THE IMPACT OF INSTITUTIONS ON MULTIDIMENSIONAL POVERTY REDUCTION IN VIETNAM

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ABSTRACT

For many years, poverty has been a problem in many developing countries in general and in Vietnam in particular. Studies assessing the impact of institutions on multidimensional poverty have only been applied in Vietnam since 2016. The purpose of this study is to evaluate the impact of institutions on multidimensional poverty reduction in Vietnam using multilevel data at household and provincial levels in Vietnam. Institution is calculated from a survey of people's perceptions on three aspects (performance, quality of policy implementation, and service delivery by local governments) from 63 provinces and cities in Vietnam to advocate for effective and responsive governance. The results assert the positive impact of institutional efficiency on reducing multidimensional poverty using multilevel Probit models. The study also indicates that the impact of institutions on multidimensional poverty is different among localities, and for urban and high-income localities the institutions have a reverse impact.

Contribution/Originality: This study is the first to evaluate the impact of institutions on multidimensional poverty reduction in Vietnam and indicates the differences of the impact among localities.

1. INTRODUCTION

For many years, poverty has been a problem in many developing countries (Huan, Binh, & Thu, 2022). There have been many studies that debated whether institutions have an impact on poverty reduction and, if so, whether the impact is positive or negative, direct or indirect. A number of empirical studies suggest that institutions play an important role in national poverty reduction outcomes (Dollar & Kraay, 2002; Enders & Hoover, 2003; Knack & Keefer, 1995; Ravallion & Chen, 2003; Tebaldi & Mohan, 2010). Many of them used different institutional metrics which can result in different effects on poverty reduction. Additionally, some studies have also concluded that good institutions have no impact on poverty reduction in the short term, but in the long run it can bring a positive effect.

In Vietnam, studies that assess the impact of institutions on multidimensional poverty as the multidimensional poverty measure have only been applied since 2016. UNDP & VASS (2016) only pointed out that the cause of multidimensional poverty in Vietnam is due to clear differences in income levels and regional multidimensional poverty rates that clearly show that poverty exceeds income reasons, often due to factors such as geography, supply constraints, and institutional barriers, without measuring the impact of institutions on multidimensional poverty. Assuming overall that good institutional quality will contribute to reducing poverty, the results are similar when...
applying different measures to assess institutional quality as well as methods of impact assessment. However, with different development conditions and contexts, specific aspects of a good institutional quality will affect poverty reduction goals differently, thereby posing a requirement to verify the specific impact of institutions on poverty in the context of a transitional economy such as Vietnam. The purpose of this study is to evaluate the impact of institutions on multidimensional poverty reduction in Vietnam using multilevel data at household and provincial levels.

2. LITERATURE REVIEW

Pham (2019) and Chan and Wong (2020) have shown the important role of institutions in poverty reduction. Sen (1999) put the issue of governance in development on the agenda and argued that the good functioning of the market, and vulnerable people have more opportunities to meet basic needs and share in decision making, which are due to the influence of the public sector. This study also pointed out that the income of the poor increases when there is a good institution with high “transparency and accountability”. Similarly, Grindle (2004) emphasized that good governance is a prerequisite for poverty reduction. Grindle suggested that, in developing economies with poor institutions and high levels of corruption, the weak participation of civil society will waste resources and not help reduce poverty. Research by Rizk (2012) used array data analysis techniques to assess the impact of institutions on poverty reduction with data for 71 developing countries, and six indicators, developed by Kaufmann, Kraay, and Mastruzzi (2011), are used by the author as a measure of institutional assessment. The result shows that the coefficient of the Human Poverty Index (HPI) is -1.75 and is statistically significant, that is, if the institutional index increases by one percentage point, the aggregate poverty level will decrease by 1.75 percentage points. Rizk also suggested that countries should focus on controlling corruption and improving the law so that the quality of institutions will improve.

Siddique, Shehzadi, and Shaheen (2016) used the least squares method and the Arellano–Bond model to estimate the relationship between institutions and poverty reduction in six Central Asian countries in the period from 1996–2012. Their research shows that institutions play an important role in poverty reduction, especially the quality of the administrative apparatus, which is the most important factor contributing to overall institutional improvement and poverty reduction.

The role of institutions in poverty reduction is reflected in both direct and indirect channels through which the intermediary is economic growth. This means that when institutions affect growth or income levels, these factors will affect poverty rates. Many studies have shown a positive effect of institutions on economic growth and income levels (Acemoglu, Johnson, & Robinson, 2001; Alkire, Roche, & Vaz, 2017; Barro, 1997; Chomen, 2021; Hall & Jones, 1999; Keefer & Knack, 1997; Rodrik, Subramanian, & Trebbi, 2004). If this "bridging effect" is effective, the institution will indirectly affect poverty reduction through the conduit of good economic growth. A study by Dollar and Kraay (2002) demonstrated that economic growth was pro-poor. Studies by Perera and Lee (2013); Henderson, Hulme, Phillips, and Nur (2002); and Garedow (2022) measured the impact of institutions and economic growth on poverty and income inequality, and the results show that economic growth negatively affects poverty.

When using specific measures to assess institutional quality by analyzing the impact of institutions on poverty, the results are more in-depth; however, there are many inconsistencies. Chong and Calderon (2000) analyzed the impact of five measures of institutions on poverty using ordinary least squares (OLS) method, based on data from the International Country Risk Guide, for 45 developing countries from 1960–1990. The results showed that three out of the five indicators have a statistically significant impact on poverty – repudiation of contracts, risk of expropriation and quality of bureaucracy. The authors also used an overall index of institutional quality as an independent variable and showed a negative relationship with poverty, which supports the conclusion that institutions are pro-poor. Similarly, the study by Hasan, Mitra, and Ulubasoglu (2006) used three indicators (rule of law, quality of bureaucracy and corruption) to measure institutional quality with a sample of 80 countries in the period from 1990–1999. In
addition to the above variables, the authors’ regression equation also includes components in the Ease of Doing Business Indicator (EDBI). It is worth mentioning that the intercept coefficients of the three institutional measures are all insignificant, while the coefficients in the EDBI are all negative and significant, which indicates an indirect effect of institutions on poverty. Research by Tebaldi and Mohan (2010) found a negative relationship between institutions and poverty using the instrumental variables method for 53 countries. The authors found five variables that have strong, negative and significant impacts on poverty: corruption control, legislative quality, rule of law, government effectiveness, and voice and accountability, while political stability was found to have no relationship with poverty reduction. In addition, the authors also suggested that institutions can reduce poverty through income levels and income distribution. A recent study by Perera and Lee (2013) used the generalized method of moments (GMM) on data from a sample of nine Asian countries between 1985 and 2009. In this study, five indicators are built to measure institutional quality, and the results show that two indicators, government stability and law, have a negative impact, while the other three indicators (corruption, bureaucratic quality and democratic accountability) have a positive impact. This means that improving the quality of institutions can help reduce poverty but can also increase the severity of poverty. Explaining this, Perera and Lee said that there are three main factors, corruption, democratic accountability and bureaucratic quality, that increase levels of inequality, and it is a problem that causes poverty levels to increase when institutions are better.

Another rather interesting conclusion is that institutional improvement is considered to have no impact on poverty reduction in the short run, but in the long run, institutions may or may not have a positive impact on poverty reduction. In one scenario, the statistical significance of the pro-poor effect of institutions, which emerges in the cross-section analysis, is an artefact of omitted variable bias. Should this be the case, then one would argue that institutions do not have a beneficial effect in terms of poverty mitigation. In the alternative scenario, the cross-country regression captures a genuine impact of institutions on poverty. If so, then one would argue that institutions improve poverty in the long run (Cuestas & Intartaglia, 2016). The study uses the multivariate regression analysis on data from 69 countries from 1984 to 2013, with the institutional variable measured by three indicators (corruption in the government system, law and order, and bureaucratic quality), and two other control variables are also included in the model (public spending and population growth). The research results from the regression by multivariable regression method show that the coefficients between institution and poverty are negative and significant, but when switching to the GMM regression, the coefficients are not statistically significant even though the value is still negative.

Most of the above studies use poverty measures in terms of income, but poverty needs to be understood from a multidimensional perspective. Therefore, there are relatively few studies focusing on the multidimensional poverty index; studies only focus on the relationship between institutions and some aspects of multidimensional poverty, or between some aspects of institutions and dimensions of poverty. Jenkins (2005) pointed out the disadvantages of bad governance, especially affecting the poor when they have limited access to education, health care, or no permanent housing, and they don’t benefit from the market because of their low income. Lazarova (2006) and Lazarova and Mosca (2008) pointed out two conclusions: (1) in the context of developing economies, the determinant of people's health quality is income, and poor institutions will have a negative impact on infant mortality; (2) for developed countries, institutions have a positive impact on the quality of people's health. These two conclusions were drawn from a sample of 112 countries representing different levels of development. Siddique et al. (2016) used six institutional measures – control of corruption, voice and accountability, rule of law, government effectiveness, political stability and absence of violence, and regulatory quality – to measure the impact of education. The regression results show that the variables of corruption and rule of law have negative signs, and the remaining three variables have positive signs and all are significant. This shows that good institutions will contribute to improving the level of education.
3. RESEARCH METHODS

3.1. Research Model

The article inherits the model outlined in the studies by Baldini, Peragine, and Silvestri (2018) and Jindra and Vaz (2019). The model for assessing the impact of institutions on multidimensional poverty has the following form:

\[
\text{mp}_i = P \text{ (multidimensional poverty)} = \beta_0 + \beta_1 \text{LogLPAPI} + \beta_2 X_{a} + \beta_3 Z_{a} + \text{year dummy} + \epsilon_{a} \quad (1)
\]

The dependent variable \((\text{multi-dimensional poverty, mp})\) takes a value of 1 if household \(i\) is multidimensionally poor and takes a value of 0 if that household is not multidimensionally poor, consistent with studies by Baldini et al. (2018) and Jindra and Vaz (2019). The main dependent variable used in the study is the multidimensional poverty status of the household as measured by the MPI index calculated according to the guidelines of the Ministry of Labour, Invalids and Social Affairs of Vietnam in 2015. Based on the measurement aspects of the multidimensional poverty index in Vietnam, the article uses data from the Vietnam Household Living Standards Survey (VHLSS) for 2016 and 2018 to determine the multidimensional poverty status of households.

**Institutions (LogLPAPI):** This article uses the Public Administration Performance Index (PAPI) index as a scale for institutional quality in Vietnam. Based on research by Nguyen, Giang, Tran, and Do (2021), the article uses the lagged PAPI score that is one year behind compared to the Vietnam Household Living Standards Survey (VHLSS) dataset, specifically in running a quantitative model. The PAPI data for the provinces was collected in 2015 and 2017. This choice comes from two bases: (1) using the independent and dependent variables in the same year can lead to reverse causality. Using the lag of the independent variable avoids the above problem and minimizes endogenous bias in the model; (2) in 2018, PAPI adjusted, omitted and added a number of measurement indicators in some contents.

**Xa is a vector of explanatory variables for household characteristics,** including gender group, household size, the highest degree of the head of the household, and one variable determining the location of the household’s residence (urban/rural socioeconomic regions) based on the study by Jindra and Vaz (2019).

**Za is a vector of explanatory variables for the provincial level of economic development:** The logarithm of per capita income, and local income classification. The percentage of households living in urban areas is also based on the study by Jindra and Vaz (2019).

**The year dummy** is also added to control further economic events to ensure that the estimated impact is mainly for the variables in the model.

Model (1) is estimated by the regression method according to the multilevel probit model, consistent with the studies by Baldini et al. (2018) and Jindra and Vaz (2019).

3.2. Data Sources

This study uses data from two sources. The first is the PAPI. In 2010, the survey was conducted in 30 provinces, covering a randomly selected population of 5,560 citizens. Since 2011, the PAPI surveys have been conducted annually with respondents sampled in all 63 provinces of the country. The sample size each year is nearly 14,000 citizens. In the 57 provinces with populations below two million, 240 citizens are randomly selected from 12 villages in six communes in three districts within each province. In provinces with a population between two and four million, 480 citizens from 24 villages in 12 communes in six districts within each province are selected for the surveys. For Hanoi and Ho Chi Minh City, six districts, 12 communes, and 24 villages are also sampled, but the sample size is 720 citizens. PAPI data are aggregated at the provincial level and can be used to predict national trends over time. The PAPI index is built and calculated from six dimensions, namely (1) participation at local levels; (2) transparency in local decision making; (3) vertical accountability toward citizens; (4) control of corruption in the public sector; (5) public administrative procedures; and (6) public service delivery. Each dimension is constructed and calculated from sub-indices calculated from the data collected in the survey. The components’ sub-indices as well as the composite index of each dimension are normalized from 01 (worst) to 10 (best) to measure the institution of a province. The
composite PAPI is the sum of the scores of the six dimensions. The results for each locality of PAPI range from 6 (minimum) to 60 (maximum).

The second data source is the Vietnam Household Living Standards Survey (VHLSS). The VHLSS from 2018 was deployed nationwide with a sample size of 46,995 households in 3,133 communes/wards, representing the whole country, comprising regions, urban and rural areas and provinces/cities directly under the central government. The survey collected information from the first quarter to the fourth quarter of 2018 by directly interviewing the heads of the households, household members, and key officials in the communes. The VHLSS is representative at the provincial level. Data on households and individuals include basic demography, employment and labor force participation, education, health, income, housing, fixed assets and durable goods, and participation of households in poverty alleviation programs.

4. EMPIRICAL FINDINGS

The results of the five models with the correlation coefficients of the variables affecting the probability of falling into multidimensional poverty are denoted by the coefficient β. Margins and the statistical significance of the coefficients and marginal effects are shown in the tables below. Testing the standard probit model, the results show that: (i) the model has no multicollinearity phenomenon (with the variance inflation factor (VIF) coefficients of the independent variables less than 10); (ii) the independent variables are suitable for the model (the predictive variables are significant with the “linktest” test showing that the $\hat{\text{beta}}$ coefficient is statistically significant). Table 1 contains the results of the assessment of the impacts of institutions and local characteristics on the probability of multidimensional poverty in households.

In Model 1, the variables are all statistically significant. The variables of household size and the number of children under five years old in the household have a positive effect, while the remaining variables related to gender, age of the household head, and education level of the household head, have a negative sign and all are statistically significant. This reflects the current situation in households. Specifically, male household heads have a lower probability of falling into multidimensional poverty than women; the higher the training level of the household head, the lower the probability of falling into multidimensional poverty. In addition, the larger the household size and the more children under five years old, the higher the probability of falling into multidimensional poverty.

Regarding the age of the household heads, those aged between 30 and 59 have a lower probability of falling into multidimensional poverty than the heads of household aged 60 and over. The model also explains that households in urban and rural areas in more than six socioeconomic regions across the country have different probabilities of falling into multidimensional poverty. When analyzing demographic characteristics by region, the prediction of the research model’s sign is appropriate.

In Model 2, the study adds the logarithm of monthly income per capita and the proportion of households living in urban areas in the localities as variables into the estimation model. Both the institutions variable and the two new variables have negative signs and are statistically significant. This shows that, when institutions and income per capita increase, the probability of falling into multidimensional poverty is reduced, which shows that institutions still have a positive impact on multidimensional poverty. The variable “proportion of households living in urban areas” has a negative sign, which shows that localities have a higher proportion of households living in urban areas than localities with a higher percentage of households living in rural areas, and the probability of multidimensional poverty in urban areas is lower.
Table 1. Estimated results and marginal effects.

| Variables                                                   | Model 1          | Model 2          | Model 3          |
|-------------------------------------------------------------|------------------|------------------|------------------|
|                                                              | β Coefficient    | Margin           | β Coefficient    | Margin           | β Coefficient    | Margin           |
| **Household level variables**                               |                  |                  |                  |                  |                  |                  |
| Household size                                              | 0.0459***        | 0.0057***        | 0.0481***        | 0.0060***        | -0.20***         | 0.0059***        |
| Gender of household head                                    | -0.2025***       | -0.0254***       | -0.2041***       | -0.0255***       | -0.51***         | -0.0252***       |
| Head of household aged between 30 and 59                    | -0.5257***       | -0.0661***       | -0.5204***       | -0.0652***       | -0.22***         | -0.0659***       |
| Head of household aged 60 and over                          | -0.2598**        | -0.0301**        | -0.2511**        | -0.0290**        | 0.11***          | -0.0276**        |
| Number of children under five years old in household         | 0.1181***        | 0.0146***        | 0.1144***        | 0.0143***        | -0.55***         | 0.0144***        |
| Education level of household head                            | -0.6029***       | -0.0758***       | -0.6020***       | -0.0755***       | -0.38***         | -0.0749***       |
| Red River Delta Region                                       | -0.5512***       | -0.0693***       | -0.4037***       | -0.0506***       | 0.61***          | -0.0488**        |
| Northern Midlands and Mountains Region                       | 0.8726***        | 0.1097***        | 0.6111***        | 0.0766***        | 0.25***          | 0.0771***        |
| North Central Region and Central Coast                       | 0.2922**         | 0.0367**         | 0.2520**         | 0.0316**         | 0.60***          | 0.0321***        |
| Central Highlands                                           | 0.6591***        | 0.0828***        | 0.5891***        | 0.0738***        | -0.78***         | 0.0753***        |
| Southeast region                                            | -1.0983***       | -0.1381***       | -0.8128***       | -0.1019***       | -15.65***        | -0.0981***       |
| Urban/rural                                                 | -0.2945***       | -0.0357***       | -0.2673***       | -0.0335***       | -0.20***         | -0.0301***       |
| **Provincial Variables**                                    |                  |                  |                  |                  |                  |                  |
| Lagged of institutions (loglpapi)                           | -0.9778**        | -0.1229**        | -1.0026**        | -0.1257**        | -1.73**          | -0.1256**        |
| Average income variable (LogTNBQ)                           | -0.4895***       | -0.0613***       | -0.48***         | -0.0609***       | -0.48***         | -0.0609***       |
| Percentage of households living in urban areas              | -0.6673**        | -0.0837**        | -0.72**          | -0.0904**        |                   |                  |
| **Interactive variables**                                   |                  |                  |                  |                  |                  |                  |
| Urban x Institutions (loglpapi)                              |                  |                  |                  |                  | 4.29***          |                  |
| Constant                                                    | 2.39             | 6.52***          | 9.1***           |                  |                  |                  |
| Dummy year                                                  | Yes              | Yes              | Yes              |                  |                  |                  |
| ICC                                                         | 0.32             | 0.28             | 0.28             |                  |                  |                  |
| AIC                                                         | 8748.681         | 8710.038         | 8690.736         |                  |                  |                  |
| Log-likelihood                                              | -4358.3407       | -4377.019        | -4326.368        |                  |                  |                  |

Note: Significance levels: ** p < 0.05, *** p < 0.01
In Model 3, an interaction variable is added between living in urban areas and institutions in order to answer the question: How do institutions in different regions affect multidimensional poverty? The results show that this coefficient is positive and statistically significant, which means that when the institutions are better, the advantage of living in urban areas will decrease, or in other words, if institutions are improved, the gap in the probability of falling into multidimensional poverty in rural and urban areas will be narrowed. To support this conclusion, the research predicts the probability of falling into multidimensional poverty in rural and urban households living in localities with a high level of institutions (equal to the 90th percentile of localities in the sample) and compares it with households living in localities with a low level of institutions (equal to the 10th percentile of localities in our sample). The result shows that for localities with low quality institutions, equal to the 10th percentile of localities in our sample, the probability of multidimensionally poor households in urban areas is 5.71 percentage points lower than in rural areas (6.32% in urban areas compared to 12.03% in rural areas). This difference decreases to -0.54 percentage points (9.74% in urban areas and 9.2% in rural areas) when institutions improve (equal to the 90th percentile of localities in our sample). The second conclusion is drawn from Model 3, that is, when institutions are improved, the probability of multidimensional poverty of households living in urban areas tends to increase. In localities with low quality institutions (in the 10th percentile), the probability of falling into multidimensional poverty in urban areas is 6.32%, but when institutions are better (in the 90th percentile), the probability of falling into multidimensional poverty in urban areas increases to 9.74%.

Model 4 includes the income group variable of localities to find evidence that improving local incomes helps to reduce multidimensional poverty.

Model 5 includes the cross-level interaction effect between income levels and institutions. The model explains how living in localities with different income levels and institutions affects a household's probability of falling into poverty.

The results of the two models are shown in Table 2. Considering the impact of income groups on the probability of households falling into multidimensional poverty, it can be seen that with different levels of development, the probability of households falling into multidimensional poverty is different. The probability of multidimensional poverty decreases by 17.62% in localities with very high incomes, by 14.27% in localities with high incomes, by 13.76% in localities with middle incomes and by 11.33% in low-income localities. When adding the interaction variable between income and institutions into the model, the institutions variable has a negative impact and is statistically significant. The interaction variable has a positive sign and the value increases with income levels of the localities, showing that with different levels of development, the impact of institutions on multidimensional poverty reduction is different. When the institutions are getting better, the advantage of living in high-income localities will decrease, in other words, if the institutions are improved, the difference in the probability of falling into multidimensional poverty in these regions will be reduced. As a result of the interaction variable, three conclusions are as follows:

First, with low quality institutions, there is a large difference in the probability of multidimensional poverty of households living in localities with different levels of development, but when institutions are better, the difference is smaller.

Second, the result shows that in localities with very low- and low-income levels, the impact of institutions on multidimensional poverty is stronger than in localities with higher income levels. This finding indicates that institutions are more important for multidimensional poverty reduction in very low- and low-income localities than in high- and very high-income localities. This conclusion of the paper is similar to the results of Dollar and Kraay (2002) with the finding that lower income countries respond more quickly to institutional change.

Third, for localities with high- and very high-income levels, the better the institutions, the higher the probability of falling into multidimensional poverty. Specifically, in localities with low quality institutions, equal to the 10th percentile of the provinces in our sample, the probability of falling into multidimensional poverty of households living in localities with high- and very high-income levels is 6% and 2.55%, respectively. However, when the institutions
are better, equal to the 90th percentile of the localities in our sample, the probability of households falling into multidimensional poverty in the two groups of localities increased by 8.66% and 4.07%, respectively. This is explained by the fact that in urban areas the poor are more vulnerable than any other group to health hazards, economic downturns, natural catastrophes, and social violence.

Table 2. Estimated results and marginal effects.

| Variables                          | Model 4          |                  | Model 5          |                  |
|------------------------------------|------------------|------------------|------------------|------------------|
|                                    | \( \beta \) Coefficient | Margin           | \( \beta \) Coefficient | Margin           |
| **Household level variables**      |                  |                  |                  |                  |
| Household size                     | 0.04***          | 0.0057***        | 0.04***          | 0.0057***        |
| Gender of household head           | -0.20***         | -0.0255***       | -0.20***         | -0.0256***       |
| Head of household aged between 30 and 59 | -0.51***         | -0.0041***       | -0.51***         | -0.0068***       |
| Head of household aged 60 and over | -0.23**          | -0.0286**        | -0.23**          | -0.0285**        |
| Number of children under five years old in the household | 0.11***          | 0.0146***        | 0.12***          | 0.0147***        |
| Education level of household head  | -0.61***         | -0.0759***       | -0.61***         | -0.0752***       |
| Red River Delta Region             | -0.36***         | -0.0447***       | -0.37***         | -0.0458***       |
| Northern Midlands and Mountains Region | 0.08             | 0.0101           | 0.07             | 0.0091           |
| North Central Region and Central Coast | 0.10             | 0.013            | 0.12             | 0.0149           |
| Central Highlands                 | 0.39**           | 0.0480**         | 0.38**           | 0.0472**         |
| Southeast region                  | -0.75***         | -0.0932***       | -0.72***         | -0.0939***       |
| Urban/rural                        | -0.27***         | -0.0339***       | -0.27***         | -0.0341***       |
| **Provincial Variables**           |                  |                  |                  |                  |
| Lagged of institutions (\( \log \)lpari) | -0.69**          | -0.0860**        | -2.74**          | -0.1065**        |
| Average income variable (\( \log \)TNBQ) | -0.14             | -0.018           | -0.14            | -0.0177          |
| Percentage of households living in urban areas | 0.11             | 0.0147           | 0.009            | 0.0011           |
| **Province division by income:**   |                  |                  |                  |                  |
| Low income                         | -0.63***         | -0.1133***       | -6.01            | -0.1064***       |
| Middle income                      | -0.83***         | -0.1376***       | -7.93            | -0.1315***       |
| High income                        | -0.88***         | -0.1427***       | -17.55**         | -0.1345**        |
| Very high income                   | -1.28***         | -0.1762***       | -18.79**         | -0.1748**        |
| **Interactive variables**          |                  |                  |                  |                  |
| Income x Institution               |                  |                  | 1.5              |                  |
| Low income x Institution           |                   |                  | 1.98             |                  |
| Middle income x Institution        |                   |                  | 4.71**           |                  |
| High income x Institution          |                   |                  | 4.86**           |                  |
| Very high income x Institution     |                   |                  |                  |                  |
| Constant                           | 3.45**           | 10.75**          |                  |                  |
| Dummy year                         | Yes              |                  | Yes              |                  |
| ICC                                | 0.27             | 0.26             |                  |                  |
| AIC                                | 8656.189         | 8651.146         |                  |                  |
| Log-likelihood                     | -4306.0946       | -4299.5729       |                  |                  |

**Note:** Significance levels * \( p < 0.1 \), ** \( p < 0.05 \), *** \( p < 0.01 \).

5. DISCUSSION AND CONCLUSION

On the basis of the above analysis, the following conclusions are drawn regarding the impact of institutions on multidimensional poverty in Vietnam: (i) generally, institutions have a positive impact on multidimensional poverty; (ii) the institutional impact on multidimensional poverty is stronger in rural areas and in low- and very low-income localities. In other words, in terms of multidimensional poverty, “poor localities” are more likely to benefit from institutional improvement than “rich localities”. Although there have been positive signs on the impact of institutions on multidimensional poverty, there are still two issues that need to be resolved as follows:

First, current institutions have an “opposite” effect on the reduction of multidimensional poverty of households in urban areas. Urban households have an increasing probability of falling into multidimensional poverty when institutions are improved. This may be due to the fact that urban poverty has many differences compared to poverty in rural areas, specifically because the urban poor face more risks, for instance, the urban poor have to live in squalid, cramped places, they do not own or informally own a place to live, and the associated poor living conditions such as lack of clean water, pollution and insecurity. Another reason may be that the set of criteria for evaluating governance
effectiveness (PAPI) does not take into account the specificity of urban areas. Therefore, it is necessary to have poverty reduction policies that are specific to urban areas.

Secondly, institutions have a negative impact on multidimensional poverty in high- and very high-income localities. Based on the research results, the article proposes the following two recommendations to strengthen the impact of institutions on multidimensional poverty reduction in Vietnam in the coming period:

1) It is necessary to improve the system of evaluation criteria and factors affecting multidimensional poverty. Moreover, multidimensional poverty measurement indicators need to be determined based on output results, and at the same time, research should be carried out to add additional assessment dimensions to determine multidimensional poverty more accurately; and 2) It is necessary to improve, modify and supplement the system of current mechanisms and policies related to multidimensional poverty reduction.

Thirdly, it is necessary to have specific poverty reduction policies for each region and not ignore the localities without difficulties, especially in urban areas. There should be criteria that are more relevant to the characteristics of urban poverty. The government should focus on solutions to increase the coverage of social protection policies associated with reducing discrimination against immigrants and policies that support all the poor in urban areas, including migrant workers.

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