm shift in poverty measurement, establishing a two-component framework comprising poverty identification and aggregation methodologies. This foundational approach, while groundbreaking, primarily emphasized income-based metrics as the determinant of poverty status.

However, subsequent scholarly discourse has illuminated the inherent limitations of unidimensional poverty measurement (Drewnowski, 1977; Anand, 1977; Kakwani, 1980). The epistemic trajectory reveals that individuals above income-poverty thresholds may still experience significant deprivations across various life domains, including health services access, educational opportunities and environmental vulnerabilities (Sen, 1997; Bourguignon and Chakravarty, 2019). This recognition has catalyzed a transition toward multidimensional poverty frameworks that capture the intricate interplay of socioeconomic deprivations.

Contemporary scholarship increasingly positions migration as a critical determinant within this multidimensional poverty landscape. Transdisciplinary research suggests that migration functions as a complex socioeconomic strategy, simultaneously affecting multiple dimensions of household welfare (Agza *et al.*, 2021; Mahendra, 2014). Recent empirical evidence from developing economies demonstrates that the impact of migration extends beyond purely economic outcomes, influencing educational attainment, healthcare access and social capital formation (Nzabamwita and Ndhlovu, 2024).

This theoretical evolution holds particular significance in Vietnam's rapidly evolving socioeconomic context. While existing research has established migration's role in reducing income poverty (Nguyen *et al.*, 2015; Le and Nguyen, 2019), a critical research gap regarding its effects on multidimensional poverty persists. Recent findings from Vietnam suggest that institutional support mechanisms can significantly moderate the impact of socioeconomic challenges on rural households' multidimensional poverty (Ngo *et al.*, 2024); however, the specific interaction between migration and these support systems remains inadequately explored.

### *2.2 Migration and multidimensional poverty: theoretical linkages and empirical evidence*

Contemporary scholars conceptualize migration as the geographical movement of individuals, representing a complex socioeconomic strategy that households pursue to diversify income sources and mitigate livelihood vulnerabilities (Zhang, 2004; Cohen, 2006). The operationalization of migration in empirical research has evolved through various methodological approaches. While some scholars employ temporal thresholds, defining migrants as those absent from households for specified durations (Nguyen *et al.*, 2015), others adopt more nuanced categorical frameworks that differentiate between short-term and long-term migration patterns (Nguyen and Winters, 2011).

The epistemic trajectory reveals both direct and indirect benefits of migration for household welfare. Direct benefits primarily manifest through remittances and income stabilization, which can significantly reduce poverty in migrant-sending regions (Stark and Bloom, 1985; Ochoa *et al.*, 2014). Indirect benefits encompass enhancing social capital and improving living conditions for both migrants and their families (Borjas, 1989). Recent empirical evidence from Ethiopia demonstrates that migration can reduce multidimensional poverty by an average of 4.3%, significantly affecting household size and educational attainment (Agza *et al.*, 2021).

Transdisciplinary research from developing economies provides robust evidence of migration's multifaceted impact on poverty reduction. Studies from South Africa and Indonesia reveal that migration influences multiple dimensions of well-being, including education, health and living standards (Nzabamwita and Ndhlovu, 2024; Mahendra, 2014). This empirical pattern suggests that migration's poverty-reducing effects extend beyond purely economic domains.

In Vietnam's context, migration has emerged as a crucial poverty reduction strategy, with the 2019 Census identifying employment opportunities (28.26%) and life improvement (1.32%) as primary migration motivators (GSO, 2019). Multiple studies confirm migration's positive effect on reducing income poverty among rural Vietnamese households (Viet Cuong and Mont, 2012; Nguyen *et al.*, 2015). Notably, Nguyen and Nguyen (2015) demonstrated that remittances from both internal and international migration significantly enhanced educational attainment and health outcomes among children and adolescents in Vietnamese households, suggesting transmission mechanisms through which migration may reduce multidimensional poverty beyond purely economic channels. However, its impact on multidimensional poverty remains inadequately explored, leading to the following hypothesis:

- H1.* Migration significantly reduces multidimensional poverty in rural Vietnamese households through income enhancement, educational improvement and living conditions advancement.

### *2.3 Social assistance as a moderating mechanism: a theoretical framework*

Contemporary scholars conceptualize social assistance as a crucial element within social protection frameworks, encompassing programs and policies to ensure minimum living standards for vulnerable populations (ILO, 2001). From a theoretical perspective, social assistance represents an institutional mechanism that can modify and enhance the poverty-reducing effects of migration through multiple interconnected channels.

Drawing from recent theoretical advances and empirical evidence across developing economies, this study proposes a three-channel framework through which social assistance moderates the migration–poverty relationship. The first channel operates through income effects, whereby social assistance programs provide financial resources that enable more strategic migration decisions and reduce immediate poverty constraints. Evidence from Indonesia demonstrates how unconditional cash transfers increase households’ capacity to utilize migration as an effective poverty reduction strategy (Mahendra, 2014).

The second channel functions through risk mitigation, where social assistance is a safety net that reduces migration-related uncertainties. Recent research from China reveals that institutional reforms in social assistance systems significantly influence migration patterns by providing household fallback options (Li *et al.*, 2022). This risk mitigation effect appears particularly salient when migration decisions involve substantial uncertainty.

The third channel operates through capability enhancement, wherein social assistance programs expand households’ choices and opportunities. Studies from South Africa demonstrate how social grants enhance migrants’ access to essential services, including education and healthcare, thereby amplifying migration’s poverty-reducing potential (Nzabamwita and Ndhlovu, 2024). This capability enhancement effect aligns with Sen’s theoretical framework, emphasizing the importance of expanding individual and household choices.

Empirical evidence from Vietnam suggests that social assistance can effectively moderate the adverse effects of various socioeconomic challenges on rural households’ multidimensional poverty (Ngo *et al.*, 2024). Recent findings from Bangladesh and Armenia further support the moderating role of social assistance in poverty reduction, particularly for households with multiple initial deprivations (Grigoryan *et al.*, 2024; Robano and Smith, 2013). These empirical patterns lead to the following hypothesis:

- H2. Social assistance significantly enhances migration’s poverty-reducing effects through income effects, risk mitigation and capability enhancement.

#### *2.4 Synthesis and research hypotheses development*

Integrating migration dynamics with social assistance mechanisms in the context of multidimensional poverty represents a critical frontier in development research. Recent empirical evidence from multiple developing economies reveals the complex interplay between institutional support systems and migration outcomes (Nzabamwita and Ndhlovu, 2024; Li *et al.*, 2022). While existing literature independently establishes migration’s potential for poverty reduction and social assistance’s moderating capabilities, their interactive effects remain inadequately theorized, particularly in rapidly transforming economies such as Vietnam.

This theoretical synthesis yields two complementary hypotheses. First, this study posits that migration significantly reduces multidimensional poverty through multiple pathways (H1). Second, this study theorizes that social assistance enhances these poverty-reducing effects through three distinct channels: income effects, risk mitigation and capability enhancement (H2). The empirical investigation of these hypotheses contributes to the development theory by explicating the mechanisms through which institutional support systems modify migration outcomes. Furthermore, this research advances policy discourse by identifying specific pathways through which social assistance programs can optimize migration’s poverty-reducing potential in Vietnam’s distinctive socioeconomic context.

### **3. Data and methodology**

#### *3.1 Data characteristics and sample description*

The theoretical framework and previous empirical research on migration, multidimensional poverty and social assistance guide the selection of variables for this analysis. Migration status

is operationalized as a binary indicator capturing temporal displacement, consistent with established methodological approaches (Nguyen and Winters, 2011). This operationalization effectively captures both seasonal and longer-term migration patterns.

Multidimensional poverty measurement follows Vietnam's official guidelines (Decision No. 59/2015/QĐ-TTg), incorporating deprivations across five fundamental dimensions: education, health, housing, living conditions and access to information. This comprehensive approach aligns with contemporary scholarship advocating integrated poverty measurement frameworks (Bourguignon and Chakravarty, 2019; Ngo *et al.*, 2024).

Social assistance variables capture receipt status and program characteristics, following methodological precedents in comparative social policy research (Hölsch and Kraus, 2004; Nelson, 2013). Control variables include household demographic characteristics (size, dependency ratio, ethnicity), household head characteristics (gender, age, education, employment status) and economic activity type (agricultural vs. non-agricultural), which previous studies have identified as significant determinants of poverty outcomes in rural Vietnam.

This study employs panel data from the Vietnam Household Living Standards Survey (VHLSS) for 2016 and 2018, a comprehensive national dataset conducted by the General Statistics Office with World Bank support. The VHLSS represents a methodologically robust data-collection effort, encompassing over 9,000 households annually across 1,699 communes/wards in 63 provinces, providing representative coverage of both urban/rural areas and six socio-economic regions (Son and Yoon, 2020; Obermann *et al.*, 2021).

The analytical sample comprises 2,800 rural households, with 1,419 households surveyed in 2016 and 1,381 in 2018. The panel structure enables robust examination of temporal dynamics while controlling for unobserved household characteristics. Table 1 presents comprehensive descriptive statistics of key variables. The data reveal that 17.4% of sampled households experience multidimensional poverty, while 21.3% report at least one migrant member within the preceding 12 months. Approximately 28.7% of households receive social assistance, with an average of 0.64 assistance types per household.

The sample characteristics reflect Vietnam's rural socioeconomic landscape. The demographic composition indicates that 81.6% of households are male-headed, with an average household size of 4.2 members. The ethnic distribution shows 80.3% belonging to the Kinh majority group. Educational attainment among household heads exhibits significant variation: 23.8% completed primary education or less, 48.5% achieved lower secondary

**Table 1.** Summary statistics of key variables

Variable	Mean	Std. dev.	Min	Max
Multidimensional poverty	0.174	0.379	0	1
Migration	0.213	0.410	0	1
Social assistance	0.287	0.452	0	1
Household size	4.200	1.563	1	12
Dependency ratio	0.365	0.284	0	1
Male-headed household	0.816	0.388	0	1
Age of household head	48.700	13.821	18	96
Kinh ethnicity	0.803	0.398	0	1
Education of household head				
- Primary or less	0.238	0.426	0	1
- Lower secondary	0.485	0.500	0	1
- Upper secondary or higher	0.277	0.448	0	1
Employed household head	0.926	0.262	0	1
Agricultural household	0.582	0.493	0	1

**Source(s):** Author's calculations based on the household panel of VHLSS 2016 and 2018

education and 27.7% attained upper secondary education or higher. Employment patterns indicate that 92.6% of household heads are employed, with 58.2% of households primarily engaged in agricultural activities.

### 3.2 Measurement framework

The measurement framework operationalizes three key constructs: multidimensional poverty, migration status and social assistance. Following Vietnam's official multidimensional poverty guidelines (Decision No. 59/2015/QĐ-TTg), this study employs a comprehensive measurement approach that captures deprivations across five fundamental dimensions: education, health, housing, living conditions and access to information. Table 2 delineates the specific indicators and thresholds for each dimension.

**Table 2.** Indicators for determining multidimensional poverty

Dimension	Code	Indicator	Definition
Education	tc1	Education level of adults: Households with at least one member who is full 15 years of age, born in 1986 or later, does not graduate from middle school and is not currently attending school	tc = 1 if the household is in short supply, tc = 0 if the household is not in short supply
	tc2	School attendance of children: Households with at least one school-age child (5–14 years old) are not currently in school	
Health	tc3	Access to medical services: Households with people who are sick but do not go to medical examination and treatment (the illness is determined to be so sick/traumatized that they must lie in one place and must have a caregiver in the bed or leave work/study not to participate in everyday activities)	
	tc4	Health insurance: Households with at least one member 6 years of age or older currently do not have health insurance	
Housing	tc5	Housing quality: Households that are in an uncertified or simple house (Housing is divided into four levels: fortified, semi-solid, unsevering and simple houses)	
	tc6	Housing area per capita: Per capita housing area of households less than 8m <sup>2</sup>	
Living conditions	tc7	Domestic water source: Households do not have access to sanitation water	
	tc8	Sinkholes/toilets: Households do not use toilet holes/toilets	
Access to information	tc9	Use of telecommunications services: No household members use phones and internet subscribers	
	tc10	Assets for access to information: Households have none of the assets: Televisions, radios, computers and cannot hear the commune/village radio loudspeaker system	
Income poverty	P	Households are income poverty if households have incomes of less than VND 01 million/person/month	Poor = 1 if the household is poor, poor = 0 if the household is not poor

**Source(s):** Author's compilation based on Decision No. 59/2015/QĐ-TTg of the Prime Minister of the Socialist Republic of Vietnam

The multidimensional poverty classification integrates monetary and non-monetary indicators through a sophisticated dual-threshold approach. Households are classified as poor if their monthly per capita income falls below 700,000 VND or between 700,000 VND and 1,000,000 VND while experiencing deprivation in three or more basic social service indicators. This nuanced approach aligns with contemporary scholarship advocating integrated poverty measurement frameworks (Bourguignon and Chakravarty, 2019; Ngo *et al.*, 2024).

Migration status is operationalized through a binary indicator that captures household members' temporal displacement, consistent with established methodological approaches in migration studies (Nguyen and Winters, 2011). Specifically, households are classified as having migrants if any member resided outside the household for six or more months during the survey year, an approach that effectively captures both seasonal and longer-term migration patterns.

Social assistance measurement incorporates receipt status and program centralization, following methodological precedents established in comparative social policy research (Hölsch and Kraus, 2004; Nelson, 2013). This dual measurement approach enables the examination of both the presence and structural characteristics of social assistance interventions, providing a more nuanced understanding of institutional support mechanisms.

### 3.3 Empirical strategy

The empirical strategy employs a Probit model framework to examine the complex relationships between migration, social assistance and multidimensional poverty. This methodological choice aligns with contemporary studies on multidimensional poverty analysis (Das, 2019; Ataguba *et al.*, 2011) and addresses the binary nature of dependent variables while overcoming limitations inherent in linear probability models.

The analytical framework comprises two complementary models. The first examines the general relationship between migration and multidimensional poverty with social assistance moderation:

$$MP_{ijt} = \alpha_0 + \alpha_1 dicu_{ijt} + \alpha_2 HT_{ijt} + \alpha_3 dicu_{ijt} HT_{ijt} + \alpha_4 C_{ijt} + \varepsilon_{ijt} \quad (1)$$

The second model investigates the effects on specific poverty dimensions:

$$TC_{ijt} = \gamma_0 + \gamma_1 dicu_{ijt} + \gamma_2 HT_{ijt} + \gamma_3 dicu_{ijt} HT_{ijt} + \gamma_4 C_{ijt} + \varepsilon_{ijt} \quad (2)$$

where  $MP_{ijt}$  represents household  $i$ 's multidimensional poverty status in commune  $j$  at time  $t$ ;  $TC_{ijt}$  denotes specific poverty criteria;  $dicu_{ijt}$  indicates migration status;  $HT_{ijt}$  represents social assistance status and  $C_{ijt}$  encompasses control variables including household size, ethnicity and householder's age.

Model robustness is verified using the Hosmer–Lemeshow test, which examines the correspondence between estimated and observed values. The empirical results demonstrate that the probability values associated with the chi-square statistic exceed the conventional threshold of 0.05 across all model specifications, thereby confirming model appropriateness. This methodological approach enables precise estimation of direct effects and interaction terms while accounting for the non-linear nature of poverty outcomes.

The panel structure of the data enhances estimation efficiency and controls for unobserved heterogeneity, following Gujarati's (2004) argument that panel data improve both quantitative and qualitative aspects of empirical analysis. This approach facilitates the examination of inter-group variations while capturing temporal dynamics in the migration-poverty relationship.

These econometric models directly operationalize our research hypotheses through specific parameters. Hypothesis H1 (migration's negative effect on multidimensional poverty) is tested through the parameter  $\alpha_1$  in Equation (1) and parameters  $\gamma_1$  across various poverty

dimensions in Equation (2). Statistical significance and negative coefficients for these parameters would support our hypothesis that migration reduces multidimensional poverty.

Similarly, hypothesis H2 (social assistance's moderating role) is operationalized through the interaction term parameters  $\alpha_3$  and  $\gamma_3$  in Equations (1) and (2), respectively. Statistical significance and negative coefficients for these interaction terms would indicate that social assistance enhances migration's poverty-reducing effects, providing empirical support for our second hypothesis.

## 4. Results and discussion

### 4.1 The impact of migration on multidimensional poverty

The epistemic trajectory reveals a significant negative relationship between migration and multidimensional poverty (Table 3), with the regression coefficient ( $-0.3078$ ) achieving statistical significance at the 1% level. This empirical finding suggests that households with migrants experience a substantial reduction in their probability of experiencing multidimensional poverty, controlling for household characteristics including size, ethnicity and the household head's age.

Disaggregating this effect across specific poverty dimensions uncovers nuanced impact patterns (Table 4). The analysis reveals particularly strong effects on adult education, access to information and income poverty. These findings align with theoretical expectations regarding migration's capability-enhancing effects through knowledge transfer and income diversification. The results also indicate significant improvements in living conditions, particularly regarding sanitation facilities, suggesting migration's role in enhancing household infrastructure.

Within Vietnam's socioeconomic context, these findings acquire particular salience. Given that 21.3% of sampled households report migrant members and 17.4% experience multidimensional poverty (Table 5), the negative association between migration and poverty suggests an effective poverty reduction pathway. This pattern resonates with Vietnam's broader development trajectory, where internal migration has emerged as a crucial mechanism for rural household welfare enhancement (Nguyen *et al.*, 2015).

Comparative analysis of other developing economies reveals both commonalities and distinctions. The findings parallel evidence from Ethiopia, where migration reduced multidimensional poverty by 4.3% (Agza *et al.*, 2021) and align with results from Indonesia demonstrating migration's positive effects on household capabilities (Mahendra, 2014). However, the impact in Vietnam appears particularly pronounced in educational and informational dimensions, possibly reflecting the country's distinctive institutional context.

**Table 3.** Independent effects of migration on multidimensional poverty

Independent variables	Multidimensional poverty Coeff	Std. err.
Migration	$-0.307^{***}$	0.111
Household size	$0.064^{***}$	0.018
Ethnicity	$-1.110^{***}$	0.063
Householder's age	$0.000^{***}$	0.000
Constant	$-0.595^{***}$	0.111
Number of observations	2,800	
Prob > $\chi^2$	0.000	
Pseudo $r^2$	0.133	

**Note(s):** \*\*\* indicate statistical significance at 1%

**Source(s):** Author's calculations based on the household panel of VHLSS 2016 and 2018

**Table 4.** Effects of migration on each criterion in multidimensional poverty

Variable	Education		Health Access to medical services		Housing		Living conditions		Access to information		
	Education level of adults Coeff	School attendance of children Coeff	Health Access to medical services Coeff	Health insurance Coeff	Housing quality Coeff	Housing area per capita Coeff	Domestic water sources Coeff	Sinkhole/toilet Coeff	Use of telecommunication services Coeff	Assets for access to information Coeff	Income poverty Coeff
Migration Control variable	-0.3776***	-0.1423	0.1488	-0.0106	-0.0451	-0.0851	-0.0136	-0.2459***	-0.4206**	-0.2654*	-0.3077***
Constant	-1.5877***	-2.4405***	1.347***	-1.434***	-0.3899***	-2.4893***	-0.6544***	0.4282***	-0.8741***	-0.6868***	-0.5952***
Number of observations	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800
Prob > $\chi^2$	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo r2	0.1099	0.0958	0.0114	0.0738	0.062	0.1689	0.0049	0.1653	0.1700	0.0766	0.1339

**Note(s):** \*, \*\*, and \*\*\* indicate statistical significance at 10, 5, and 1%, respectively  
**Source(s):** Author's calculations based on the household panel of VHLSS 2016 and 2018

**Table 5.** The role of social assistance when considering the effect of migration on multidimensional poverty

Variable	Multidimensional poverty		
	Coeff	Std. err.	
Social assistance	Migration	4.695***	1.312
	Receiving assistance	-1.447***	0.222
	Centralization of support services	-3.710***	0.356
Migration x Social assistance	Migration x Receiving assistance	-2.719***	0.823
	Migration x Centralization of support services	-5.223***	1.302
Control variable	Household size	0.061***	0.018
	Ethnicity	-1.094***	0.064
	Householder's age	0.000***	0.000
Constant		-0.591***	0.111
Number of observations		2,800	
Prob > $\chi^2$		0.000	
Pseudo r2		0.141	

**Note(s):** \*\*\* indicate statistical significance at 1%

**Source(s):** Author's calculations based on the household panel of VHLSS 2016 and 2018

These findings contribute to theoretical understanding by demonstrating migration's multifaceted impact on poverty reduction, extending beyond purely economic effects to encompass broader capability enhancement. The results support Sen's capability approach while suggesting context-specific pathways through which migration influences different poverty dimensions.

#### 4.2 The moderating role of social assistance

The empirical analysis reveals compelling evidence of social assistance's moderating effect on the migration-poverty relationship. Both social assistance receipt and program centralization demonstrate statistically significant moderating effects, with interaction coefficients of -2.719 and -5.223, respectively. This finding suggests that social assistance enhances migration's poverty-reducing potential through multiple institutional channels.

The dimensional analysis uncovers differentiated moderating effects across poverty domains (Table 6). The interaction effect appears particularly pronounced in housing quality, per capita housing area and sanitation access. This pattern aligns with the theoretical framework's three-channel mechanism, whereby social assistance amplifies migration benefits through income effects, risk mitigation and capability enhancement.

These findings have significance within Vietnam's institutional context, where 28.7% of rural households receive social assistance (Table 1). The stronger moderating effect of program centralization compared to mere receipt status suggests that institutional design significantly determines policy effectiveness. This pattern aligns with comparative evidence from urban China, where Wang *et al.* (2019) demonstrated that the structural characteristics of social assistance programs, rather than merely their presence, substantively influenced household consumption outcomes across different socioeconomic strata. This cross-national consistency underscores the importance of institutional architecture in shaping social assistance efficacy throughout rapidly developing Asian economies.

Comparative analysis with other developing economies reveals commonalities and distinctions in moderation patterns. The findings parallel evidence from South Africa, where social grants enhance migrants' access to essential services (Nzabamwita and Ndhlovu, 2024), and align with Chinese evidence showing how institutional reforms in social assistance systems influence migration outcomes (Li *et al.*, 2022). However, the magnitude of centralization effects appears distinctively strong in Vietnam, possibly reflecting the country's unique institutional architecture.

**Table 6.** The role of social assistance when considering the effects of migration on each criterion in multidimensional poverty

Variable		Education		Health Access to medical services		Housing		Living conditions		Access to information		
		Education level of adults Coeff	School attendance of children Coeff	Health insurance Coeff	Health insurance Coeff	Housing quality Coeff	Housing area per capita Coeff	Domestic water sources Coeff	Sinkhole/ toilet Coeff	Use of telecommunication services Coeff	Assets for access to information Coeff	Income poverty Coeff
Social assistance	Migration	-0.478	-1.923	-2.186*	0.656	2.592**	3.499**	2.018*	2.486**	-1.234	-1.257	4.695***
	Receiving assistance	-0.069	-0.835*	0.327	1.087***	-0.519**	-1.685***	-0.433*	-1.008***	-1.021***	-0.887***	-1.447***
	Centralization of support services	-0.459	-1.640**	0.774**	3.586***	-1.505***	-3.422***	-0.934**	-2.713***	-2.470***	-2.467***	-3.709***
Migration x Social assistance	Migration x Receiving assistance	-0.008	1.252	1.384*	-0.341	-1.215	-1.846*	-1.304*	-1.282*	1.826	0.918	-5.223***
	Migration x Centralization of support services	0.206	1.795	2.342*	-0.629	-2.915**	-3.886***	-1.977	-2.925**	-2.354	0.540	-2.719***
Control variables		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant		-1.761***	-1.577**	0.680*	-4.543***	-0.378**	-2.504***	0.177	0.429***	1.209**	1.303***	-0.591***
Number of observations		2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800
Prob > $\chi^2$		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo r2		0.145	0.148	0.169	0.142	0.068	0.178	0.010	0.119	0.221	0.143	0.141

**Note(s):** \*, \*\* and \*\*\* indicate statistical significance at 10, 5 and 1%, respectively

**Source(s):** Author's calculations based on the household panel of VHLSS 2016 and 2018

#### 4.3 Dimensional analysis and policy implications

The dimensional analysis reveals heterogeneous effects across different poverty domains, suggesting that nuanced policy interventions are needed. In education, migration demonstrates significant poverty-reducing effects for adult education, while social assistance's moderating effect manifests more strongly in children's school attendance. This pattern suggests complementarity between migration and institutional support in enhancing educational outcomes, aligning with findings from other developing economies (Grigoryan *et al.*, 2024).

The analysis uncovers powerful synergies in living conditions and housing dimensions. The interaction between migration and social assistance centralization yields substantial effects for housing areas and sanitation facilities, suggesting that institutional support amplifies migration's capacity to improve physical living standards. These findings parallel evidence from Bangladesh and Armenia, where targeted social assistance programs significantly reduced multidimensional deprivations (Robano and Smith, 2013).

These findings suggest several policy imperatives within Vietnam's institutional framework, where 28.7% of rural households receive social assistance (Table 1). First, the strong moderating effect of program centralization indicates the importance of strengthening institutional coordination in social assistance delivery. Second, the differential impacts across dimensions suggest the need for targeted interventions for domain-specific challenges in poverty reduction.

Drawing from comparative policy experiences, the study's findings suggest three strategic recommendations. First, social assistance programs should be designed to complement rather than substitute for migration-based poverty reduction strategies, following successful models from Indonesia (Mahendra, 2014). Second, program centralization should be enhanced while maintaining flexibility to address local needs, as demonstrated by effective interventions in South Africa (Nzabamwita and Ndhlovu, 2024). Third, dimensional targeting should be strengthened to address specific deprivations more effectively, particularly in education and living conditions.

## 5. Conclusions

This study examines the complex interplay between migration, multidimensional poverty and social assistance in rural Vietnam through a rigorous analysis of panel data from 2,800 households using a Probit model framework with the VHLSS (2016–2018). The empirical findings revealed that migration significantly reduces the probability of households experiencing multidimensional poverty, with particularly pronounced effects in education, access to information and income dimensions, whilst social assistance operates as a powerful moderating mechanism that enhances these poverty-reducing effects through multiple institutional channels. The statistical significance of interaction effects demonstrates the synergistic relationship between migration and social assistance, highlighting how institutional support mechanisms can optimize migration's potential as an effective poverty reduction strategy within Vietnam's distinctive socioeconomic context.

### 5.1 Theoretical synthesis and advancement

Through several significant contributions, this research advances the theoretical understanding of the migration-poverty-institution nexus. First, the empirical findings illuminate the complex interplay between migration and multidimensional poverty, extending beyond traditional unidimensional frameworks to reveal sophisticated causal pathways. The epistemic trajectory demonstrates how migration influences multiple capability domains simultaneously, supporting Sen's theoretical proposition that poverty reduction requires a multidimensional approach (Bourguignon and Chakravarty, 2019; Ngo *et al.*, 2024).

The theoretical advancement particularly emerges in explicating the three-channel framework through which social assistance moderates migration's poverty-reducing effects.

This conceptual innovation synthesizes insights from institutional theory with capability approach frameworks, demonstrating how formal institutional mechanisms can enhance migration's effectiveness as a poverty reduction strategy. The empirical validation of these channels, that is income effects, risk mitigation and capability enhancement, contributes to the theoretical understanding of institutional moderation in development processes (Li *et al.*, 2022; Nzabamwita and Ndhlovu, 2024).

From a critical realist perspective, this study advances the understanding of contextual mechanisms in poverty reduction. The findings suggest that institutional effectiveness varies systematically across poverty dimensions, challenging universalist approaches to designing social assistance. This theoretical insight aligns with emerging scholarship from other developing economies, particularly evidence from Indonesia and South Africa, demonstrating the context-dependent nature of institutional moderation (Mahendra, 2014; Grigoryan *et al.*, 2024).

These theoretical contributions hold particular significance for developing economies undergoing rapid socioeconomic transformation. The demonstrated interaction between migration and institutional support mechanisms suggests a more nuanced theoretical framework is needed for understanding poverty reduction in transitional contexts, one that explicitly accounts for the moderating role of formal institutions in enhancing migration's poverty-reducing potential.

### 5.2 Methodological contributions and limitations

This research advances methodological sophistication in studying migration-poverty relationships through several innovations. Integrating panel data analysis with multidimensional poverty measurement enables robust examination of temporal dynamics while controlling for unobserved heterogeneity, addressing methodological challenges highlighted in contemporary scholarship (Gujarati, 2004). The analytical framework particularly contributes through its nuanced operationalization of social assistance moderation, employing receipt status and centralization measures to capture institutional complexity.

However, certain methodological limitations warrant acknowledgment. While the panel structure enhances analytical rigor, the two-wave timeframe (2016–2018) may not fully capture longer-term poverty dynamics. This temporal constraint, though aligned with similar studies in developing economies (Agza *et al.*, 2021; Li *et al.*, 2022), suggests opportunities for extended longitudinal analysis. Additionally, while the sample of 2,800 rural households provides robust statistical power, future research might benefit from larger-scale data-collection efforts incorporating urban populations.

The methodological framework developed herein opens several promising research design opportunities. First, integrating multidimensional measurement with institutional analysis suggests possibilities for more sophisticated moderation models. Second, the study's approach to operationalizing social assistance centralization could be extended to examine other institutional characteristics. Third, the demonstrated effectiveness of panel analysis in capturing migration-poverty dynamics invites applications to other developing economy contexts, particularly those experiencing rapid socioeconomic transformation.

### 5.3 Future research agenda

The epistemic trajectory revealed in this study suggests several promising avenues for future research that could significantly advance understanding of the migration-poverty-institution nexus. A critical frontier lies in examining the temporal evolution of institutional moderation effects, particularly how social assistance mechanisms adapt to changing migration patterns and emerging poverty dimensions. This research direction gains particular salience as developing economies like Vietnam continue their socioeconomic transformation (Ngo *et al.*, 2024).

Methodological frontiers invite innovative approaches to capturing institutional complexity. While the study demonstrates the significance of program centralization, future research might explore additional institutional characteristics through more sophisticated measurement frameworks. The comparative evidence from South Africa and Indonesia suggests the potential for developing standardized metrics for cross-country institutional analysis (Mahendra, 2014; Nzabamwita and Ndhlovu, 2024). Such methodological advances could facilitate a more nuanced understanding of how institutional contexts shape migration-poverty relationships.

Cross-country comparative research represents another vital frontier, particularly in examining how different institutional architectures moderate migration's poverty-reducing effects. Recent findings from Bangladesh, Armenia and Ethiopia (Agza et al., 2021; Grigoryan et al., 2024) suggest rich opportunities for comparative analysis. Such research could illuminate how varying institutional contexts influence the effectiveness of social assistance in enhancing migration's poverty-reducing potential.

From a policy perspective, future research priorities should focus on understanding the optimal design of social assistance programs in rapidly transforming economies. This includes examining how institutional mechanisms can be calibrated to maximize their moderating effectiveness while maintaining implementation efficiency and social equity.

#### Disclosure statement

The authors report there are no competing interests to declare.

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