

Family migration decisions of rural households in Vietnam

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CHRONICLE

Article history:

Received: April 29, 2020

Received in revised format:

April 30 2020

Accepted: May 22, 2020

Available online:

May 23, 2020

Keywords:

Family

Migration decisions

Rural

Household

Vietnam

ABSTRACT

The objective of this study is to focus on analyzing the determinants of rural households' migration decisions. The study used data of 385 surveyed samples collected in Trieu Son district, Thanh Hoa province. The study uses logistic regression to determine the factors affecting the rural households. We have found some important factors affecting household migration decisions, including household living standards, unemployment, lack of arable land, and production. The study offers some meaningful solutions to promote the positivity of the current migration problem in Trieu Son district.

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1. Introduction

Like other countries, migration in Viet Nam is a regular socio-economic phenomenon, an essential component of development. Along with the growth and diversification of economic activities, the uneven development among regions, disparities in living standards, differences in income, employment opportunities, and social service needs and livelihood pressure have created migration flows from rural to urban areas, from country to country to find jobs and increase income for their families in recent years (Oda, 2007; Konseiga, 2007). This practice poses frustrations that need to be answered since it attracts the attention of society, especially scientific research. In Trieu Son district, Thanh Hoa province, a common problem is the labor migration process, the phenomenon of leaving the homeland to look for jobs in places with favorable conditions. This has had a profound impact on all areas of the levies of rural households. Based on these practical issues, we conducted this study to analyze and evaluate the factors affecting the migration decisions of rural households. Since then, it has proposed feasible solutions to accelerate the process of labor and employment for rural people in Trieu Son district, Thanh Hoa province.

2. Literature Review

Research around the world shows that migration is made as a common financial strategy in rural areas by allocating labor resources across different regions or countries (Lall et al., 2006; Lall et al., 2006; Yip, 2018). The motivation of migration is due to the disparity of living standards, and the development of industrial zones which has created a flow of labor migrants leaving their homeland in search for a more stable job (Syafitri, 2013; Naerssen, 2018; Zhu, 2002). Migration significantly increases the source of income and contributes to improving the lives of households (Hull, 2007). In the face of difficulties in livelihood pressure, many people have decided to migrate as a living strategy for themselves and those who stayed in their

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homeland (Giles & Mu, 2007; Kok, 2010). According to Connelly et al. (2012), migration is influenced by gender since men tend to migrate more than women. In other words, women with children who decide to migrate face more challenges. Similarly, the study of Gemic (2006) also shows similar results, when men are more able to migrate for economic purposes for the whole family, with the view that they are the main labor force in the family.

Massey et al. (2010) reported a link between land changes and outward migration in Nepal, whereby land is narrowed and reduced fertility, reduced coverage and reduced energy productivity in agriculture. This makes the lives of people more difficult than before, thus creating the impetus to encourage migrants to travel to other places to find work to earn income and replace production activities in local agriculture. Research at Machibini also shows that there is a shortage of agricultural production water and difficult rural economic conditions, which affect the flow of rural youth to urban areas in search of stable, high-income jobs (Bakre & Dorasamy, 2017). Macho (2019) pointed out that labor migration is increasingly common in many countries around the world, including Ukraine. This size of labor migration currently has a significant impact on the labor market structure, income levels and social structures in the country. In Vietnam, the trend of migration is increasing both in number and size. Migrants to urban areas mainly go to industrial zones to find jobs, this trend originates from the urbanization process and the rapid development of industrial parks and export processing zones significantly reduces the land area for production. Many researchers specializing in sociology, demography, and economic management, such as Dang Nguyen Anh, Trinh Duy Luan, Nguyen Huu Minh, Le Thi Kim Lan, Le Bach Duong, Than Van Lien, Tran Huu Quang, Future, Le Xuan Ba, etc. have had scientific studies on migration, analyzing and understanding the causes, situation and the impacts of migration on society. Thereby, they proposed solutions and recommendations to the authorities to better manage migration issues.

Anh (2005) reported that human migration is a strategy for survival in many developing countries, low income at the forefront is one of many factors that promote the migration process. Similarly, Lan (2011) pointed out the reason why the workers of the central province have to look for jobs in big cities in Vietnam, even to Laos to work because life in their homeland is so difficult, income at home is very low and unemployment is high. The development of industry, services and large disparities in income, living standards, etc. in urban areas have opened up employment opportunities, attracting a large number of forces from rural to urban areas, especially in the highly developed dynamic economic region, where there is a high concentration of industrial and economic development areas in general, with a great demand for the local labor force that cannot be met. The above studies on migration have shown a fairly clear and complete picture of the factors affecting migration between regions and regions. Studies have shown the causes and factors driving the migration process. The results of these studies have initially suggested in-depth studies to further clarify the extent, scale, and migration decisions, a major content of the problem that the authors are studying.

3. Research Methods

3.1. Sampling method

To achieve the study purpose, 385 representative samples, corresponding to 385 migrants and relatives of migrants living in the survey area, were interviewed. When analyzing the elements and registering the binary logit, the sample scale must be multiplied at least 5 times the number of questions (Truong et al., 2020). The study was designed with a total of 45 questions, corresponding to a sample size of at least 225. However, to avoid the case that households could not find or refused to answer, the authors took 160 additional samples list. On the other hand, the research content also serves many other research contents, so the authors surveyed all 385 households in the area. The number of the sample selected is intentionally based on the list of households with migrants, the sample structure ensures that all households belong to 3 groups of households: Decent income, Middle income, Poor income.

3.2. Data collection methods

(i) In-depth interviews: 15 cases including 5 cases for migrants, 5 cases for non-migrants, 5 cases for relatives of migrants to collect their opinions about the decision migration of households were interviewed.

(ii) The semi-structured interview was conducted with local government officials at 20 samples.

(iii) Group discussions were conducted in 2 sessions with 2 different subjects, one is the manager of the local government level, the other is the migrant and relatives of the migrants.

3.3. Data analysis method

Data are processed and analyzed using SPSS software, averages, percentages, and frequencies used to analyze the factors that influence migration decisions. Cronbach Alpha is used to evaluate the reliability of variables; The variance inflation factor and Tolerance are used to check the validity of the research model.

Factors influencing migration decisions are determined through the binary logit regression model (Binary Logistic) and the regression model is shown as:

$$\ln [p(x)/1-p(x)] = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6+ \beta_7X_7+ \dots + \beta_nX_n + \epsilon$$

where

The variable p(x) is a dependent variable that receives values from 0 to 1 (0 = non-migration decision and 1 = migration decision)

$\beta_0, \beta_1, \beta_2, \beta_3, \dots, \beta_n$ represent the regression coefficients to be estimated. X_1, \dots, X_n are independent variables included in the model explained: X_1 : Number of people of working age; X_2 : Household living standards; X_3 : Gender; X_4 : Lack of local employment; X_5 : Lack of arable land and production.

ϵ : is the error measuring the impact of variables not included in the model

The variables in the regression model are explained and mapped as follows:

Table 1
Interpreting variables in a regression model

The name of the variable	Interpret	Expected
X_1	Under 2 = 1, Over 2 = 2 (control variable)	+
X_2	Decent income = 1 (control variable), Middle income= 2, Poor income = 3	+
X_3	Male = 1 (control variable), Female = 2	+/-
X_4	Unemployment = 1 (control variable), employment = 2	+
X_5	Lack of land = 1 (control variable), have land= 2	+

(Source: The survey data of the study)

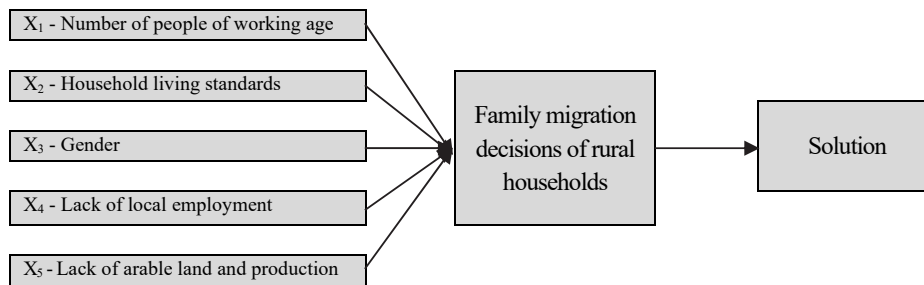


Fig.1. Research model
(Source: Synthesis of the author)

4. Results and Discussion

4.1. Testing Cronbach's Alpha

Factors affecting the role of women in household economic development are measured by Cronbach's Alpha with a coefficient of 0.761, which means the questionnaires meet the reliability requirement.

Table 2
Results of Cronbach's Alpha Testing of Attributes

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X1	6.59	8.523	.359	.750
X2	6.31	7.310	.358	.692
X3	6.41	7.612	.334	.729
X4	6.75	7.300	.318	.684
X5	6.83	8.250	.348	.716

(Source: The survey data of the study)

On the other hand, the test results in Table 2 show that the attributes of the dependent variables have an Alpha Cronbach's coefficients greater than 0.6 (Nunnally, 1978).

4.2. Analysis of factors affecting rural households' migration decisions

With the data obtained, we used the Binary Logistic regression model to analyze the correlation between the independent and dependent variables. One of the necessary conditions for the analysis of the next steps of multivariate regression is that the independent variable must be correlated with the dependent variable, if not correlated, this type of independent variable is

moved out of the regression analysis. Therefore, before performing the regression analysis, the authors checked Pearson's correlation coefficient to check the linear relationship between independent variables and dependent variables.

Table 3

The correlative matrix between variables

	Correlations	X ₁	X ₂	X ₃	X ₄	X ₅	P(x)
X ₁	Pearson Correlation	1	-.559**	-.370**	-.252**	-.181**	.225**
	Sig. (2-tailed)		.000	.000	.000	.000	.005
	N	385	385	385	385	385	385
X ₂	Pearson Correlation	-.559**	1	.399**	.172**	.084	-.143**
	Sig. (2-tailed)	.000		.000	.001	.100	.001
	N	385	385	385	385	385	385
X ₃	Pearson Correlation	-.370**	.399**	1	.271**	.225**	-.127*
	Sig. (2-tailed)	.000	.000		.000	.000	.012
	N	385	385	385	385	385	385
X ₄	Pearson Correlation	-.252**	.172**	.271**	1	.351**	-.156**
	Sig. (2-tailed)	.000	.001	.000		.000	.002
	N	385	385	385	385	385	385
X ₅	Pearson Correlation	-.181**	.084	.225**	.351**	1	-.110*
	Sig. (2-tailed)	.000	.100	.000	.000		.003
	N	385	385	385	385	385	385
P(x)	Pearson Correlation	.225**	-.143**	-.127*	-.156**	-.110*	1
	Sig. (2-tailed)	.005	.001	.012	.002	.003	
	N	385	385	385	385	385	385

(Statistical significance level: * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$)

(Source: The survey data of the study)

Table 4

Multicollinearity test results

Coefficients	t	Collinearity Statistics	
		Tolerance	VIF
(Constant)	6.918	-	-
X ₁	2.868	.641	1.559
X ₂	-.252	.642	1.558
X ₃	-.390	.766	1.306
X ₄	-1.612	.820	1.219
X ₅	-.742	.852	1.174

(Source: The survey data of the study)

The analysis results show that the VIF of 5 independent variables is included in the model: the number of people of working age, household living standards, gender, lack of local jobs, lack of arable land, and productive production which are fewer than 10. Therefore, there is no phenomenon of collinearity in the model, so the model has statistical significance. The analysis results also show that 5 independent variables included in the model are statistically significant.

The results for binary logistic regression are shown in Table 5 as follows:

Table 5

Results for the binary logistic regression model

Variables	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
X1	.956	.358	7.139	1	.005	2.602	1.290	5.248
X2	-.078	.274	.080	1	.001	.925	.541	1.583
X3	-.136	.326	.174	1	.004	.873	.460	1.654
X4	1.013	.562	3.254	1	.002	.363	.121	1.092
X5	.605	.647	.873	1	.003	.546	.154	1.943
Constant	-.927	1.454	.406	1	.001	.396		

(Statistical significance level: * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$)

Number of observations N 385
 Prob> Chi² 0.005
 Loglikelihood 200.150^a
 Pseudo R² 11.5% (Source: The survey data of the study)

Based on the results in Table 5, the Chi-square test with the value sig = 0.005 < 0.05 shows the overall fit of the model, the factors in the model that affect the migration decision of rural households. On the other hand, the value of Loglikelihood = 200,150^a is quite small and the high probability of the model (84.9%) shows the good fit of the analytical model. Pseudo R² = 11.5% indicates that the independent variables in the model can explain 11.5% of the variation of the dependent variable according to the variation of the independent variable in the model. With this result, the logistic regression model is written as:

$$\ln [p(x)/1-p(x)] = -9.27 + 0.956 \times X_1 + -0.78 \times X_2 + -136 \times X_3 + -1.013 \times X_4 + -0.927 \times X_5$$

Explain the model:

X_1 : The number of people of working age positively affects migration probability of households in Trieu Son district, Thanh Hoa province, when the family has 2 people of working age or more, the probability of migration increases by 0.956 times compared to households with fewer than 2 people. Besides, the difference coefficient between these 2 groups is 2.602 times.

X_2 : Household living standards harm migration probability, in particular, better-off households have a reduced probability of 0.078 times that of the average and poor households and the difference between the three groups this statue is 0.925.

X_3 : Gender has a positive influence on migration probability, whereby men have a corresponding increase in migration probability of 0.186 times compared to women and the difference between these two groups is 0.887 times.

X_4 : Local underemployment has a positive effect on migration probability, which means that underemployment will increase by 1.013 times compared to local employment and the difference between these two groups is 0.363 times.

X_5 : Lack of arable land, production has a positive effect on the probability of migration, whereby the lack of arable land in the locality will increase 0.605 times compared to no shortage of arable land in the locality and the coefficient of difference between the two groups is 0.396 times.

4.3. Exploratory Factor Analysis (EFA)

The author conducted the Discovery Factor Analysis (EFA), Varimax analysis of 5 observed independent variables. As can be seen in Table 6, the result of the EFA is $0.5 < KMO = 0.697 < 1$. Sig. = 0.000 < 0.05, which means that all variables are related to each other.

Table 6

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.697
Bartlett's Test of Sphericity	Approx. Chi-Square	349.711
	Df	15
	Sig.	0.000

(Source: The survey data of the study)

The results of the Rotated Component Matrix table also show that the variables reached values greater than 0.5, proving that the factor analysis of the research data is appropriate. Through the EFA model, some factors that have a strong impact on migration decisions of rural households have been identified: household living standards, lack of local jobs, lack of arable land cooperation, production.

5. Conclusions and recommendations

Based on the regression results, the author gives some conclusions and recommendations to contribute to promoting the positive nature of the current migration problem in Trieu Son district, Thanh Hoa province, Vietnam as follows:

Many factors influence migration decisions of rural households, such as the number of people of working age, household living standards, lack of local jobs, lack of arable land, production, etc. In which, the factors of household living standards, lack of local jobs, lack of arable land and production have a great impact on migration decisions. The choice of migration decision is influenced by many objective and subjective factors. Therefore, to develop sustainable and comprehensive migration for sustainable development, the authors recommend the following recommendations:

(i) Creating jobs in rural areas will reduce the flow of migrant workers, in various ways including the implementation of agricultural and rural industrialization and modernization. Relocation of factories and industrial parks to rural areas to create jobs for laborers and increase livelihood sources;

(ii) Supporting returning migrants to set up production and business establishments in the local community, to take advantage of the knowledge and skills they have acquired at their destination. To do this, it is necessary to have a system of supportive and impact policies for each target group to create employment opportunities, and at the same time have a short-term and long-term solution to support this group to reach social policies;

(iii) In rural areas, it is necessary to invest in increasing mechanization in production, raising productivity and crop yields, creating product value, and bringing high incomes to rural laborers in the locality and to avoid seasonal migration and mass migration that can overload urban areas.

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