The role of gender in household decision-making in rural areas

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CHRONICLE	ABSTRACT
	The objective of this study is to analyze the role of gender in decision making in rural areas and to measure the level of equality between husband and wife in the family in rural Trieu Son district, Thanh Hoa province. The research results show that there are differences in decision-making in production management, income-generating production activities, and in developing household economic resources in terms of gender. The highest importance factors affecting this issue include gender and educational background.

1. Introduction

According to the General Statistics Office results (April 1, 2019), Vietnam has 48,327,923 females, accounting for 50.2% of the population and female employees account for 45.6% of the total labor force (Office, 2019). Thus, in terms of gender correlation, the position between men and women is equal in terms of population as well as the ability of labor to create material wealth in society and it is recognized by law. Central Vietnam in general and Trieu Son district in Thanh Hoa province in particular, the situation of the family's right to make decisions on gender relations is unfair in the selection and decision making of all family affairs family. Many factors have affected this issue in terms of subjective and objective causes. In particular, the issues of education, age, gender, number of people in the household are important factors affecting different decision making issues. This content will be focused on our evaluation and analysis of the research results.

2. Literature Review

Research in the world shows that decision-making is a fundamental aspect of all human relationships, especially family decision-making. The power in the family is concretized as the right to make decisions in the family, considered by family sociologists as an important indicator to understand the function of the family as a cell of the commune (Phuong, 2017). Assessments of the rights of women and men to decide on health care for family members, purchase of household appliances, medicine for the sick

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are also mentioned in different researchers (e.g. Stan Becker, 2006). Jan and Akhtar (2008) pointed out that there is a difference between married and unmarried women in terms of decision-making. The power to decide on fertility is also a big obstacle for women in India, since men are more interested in having child than women are (Deb, 2015). However, in Pakistan, Hamid et al. (2011) showed that women have the freedom to make decisions on their own family and reproductive issues. Having the right to decide family issues in the Philippines, Ashraf (2009) shows that the husband decides most of the family's major issues, controlling resources strongly, especially medical issues, health care for family members.

In Bangladesh, the right to make decisions in household matters is mainly the decision made by the wife alone, however, some have argued that joint decision making between husband and wife can yield better results (Story & Burgard, 2012). Anderson et al. (2017) pointed out the views of husband and wife on the division of decisions regarding agriculture in households in rural Tanzania. The husband often controls the resources of the process and the way of choosing products in agriculture. Oláh et al. (2018) initially presented findings on the new gender roles and their implications for families and society, assessing the changes in gender relations between women and men in public housework. In Vietnam, the issue of family decision-making is always an interesting topic that attracts the attention of many sociologists. The authors focused on analyzing the two issues: whether the husband or the wife is the one who decides the main family issues (Phuong, 2017). Research on decision-making power in rural families, as well as gender division of labor, was focused on research and discussion by different researchers (Cuc, 2007; Van, 2012; Loi, 2013). Van (2012) also mentioned family issues and family change in Vietnam, which focused on analyzing aspects of economic function and family structure change. Through some of the above works, it can be seen that this is quite an interesting topic, attracting many interested researchers and discussion. However, this topic still needs to be further studied and exploited on a wider scale.

3. Research Methods

3.1. Research area

According to the geographical location, topography and land of Trieu Son district, ThanhHoa province, we conducted a selection of 3 commune clusters: cluster North, Central commune clusters and southern clusters for the proposed study. Next, based on the percentage of female heads of households, the percentage of women participating in the production management of the household, participating in the leadership of local mass organizations, participating in community activities, we selected 3 communes representing each cluster of communes to investigate (i) ThoBinh commune (belonging to the cluster of northern communes); (ii) Hop Ly commune (belonging to the cluster of Central commune) and (iii) Hop Thang commune (belonging to a cluster of southern communes).

3.2. Sampling method

We chose a non-probability cluster sampling method in several stages. The sample size was 210 households involved in production activities, economic development to clarify and collect necessary information for research purposes. The data was disaggregated between men and women. The number of samples was randomly selected based on the household list and ensured that all households belong to 3 groups: decent income households, middle-income households, and poor households.

3.3. Data collection methods

(i) For qualitative information, we use the standard observation method to describe the object, to test hypotheses and to check information from other methods, to clarify and supplement the information we collected.

(ii) In-depth interviews, we performed 20 cases including 10 women and 10 men, in which the interviewed cases included all family heads in production activities. In particular, 10 men were interviewed to collect their comments on the role of women in household economic development.

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

(iv) Group discussion was conducted in 2 sessions with 2 different subjects, one was the manager of the local government level, and the other was a woman involved in household economic development.
(v) For quantitative information, a survey of 210 households based on a pre-designed questionnaire consisted of 40 questions, the sample structure was ensured according to the calculation coefficient.

3.4. Data analysis method

The data were processed and analyzed using SPSS software, averages, percentages, and frequency, which were used to analyze family decision-making power in gender relations. Cronbach Alpha was used to evaluate the reliability of variables; Viance variance inflation factor and Tolerance were used to check the validity of the research model. The decision making of family

issues in rural areas in gender relations was determined through the Binary Logistic regression model. The regression model is shown as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \varepsilon$$

Here, the variable Y is a dependent variable expressing the right to decide the main job in the household, where $Y = 1$ means the person has the right to decide the main job in the household, $Y = 0$, otherwise.

β_i, represent the coefficient and ε denotes the residual. Also,

X_i, i=0,…,7 represent the independent variables where X_1: Gender of respondents, X_2: Age, X_3: Education level, X_4: Number of household members, X_5: Head of a household, X_6: Household living standard.

The independent variables in the regression model are explained in details in Table 1 as follows:

Table 1
Interpret independent variables in regression models

The name of the variable	Interpret	Expected
X1	Male = 1 (control variable), Female = 2	+
X2	From 18 years old to 25 years old= 1, From 26 years old to 35 years old= 2, From 36 years old to 45 years old= 3, From 46 years old to 60 years old= 4 (control variable)	+/-
X3	Unlettered = 1 (control variable 1), Primary school = 2 (control variable 2), Secondary School = 3, High school = 4 (control variable 3), Intermediate and College = 5, University and After university = 6	+/-
X4	Childless = 1, The family has 1 to 2 children = 2, The family has 3 to 5 children = 3, The family has more than 5 children = 4 (control variable)	+
X5	Husband = 1 (control variable), Wife = 2, Other people = 3	+
X6	Decent income= 1, Middle income = 2, Poor income = 3 (control variable)	+/-

(Source: The survey data of the study)

4. Results and Discussion

4.1. Decision-making power in production management and income generation

There is a gender difference between women and men in decision making in terms of production management and income generation in service trade. Specifically, in-service activities, women decide most of the stages from choosing goods to sell (72.4%), buy, transportation (> 40%) and selling goods (> 70%). They are most involved in debt repayment and customer debt collection - jobs that require perseverance and flexibility (nearly 75%). Men are also involved in the decision making of these production activities but at a low rate such as choosing products to sell (> 8%), repayment and debt collection (9.5%). Men mainly do this work as cargo or delivery (46.5%).

Table 2
Chi-Square Tests on decision making in managing production and income generation

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.539[a]	3	.000
Likelihood Ratio	24.201	3	.000
Linear-by-Linear Association	17.004	1	.000
N of Valid Cases	210		

(Source: The survey data of the study)

The results of the Chi-Square Tests given in Table are statistically meaningful when the level of significance is five percent. This can explain jobs in managing production management has been mainly accomplished by women, or in other words, women were the main people for decision-making.

4.2. Deciding in income-generating production activities

There are clear differences among households with different income levels. The percentage of men and women participating in management accounts for a high proportion in households with good incomes, followed by the middle and poor households. It shows the influence of income level on management of decision-making in general and decisions on household economic development in particular, especially for women in wealthy conditions households.

Table 3
Correlation of decision-making power in income-generating activities by gender and standard of living

Correlations		Gender	Household living standards	Right to decide the main job in the family
Gender	Pearson Correlation	1	-.012	-.549**
	Sig. (2-tailed)		.860	.000
	N	210	210	210
Household living standards	Pearson Correlation	-.012	1	.111
	Sig. (2-tailed)	.860		.009
	N	210	210	210
Right to decide the main job in the family	Pearson Correlation	-.549**	.111	1
	Sig. (2-tailed)	.000	.009	
	N	210	210	210

Source: The survey data of the study)

4.3. Deciding in the development of household economic resources

Most parents are interested in their children's learning by taking the time to take care of their children's education. Women spend more time on children's education than men do. In parenting, women account for 42.9% and this figure is only 29.0% for men. In housework, the women do 73.8% of the job compared with 13.3% of the jobs accomplished by men. This result is also manifested through the right to make health care decisions among family members and women making decisions on these issues.

Table 4
Chi-Square Tests on Development of Household Economic Resources

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	33.357ᵃ	3	.000
Likelihood Ratio	25.366	3	.000
Linear-by-Linear Association	7.219	1	.000
N of Valid Cases	210		

(Source: The survey data of the study)

The results of the Chi-Square Tests in Table 4 are meaningful when the level of significance is five percent. This may be explained by the right to make decisions on the development of household economic resources accomplished mainly by men.

4.4. Factors affecting the family's right to make decisions in gender relations

The factors that influence the family's right to make decisions in terms of gender relations are measured by Cronbach's Alpha with a coefficient of 0.782.

Table 5
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 (Gender)	9.86	7.264	.441	.850
X2 (Age group)	8.92	5.158	.318	.601
X3 (Education level)	9.60	4.881	.466	.797
X4 (Number of household members)	9.31	5.441	.473	.716
X5 (Head of a household)	9.24	4.912	.475	.782
X6 (Household living standards)	9.85	3.801	.377	.622

(Source: The survey data of the study)

Apart from it, the test results in Table 1 show that the properties of the dependent variables have the Alpha coefficient of Cronbach's greater than 0.6 and smaller than the general Alpha coefficient of Cronbach. The correlation coefficient of all attributes is greater than 0.3. Therefore, all properties of the dependent variables are statistically significant. Before estimating regression models, it is necessary to consider the relationship between variables through the correlation analysis between them and dependent variables. The necessary condition in this analysis step is that if the independent variable is not correlated with the dependent variable, we exclude this independent variable from the regression model. The results of our study indicated the correlation among independent variables. However, based on VIF when performing multivariate regression, VIF (variance inflation factor) <2 does not occur in the collinearity case. On the other hand, when considering the Tolerance value with the formula Tolerance = 1/VIF. Tolerance is greater than 0.5, so no multicollinearity takes place.

Table 6
The correlative matrix between variables

Correlations		X1	X2	X3	X4	X5	X6	Right to decide the main job in the family
X1	Pearson Correlation	1	-.183**	-.100	-.065	-.116	-.012	-.549**
	Sig. (2-tailed)		.008	.151	.347	.093	.860	.000
	N	210	210	210	210	210	210	210
X2	Pearson Correlation	-.183**	1	.149*	.198**	.254**	.172*	.047
	Sig. (2-tailed)	.008		.031	.004	.000	.012	.002
	N	210	210	210	210	210	210	210
X3	Pearson Correlation	-.100	.149*	1	.786**	.867**	.690**	.218**
	Sig. (2-tailed)	.151	.031		.000	.000	.000	.002
	N	210	210	210	210	210	210	210
X4	Pearson Correlation	-.065	.198**	.786**	1	.839**	.681**	.193**
	Sig. (2-tailed)	.347	.004	.000		.000	.000	.005
	N	210	210	210	210	210	210	210
X5	Pearson Correlation	-.116	.254**	.867**	.839**	1	.714**	.145*
	Sig. (2-tailed)	.093	.000	.000	.000		.000	.035
	N	210	210	210	210	210	210	210
X6	Pearson Correlation	-.012	.172*	.690**	.681**	.714**	1	.111
	Sig. (2-tailed)	.860	.012	.000	.000	.000		.009
	N	210	210	210	210	210	210	210
Right to decide the main job in the family	Pearson Correlation	-.549**	.047	.218**	.193**	.145*	.111	1
	Sig. (2-tailed)	.000	.002	.002	.005	.035	.009	
	N	210	210	210	210	210	210	210

(Statistical significance level: *p<0.1 **p<0.05 ***p<0.01)
(Source: The survey data of the study

Factors X1: Gender of respondents, X2: Age, X3: Education level, X4: Number of household members, X5: Head of a household, X6: Household living standard influences the right to decide the main job in the family. With the assumption of other factors changing, the influence of each factor is explained:

Table 7
Results for a binary logistic regression model

Variables	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
X1	-3.604	.468	40.233	1	.000	.027	.009	.083
X2	-.266	.256	1.080	1	.009	.766	.464	1.266
X3	2.948	.402	4.419	1	.000	19.064	1.221	297.770
X4	1.637	.519	3.994	1	.003	5.138	1.032	25.582
X5	1.637	.550	5.602	1	.001	.134	.025	.707
X6	.183	.441	.114	1	.004	1.201	.416	3.464
Constant	-.048	1.643	.001	1	.977	.953		

(Statistical significance level: *p<0,1 **p<0,05 ***p<0,01)   *(Source: The survey data of the study)*
Number of observations N = 210 Prob> Chi[2]0.000   Loglikelihood121,043[a]   Pseudo R[2] 30,6%

Based on the results in Table 7, the Chi-squared test with sig value = 0.000 <0.05 shows the overall fit of the model, the factors in the model affect the right to decide the job. On the other hand, the value of Loglikelihood = 121.043[a] is quite small and the high probability of the model (86.7%) shows the good fit of the analytical model. Adjusted R-Square (R^2 = 30.6%) indicates that the independent variables in the model can explain 30.6% 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:

$$\text{Logit } Y = -0.048 + -3.604 \times X1 + -.266 \times X2 + 2.948 \times X3 + 1.637 \times X4 + 1.637 \times X5 + .183 \times X6$$

Table 8
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.830
Bartlett's Test of Sphericity	Approx. Chi-Square	139.625
	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 reach 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 the family's decision-making authority in gender relations have been identified as Education, Gender and Head of a household.

5. Conclusions

The results of research on making family issues in rural Trieu Son district, Thanh Hoa province in gender relations show that farming, health care for family members, raising Teaching children and housework are mainly decided by the wife. But the business investment was decided by both husband and wife. Men made little decisions about housework. Assertiveness, prudence place family work as meaningful variables that refer to the husband or wife deciding which jobs themselves. For a family to operate and develop, the wife and husband need to coordinate to perform the job in the best way. As analyzed above, both husband and wife are the ones who make the main decisions in the family, the final decisions in the family work are mostly governed by gender, age, education level, head of a household and household living standard.

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