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Article

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Article

The Impact of Migration on Vietnam Household Living Standards

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Abstract: This study is conducted to investigate the impact of migration on living standards of households with migrants in the context of Vietnam. Data were collected from the results of Vietnam Household Living Standards in the time series. Blinder–Oaxaca decomposition was employed to decompose the source of differences in income between households with migrants and households without migrants. The results show that households with migrants in the multiyear dataset had a higher income than nonmigrant households, and migration had different impacts on expenditure at different quantiles. By conducting quantile regression, migration had positive impacts on expenditures at the 10% and 50% quantile, but no impact at the 90% quantile. Based on the findings, some implications in policies for managers, such as appropriate policies for poor workers in order to improve their living standards, especially poor households in rural or mountainous areas, are proposed.

Keywords: quantile regression migration; household living standards; Blinder–Oaxaca decomposition; Vietnam



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1. Introduction

Through the observation of the facts, it was found that reasons for migration often were job hunting, family reunification, marriage and others which we did not mention in this study. Since the purpose of migration is to find jobs or achieve a higher income, we assumed that the income and living standards of households with migrants were higher than those without migrants (De Brauw and Harigaya 2007). If this assumption is proved, propositions and recommendations can be made for managers in order to devise suitable policies in adjusting or allocating households to optimize the workforce for a province, a region or a country.

The research used two models, which were Blinder–Oaxaca decomposition and quantile regression. De Brauw and Harigaya (2007) applied a model with an instrumental variable, with control on migration as the endogenous variable (generalized method of moments). This model used the Vietnam Household Living Standards (VHLSS) database in 1993 and 1998 to analyze whether seasonal migration of Vietnamese households could increase their living standards or not. The findings revealed that migration helped in increasing 5.2% of annual expenditure of these households and decreasing 3.0% of poor people. Although De Brauw and Harigaya (2007) provided evidence of the positive impact of migration on the expenditure of households of migrants, they did not show differentiating kinds of income of households with and without migrants nor explained the sources of those kinds of income. Therefore, this study clarifies those differences. In addition, De Brauw and Harigaya (2007) applied a linear regression model, of which the regression

based on the conditional average value of the dependent variable would be inaccurate, due to huge variant data. The fact is that in the case of huge variation, regression based on conditional quartiles of dependent variables would provide more precise results. Therefore, this research employs two models, i.e., Blinder–Oaxaca and quantile regression.

Blinder–Oaxaca decomposition was employed to analyze determinants (the household owner's gender, age, highest degree, ratio of household members with undergraduate degrees and ratio of members being dependent in the household), which influence the income of the two groups of households, those with migrants and those without migrants. The advantage of this model is that it produces the analysis of differences in income in the two groups of households (migrants and nonmigrants). Causes of the differences were found, and they were (i) the difference in independent variables in the model, (ii) the difference in estimated coefficient of two groups and (iii) the cross-product of the difference of independent variables with the difference-estimated coefficient of two groups. From the differences above, the total difference in income of two groups of households was calculated.

Quantile regression provided a different aspect in the analysis of migration's impact on the quantiles of household expenditures. In the analysis of the household expenditure in the previous studies, the data was quite scattered, therefore, in order to evaluate the impacts of migration on household expenditures, quantile regression was the most suitable model. So, in this research, three quantiles of the expenditure variable were chosen. They were the 10% quantile (representing households with a low amount of expenditure), the 50% quantile (representing households with an average amount of expenditure) and the 90% quantile (representing households with a high amount of expenditure).

2. Literature Review

The model for migration analysis was a big concern for different researchers in the world. [Ruyssen et al. \(2012\)](#) worked on the migration in 19 countries of OECD from 1998 to 2007. They demonstrated that the main driver of migration was higher income and faster economic growth in the migrating area. Job opportunity and welfare should be other factors leading to migration motivation. Theories on migrating decision can be seen in the studies of [Greenwood \(1997\)](#), [Borjas \(1999\)](#), [Chiswick \(1999\)](#) and [Bauer and Zimmermann \(1999\)](#). Based on these theories, most migration was due to different living standards in various areas ([Harris and Todaro 1970](#)). Therefore, differences in terms of income, unemployment rate, daily expenses, public goods and technological transfers would be other determinants having an impact on migrating decision. Moreover, this decision can be influenced by different kinds of fees, including tangible fees of travel and unemployment in the former area, etc., as well as intangible fees of arising psychological problems due to distancing from families and friends. Migrating capability would decrease due to higher age of emigrants. Employers with greater academic background would be more likely to migrate. The fact is that these people would face lower risks in finding a new job and earning money. Moreover, they would be better at processing information to avoid possible risks in the migrating area. Distance from the leaving area to the migrating area, or migration distance, would also have impact on the decision of migration. Living condition is another determinant for this decision ([Mincer 1978](#)).

In general, migrants might choose to migrate or not depending on their typical characteristics ([Borjas 1999](#); [Chiswick 1999](#)). In the world, certain studies confirmed that migration decision would be closely related to previous experience or inexperience of migration. [Böheim and Taylor \(2002\)](#) worked on migration in England and demonstrated that the possibility of migrating of people having migrated would be three times higher than that of those having not migrated before. [Dustmann \(2003\)](#) studied re-migration in Germany and stated that in the period of 1984–1997, 84% of migrants prior to 1984 had the intention of re-migrating. [Zhang and Song \(2003\)](#) carried out research on migration from a rural area to an urban area in China in the period of 1978–1999 and showed that GDP growth, land capital and labor transforming from agriculture to non-agriculture field were determinants

explaining 32% of changes in the migration rate in urban areas in China. Moreover, [Zhang and Song \(2003\)](#) identified that GDP growth had a great influence on migration rate. When [Syafitri \(2013\)](#) investigated determinants on the decision of migration or not in East Java province, Indonesia, he used the theory of new economics of labour migration (NELM) to analyze the migration driver of a rural–urban area, foreign country migration and nonmigration. The results illustrate that local authority might greatly contribute to the decrease in migration by joining the market and accessing credit, as well as encouraging investment to improve agricultural productivity and income of agricultural households. [Mahinchai \(2010\)](#) focused on characteristics of households and individuals, which would have an impact on decision of migration or not in Nam Rong, Thailand. The study employed a multinomial logistic model. It indicated that those characteristics would have considerable impact on migration decision. This finding also demonstrated that policy makers should consider different choices of destinations of migrants. [Mendola \(2005\)](#) adopted a logistic model and worked on determinants at household level and living area, which would have an impact on households having at least one migrant. The findings revealed that rich households would possibly migrate to foreign countries, which should achieve higher productivity. At the same time, poor households would be capable of migrating nationwide. They would work simple jobs with low productivity. In regard to households with better economic conditions thanks to a professionally trained member, they should have capital for migration to a foreign country with higher income and productivity.

The analysis to compare the income of households with migrants and households without migrants by employing the Blinder–Oaxaca decomposition was conducted based on the reference to some previous studies. For example, [Ma \(2016\)](#) carried out research in China from 2002 to 2013 also using the Blinder–Oaxaca decomposition to determine the factors that influence the wage gap between rural-to-urban migrants and citizens that already resided in urban areas. Ma's research discovered that differences in individual characteristics, geographical location, occupation and employment in the public or private sector were the main determinants influencing the wage gap. Furthermore, the main factors causing the differences in wages between 2002 and 2013 were human resource, industries and gender discrimination ([Ma 2016](#)).

[Nanfosso and Zamo-Akono \(2009\)](#) analyzed determinants influencing the wage gap between migrants and nonmigrants based on the data of 3585 individuals in 2005 in two cities in Cameroon by using the Blinder–Oaxaca decomposition. The results conclude that the difference in wages between migrants and nonmigrants was 12.8%, in which 10.1% were explained by the difference in wages due to the factors in the model and 2.7% were explained by the difference in wages due to the factors outside the model (including factors that are not independent variables but have impacts on the dependent variable).

[Varkevisser \(2015\)](#) also employed the Blinder–Oaxaca decomposition to analyze the hourly wage differences between immigrant women and local women and between immigrants under 18 and immigrants aged 18 years and over in the Netherlands. The results illustrate that migrants had higher hourly wages than locals in all three groups (women, under 18 and 18 years old and above).

[Figueiredo et al. \(2016\)](#) employed quantile regression to analyze the impacts of migration on total spending on imported goods of host countries. The findings demonstrate that the impact of migration was significant and positive on spending on imported goods. [De Brauw and Harigaya \(2007\)](#) adopted the model with the instrumental variable controlling the endogenous variable—migration (generalized method of moments) with two VHLSS datasets in 1993 and 1998 to discover whether seasonal migration increased Vietnamese households' living standards or not. The results show that migration increased households' annual expenditure by 5.2% and migration reduced the poverty rate by 3.0%. In addition, migration also played an important role in improving the living standards of households in Vietnam.

[Nguyen \(2008\)](#) used fixed effects regression with VHLSS data in 2002 and 2004 to analyze remittances' influence on poverty and inequality in Vietnam. His research found that

remittances increased household income and consumption significantly, but remittances only slightly impacted the poverty for the recipients. In addition, remittances increased inequality to a small extent.

Nguyen et al. (2011) investigated the impact of working migration and nonworking migration on family welfare, poverty and inequality via 2004 and 2006 VHLSS datasets. The research estimated the influence of working and nonworking migration on income per capita, per capita expenditure, poverty and inequality. They discovered that both working migration and nonworking migration had positive impacts on per capita expenditure of migrant households.

Nguyen and Mont (2012) examined the impacts of international deposits on household welfare indicators and concluded that most of the households that received remittances from overseas migrants are nonpoor ones, therefore, the influence of migration on poverty reduction was limited.

Souralova (2021) studied impacts of migration on behaviors of children to their parents, who were migrants. This work explored in-depth interview data with Vietnamese mothers and 20 children (16–25 years old) migrating or being born in Czech Republic. The results demonstrate the answer to the enquiry about how mothers of the first generation could make children of the second generation understand the rationales of their parents' migrating decision and the relationship between parents and children at postmigration time. The migration also resulted in "separated" families, of which some members would live in one country while others would be in another country. In another case, although all family members were in the same country, they lived in different areas. Babis (2021) researched certain families with labor as migrants from the Philippines to Israel, as well as others with local labor only. His recommendations proposed that there should be more policies supporting migrants. However, labor migrants had also received quite high income to help their families. Opiniano (2021) made a comparison in terms of financial situation within families receiving remittances from two self-governing cities in rural areas of the Philippines, namely San Nicolas in Ilocos Norte and Moncada in Tarlac. It was stated that more families with remittances from San Nicolas had more savings to invest and do business in their local area than those in Moncada. The explanation for this should be related to differences of migrants' understanding about finance as well as dissimilar features of geography and economic status of the two cities.

3. Research Methodology

The VHLSS database for 2010, 2012 and 2014 covered 9399 households nationwide. In Vietnam, there are 63 provinces, which are cities at the central level, 705 administrative units at the district level and 10,614 administrative ones at the communal level. Serving the scope of the surveys, there were 3133 communes selected, for each of which three households were deeply investigated. The survey in 2012 reconsidered certain researched households in 2010 without any changes of household code. Similarly, the survey in 2014 reconsidered households with the same code in 2010 and 2012. The total number of surveyed households with the same code in 2010, 2012 and 2014 was 1914. We connected the data of variables to run the model. The panel data was 1914 households, which was multiplied with three years (2010, 2012 and 2014), then equal to 5742 observations.

This research firstly studied the income difference of households with migrants and households without migrants by using the Blinder–Oaxaca decomposition. These following variables were taken into consideration:

The dependent variable—average household income was represented as \ln_Ave , in the $\ln(\ln_Ave)$ analysis used.

The symbol X was a vector of independent variables, including variables related to the household owner such as gender (gen), age (age), education degrees (edu), variables related to households such as dependency ratio (dep) (measured by the number of nonworking people in the household divided by the total number of people in the household) and region ($area$).

To analyze and explain the differences in income of households with migrants and households without migrants, the Blinder–Oaxaca decomposition was applied. The model is demonstrated below as:

$$\ln(\text{In_Ave})^{\text{mig}} - \ln(\text{In_Ave})^{\text{non_mig}} = \beta^{\text{non_mig}} (\chi^{\text{mig}} - \chi^{\text{non_mig}}) + (\beta^{\text{mig}} - \beta^{\text{non_mig}}) \chi^{\text{non_mig}} + (\chi^{\text{mig}} - \chi^{\text{non_mig}})(\beta^{\text{mig}} - \beta^{\text{non_mig}})$$

In which:

- (i) $\text{In_Ave}^{\text{mig}}$ and $\text{In_Ave}^{\text{non_mig}}$ are the average income of households with migrants and households without migrants.
- (ii) χ^{mig} and $\chi^{\text{non_mig}}$ are vectors of independent variables representing households with migrants and households without migrants (age and education degrees).
- (iii) β^{mig} and $\beta^{\text{non_mig}}$ are the coefficients corresponding to the models of households with migrants and those without migrants.

$$\begin{aligned} \ln(\text{In_Ave})^{\text{mig}} &= \beta^{\text{mig}} \chi^{\text{mig}} + u, \\ \ln(\text{In_Ave})^{\text{non_mig}} &= \beta^{\text{non_mig}} \chi^{\text{non_mig}} + u \end{aligned}$$

The differences in average income of households with migrants and households without migrants were divided into three parts:

- (i) The first part, $\beta^{\text{non_mig}} (\chi^{\text{mig}} - \chi^{\text{non_mig}})$, showed that the differences in average income were explained by the differences between the independent variables included in the model regarding households with migrants and without migrants, such as the household owner's age and education degrees.
- (ii) The second part, $(\beta^{\text{mig}} - \beta^{\text{non_mig}}) \chi^{\text{non_mig}}$, showed that the differences in average income were explained by the differences between the coefficients in the model in two groups of households with migrants and households without migrants.
- (iii) The third part, $(\chi^{\text{mig}} - \chi^{\text{non_mig}}) (\beta^{\text{mig}} - \beta^{\text{non_mig}})$, demonstrated that the differences in average income were explained by the differences between the independent variables included in the model and the difference between the coefficients in the model regarding households with migrants and households without migrants.

The Blinder–Oaxaca decomposition illustrated the degree of the income differences between households with migrants and households without migrants and causes of those differences. However, the Blinder–Oaxaca decomposition was not able to explain the influence of migration on different living standards of households. To explain the influence of migration on different living standards of households, quantile regression was used. Through the research, it was found that the impacts of migration on household income or expenditure may not be linear, and for poor households, migration can offer major improvements, especially when improvements were measured in a relative sense.

Some studies used quantile regression to analyze expenditure, such as the one by [Figueiredo et al. \(2016\)](#). They employed quantile regression to analyze the impact of migration on total expenditure on imported goods of countries accepting migrants. They found that migration had a significant and positive influence on imported goods. [Jawadi and Sousa \(2014\)](#) adopted quantile regression to analyze asset-dependent expenditures (including financial assets and housing assets) of workers in the U.S., UK and Europe and found that the elasticity of expenditure to total assets was the largest in the UK. [Jankovic-Soja et al. \(2014\)](#) also used multivariable linear regression and quantile regression to analyze consumption expenditure on alcohol and tobacco (representing luxury goods) that were dependent on household income. The authors compared the advantages and disadvantages of each type of regression and concluded that quantile regression was preferred and income did not affect consumption of luxury goods at the high quantile.

The research analyzed three quantiles of the household expenditure variable, i.e., (i) the 10% quantile, (ii) the 50% quantile and (iii) the 90% quantile. The analysis of migration and other determinants influencing household expenditure at the 10% quantile was conducted

to analyze the impacts of migration on households with low living standards, whether the influence was positive or not. The analysis of migration as well as other determinants influencing household expenditure at the 50% quantile aimed at analyzing the impacts of migration on households with average living standards. Moreover, the analysis at the 90% quantile was carried out to examine the influence of migration on households with high living standards. Estimated results are presented in the next sections of the paper.

In this study, the dependent variable of household expense was the so-called CONS. The independent variables include migration (mig), characteristics of household leader such as gender (gen), age (age) and education (edu). Population was measured by the total number of population of the province; the unit was thousand. The variable of dependent rate (dep) was calculated as total number of household labor divided by total number of household members. Area was another dependent variable (area). The dependent of CONS was determined by the average of monthly household expense, with the unit of million VND (Vietnamese currency). The migration variable was dummy with a value of 1 for households having migrants and that of 0 for households without migrants.

The inclusion of the migration variable in the model served the purpose of comparing whether expenses of households with migrants would be higher than that of households without migrants. If the answer was yes, there would be evidence for positive impact of migration on household living standard. The variable of household leader's gender was also dummy, which would value 1 for households with male leader, but value 0 for ones with female leaders. The inclusion of the household leader was to find out whether expenses in households with male leaders would be higher than that of households with female leaders. In Vietnam, females (especially married females) save money much more than males. Therefore, male or female leaders may have influence on household expenses. The age of the household leader was included in the model to consider whether households with old leaders would have higher expenses than others with younger leaders. We believed that the increase in age meant there were more mature members, leading to more expenses (due to increasing tuition fee in high school or university as well as daily expenses for the family, etc.). The inclusion of household leaders' education helped in the analysis into whether households with leaders having been academically trained would spend more than those having not been well educated. We supposed that the expenses of leaders having been academically trained would be higher because when they had better knowledge and tended to further the education of their family members, they would have better positions with higher income and more social activity involvement. The variable of local population was covered in the model to consider whether the increase in population influences household expense or not. The variable of dependent rate was in the model to analyze whether households having working members with the increasing rate would be more independent. Although they still live together, these members are independent in spending money and hardly depend on families. So, the increase in this variable would mean decreasing household expense. The last variable was area. Currently, Vietnam is divided into 6 areas. Due to typical features of local people, this variable of area was included to compare differences in expenses of different areas.

The coverage of variables, namely gender (gen), age (age), education of household leader (edu), dependent rate (dep) and area (area) as control variables aimed at the unbiased estimate of the coefficient of migrant variable (main variable for analysis).

The symbol q_θ was the quantile θ of CONS, the quantile function of the random variables (CONS/mig, gen and age ...) was denoted by q_θ (CONS/mig, gen and age).

Quantile regression produced estimated results at each quantile selected in advance (the 10%, 50% and 90% quantile as presented) of the household expenditure variable. The results could offer the details of migration's impacts on quantiles of household expenditure.

4. Results and Discussion

4.1. Research Results

Based on the multiyear dataset, we used Stata15 to analyze it. The results of Blinder–Oaxaca are shown in Table 1 (see more details in Appendix A). When the data of the 3 years, 2010, 2012 and 2014, were connected as panel data, there were certain variables without any data. Therefore, the estimation eliminated 728 observations, leaving 5014 others for the analysis.

Table 1. Results of the Blinder–Oaxaca decomposition.

Blinder–Oaxaca Components of the Blinder–Oaxaca Decomposition	Observations of 5014
Linear decomposition	
Households without migrants: mig = 0	Observations of mig of 0 is 4145
Households with migrants: mig = 1	Observations of mig of 1 is 869
Coefficient of impacts on income of group 1	7.34597 ***
Coefficient of impacts on income of group 2	7.359848 ***
Total differences in income of group 1 compared with group 2	−0.0138776 ***
Income difference caused by the differences of independent variables in the model	0.0347004 ***
Income difference caused by the differences in estimated coefficients between two groups of households in the model	0.0045857 ***
The income difference caused by the cross-product of differences between the independent variables and differences in estimated coefficients between two groups of households in the model	−0.0531637 ***

*** $p < 0.01$, Source: The authors' compilations.

In quantile regression, the research combined the data of the variables used in the model in 2010, 2012 and 2014 by pooling. Because only variables available in the model were eligible for the combination, there were only 8203 eligible households for the analysis, and the total households in the three years of 2010, 2012 and 2014 were 24,609. Estimated results in quantile regression were demonstrated in Table 2 below:

Table 2. Results of quantile regression.

Logarithmic of average spending	Quantile 10%	Quantile 50%	Quantile 90%
Migration	0.0649901 ***	0.0265143 ***	0.0066567
Gender of the household owner (Female as reference)	0.0421081 ***	0.0489735 ***	0.0681761 ***
Age	0.0059758 ***	0.0068825 ***	0.0082941 ***
Education degree (untrained as reference)			
Primary education	0.1782587 ***	0.1982545 ***	0.199039 ***
Lower secondary education	0.3223322 ***	0.3158617 ***	0.3521083 ***
Upper secondary education	0.5585514 ***	0.576705 ***	0.6390296 ***
College education	0.8455113 ***	0.7887214 ***	0.7956821 ***
Undergraduate and Higher education	1.0547500 ***	1.034553 ***	1.100387 ***
Log (population)	0.10259 ***	0.1056339 ***	0.1428874 ***
Dependency ratio	−0.196861 ***	−0.213867 ***	−0.202858 ***
Dummy variable—the year 2012	0.3299073 ***	0.3343757 ***	0.3242502 ***
Dummy variable—the year 2014	0.4969493 ***	0.495245 ***	0.4872285 ***
Region (Red River Delta as reference)			
Northern Midlands and Mountains	−0.29403 ***	−0.236274 ***	−0.169150 ***
North-Central and South-Central Coast	−0.098455 ***	−0.033645 ***	0.030524
Central Highlands	−0.141998 ***	−0.0114384	0.008500
Southeast	0.1875346 ***	0.1714278 ***	0.1335917 ***
Mekong River Delta	0.0829112 ***	0.053665 ***	0.0595151 ***
_cons	7.706881 ***	8.223015 ***	8.47535 ***
Observations	24,609	24,609	24,609

*** $p < 0.01$, Source: Compilations by the authors.

4.2. Discussion

The results of the Blinder–Oaxaca decomposition demonstrated that households with migrants in the period 2010–2014 had higher income than households without migrants by 1.388%. The value 0.0347 indicated that the difference between the independent variables included in the model caused the income gap between households with migrants and households without migrants (for example, the characteristics of household owners in two groups). This finding demonstrated that households without migrants had a higher income by 3.47% than households with migrants. The value 0.0045857 demonstrated differences in the coefficients of the model's variables (meaning the differences of factors not included in the model still affected the income difference between the two groups of households), showing households without migration had a higher income of 0.45857%.

The cross-product of differences between the factors included in the model and the factors not included in the model explained the most in terms of differences in income of the two groups of households. The figure -0.053 showed that this component explained the income gap of households with migrants being 5.09% higher than that of households without migrants.

Using cross-sectional analysis could explain income difference between two groups of households, as characteristics of migrants was not in the model, even though this group of factors significantly affected the income of migrants, and migrants' income contributed to the total income of the household. Therefore, the cross-product of differences of factors included in the model and differences of factors not included in the model mostly explained income difference between two groups of households.

Table 2 demonstrates that in the model at the 10% and 50% quantile of the logarithm of the average household expenditure, the estimated coefficient of the migration variable had a positive sign and was statistically significant at the 1% level. This result show that households with migrants put positive impacts on household spending, in other words, low- and middle-income households' spending was improved by households with migrants.

However, in estimated results at the 90% quantile, the estimated coefficient of the migration variable was not statistically significant. Findings indicated that migration only improved expenditure of households with average or low living standards, while regarding households with high living standards, the coefficient of the migration variable was not statistically significant.

All estimates of the gender variable (*gen*) at three levels of quartile (10%, 50% and 90%) were positive and significant at 1%. This meant that male household leaders had higher expenses, which was consistent with expectation of the researchers as well as that of typical Vietnamese features.

The estimate of the age variable (*age*) was positive at three quartile levels with significance at 1%. This showed that the age of household leaders had a positive impact on household expenses, which was consistent with the expectation of the researchers.

In regard to the variable related to education, the estimate indicated that at three levels of quartile living standard of households with educated leaders were higher than that of households without educated ones. This matched with the expectation of the researchers.

The estimates of population and dependent rate were significant at three levels of quartile. The value of those estimates was suitable with the prediction of the researchers. When the number of working members in a household increased, their expenses would decrease.

Last but not least, the estimate of area was also appropriate with reality in Vietnam. Estimates of difficult areas compared with those of the Red river delta area (selected as the reference) were all negative and significant at 1%. This showed that living standards in these areas were lower than in the Red river delta. However, living standards in the Southeast and Mekong river delta areas were higher than the referential area.

5. Conclusions

The Blinder–Oaxaca decomposition indicated that households with migrants had higher incomes. Moreover, the cross-product of the difference among factors included

in the model with the difference of factors outside the model explained the most income difference between households with migrants and households without migrants. The difference among factors not included in the model can be the difference in the group of individual characteristics of migrants, as this group of characteristics is associated with migrants. Therefore, it significantly impacted the migrants' decision to migrate, however, this group of characteristics was not included in the model.

Quantile regression of VHLSS data in 2014 showed that migration only improved income and expenditure for households with low or medium living standards (households with logarithmic of expenditures at the 10% and 50% quantile) but was not statistically significant in households with a high standard of living (at the 90% quantile). The analysis also showed that the rich were less likely to migrate, some even did not migrate.

As the migration was proved to positively influence the household living standards, it is necessary to increase human capital through the promotion of quality education and policies supporting people's completion of upper-secondary education. Moreover, it is recommended that vocational training should be conducted with an orientation towards refrigeration, electronics, informatics, construction workers and maids. Support in house chores should also be considered as an occupation with knowledge and skills such as cooking, cleaning, communication, etc. In the training process to provide laborers with professional skills and knowledge, it is vital to help them achieve soft skills such as self-discipline, working ethics and professional and effective working styles. Social knowledge is also important content that migrants should be equipped with. The increase in social knowledge can be carried out through organizations such as the Women's Union and Farmers' Union, as they can raise migrants' awareness in reproductive health, social evils such as gambling, drugs, prostitution, etc., which are common in urban areas.

"Social capital" can be enhanced through intervention models of socio-political organizations, civil organizations assisting migrants, associations or groups connecting brothers, sisters, cousins and countrymen who also migrate to share and receive support.

To stabilize human resources for sustainable development, some regions should reduce the motivation for migration. To reduce the motivation to migrate, it is necessary to have policies to increase "remaining capital" towards labor demand in rural areas.

It is also vital to consider migration as a positive driver for development. Migration improves individual migrants and their households' living standards, and concurrently, finding suitable jobs increases labor productivity and the country's economic growth.

Potential further research on the directions of emigration of the members of the surveyed households, determinants influencing the choice of the direction of emigration and what professions and activities they perform and the scale of spatial differentiation of the migration phenomenon was identified and discussed.

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Appendix A. Results of Blinder–Oaxaca Decomposition

<i>Linear Model</i>	
Households without migrants: mig = 0	Observations of mig = 0 is 4145
Households with migrants: mig = 1	Observations of mig = 1 is 869
Coefficient of impacts on income of group 1	7.34597 ***
Coefficient of impacts on income of group	7.359848 ***
Total differences in income of group 1 compared with group 2	−0.0138776 ***
Income difference caused by the differences of independent variables in the model	0.0347004 ***
Income difference caused by the differences in estimated coefficients between two groups of households in the model	0.0045857 ***
Income difference caused by the cross-product of differences between the independent variables and differences in estimated coefficients between two groups of households in the model	−0.0531637 ***
Income difference caused by the differences of the independent variables in the model	
Gender of the household owner	−0.0033457 ***
Age of the household owner	−0.0062169 ***
Education degree of the household owner	0.0372897 ***
Undergraduate ratio	0.02663 ***
Dependency ratio	−0.0196566 ***
Income difference caused by differences between estimation coefficients of the two groups of households	
Gender of the household owner	0.0109546 ***
Age of the household owner	0.3178439 ***
Education degree of the household owner	0.0207431 ***
Undergraduate ratio	−0.0060705 ***
Dependency ratio	−0.0223099 ***
Income difference caused by the cross-product of differences between the independent variables and differences in estimated coefficients between two groups of households in the model	
Gender of the household owner	−0.0002941 ***
Age of the household owner	−0.0479487 ***
Education degree of the household owner	0.0054871 ***
Undergraduate ratio	−0.005036 ***
Dependency ratio	−0.0053721 ***

*** $p < 0.01$, Source: Authors' compilations.

References

- Babis, Deby. 2021. The implications of migration policies on migrant worker mixed families: The case of Filipinos in Israel. *Asian and Pacific Migration Journal* 30: 143–68. [\[CrossRef\]](#)
- Bauer, Thomas K., and Klaus F. Zimmermann. 1999. *Assessment of Possible Migration Pressure and its Labour Market Impact Following EU Enlargement to Central and Eastern Europe*. IZA Research Report No. 3. Bonn: Institute for the Study of Labor.
- Böheim, Rene, and Mark P. Taylor. 2002. Residential mobility, housing tenure and the labour market in Britain. *Annual Review of Sociology* 2: 363–404.
- Borjas, George J. 1999. The economic analysis of immigration. In *Handbook of Labor Economics*. Amsterdam: Elsevier, Volume 3A, Chapter 28.
- Chiswick, Barry. 1999. Are Immigrants Favorably Self-Selected? *American Economic Review* 89: 181–85. [\[CrossRef\]](#)
- De Brauw, Alan, and Tomoko Harigaya. 2007. Seasonal migration and improving living standards in Vietnam. *American Journal of Agricultural Economics* 89: 430–47. [\[CrossRef\]](#)
- Dustmann, C. 2003. Children and Return Migration. *Journal of Population Economics* 16: 815–30. [\[CrossRef\]](#)

- Figueiredo, Erik, Luiz Renato Lima, and Gianluca Orefice. 2016. Third Country Effect of Migration: The Trade-Migration Nexus Revisited. Available online: <https://www.semanticscholar.org/paper/Third-Country-Effect-of-Migration%3A-the-Nexus-Figueiredo-Lima/bdd8d170892f1da35f79235dc168c879ece8d3ca> (accessed on 26 February 2022).
- Greenwood, Michael J. 1997. Internal Migration in Developed Countries. In *The Handbook of Population and Family Economics*. Edited by M. R. Rosenzweig and O. Stark. Amsterdam: North-Holland, vol. 1B, pp. 647–720.
- Harris, John R., and Michael P. Todaro. 1970. Migration, Unemployment and Development: A Two-Sector Analysis. *The American Economic Review* 60: 126–42.
- Jankovic-Soja, Sveltana, Radojka Maletic, Mirjana Krivokapic, Ana Anokic, and Dana Bucalo-Jelic. 2014. Quantile regression in the consumption of luxury goods. *International Journal of Agricultural and Statistical Sciences* 10: 35–41.
- Jawadi, Fredj, and Ricardo M. Sousa. 2014. The Relationship between Consumption and Wealth: A Quantile Regression Approach. *Dans Revue D'économie Politique* 124: 639–52. [CrossRef]
- Ma, Xinxin. 2016. Determinants of the Wage Gap between Migrants and Local Urban Residents in China: 2002–13. *Modern Economy* 7: 786–98. [CrossRef]
- Mahinchai, M. 2010. Determinants of Migration: A Case Study of Nam Rong. Master's dissertation, Erasmus University of Rotterdam, Rotterdam, The Netherlands.
- Mendola, Mariapia. 2005. Migration and Technological Change in Rural Households: Complements or Substitutes? *Journal of Development Economics* 85: 150–75. [CrossRef]
- Mincer, Jacob. 1978. Family migration decisions. *Journal of Political Economy* 86: 749–73. [CrossRef]
- Nanfoso, R. T., and Christian Zamo-Akono. 2009. Migration and Wages Differentials in Urban Cameroon. *Research in Applied Economics* 1: 1–20.
- Nguyen, Cuong Viet. 2008. Do Foreign Remittances Matter to Poverty and Inequality? Evidence from Vietnam. *Economics Bulletin* 15: 1–11.
- Nguyen, Cuong Viet, and Daniel Mont. 2012. Economic impacts of international migration and remittances on household welfare in Vietnam. *International Journal of Development Issues* 11: 144–63. [CrossRef]
- Nguyen, Cuong Viet, Marrit Van den Berg, and Robert Lensink. 2011. The impact of work and non-work migration on household welfare, poverty and inequality. *The Economics of Transition* 19: 771–99. [CrossRef]
- Opiniano, Jeremiaah M. 2021. Remittances and the financial capabilities of migrant households in the Philippines. *Asian and Pacific Migration Journal* 30: 370–85. [CrossRef]
- Ruyssen, Ilse, Gerdie Everaert, and Glenn Rayp. 2012. Determinants and Dynamics of Migration to OECD Countries in a Three-Dimensional Panel Framework. *Empirical Economics* 46: 175–97. [CrossRef]
- Souralova, Adela. 2021. “My parents did everything for us but nothing with us”: Parenting and mothering in Vietnamese immigrant families in the Czech Republic. *Asian and Pacific Migration Journal* 30: 39–59. [CrossRef]
- Syafitri, Wildan. 2013. Determinants of labour migration decisions: The case of East Java, Indonesia. *Bulletin of Indonesian Economic Studies* 49: 385–86. [CrossRef]
- Varkevisser, T. 2015. An Oaxaca-Blinder Decomposition of the Native-Immigrant Wage Gap in the Netherlands. Master's dissertation, VU University Amsterdam, Amsterdam, The Netherlands.
- Zhang, Kevin Honglin, and Shunfeng Song. 2003. Rural-urban migration and urbanization in China: Evidence from time-series and cross-section analysis. *China Economic Review* 14: 386–400. [CrossRef]