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How has the farming households' livelihood strategy and structure of occupation been changing in the Red River Delta, Vietnam? —A case study in Thai Binh province—

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[Abstract]

Presently,in Vietnam, farming households' livelihood strategies have been diversified. Generating plenty of labor out-migrantsrepresents a symbolic phenomenon.
This paper examinedtrue state of out-migration and investigated determinant factors to initiate those migrants at administrative unit level in Thai Binh province, Red River Delta.For this study, in 2010, a preliminary field survey was conducted and 66 communes' local authorities were interviewed to collect data on labor out-migrants, demography, land resources, socio-economy, agricultural production, and social network and transportation.
The data were statistically analyzed by applyingone-way ANOVA or Kruskal-Wallis test, and multiple regressions to reveal the significant determinants forout-generation in the sampled communes by quartile groups of the deference of local industrialization.
The major findings are:
1) 53.7 – 64.5 % of total farming households in the provinceare estimated to haveat least one labor out-migrant,
2) 65.1 – 71.4 % of the labor out-migrants are estimated to engage in the manufacturing and construction sector,
3) a disparity of industrialization among the sampled communesdid not bring any statistically significant differences in emergence of out-migration,
4) the significant determinant factors of emergence of labor out-migrantscharacteristically differed by the quartile groups of industrialization, and
5) farmers in Thai Binh province is facing to a transition from rural-oriented mind to urban-oriented mind.

[Key words] Livelihood strategy, Farming household economy, out-migrant, local industrialization, Red River Delta, Vietnam

1. Introduction

1-1. Background of the study

Since the transition of economic system so-called “DoiMoi” in 1986, Vietnamese economy has made a rapid and remarkable progress. Industrialization – growth of manufacturing industrial sector – in both urban and rural areas seems to be a dominant factor that has caused such a conspicuous economic growth, particularly after the 2000s.

It is clear that this has strongly influenced farming household economy, thusconverted their livelihood strategies. Tsuji (2008), which analyzed changes in livelihood strategies of farming householdsin Lac Dao commune in Hung Yen province, revealed that the number of farm-oriented households reduced from 15 in 1995 tofive in 2008 and nine labor-oriented farming households emerged inthe latest year[1]. In fact, acurrent as observationin the previous study closely relates to a generation of greater job opportunity apart from agriculture sector and increase in out-migrants who demand a better job opportunity.

Concerning to the emergence of out-migrants in rural Vietnam, several statistical surveys and research works have been conducted. For instance, Dang[2001a]pointed out the following facts.

(1) The total number of migrants in the five years from 1984 – 1989 was one million six hundred thousand people in greater than the number projected by the governmental settlement program; the dominant destination forthe migrants was the urban areas in the south where light manufacturing industry, such as textile and food processing industries, was leadingly developed.

(2) During the period from 1994 – 1999, the number of internal migrants who aged 5 years and over came up to approximately four million and five hundred thousand people in total. Of which, 55 % moved in the same province and the rest 45 % crossed over the provincial boarders. Furthermore 67 % of the latter out-migrated over regional boarders.

GSO [2009b] reported that approximately one million and one hundred fifty five people out-migrated in a year from April 1, 2007 until March 31,2008.Compared with the previous study, this found the following new noteworthy facts:1) rural-rural migration became dominant with 37.7 %; 2) the migrants at the age of 15 – 29 for study and job seeking occupied the highest percentage of 59.2 %; 3) female migrants were dominant for

[1]Definition of farm-oriented household and labor-oriented household depends on WDR 2008 (WB, p. 79)

rural-rural migration.

According to Dang [2001b],another research work that must be referred, there are two points.First one is the study focused on the causal determinants to generate out-migration on supply side. The other is thestudyprovided some information on Thai Binh province. The analyses using logistic regression modelsconcluded the following facts; 1)individual attribution such as age, sex, marriage status, and education experience significantly influenced to propensity of rural-urban migration; 2) household characteristics: scarce farmland resource and family migratory experience significantly influenced to the probability of rural-urban migration; 3) the determinants differently impacted to the probability of the migration by sex due to the differences of their gender role.

1-2. Objective of the study

Dang [2001b]gaveus much valuable information on out-migration in Thai Binh province. However, our study revealed the socioeconomic situation currently in the province quite distinct.Particularly, a degree of local industries has come into existence and urbanization has been pressing forward. Along with this direction, a disparity of socioeconomic conditions has happened among the localities of the province. Therefore, ourstudy would reveal the degree of industrialization in the localities influence out-migration and livelihood strategy of the local people.

With the previous objective in mind, this study was aimed at finding out the true state of out-migration and investigating what determinant factors influence to initiate out-migrants at the administrative unit (commune) level in Thai Binh province, Red River Delta. This paper statistically examined correlations between out-migration and all sorts of determinant factors. However, we did not take account of the data on individual attribution and household characteristics. This is the result of the preliminary survey to approach the problems mentioned above.

This studydefined the labor out-migrant as the people who leave the origin communes over the provincial boarder to get a job more than six months in a year, keeping their resident registration in the home communes. Thus, the people who temporarily get back to home commune for agricultural practice and/or family occasions were also included to the out-migrants.

2. Survey site, data and methods

2-1. Features of the survey site

In advance to explain data and methodologies, we should give the geographical and socioeconomic information on Thai Binh province.

The province lies most downstream of the Red River, facing to the Bac Bo Gulf on the east. For other directions, it shares the provincial boarders with Hung Yen, Hai Duong, and HaiPhong on the north, Ha Nam on the west, and Nam Dinhprovince on the south (See Map 1).

Map 1 Location of Thai Binh province

Table 1 revealsThai Binhprovince is the seventh in the rank of total GDP among 13 provinces in the region. According to the Table 1, the percentage of GDP in agriculture and fishery sector is the highest(38.4%) and the industry and construction sector is the second lowest (27.6%). As a result, the per capita GDP in Thai Binh province is only about eight millions VND, ranked at the fifth from the bottom in the region.

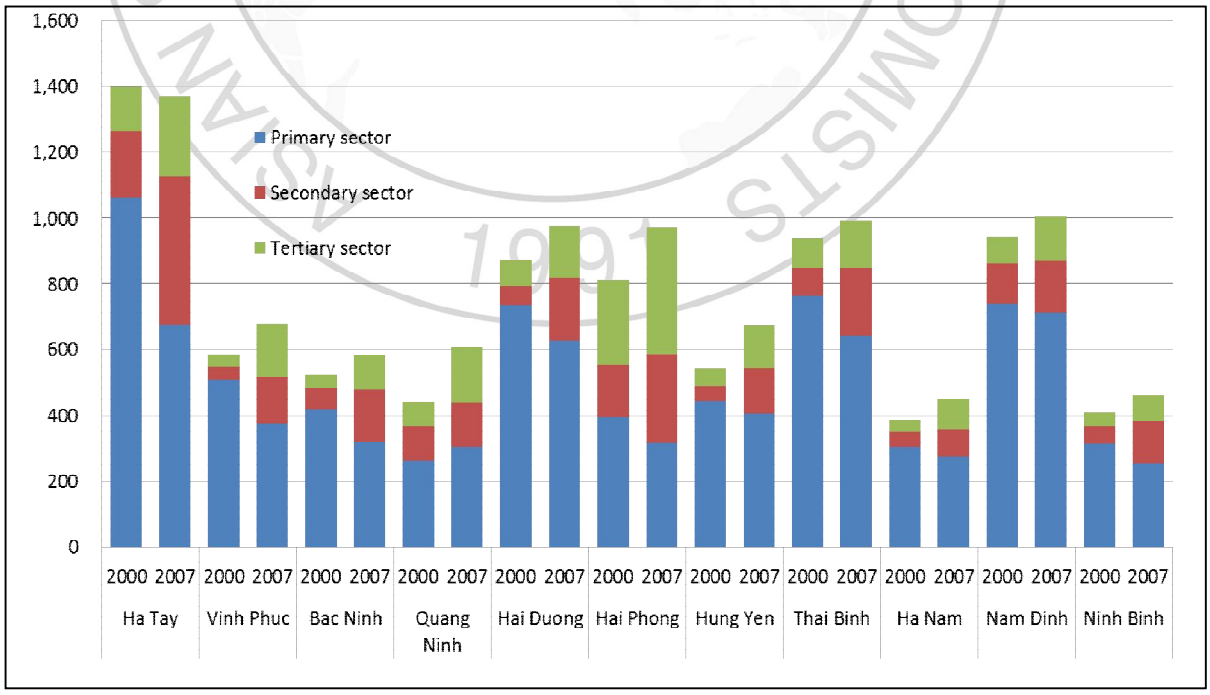
Table 1: Comparison of economic conditions by the cities and provinces in the Red River Delta region (As of 2007)

	Total GDP	Agriculture	Industry &	Service	Per capita

	(binVND)	& Fishery sector (%)	Construction sector (%)	sector (%)	GDP ('000VND)
Ha Noi	107,744.0	1.3	41.2	57.5	32,756
Ha Tay	21,359.5	26.7	42.0	31.3	8,340
VinhPhuc	18,183.7	14.3	61.1	24.7	15,275
BacNinh	7,068.5	34.5	9.4	56.1	6,871
QuangNinh	18,942.0	7.1	55.9	37.0	17,255
Hai Duong	18,243.0	25.5	44.0	30.5	10,528
HaiPhong	31,265.1	10.9	37.6	51.5	17,106
Hung Yen	12,271.7	28.9	41.1	30.0	10,611
Thai Binh	14,841.0	38.4	27.6	34.0	7,941
Ha Nam	6,203.6	26.2	42.1	31.8	7,516
Nam Dinh	14,639.9	29.6	35.1	35.3	7,352
NinhBinh	7,309.5	27.3	39.1	33.6	7,862
Total	278,071.5	13.9	41.5	44.6	14,261
Total except Hanoi	170,327.5	24.5	39.5	36.0	10,606

Source: *Socio-Economic Statistical Data of 63 provinces and cities, GSO, 2009*

Figure 1indicates the employment structure by industrial sectors of provinces in Red River Delta region. According to Figure 1, the primary sector of the province still keeps 64.4% in the composition ratio of labor. Compared with the other provinces, it seems considerably high. In short, Thai Binh province can be recognized as an agrarian bloc.Given suchgeographical and socioeconomic characteristics, the province generatedmore than 11 thousands of out-migrants over the provincial boarders in 2008.[2]



[2]GSO [2009b], p. 108

Note: The unit of vertical axis is a thousand labor populations

Source: Same as Table 1

Figure 1: Changes in employment structure by provinces in the Red River Delta

2-2. Data and methodologies

In order to get the information on out-migrants and all sorts of status in demography, land resources, agricultural production, socio-economy, and social network and transportationat the commune level for this study, we interviewed 66 communes' authorities selected from the whole 286 communes. The interviews were conducted in 2010.Table 2 shows the sampled communes covered the number, land areas, and population.Furthermore, the sampled communes represent respectively 23.1%, 25.2%, and 26.0% in the data the whole province, though it seems sampling certain biasedby city and districts.

Apart from the survey mentioned-above, in August of 2011, the authors brought a supplementary survey into operation due to acquirement of narrative information on out-migration and current livelihood strategies at farming household level.

Table 2: Coverage of the field survey in terms of the number of communes, land area, and population by city and districts

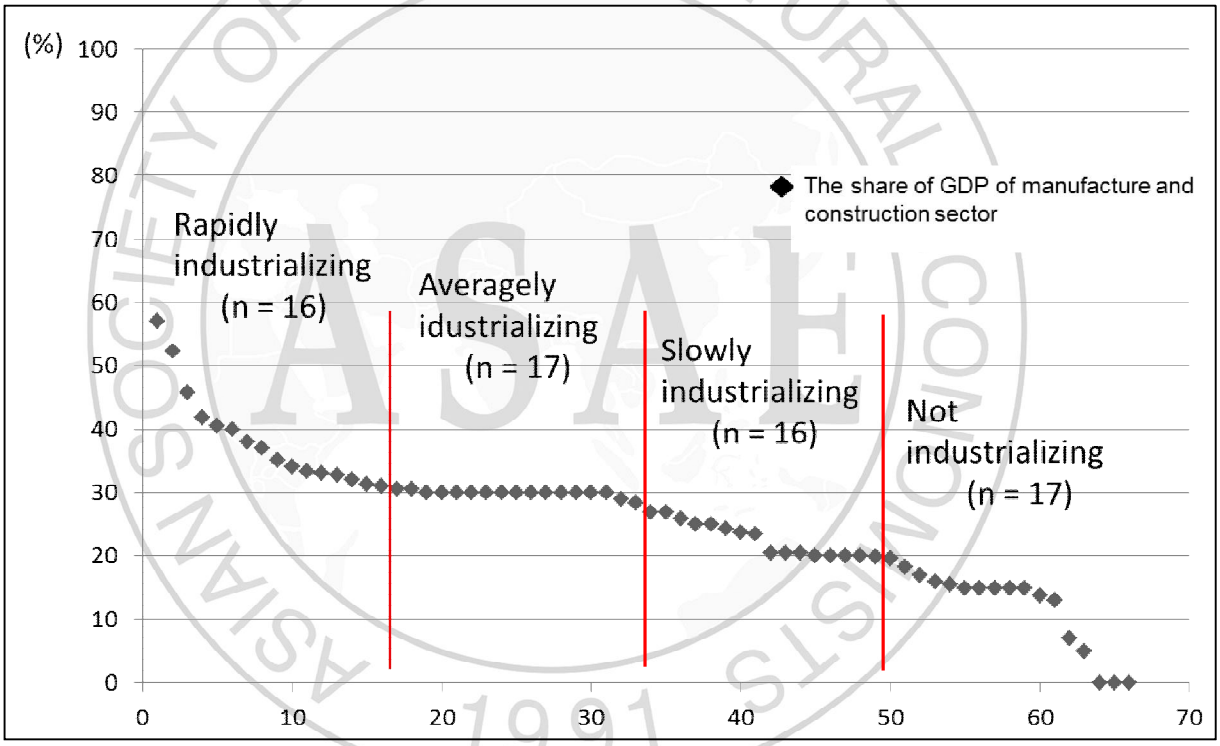
Classification	Name of city and districts	Number of communes	Number of sampled communes	Coverage of the field survey		
				Number of communes (%)	Land area (%)	Population (%)
City District	Thai Binh	19	1	5.3	14.1	7.6
	QuynhPhu	38	4	10.5	10.0	10.9
	Hung Ha	35	6	17.1	18.5	20.0
	Dong Hung	44	9	20.5	27.8	24.1
	Thai Thuy	48	16	33.3	36.2	38.6
	TienHai	35	15	42.9	35.5	50.9
	KienXuong	37	9	24.3	24.1	29.0
	Vu Thu	30	6	20.0	23.4	24.9
Whole province		286	66	23.1	25.2	26.0

Source: *NIEN GIAM THUONG KE TINH THAI BINH 2009 and field survey in 2010*

In the following section of this paper, for the statistical analyses of the numerical data collected, owe-way ANOVA or Kruskal-Wallis test, and multiple regression analysis are applied. Then, the acquired information from the supplementary survey is used for the purpose of making clear discussion later on.

3. Result of analysis

As shown in Figure 2, the degree of industrialization is differently-distributed by sampled communes. The following analyses are on the assumption that emergence of out-migration at the commune level is somewhat associated with the degree of industrialization of the locality. Based on this reason, first, we categorized the sampled communes into quartile groups of difference of the share of GDP in the secondary industrial sector. Statistical significance of differences among the quartile groups was confirmed using Steel-Dwass test (see posterior Table 5). The quartile groupsare named as “Rapidly industrializing”, “Averagely industrializing”, “Slowly industrializing”, and “Not industrializing”, respectively.



Source: *Field survey in 2010*

Figure 2: Distribution of the surveyed communes by its GDP ratio of manufacture and construction sector

Table 3 indicates the location situations of the sampled communes by the accessibilities to Thai Binhcity, the major place on the economic front in the province, and townships of each district where the each commune is located.Generally, the communes belonging to relatively-industrialized quartile group lie at the places with a favorable condition for the local people to access a job opportunity.A half of communes

belonging to “Rapidly industrializing” group, however, is located at places of unfavorable accessibility to the urbanizing areas. It might be considered that the progress of industrialization in local communes is related to not only convenience of accessibility for the products’ market but also availability of resources for production with lower investment.

Table 3: Location site of the sampled communes by industrializing conditions by accessibilities to urbanizing areas in the province

Accessibility to urbanizing places	Rapidly industrializing (Quartile 1)	Averagely industrializing (Quartile 2)	Slowly industrializing (Quartile 3)	Not industrializing (Quartile 4)
Favorable	4	2	0	2
Fair	2	5	7	3
Rather	2	7	4	5
Unfavorable	8	3	5	6
Total	16	17	16	17

Note: Difference of the degree of “Accessibility” is as follows:

- Favorable (Less than 12 km far from Thai Binh city and less than 6 km far from the township of district where the commune is located)
- Fair (Less that 12 km far from Thai Binh city and over 6 km from the township of district where the commune is located)
- Rather (Over 12 km from Thai Binh city and less than 6 km from the township of district where the commune is located)
- Unfavorable (Over 12 km from Thai Binh city and over 6 km from the township of district where the commune is located)

Source: *Same as Figure 2*

Table 4 shows some features of labor out-migrants emerged in the sampled communes by the quartile groups.Though the percentage of households having labor out-migrants in “Speedily industrializing” group (Quartile 1) seemed to be slightly higher than that of the other groups, however its deference was not statistically significant ($P>0.05$).According to a statistical estimation by using the all pooled data, the percentage of household having at least one labor out-migrants in the family members would reach into 53.7 – 64.5 % (confidence coefficient is 0.95).

Concerning to the destination of labor out-migrants, both domestic urban areas

anddomestic new industrial zones was dominant with almost similar figures (around 30 – 47 %) at the all quartile groups. However, the classification definitions on destinations for out-migrants here are not always accurate, because domestic new industrial zones are possibly located in both the urban and rural. Therefore, if assumed that a greater part of new industrial zones recently dwell in rural areas[3], the percentage of out-migration to rural areas would becomeno doubt much higher.

Looking to the industrial sectors out-migrants are involved in, the majority of out-migrants serve for the secondary industrial sector followed by the tertiary and primary sector. But it has no statistically significant difference among the quartile groups (P>0.05). Thus, according to the result of a statistical estimation by using the all pooled data, 65.1 – 71.4 % (confidence coefficient is 0.95) of the out-migrants from the province engage in the secondary sector such as manufactories, constructions, mines and quarries[4].

Table 4: Statistical information on labor out-migrants by the quartile groups

	Quartile 1	Quartile 2	Quartile 3	Quartile 4
Percentage of households having out-migrants				
Household having one or more labor-migrant leaving over 9 months a year (%)	34.3	25.2	25.7	29.9
Household having one or more labor-migrant leaving 6 to less than 9 months a year (%)	34.8	28.0	30.5	26.4
Household having no labor-migrant (%)	28.0	44.4	43.4	43.6
Percentage of various destinations for out-migrants				
Domestic urban areas (%)	40.7	31.2	36.4	43.4
Domestic rural areas (%)	12.2	15.5	17.2	17.2
Domestic new industrial zones (%)	44.7	47.4	40.9	36.3
Overseas (%)	2.5	3.8	5.5	3.1
Percentage of industrial sectors labor out-migrants are involved in				
Primary industrial sector (%)	5.2	10.9	11.3	5.9
Secondary industrial sector (%)	71.7	67.8	66.5	67.1
Tertiary industrial sector (%)	23.1	21.3	22.8	26.4

Note 1: First, statistical analyses for all data were performed using Bartlett's test for homogeneity of variance. When the variance was homogenous, the data were analyzed by one-way ANOVA, and statistical significance (P<0.05) was further examined by

[3]GSO[2009b], p. 106
[4]Information from the interviews in August 2011

Tukey-Kramer test for multiple comparison among the groups. Meanwhile, when the variance was not homogenous, the data were analyzed by Kruskal-Wallis test, and statistical significance (P<0.05) was examined by Steel-Dwass test for multiple comparison among the groups.

Note 2: * P<0.05; ** P<0.01.

Note 3: Quartile 1 to Quartile 4 stand for "Rapid industrializing", "Averagely industrializing", "Slowly industrializing", and "Not industrializing", respectively.

Source: *Same as Figure 2*

As previous analysis, the degree of industrialization in the sampled communes did not cause any statistically significant differences in the pattern of labor out-migration among the quartile groups. Then, we statistically analyzed the differences of valuables of demography, land resources, economic conditions, and social network and transportation, which are likely to influence to the out-migration behaviors by quartile groups.

According to the results indicated in Table 5, regardless of the remarkable difference of degree of industrialization by the quartiles, any statistically significant difference in the selected variables were not confirmed except only two variables: percentage of farming population; share of GDP in primary sector which is contrastive to share of GDP in secondary sector.

Table5: Comparison of mean variables among the quartile groups

	Quartile 1	Quartile 2	Quartile3	Quartile4
Variables of demography				
Number of households (houses)	2,071.4	2,008.1	1,863.2	1,863.2
Number of farm households (houses)	1,728.3	1,824.8	1,718.2	1,580.4
Share of farm households (%)	87.6	92.0	92.1	89.3
Total population (pers.)	7,615.1	7,282.7	6,722.8	6,470.2
Population density (pers./km^2)	1,270.4	1,241.8	1,069.0	1,078.6
Population of farming households (pers.)	6,011.5	6,743.4	5,812.4	5,210.4
Share of farming population (%)	82.4	92.6*	86.2	80.2*
Per farming household number of family members (pers.)	3.5	3.7	3.3	3.2
Variables of land resources				
Total land area (ha)	605.3	590.7	621.2	623.0
Total farming land area (ha)	389.6	400.6	405.9	363.4
Per farming household farmland (ha/FHH)	0.228	0.223	0.248	0.235
Per farming capita farmland (ha)	0.056	0.058	0.065	0.060

Variables of economic conditions				
Total GDP (bin VND)	102.98	68.94	60.60	58.58
Per capita total GDP (mil VND)	12.73	9.56	9.00	9.18
GDP of primary sector (bin VND)	32.87	31.63	33.09	36.74
Per farming capita agri. GDP (mil VND)	5.74	4.79	6.04	8.18
Share of GDP in primary sector (%)	39.5**	46.5$^{+,++}$	55.7**$^{,+,※}$	64.8**$^{,++,※}$
Share of GDP in secondary sector (%)	38.4**	29.9**	22.7**	11.8**
Share of GDP in tertiary sector (%)	21.9	23.6	21.1	23.0
Variables of social network and transportation				
Number of transit service providers (entity)	2.6	2.1	3.2	1.1
Number of vehicles owned by transit service providers (number of units)	3.8	3.8	3.8	1.3
Per transit service provider number of vehicle owned (number of units)	0.7	1.0	1.0	0.5

Note 1:Same as the previous Table 4

Note 2: Same as the previous Table 4

Note 3: Same as the previous Table 4

Note 4: omit indication of SE to save the space

Source: *Same as Figure 2*

Then, our next question is whether or how the valuables influence to emergence of labor out-migration by the quartile group. To answer this question, we implemented OLS multiple regression, where the percentage of households having at least one labor out-migrant over six months in a year was configured as the dependent variable. For the independent variables, besides the all variables listed up in Table 5, a dummy variable of "locational condition" listed up in Table 3 and "major agricultural product" were added in.

In the analysis, first, we used a pooled data of all communes surveyed, and then models were run separately for each quartile group to allow coefficients by quartiles to differ. Comparing the regression estimates can provide insights into whether and how the emergence of out-migrants responded by the quartile groups.

The result of regression analysis for the pooled communes is indicated in the top part of Table 6. The estimated coefficients are meant for interpretation as the effects of the variables on the percentage of households having labor out-migrants. As the result, out-migration is influenced by the locational condition of the communes. Particularly, in the communes that are located far from Thai Binh city but near from township, out-migration is negatively affected with a statistically significant coefficient. It is easily

understandable that the higher the population density is, the stronger the pressure impinges on generation of out-migration. We lack definite information on interpretation of significant effect of total land area for out-migration. This model has a limitation with a low adjusted R^2, because of presumed variation in data. Then, the data were analyzed by the quartile groups. The results are indicated in Table 6 as well.

In the case of the quartile "Rapid industrializing", the share of farming population negatively effects to the emergence of out-migration with a significant coefficient. It is theoretically understandable. Per faming household number of family members positively effects to the out-migration. It is also theoretically ratiocinative, because some redundant labor force of family members is meant to be applied for out-migrants. Per farming capita farmland also shows a significantly positive effect to the out-migration. It has to be somewhat sober to implicate this fact, because farmers are hitherto thought to be out-migrant due to scarce farmland resource per labor[5]. This result shows, however, evidence to the contrary. The authors think that this fact is closely related with a progress of mechanization of rice farming of late years. This is a point to be discussed later. What that rice is the dominant crop in the commune proceeds with out-migration. This is thought that a lower profitability and labor-saving operation by mechanization of rice farming would be concerned. The negative coefficient of per farming capita agricultural GDP is reasonably understandable. Share of GDP in tertiary sector is also a significantly positive determinant. It is not certain but the service sector tends to become spread out their business activities over the country, therefore information brought from this sector possibly influence to out-migration of local people.

Looking to the case of the quartile "Averagely industrializing", with the significant coefficient, out-migration is positively influenced by the locational condition that is near from Thai Binh city but far from the township the communes are located in. Total land farm area shows a significant negative coefficient. It is reasonably understandable. Per transit service provider number of vehicle owned is also significantly positive determinant. Considered all the significant valuables together, gradual urbanizing in the communes and a better access to the transportation and information on job sites outside drive the out-migration in this quartile group.

In the quartile "Slowly industrializing", share of farming population and total farming land are significantly positive determinant for out-migration. In other words, the

[5]Dang [2001b], p. 64

communes which much rely on agriculture show the emergence of out-migrants. To put it other way round, people in the relatively-industrialized communes in the quartile is likely to keep a distance from out-migration.

The other statistically significant determinants are easily construable. Thus, the significantly negative coefficient for per farming capita farmland means the smaller the farmland is the greater the number of out-migrants emerges; the significantly negative coefficient for GDP of primary sector is theoretically understandable with a fewer job opportunity apart from agriculture in the commune; and the significantly positive coefficient for number of transit service provider is implemented as a determinant which makes out-migration convenient.

For the case of the quartile “Not industrializing”, out-migration is influenced by the locational condition of the communes. Especially, in the communes that are located far from Thai Binh city but near from township, out-migration is a negatively affected with a statistically significant coefficient. Population of farming household is a positive determinant with statistically significant coefficient. This means that, in the communes having less job opportunity apart from agriculture sector in this quartile, increasing in population of faming households becomes a causal pressure to emerge out-migration. Par faming household number of family members shows a significantly negative coefficient and per farming capita farmland does a significantly positive coefficient, respectively. These two determinants must be carefully interpreted. The former determinant means, contrary to a common-sense view, the larger the number of family member is, the fewer the out-migration is emerged. This is possibly to be interpreted in two ways. First one is the case the farmers aspire for more labor-intensive agriculture for a higher income. The other is the case the small-sized family, such as a new couple just after independence from their parents and less or no farmland was transferred, makes out-migrants. Taking the increase in population and limited farmland resources into consideration, the latter case would be applicable. Meanwhile, the significantly positive coefficient of per farming capita farmland is thought to be relating to a mechanization of rice cultivation same as the case of the quartile “Rapid industrializing”. And this might indirectly back the statement on the previous determinant. Lastly, share of GDP in secondary sector is also a determinant with a significantly positive coefficient. It means that the local people prefer to stay home communes balancing farming practice and off-farm jobs, if a degree of industrialization in the commune is progressed. It may show a kind of conservativeness for out-migration of the local people in this quartile group.

Table 6: OLS multiple regression results in emergence of labor out-migrants (diminishing method)

Independent Variables	*Coeff.*	*SE*
Case of a pooled communes surveyed		
Accessibility to urbanizing place		
Fair	9.903	6.183
Rather	-16.931**	6.181
Unfavorable	*ref*	
Population density (pers./km^2)	0.031**	0.011
Total land area (ha)	0.054**	0.019
GDP of primary sector (bin VND)	-0.729	0.373
Per farming capita agri. GDP (mil VND)	3.251	1.787
Number of vehicles owned by transit service providers (number of units)	0.813	0.526
Constant	-5.736	21.964
R^2=0.361, adjusted R^2=0.279[N] 63		
Case of communes in the quartile "Rapid industrializing"		
Accessibility to urbanizing place		
Favorable	16.319	8.259
Unfavorable	*ref*	
Share of faming population (%)	-1.207**	0.319
Per farming household number of family members (pers.)	14.915*	6.216
Per farming capita farmland (ha)	645.065*	210.739
Major agricultural product		
Rice	36.272*	15.233
Others	*ref*	
Per faming capita agri. GDP (mil VND)	-4.1432*	1.523
Share of GDP in tertiary sector (%)	1.241*	0.522
Constant	39.464	32.588
R^2=0.797, adjusted R^2=0.619[N] 16		
Case of communes in the quartile "Averagely industrializing"		
Accessibility to urbanizing place		
Fair	24.591*	8.309
Unfavorable	*ref*	
Total farming land area (ha)	-0.086*	0.032
Per transit service provider number of vehicle owned (number of units)	10.557**	3.254
Constant	69.668**	12.902
R^2=0.628, adjusted R^2=0.542[N] 17		
Case of communes in the quartile "Slowly industrializing"		
Share of farming population (%)	0.763*	0.304
Total farming land area (ha)	0.057*	0.024
Per farming capita farmland (ha)	-810.209**	215.505
GDP of primary sector (bin VND)	-0.480*	0.214
Number of transit service providers (entity)	3.216*	1.025
Constant	25.777	38.444
R^2=0.7811, adjusted R^2=0.672[N] 16		

Case of communes in the quartile "Not industrializing"		
Accessibility to urbanizing place		
Favorable	-29.444	20.735
Fair	16.958	10.880
Rather	-25.586*	10.659
Unfavorable	*ref*	
Population of farming households (pers.)	0.011*	0.003
Per farming household number of family members (pers.)	-28.056*	8.190
Per farming capita farmland (ha)	1126.747*	340.335
Major agricultural product		
Rice	25.336	16.351
Others	*ref*	
Share of GDP in secondary sector (%)	-3.004**	0.770
Constant	33.804	26.977
R^2=0.8245, adjusted R^2=0.624[N] 17		

Note: *P<0.05; **P<0.01

Source: *Same as Figure 2*

4. Summary and Discussion

Recently, in Vietnam, farming household's livelihood strategies have been diversified. Generating plenty of labor out-migrants represents a symbolic phenomenon. This movement is a great concern from the viewpoint of not only further rural development but also a sustainable development of national economy.

Through a case study in Thai Binh province, this paper has illustrated the situation of labor out-migrants from the rural areas and revealed significant determinant factors for their emergence, paying attention to the difference of local industrialization.

Overall, the study findings indicate that out-migration of rural people has been continuously active for a better job opportunity to get a higher income in general. According to our recent interviews with some farmers in August 2011, the earning from out-migration is more than double as much as the gross income of rice cultivation and cash income of every month is attractive for farmers. Particularly, for the promotion of out-migration, increase in availability of social network and transportation with information on job opportunities plays an important role in common. Also, some farmers answered to our interview many labor brokers in the commune recruited farmers to the job sites outside, providing transportation.

Some determinant factors for emergence of the out-migrants impact significantly positive or negative by the industrializing-based quartiles. Particularly, positive impact of per farming capita farmland for out-migration in "Rapid industrializing" is theoretically

contradictory. According to our interview with some farmers, without exceptions, the households having male out-migrant in the family enlarged farming scale,renting-in of farmland. This means the individual farmers can balance out-migration and expansion of farming scale. Introducing of machineries for rice cultivation supports these existences. However, this interpretation is not applicable for the commune level. This uneasily understandable result possibly came from the limited number of observation. We need increase the number of samples to make the model accurate.

In facing to urbanization, there are two types of propensity of out-migration. First one is positive in the quartile “Rapid industrializing” and the other one is negative in “Slowly industrialization”. They are not significantly different statistically, but it is an intriguing observation. This might meanspeople in Thai Binh province is under the transition of rural-oriented mind to urban-oriented mind.

In relating to the previous point, currently, it has passed over 14 years sincethe land reallocation after the new land law (1993) and the young generations not obtained farmland are going to become labor age.Their aspiration for urban life and occupation apart from agriculture also impact out-migration in the province.

Those facts suggest us the further study is necessary based on individual attribution and household characteristics.

<Reference>

Dang, Nguyen Anh[2001a], 'Internal Migration in Vietnam', in Dang, Nguyen Anh (eds.) *Migration in Vietnam: Theoretical approaches and evidence from a survey,*Hanoi: Transport Communication Publishing House

_____ [2001b], 'Rural Labor Out-migration in Vietnam: A Multi-level analysis', in Dang, Nguyen Anh (eds.) *Migration in Vietnam: Theoretical approaches and evidence from a survey,* Hanoi: Transport Communication Publishing House

General Statistical Office (GSO) [2009a], *Socio-Economic Statistical Data of 63 provinces and cities,* Hanoi: GSO

_____ [2009b],*The 2009 Population Change, Labour Force and Family Planning Survey: Major Findings,* Hanoi: Statistical Publishing House

Thai Binh Statistical Office [2010], Thai Binh Statistical Yearbook 2009, Hanoi: Thai Binh Statistical Office

Tsuji,Kazunari[2008]'Structural Changes in Economic Efficiency of Rice Farming and Farm Household Economy: A case of Lac Dao commune, Van Lam, Hung Yen province, the northern Vietnam', in JSPS Asia-Africa Science Platform Program (eds.)*Proceedings of the "Hybrid Rice and Transformation of Farming System" forJSPS International Seminar 2008,* Fukuoka: Kyushu University